Environmental Resources Management

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July 20, 2016
0121022

Ms. Carolyn Daniels and Mr. David Hayes
Response and Remediation Program
Georgia Environmental Protection Division
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Atlanta, Georgia 30334-9000

Subject: Compliance Status Report
BWAY Drum Site, HSI Site No. 10731
Homerville, Clinch County, Georgia

Dear Carolyn and David:

Environmental Resources Management (ERM) is pleased to submit this Compliance Status Report (CSR) for the BWAY Drum Site located in Homerville, Clinch County, Georgia. A signed *Certification of Compliance with Risk Reduction Standard* statement will be forthcoming from BWAY.

As discussed in our meeting of April 7, 2016, the CSR provides a summary of all site assessment activities at the Drum Site and the adjacent Lithographic Plant. It also provides information concerning key topics we have reviewed with you over the past year. These include horizontal delineation of the contaminant plume, vertical delineation of the contaminant plume, and plume stability analyses. The CSR also provides information concerning risk reduction actions taken previously at the site. These actions include excavation of waste materials and soil.

As reported in the CSR, the site is in compliance with Type 1 and Type 3 Risk Reduction Standards (RRS) for to soil. Similarly, the site is in compliance with Type 1, Type 2 or Type 4 RRS for groundwater with the exception of naphthalene and vinyl chloride. Naphthalene and vinyl chloride in groundwater at the site comply with the provisions, purposes, standards, and policies of the Georgia Voluntary Remediation Program Act and applicable voluntary remediation standards (Type 5 RRS) as referenced in OCGA 12-8-108(7). A draft Uniform Environmental Covenant that will prevent the use of groundwater at the site has been submitted to you for review.

ERM and BWAY appreciate the assistance and guidance you have provided on this project over the past year. We look forward to your review of this CSR and the delisting of the site. Please contact us with any questions or comments you may have.

Sincerely,

Andreas Shoredits
Project Manager

Jeffrey N. Bilkert
Principal

Adria Reimer, P.G.
Georgia Professional Geologist No. 002004

cc: Steve Bargeron, BWAY Corporation; Mark Miller, Cornerstone; Bruce Bultman, AEGIS Environmental

Environmental Resources Management

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July 20, 2016

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BWAY Drum Site
Homerville, Clinch County, Georgia
HSI Site Number 10731

I have enclosed electronic versions of Transmittal of Electronic version Compliance Status Report BWAY Drum Site Homerville, Clinch County, Georgia HSI Site Number 10731 pdf files on Compact Disc to accompany the hard copy report. This certification states that the electronic copy is complete, identical to the paper copy and virus free.

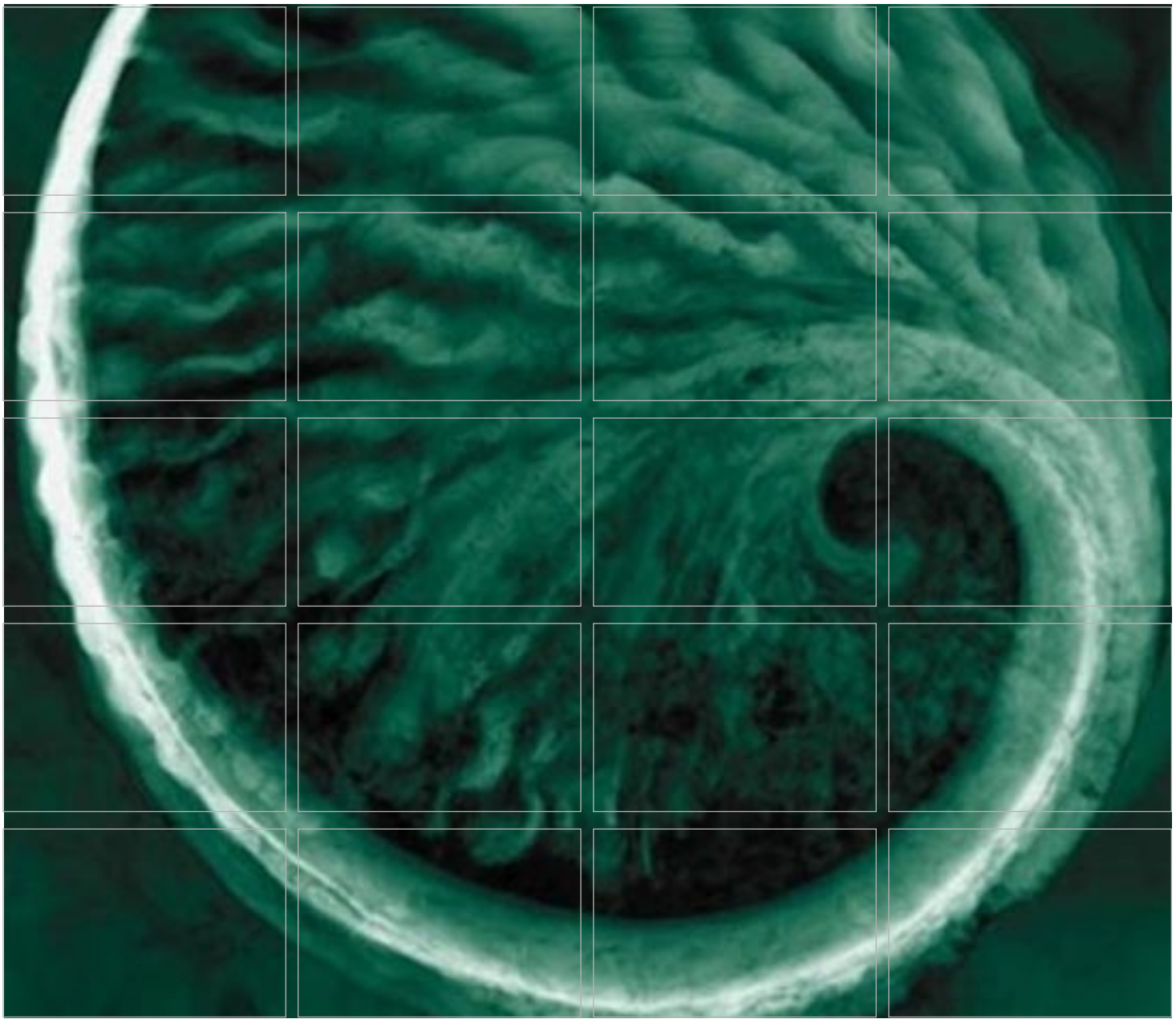
I, Holly H. McDonald, on July 20, 2016 made a complete electronic copy of the following document:

Transmittal of Electronic Version of the Submittal of the
Compliance Status Report
BWAY Drum Site
Homerville, Clinch County, Georgia
HSI Site Number 10731
then confirmed that the electronic copies did not contain a virus utilizing Symantec antivirus software.

You can contact me at 678.486.2700 with any questions or comments.

Best regards,

Holly H. McDonald



Compliance Status Report

BWAY Drum Site
Homerville, Clinch County, Georgia
HSI Site Number 10731

July 22, 2016

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Environmental Resources Management (ERM) prepared this Compliance Status Report (CSR) for the BWAY Drum Site located in Homerville, Clinch County, Georgia. The site is a former drum disposal area located at the northwest corner of U.S. Highway 84 and Woodlake Drive (formerly Charley Smith Road) in Homerville. The site is located on property owned by BWAY. A utility contractor discovered the drums in December 2001. Subsequently, it was determined that a release of methyl ethyl ketone in groundwater at levels exceeding a reportable quantity had occurred at the site. Other regulated substances in groundwater included ethylbenzene and xylenes. Consequently, the site was listed on Georgia's Hazardous Sites Inventory (HSI) as Site Number 10731.

The materials contained in the drums appeared to be paint wastes. Testing of these materials determined that most were not hazardous wastes. It was determined, however, that a small amount of wastes were hazardous because they could leach lead at concentrations exceeding regulatory threshold levels.

Drums, wastes, and soils from the disposal site were excavated in 2003 and were properly disposed of at permitted landfill facilities. After the excavation was completed, samples of soil from the bottom of the excavation were collected and tested. The tests showed that the soils did not contain metals or other paint-related chemicals at concentrations that warrant further cleanup. Testing of soil samples from areas beyond the boundary of the excavation showed similar results. In 2005 the Georgia Environmental Protection Division agreed that the soils were in compliance with cleanup standards applicable to residential properties.

Soil contamination was also identified on the neighboring BWAY Lithographic Plant property located across Woodlake Drive from the BWAY Drum Site. Subsequent to this, contaminated soils were excavated and disposed of. Laboratory data show that the soils remaining at the BWAY Lithographic Plant are in compliance with cleanup standards applicable to residential properties.

Twenty-eight (28) groundwater monitoring wells are located at or near the site. Groundwater samples were collected from each of these wells and tested for chemicals typically related to paint. Low concentrations of regulated chemicals have been detected in some of the samples. The concentrations of most of the chemicals in the groundwater were below cleanup standards applicable residential properties. The concentration of two chemicals, naphthalene and vinyl chloride, were higher than the groundwater cleanup standard applicable to

residential and non-residential properties. Because of this, BWAY will place Uniform Environmental Covenant on the Drum Site property and the Lithographic Plant property. The covenants will prohibit the use of groundwater at these properties for drinking water.

CERTIFICATION OF COMPLIANCE WITH RISK REDUCTION STANDARDS

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering 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 fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect to the Risk Reduction Standards (RRS) of the Rules for Hazardous Site Response, Rule 391-3-19.07, I have determined the following:

- The BWAY Drum Site is in compliance with the soil Type 1 RRS for barium, cadmium, chromium, and lead.

- The BWAY Lithographic Plant property is in compliance with the soil Type 1 RRS for ethylbenzene, methyl ethyl ketone, methylene chloride, naphthalene, toluene, xylenes, chromium, copper, and lead. The BWAY Lithographic Plant property is in compliance with the soil Type 3 RRS for zinc.

- Groundwater at the BWAY Drum Site and Lithographic Plant is in compliance with the groundwater Type 1 RRS for 1,1-dichloroethane, ethylbenzene, methyl ethyl ketone, toluene, 1,1,1-trichloroethane, xylenes, barium, cadmium, chromium, and lead.

- Groundwater at the BWAY Drum Site and Lithographic Plant is in compliance with the groundwater Type 2 RRS for chloroethane and isopropylbenzene.

- Groundwater at the BWAY Drum Site and Lithographic Plant is in compliance with the groundwater Type 4 RRS for 1,1-dichloroethene.

- Naphthalene and vinyl chloride in groundwater at the BWAY Drum Site and Lithographic Plant comply with the provisions, purposes, standards, and policies of the Georgia Voluntary Remediation Program Act and applicable voluntary remediation standards (Type 5 RRS) as referenced in OCGA 12-8-108(7).

_____

Name

_____

Title

_____

Date

GROUNDWATER SCIENTIST STATEMENT

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgements regarding groundwater monitoring and contaminant fate and transport. I further certify that this Revised Compliance Status Report for Hazardous Site Inventory Site No. 10731 was prepared by me and appropriate qualified subordinates working under my direction.

Adria Reimer, P.G.

July 20, 2016

July 20, 2016

1.0 INTRODUCTION

1.1 OVERVIEW

This Compliance Status Report (CSR) has been prepared by Environmental Resources Management (ERM). It is for Hazardous Site Inventory (HSI) Site Number 10731, the BWAY Drum Site (hereinafter referred to as the site or the subject property) located in Homerville, Clinch County, Georgia. The site is a former drum disposal area that was placed on the HSI in March 2002 because of a release of methyl ethyl ketone to groundwater at levels exceeding the reportable quantity.

Initially the site was regulated under rules contained in *Environmental Protection Division (EPD), Chapter 391-3-19, Hazardous Site Response* as administered by the Hazardous Sites Response Act (HSRA) Program. Significant reports concerning the site prepared by ERM and submitted to EPD in accordance with these rules included:

- Excavation and Disposal of Buried Materials, October 16, 2003.
- Compliance Status Report, BWAY Corporation, Homerville, Clinch County, Georgia, HSI Site No. 10731, November 17, 2003.
- Revised Compliance Status Report, BWAY Corporation, Homerville, Clinch County, Georgia, HSI Site No. 10731, February 11, 2005.
- Corrective Action Plan, BWAY Corporation, Homerville, Clinch County, Georgia, HSI Site No. 10731, March 2005.
- Revised Corrective Action Plan, BWAY Corporation, Homerville, Clinch County, Georgia, HSI Site No. 10731, September 18, 2006.
- Corrective Action Progress Report, September 18, 2006.
- Second Annual Corrective Action Progress Report, August 20, 2007.
- Third Annual Corrective Action Progress Report, August 28, 2008.
- Annual Corrective Action Progress Report, September 4, 2009.

The site was entered into the Georgia Voluntary Remediation Program on July 22, 2011. Documents prepared as part of the VRP application process included:

- Voluntary Remediation Plan, April 12, 2010.
- Voluntary Remediation and Investigation Plan, January 25, 2011.

The following Semi-annual Progress Reports have been submitted to EPD since the site was entered into the Voluntary Remediation Program :

- First Semi-Annual Progress Report, January 22, 2012.
- Second Semi-Annual Progress Report, July 20, 2012.
- Third Semi-Annual Progress Report, January 17, 2013.
- Fourth Semi-Annual Progress Report, August 5, 2013.
- Fifth Semi-Annual Progress Report, January 22, 2014.
- Sixth Semi-Annual Progress Report, July 22, 2014.
- Seventh Semi-Annual Progress Report, January 22, 2015.
- Eighth Semi-Annual Progress Report, July 22, 2015.
- Ninth Semi-Annual Progress Report, January 29, 2016.

The purpose of this CSR is to present information concerning the site as required by the aforementioned rules and the Georgia Voluntary Remediation Program Act. Additionally, this CSR includes a Certification of Compliance with Risk Reduction Standards.

1.2 ORGANIZATION

This CSR is organized as follows:

- Section 1.0 Introduction
- Section 2.0 Site Background Information
- Section 3.0 Summary of Site Investigations Prior to March 2002
- Section 4.0 Site Investigations by ERM
- Section 5.0 Previous Risk Reduction Actions
- Section 6.0 Receptors
- Section 7.0 Description of Site and Responsible Parties
- Section 8.0 Derivation of Risk Reduction Standards and Evaluation of Site Compliance

Attached to the front of this CSR is a concise Statement of Findings. The Statement of Findings is presented in plain language to facilitate its understanding by those not familiar with the technical subjects discussed herein. Immediately following the Statement of Findings is the certification required pursuant to Rule 391-3-19-.06(4)(a).

2.0 SITE BACKGROUND INFORMATION

2.1 LOCATION AND DESCRIPTION

The BWAY Drum Site is located in a 29.55-acre parcel of land (tax parcel 063-026) located northwest of the intersection of Woodlake Drive and U.S. Highway 84 in Homerville, Clinch County, Georgia (see Figure 2-1). A large portion of the parcel is comprised of a pine tree plantation. The understory includes thick stands of palmetto and other shrubs common to the area. All of parcel 063-026 was included as the Qualifying Property in the application to the Georgia Voluntary Remediation Program.

A power line right-of-way traverses the site from east to west. Several ponded areas have been observed along the power line right-of-way. A fence running parallel with Woodlake Drive exists on the east side of the site. A lockable gate provides access through the fence. A small, natural gas substation is located directly on the east side of the fence.

The BWAY manufacturing facility is located south of the site, across U.S. Highway 84. The facility manufactures metal pails, cans, and ammunition boxes. This facility is listed on the HSI as Site Number 10032. It was placed on the HSI in June 1994 because of a release of vinyl chloride to groundwater at levels exceeding the reportable quantity.

The BWAY Lithographic Plant is located across Woodlake Drive near the southeast corner of land parcel 063-026. The Lithographic Plant occupies tax parcel 063 041, which includes 5.84 acres. Current activities associated with this facility include the labelling of containers using lithographic ink printing, and paint and varnish coating of containers. Certain site investigation activities associated with the BWAY Drum Site were undertaken on the property occupied by the Lithographic Plant.

The remainder of the surrounding area is mostly rural. A Georgia Power Company electrical substation and power line right-of-way are located north of land parcel 063-026. A solar power farm is located to the east.

The layout of the site and the BWAY Lithographic Plant is shown on Figure 2-2.

2.2 OWNERSHIP HISTORY AND CURRENT STATUS OF THE SITE

Clich County, Georgia tax records show the site is owned by Brockway Standard. The records show that Brockway Standard acquired the site from Standard

Container Company in 1984. Standard Container Company acquired the site from Union Camp Corporation in 1972.

County tax records show that Brockway Standard also owns the Lithographic Plant property.

2.3 POTENTIAL HISTORICAL SOURCES OF HSRA-REGULATED MATERIALS

As required by Rule 391-3-19-.06(3)(b)1, this section of the CSR provides available information concerning potential historical sources, which may have contributed to a release at the site.

The site is an area that was used for the disposal of metal drums and pails, some of which contained paint wastes. Although most of the metal containers had oxidized by the time the site was discovered, some lids still had labels that were legible. One of the lids showed the handwritten date "8-16-84." Another had a shipping label to Standard Container, the name of the facility prior to 1985. Based on this information, it is estimated that the metal drums and pails were disposed at the site in the mid-1980s. No additional information concerning the disposal of these wastes is available. No other potential sources of HSRA-regulated substances are known to be located on the site.

A report by Golder Associates (Golder) dated October 1995 that was obtained from EPD files stated that in April 1995 EPD discovered what appeared to be soil contamination in a ditch located to the west of the BWAY Lithographic Plant. ERM believes the ditch referenced in the Golder report is the road ditch located along the east side of Woodlake Drive. Regulated substances detected in soil samples collected from the ditch included ethylbenzene, xylene, isophorone, methyl ethyl ketone, and naphthalene.

As discussed previously, HSI Site Number 10032, the BWAY manufacturing facility, is located south of site, across U.S. Highway 84. Regulated substances detected in soil and groundwater at HSI Site Number 10032 include a variety of volatile organic compounds (VOCs).

3.0 SUMMARY OF SITE INVESTIGATIONS PRIOR TO MARCH 2002

3.1 SITE INVESTIGATIONS BY WESI AT BWAY DRUM SITE

This section of the CSR is intended to provide a summary of site investigation activities that were conducted by Williams Environmental Services, Inc. (WESI) at the BWAY Drum Site prior to its listing on the HSI in March 2002.

Subsequent to its discovery in December 2001, BWAY retained WESI to conduct a preliminary evaluation of the BWAY Drum Site. The evaluation included the excavation and stockpiling of overburden, a visual assessment of buried drums and waste materials, sampling of wastes, and sampling of groundwater.

WESI reported that the area that contained visual evidence of buried materials measured approximately 130 feet by 130 feet. The buried materials were described by WESI as including 55-gallon drums and other sized containers in varying stages of deterioration. WESI estimated that the depth of the buried materials was six (6) feet. WESI also reported that the physical state of wastes associated with the site ranged from solids (e.g., dried paint, dirt, debris, etc.) to semi-solids (e.g., paint sludge and grease). WESI also reported that some liquids were associated with the wastes.

WESI collected samples of four (4) distinct wastes and analyzed each to assist with the evaluation of potential disposal options. The samples of the wastes were analyzed using the Toxicity Characterization Leaching Procedure (TCLP). The results of these analyzes are summarized in Table 3-1. Copies of the laboratory reports were provided in the Revised CSR by ERM submitted to EPD in February 2005. The results of the testing showed that one of the waste samples leached lead at a concentration such that it might have to be managed as a hazardous waste.

WESI also collected two (2) groundwater samples from a test pit that was excavated southwest of the disposal area. The groundwater samples were analyzed for VOCs. No VOCs were detected in one of the groundwater samples. Methyl ethyl ketone (a.k.a., 2-butanone), ethylbenzene and xylenes were detected in the other groundwater sample. The analytical results for the groundwater samples are summarized in Table 3-1. Copies of the laboratory reports for the groundwater samples collected by WESI were provided in the Revised CSR by ERM submitted to EPD in February 2005.

Soil sampling was not conducted as part of the work performed by WESI.

3.2 SITE INVESITATION AT LITHOGRAPHIC PLANT PROPERTY

As discussed in Section 2.3, soil contamination was discovered in a ditch at the BWAY Lithographic Plant property in April 1995. As requested by EPD, ERM reviewed available information contained in agency files concerning sampling and remediation associated with this discovery. Based on the file review, it appears that soil sampling events took place on the Lithographic Plant property during 1993, 1994, and 1995. The 1993 and 1994 events were conducted by Environ and Golder, respectively, as part of "broad-based" site characterization efforts associated with the investigation of the BWAY manufacturing facility, HSI Site No. 10032. This work included soil sampling at four (4) locations on the Lithographic Plant property (VSB-1, VSB-2, MW-5, and MW-6). The four (4) locations are shown on Figure 3-1. Depending on the sampling event and sample, the analyses conducted on the samples included VOCs, semi-volatile organic compounds (SVOCs), and metals.

Two sampling events took place in 1995. One was conducted by Soil Remediation, Inc. (SRI) and the other was conducted by Golder. Both were conducted in order to investigate and remediate soil contamination in a ditch along Woodlake Drive that resulted from a chemical release at the Lithographic Plant. Details concerning the release were not available in the EPD file materials reviewed by ERM. The locations of the sampling conducted by SRI and Golder in 1995 are shown on Figure 3-1. The locations were determined through a review of schematics presented in the EPD files and a comparison to Google Earth and Google Street View imagery. Soil samples collected in 1995 appear to have been analyzed for selected VOCs.

Analytical results for the soil samples collected at the Lithographic Plant property are summarized in Table 3-2. The sample locations are shown on Figure 3-1. VOCs detected in soils at the Lithographic Plant property included ethylbenzene, toluene and xylenes, all of which are petroleum hydrocarbon related. The VOCs detected also included methyl ethyl ketone, methylene chloride, and naphthalene. Chromium, copper, lead, and zinc were detected in some of the samples. No SVOCs were detected.

4.0 SITE INVESTIGATIONS BY ERM

4.1 OVERVIEW

The BWAY Drum Site was placed on Georgia HSI in March 2002. It was entered into the Georgia Voluntary Remediation Program on July 22, 2011. Various site investigation activities have been conducted by ERM since 2002. These have included:

- Installation of eight (8) soil borings.
- Installation of 26 groundwater monitoring wells.
- Soil and groundwater sampling for laboratory analyses.
- Groundwater elevation monitoring.

Details concerning these activities and associated results have been submitted previously to EPD in various reports and are summarized in the following section.

In addition, site remediation activities have been completed. These activities included the excavation and removal of drums, waste, and soil from the site. Details concerning the remedial activities, including confirmation soil sampling, have been submitted previously to EPD and are summarized in Section 5.

4.2 SOIL ASSESSMENT

4.2.1 Purpose

As required by Rule 391-3-19-.06(3)(b)2, this section describes the general approach used by ERM to assess soil contamination that resulted from a release at the site.

4.2.2 General Approach

The presence of VOCs in a groundwater sample collected at the site by WESI (see Section 3.1) suggested that a release of VOCs to soils at the BWAY Drum Site might have occurred. In addition, the waste characterization sampling and analyses conducted by WESI indicated that barium, cadmium, chromium, and lead could leach from some of the wastes when they were subjected to the TCLP (see Section 3.1). These results suggested that a release of these metals to soils at the site might also have occurred.

ERM evaluated the presence of VOCs and the aforementioned metals in soils at the site by drilling eight (8) soil borings in proximity to the waste disposal area. The drilling was conducted using a GeoProbe®. Selected soil samples from each

of the borings were submitted for laboratory analyses. This work was conducted in September 2003.

4.2.3 Analytical Parameters and Rationale for Selection

Soil samples collected at the site were analyzed for VOCs, barium, cadmium, chromium, and lead. These parameters are consistent with the probable releases to soils at the site as discussed in Section 4.2.2.

4.2.4 Locations of Sampling Points

The locations of eight (8) soil borings are shown on Figure 4-1. A registered land surveyor determined the locations of the soil borings. Table 4-1 presents a summary of the soil samples submitted for laboratory analyses.

4.2.5 Sampling Procedures

The soil borings (GP-1 through GP-8) were advanced in depth increments of 4 feet using a GeoProbe® equipped with a 1.75-inch diameter thin-walled sampling tube. The interior of the sampling tube was equipped with an acetate liner. Upon the retrieval of each 4-foot section, a description of the materials contained in the acetate liner was recorded in a geologic log for the borings. In addition, each was examined for evidence (i.e., staining, odor, etc.) of contamination. The geologic logs for the soil borings were provided to EPD in the CSR for the site dated November 17, 2003.

4.2.6 Field Analytical or Measurement Techniques

No field analyses or other measurements were performed on the soil samples collected at the site.

4.2.7 Sampling, Handling and Preservation Techniques

As discussed above, a GeoProbe® was used to collect soil samples from the soil borings installed at the site. EnCore® sample containers were used to collect soil samples for VOC analyses from the soil cores recovered by the GeoProbe®. Three (3) EnCore® containers were filled for each sample. The EnCore® containers were attached to a "T-handle" and pushed into the soil core at the depth interval of interest. After removing the EnCore® container from the core, the cap for the container was snapped into place. A sample identification label was then affixed to the container. After labeling, the container was placed into a "zip-loc" foil pouch provided by the EnCore® manufacturer. Subsequent to being filled, the EnCore® containers were placed in an ice-filled cooler. Clean latex gloves were worn when handling the EnCore® sample containers.

Samples collected for metals analyses were mixed before being placed into sample containers provided by the analytical laboratory. Soil from depth interval of interest was removed from the acetate liner by the field geologist and placed in a stainless steel mixing bowl. This was done by hand. Clean latex gloves were worn while handling the soil. The gloves were changed between each sample. Once placed in the bowl, the soil cores were broken up by hand. Again, clean latex gloves were used during this procedure.

After being broken up, the soil was mixed using a stainless steel spoon. The quartering method described in Section 5.13.8 of USEPA Region 4 Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), 2001 was used to mix the soil. After mixing, the spoon was used to transfer the samples to 125-milliliter (ml) glass containers provided by the analytical laboratory. After being filled and labeled, the containers were placed in "bubble wrap" bags and stored in an ice-filled cooler.

4.2.8 Equipment Decontamination

Prior to the start of each boring, the downhole GeoProbe® equipment was decontaminated using the following procedure:

- Wash equipment in phosphate-free soap (i.e., Liquinox®) and potable water to remove solids.
- Rinse thoroughly with potable water.
- Between each sample interval, the thin walled tube of the GeoProbe® was equipped with a new acetate liner.
- The stainless steel sampling equipment (e.g., bowls and spoons) were decontaminated using the following procedure:
- Wash equipment in phosphate-free soap (i.e., Liquinox®) and potable water to remove solids.
- Rinse thoroughly with potable water.
- Rinse with organic-free water.
- Rinse with isopropanol.

4.2.9 Chain-of-Custody Procedures

The field geologist who collected the samples retained sample custody in the field. This individual completed a chain-of-custody form before surrendering possession of the samples. The soil samples were delivered to the laboratory via express delivery service, by courier service, or by ERM personnel. Copies of the chain-of-custody records for the soil samples were provided to EPD in the CSR dated November 17, 2003. No duplicate samples or field equipment rinse blanks

were collected during the soil sampling. A trip blank was submitted to the laboratory along with all soil samples to be analyzed for VOCs.

4.2.10 Laboratory Analytical Procedures

The analyses for the soil samples for VOCs were performed using EPA Method 8260B. The analysis of the soil samples for total barium, cadmium, chromium, and lead were performed using EPA Method 6010B. Analytical Services, Inc. (ASI) performed all analyses. ASI is a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory facility. The NELAP certification satisfies the requirements of Georgia State Law, O.C.G.A. 12-2-9. Documentation of ASI's NELAP certification was provided to EPD in the Revised CSR for the site dated February 11, 2005.

4.2.11 Statistical Procedures Used to Evaluate Data

VOCs typically do not occur naturally in soils. Therefore, background levels are considered the quantitation limits of the respective analytical procedures. No statistical procedures were used to evaluate the VOC data for soils.

Barium, cadmium, chromium, and lead occur naturally in soils. As shown on Figure 4-1, the soil borings were located beyond the limits of the waste disposal area. Each of these borings was in wooded areas and there was no evidence to suggest that these locations were affected by the waste disposal activities. Therefore, they are indicative of background conditions.

Statistical procedures used to evaluate the metals concentrations in soils were limited to estimating "background" concentrations. Background concentrations for barium, cadmium, chromium, and lead were estimated by calculating the mean and adding two standard deviations. No other statistical procedures were used to evaluate the metals data for soils.

4.3 RESULTS OF SOIL ASSESSMENT

Copies of the laboratory reports for the analyses conducted on the soil samples collected at the locations shown on Figure 4-1 were provided to EPD in the CSR for the site dated November 17, 2003. A summary of the analytical results is presented in Table 4-2. The results are also shown in plan view on Figure 4-1.

No VOCs were detected in any of the soil samples. Metals detected in the soil samples included barium, chromium, and lead. As shown in Table 4-2, quantifiable concentrations of lead were reported in just two (2) of the soil samples submitted for analyses. The concentrations of lead in these two samples, GP-6, 0-2 feet, and GP-8, 0-2 feet, were 5.6 milligrams per kilogram (mg/kg) and

3.7 mg/kg, respectively. Barium concentrations ranged from 1.8 mg/kg to 11 mg/kg. Chromium concentrations ranged from 1.3 mg/kg to 2.1 mg/kg. Cadmium was not present in any of the soil samples at concentrations greater than the reporting limits of the analytical procedures.
The mean and standard deviation of the metals concentrations in the soil samples area also shown in Table 4-2. Estimated background concentrations are also shown. These were estimated by adding two standard deviations to the mean. These concentrations are estimates of the metals concentrations that are expected to occur naturally at the site. None of the metals concentrations in the individual soil samples exceeded their respective background levels.

4.4 GROUNDWATER ASSESSMENT

4.4.1 Purpose

As required by Rule 391-3-19-.06(3)(b)3 of HSRA, this section describes the general approach used by ERM to assess releases to groundwater contamination at the site.

4.4.2 General Approach

The extent of releases to groundwater at the site was evaluated through the installation, development and sampling of groundwater monitoring wells. Twenty-eight (28) groundwater monitoring wells were installed to assess groundwater quality. The locations of the wells included in the groundwater monitoring network for the site are shown on Figure 2-2. They include wells MW-6R and ERM-MW-8, and ERM-MW-28, which were installed by ERM on the Lithographic Plant property. Wells installed by Conestoga-Rovers & Associates (CRA, now GHD) and Environ as part of the assessment of the BWAY manufacturing site (HSI Site No. 10032) were also utilized. These wells included MW-5 (Environ) and MW-23 (CRA). The locations of these two wells are also shown on Figure 2-2.

Well construction records are provided in Table 4-3.

4.4.3 Analytical Parameters and Rationale for Selection

Groundwater samples collected at the site have been analyzed for VOCs. This is consistent with efforts conducted at the BWAY manufacturing site (HSI Site No. 10032) and is in keeping with the fact that the drum disposal area appeared to have been used for the disposal of paint wastes. As was requested by EPD in a correspondence dated October 19, 2004, some groundwater samples from selected wells during the early stages of the site investigation were also analyzed for barium, cadmium, chromium, and lead. As discussed in Section 3-1, these

metals had been found to leach from samples of wastes collected from the drum disposal area when subjected to TCLP. The samples were collected in December 2004.

4.4.4 *Methods Used to Characterize Subsurface Geology*

Most of the monitoring wells installed at the site by ERM were drilled using hollow-stem-auger methods. ERM-MW-7 was drilled using mud rotary methods and ERM-MW-27 was drilled using a sonic drilling method. Information concerning the specific method used to drill each well can be found on the geologic logs, which have been submitted previously to EPD (see Table 4-3 for submittal information).

Soil samples were collected from the boreholes of each well (see geologic logs for details). A qualified field geologist assigned to oversee the drilling was responsible for recording the lithology of the soil samples in a geologic log for each well. The geologic logs for the groundwater monitoring wells have been submitted previously to EPD (see Table 4-3 for submittal information).

4.4.5 *Determination of Ground Gradients and Directions of Groundwater Movement*

Numerous rounds of groundwater elevation monitoring have conducted at the site. The most recent event was conducted in March 2016. During the monitoring event, the depth to groundwater was measured from a surveyed reference point at each well. The measurements were made using an electronic water level tape. These measurements and the elevations of the surveyed reference points were used to calculate the water table elevation at each monitoring well location.

The groundwater elevation data were used to prepare a map of the potentiometric surface at the site. Hydraulic gradients and directions of groundwater movement were estimated from the map.

4.4.6 *Methods Used to Determine Hydraulic Conductivities and Other Pertinent Hydrogeologic Characteristics*

Aquifer tests (i.e. variable head slug tests) were conducted at wells ERM-MW-1, ERM-MW-3, and ERM-MW-4 in April/May 2008 to estimate the hydraulic conductivity of the aquifer. A ¾ inch outside diameter sand filled PVC slug was rapidly introduced to and removed from each well while a pressure transducer and data logger monitored the recovery of hydraulic head with time in the well. Data collected from the slug tests were analyzed using Aqtesolv®, a commercially available software program. Aqtesolv® was used to estimate the

hydraulic conductivity of the aquifer materials using both 'slug-in' (falling head) and 'slug out' (rising head) data. The Hvorslev (1951) solution for hydraulic conductivity from overdamped slug test data was used for both falling head and rising head data. The Bouwer and Rice (1976) solution for hydraulic conductivity from overdamped slug test data was used to analyze rising head data only. The variable head slug test data and the analyses of the data were submitted previously to EPD (*Third Annual Corrective Action Progress Report, August 28, 2008*). The analyses of the test data showed that the hydraulic conductivity of the aquifer at these wells was between 3.14 feet/day and 9.27 feet/day.

4.4.7 Groundwater Sampling Locations and Monitoring Well Construction Methods

4.4.7.1 Groundwater Sampling Locations

The locations of the groundwater monitoring wells are shown on Figure 2-2. A registered land surveyor determined the locations of the wells.

4.4.7.2 Monitoring Well Construction and Development Methods

Specific details of the methods used to construct and develop the wells installed by ERM have been provided to EPD in previous reports for the site (see Section 1.1 for details). Specific details concerning the methods used by Environ and CRA to construct and develop wells MW-5 and MW-23, respectively, were not made available to ERM.

Well construction records are summarized in Table 4-3. Most of the wells were constructed using 2-inch diameter, Schedule 40 PVC casing and 0.010" slot well screen. Environ used 4-inch diameter casing and well screen at MW-5. With the exception of wells MW-5 and MW-6R, the well screens are 10-feet long. The wells screened at MW-5 and MW-6R are 15-feet long.

At most of the wells, a filter pack of washed silica sand (size 20-40) was poured into the open drill stem around the well screen after the PVC materials (casing and well screen) had been positioned inside the hollow stem auger or drill casing in the completed borehole. The sand pack extended to a height above the top of the well screen. Available records show that well MW-23 was a "natural pack" well (i.e., no filter sand installed). A seal of bentonite clay pellets or chips was installed on top of the sand pack. The annular space above the bentonite seal was filled with grout.

Each well was completed at the ground surface with a concrete pad, locking cap and protective cover. Most of the protective covers were "stick-up" (i.e., above grade) constructions. MW-6R was completed with a flush-mount protective cover.

The wells were developed by over pumping to remove fine-grained formation materials to the fullest extent practicable. A registered land surveyor determined the locations and top of casing elevations of the wells.

4.4.8 Groundwater Sampling Procedures

Numerous rounds of groundwater sampling have been conducted at the site by ERM dating back to 2003. Details concerning the procedures used to collect groundwater samples from the wells have been provided in reports submitted previously to EPD (see Section 1.1). In general, the sampling procedures included the following steps:

- Take the necessary measurements to determine the volume of water in the well.
- Purge the requisite volume of water from the well.
- During purging, take measurements and record the requisite field parameters (e.g., pH, temperature, specific conductance, etc.).
- Collect the groundwater sample after completion of the well purging.

The most recent rounds of groundwater sampling were conducted at the site in January 2016 and March 2016. The January 2016 event was liited to well ERM-MW-28. The March 2016 event included 16 wells selected for the purpose of final plume delineation and characterization. All groundwater monitoring wells selected for sampling during these events were purged in accordance with the methods in the U.S. Environmental Protection Agency (USEPA), Region 4, Science and Ecosystem Support Division (SESDPROC-301-R3, March 2013) Field Branches Quality System and Technical Procedures – Groundwater Sampling guidance document prior to sample collection. Low-flow/ low-stress sampling techniques were employed for all wells selected for sampling during these events using variable speed peristaltic pumps, except for ERM-MW-7 (March 2016) which was sampled using a submersible pump.

Groundwater sampling logs for the January 2016 and March 2016 sampling event are provided in Appendix A.

4.4.9 Quality Assurance/Quality Control Samples

Details concerning quality assurance/quality control samples associated with the various groundwater sampling events have been provided in reports submitted previously to EPD (see Section 1.1). For the March 2016 sampling event, two (2) field duplicates groundwater samples were collected from wells ERM-MW-17 and ERM-MW-27. A trip blank accompanied each sample cooler containing samples for VOC analyses and a temperature blank was included in every cooler submitted to the laboratory.

4.4.10 Sample Handling And Preservation Techniques

4.4.10.1 Sample Identification

Groundwater samples collected from the monitoring wells were identified by the well from which they were collected. For example, the sample collected from well ERM-MW-2 was identified as ERM-MW-2. A standard label was placed on the containers for each sample. The label typically included the following information:

- Client/project name.
- Sample identification.
- Location.
- Date and time of sample collection.
- Initials of sampler(s).
- Preservatives.
- Analysis requested.

4.4.10.2 Sample Preservation

The groundwater samples for VOC analyses were collected in laboratory pre-preserved vials with hydrochloric acid. Sample taken previously for metals were acidified in the field using nitric acid. The analytical laboratory provided all containers. Subsequent to being collected, all groundwater samples were placed in ice-filled coolers.

4.4.10.3 Equipment Decontamination Procedures

Details concerning equipment decontamination procedures used during the various groundwater sampling events have been provided in reports submitted previously to EPD (see Section 1.1). For the March 2016 sampling event, all parts of the sampling equipment coming in contact with groundwater were decontaminated by thorough cleaning with a mixture of de-ionized water and a low phosphate, laboratory grade detergent (i.e. Liquinox). The parts were subsequently double rinsed with de-ionized water. The water level meter was decontaminated and silicone tubing was replaced at each well.

4.4.10.4 Chain-of-Custody Procedures

The field team member who collected the samples retained sample custody in the field. This individual completed chain-of-custody forms before surrendering possession of the samples. The groundwater samples were delivered to the

laboratory via express delivery service, ERM personnel or courier service. Copies of the chain-of-custody records for the March 2016 groundwater sampling event are included in Appendix B.

4.5 GROUNDWATER ANALYTICAL PROCEDURES

The VOC analyses conducted on the groundwater samples were performed using method 8260B. As requested by EPD in a correspondence dated October 19, 2004, groundwater samples from a small number of wells had also been analyzed for barium, cadmium, chromium, and lead. Prior to 2015, the analyses conducted on the groundwater samples were performed by Analytical Services, Inc. (ASI). Since then, the analyses have been performed by Analytical Environmental Services, Inc. (AES). Both are NELAP certified laboratories.

4.6 METHODS USED TO DETERMINE BACKGROUD GROUNDWATER QUALITY

Background concentrations for the VOCs in groundwater are taken as the quantitation limits of the analytical procedures. Therefore, activities to determine background concentrations of VOCs were not undertaken.

4.7 RESULTS OF GROUNDWATER ASSESSMENT

4.7.1 Geology and Hydrogeology Regional

The site is located in the Okefenokee Basin District of the Coastal Physiographic Province of Georgia. The Coastal Plain is underlain by a wedge of Cretaceous and younger sediments that dip gently towards the Atlantic Ocean. In Clinch County, these sediments include Pliocene and Miocene deposits of sand, clay, and marl.

4.7.1 Local

The site is located at an elevation ranging from 178 feet to 179 feet above the National Geodetic Vertical Datum (NGVD). Two geologic cross-sections for the site (A-A′ and B-B′) were developed from the geologic logs associated with various wells. The cross-sections are provided on Figures 4-2 and 4-3. The transect for the cross-section is shown on the bottom of the respective figure and the general geology of the surficial aquifer identified across those transects is shown in each figure. The surficial aquifer is characterized by two main zones, a Shallow and a Deep Zone, based on the changes in general lithologies with increasing depth approaching the upper boundary of the clay confining unit, the Hawthorn Formation. The details of these zones are discussed in a letter from ERM to EPD dated October 20, 2015. In summary, the Shallow Zone represents an approximate thickness of sediments of up to 46 feet below ground surface

ranging from coarse, gravelly sands to fine silty/ clayey sand. The Deep Zone represents a thickness of sediments of approximately 15 to 35 feet below the Shallow Zone terminating at the upper clay confining unit. The Deep Zone is composed predominantly of silty/ clayey sand or 'transitional' clayey sand.

Soils encountered during drilling of monitoring wells were primarily sands ranging from fine to coarse-grained and tan in color; grey silty and clayey sands; and grey and pink clays with sand. The depth to groundwater ranged from approximately 4 to 8 feet below ground surface in monitoring wells. As discussed in Section 4.4.6, analyses of slug test data from wells at the site indicates that the hydraulic conductivity of the shallow formation ranges from 3.14 feet/day and 9.27 feet/day.

Groundwater elevation monitoring was most recently conducted on March 28, 2016. The monitoring data are summarized in Table 4-4 and were used to prepare a potentiometric surface map for the site. The map is presented on Figure 4-4. It shows the estimated contours of equal groundwater elevation at 0.5 foot intervals, as well as the estimated directions of groundwater movement at the site. The groundwater elevation data are also included on the aforementioned geologic cross-sections (see Figures 4-2 and 4-3).

Based on the groundwater contours, it is estimated that the direction of groundwater movement at the drum disposal area is in somewhat of radial pattern with the general direction of flow towards the southwest. Wells ERM-MW-11, ERM-MW-13, and MW-6R are located in areas of the site that are upgradient from most other wells. North of ERM-MW-10 and ERM-MW-15, the hydraulic flow gradient is in a northern direction and well ERM-MW-20 seems to occupy an isolated hydraulic highpoint with groundwater flow radiating outwards in all directions. Groundwater movement around well ERM-MW-19 has a southward component (SW through SE) towards Highway 84.

The water table in the portion of the site near the former drum disposal area is relatively flat, with a hydraulic gradient of approximately 0.002 ft/ft. To the west of the drum disposal area (i.e., between ERM-MW-19 and ERM-MW-26) the hydraulic gradient, as estimated from the potentiometric contours, is approximately 0.003 ft/ft. Using these gradients, the hydraulic conductivity data discussed above, and assuming an effective porosity of 0.2, the rate of groundwater movement at the site is estimated to range from 3.14×10^{-2} feet/day to 1.39×10^{-1} feet/day (approximately 11 feet/year to 51 feet/year). The calculations associated with these estimates are shown in Appendix C.

4.7.2 *Groundwater Analytical Results*

Groundwater samples collected at the site over the years have been analyzed primarily for VOCs. The concentrations of VOCs in groundwater that are regulated substances as defined under Rule 391-3-19-.02(2)(n) (i.e., HSRA-regulated VOCs) are summarized in Table 4-5. Complete copies of the laboratory reports for the March 2016 sampling event are included in Appendix B. A copy of the analytical report for the sampling of well ERM-MW-28 in January 2016 is also included in Appendix B. Analytical reports for earlier sampling events have been submitted to EPD previously (see Section 1.1).

HSRA-regulated VOCs historically detected in the groundwater samples included chloroethane, 1,1-dichloroethane, 1,1-dichloroethene, ethylbenzene, isopropylbenzene, methyl ethyl ketone (2-butanone), naphthalene, toluene, 1,1,1-trichloroethane, vinyl chloride, and xylenes.

As was requested by EPD in a correspondence dated October 19, 2004, groundwater samples from a limited number of wells were also analyzed for barium, cadmium, chromium, and lead. The results of the analyses for these metals are summarized in Table 4-6. Laboratory reports for these analyses were submitted to EPD in the Revised CSR dated February 11, 2005. Barium was the only metal detected in the samples at concentrations greater than the reporting limit of the analytical method. The concentrations of barium in the groundwater samples ranged from 0.01 to 0.04 milligrams per liter (mg/L).

As shown on Figure 2-2, of the wells sampled for metals, only well ERM-MW-1 is located in proximity to the drum disposal area. Because of this and the fact that the concentrations of barium at the wells sampled were rather consistent, it is believed that the barium concentrations shown in Table 4-6 are indicative of background conditions.

4.7.3 *Extent of Affected Groundwater*

Horizontal Extent of VOCs

VOCs detected in groundwater at the site since March 2015 are limited to 1,1-dichloroethane, 1,1-dichloroethene, isopropylbenzene, naphthalene, and vinyl chloride. The Voluntary Remediation Program delineation standards for each of these VOCs were their respective Type 1 Risk Reduction Standard as determined by Rule 391-3-19-.07(6)(b). Concentrations of each of these VOCs are shown on Figures 4-5 through 4-9, respectively. In preparing these figures, the most recent data for each VOC at each well since March 2015 were used. Specific comments concerning the horizontal delineation of each of these VOCs are as follows:

1,1-Dicholoroethane (Figure 4-5)

The delineation standard for 1,1-dichloroethane in groundwater is 4,000 micrograms per liter (µg/L). None of the concentrations of 1,1-dichloroethane in groundwater at the site since March 2015 exceeded the delineation standard. It is concluded, therefore, that 1,1-dichloroethane is delineated horizontally to the delineation standard.

1,1-Dichloroethene (Figure 4-6)

The delineation standard for 1,1-dichloroethene in groundwater is 7 µg/L. In March 2016, 1,1-dichloroethene was delineated horizontally to a concentration less than or equal to 7 µg/L at wells: ERM-MW-1, MW-23, ERM-MW-22, ERM-MW-26, ERM-MW-25, ERM-MW-24, ERM-MW-15, and ERM-MW-9.

Isopropylbenzene (Figure 4-7)

The delineation standard for isopropylbenzene is 5 µg/L. Since March 2015, the only exceedance of the delineation standard for isopropylbenzene was at well ERM-MW-8 (6.5 µg/L in January 2016). In March 2016, isopropylbenzene was delineated horizontally to a concentration less than or equal to 5 µg/L at wells: ERM-MW-1, ERM-MW-17, ERM-MW-15 and ERM-MW-28.

Naphthalene (Figure 4-8)

The delineation standard for naphthalene is 20 µg/L. Since March 2015 the only exceedance of the delineation standard for naphthalene has been at well ERM-MW-8 (concentrations ranged from 24 µg/L to 39 µg/L). In March 2016, naphthalene was delineated horizontally to a concentration less than or equal to 20 µg/L at wells: ERM-MW-1, ERM-MW-17, ERM-MW-15, and ERM-MW-28.

Vinyl Chloride (Figure 4-9)

The delineation standard for vinyl chloride is 2 µg/L. Since March 2015 the delineation standard for vinyl chloride in groundwater has been exceeded at wells ERM-MW-7, ERM-MW-9, ERM-MW-16, ERM-MW-17, ERM-MW-18 and ERM-MW-27. In March 2016, vinyl chloride was delineated horizontally to a concentration less than or equal to 2 µg/L at wells: ERM-MW-1, ERM-MW-19, ERM-MW-25, ERM-MW-15, and ERM-MW-28.

Vertical Extent of VOCs

VOC concentration in groundwater in March 2016 are shown on the geologic cross-sections shown on Figures 4-2 and 4-3.

Work conducted by CRA at the BWAY manufacturing facility (HSI Site No. 10032) has shown that the top of the Hawthorn Formation, which serves as the separating and confining unit between the Surficial Aquifer and the Floridian aquifer, is located at depths ranging between 50 and 70 feet below grade. CRA has also shown that the upper portion of the Hawthorn Formation is dry. Considering the fact that the Hawthorn Formation is regionally extensive, it is reasonable to assume that the top of the formation beneath the BWAY Drum Site is located at similar depths. It is reasonable to assume that the upper portion of the Hawthorn Formation at the site is also dry.

The bottoms of the deep wells on the site, ERM-MW-7 and ERM-MW-27, are estimated to be within 2 to 20 feet of the top of the Hawthorn Formation. Considering that the bottoms of these wells are likely this close to the top of the Hawthorn Formation and the fact that total VOC concentrations in these wells in March 2016 range between 34 and 225 ug/L, it is reasonable to conclude that the Surficial Aquifer at the site is contaminated vertically to the top of the Hawthorn Formation. A technical impracticability exists in attempts to further delineate the vertical extent of contaminants of concern (COCs) on site based on the following: (a) the surficial aquifer has been shown to be contaminated throughout its entire thickness to the top of the Hawthorne Formation in the source area, and the Hawthorne Formation comprises a sequence of thick, low-permeability clay units acting as a confining unit to the overlying surficial aquifer system; (b) the installation of an additional deep well at the site for the purpose of characterizing the actual vertical extent of contamination in the surficial aquifer in proximity to top of the Hawthorn Formation poses the risk of compromising the integrity of the formation as a confining unit and therefore potentially allowing continued vertical migration of COCs. This matter was discussed with EPD in a conference call on October 27, 2015 and the agency agreed that further investigation was not warranted.

4.8 STATISTICAL PROCEDURES USED TO EVALUATE DATA

A Mann-Kendall analysis was performed using groundwater quality data from monitoring wells which generally had more than three historical groundwater concentration detection results for a particular analyte. The Mann-Kendall analysis is a non-parametric statistical procedure that is used for analyzing temporal data trends. This software is suited for the evaluation of plume stability conditions using groundwater data collected monitoring wells over a

series of sampling events. For the current trend analysis, the GSI Mann-Kendall Toolkit developed by GSI Environmental Inc. was used.

Of the 28 wells associated with the site, 13 were used in for the trend analysis as the remaining 15 wells had too few or no data points for the evaluation. Trend analysis results for individual compounds that are predominantly detectable in groundwater at the site are provided in Appendix D. Table 4-7 presents a summary of the compound concentration trends at the various wells included in the analysis. In instances where analyte data used in the analysis are below detection limits, the convention was to use one-half of the detection limit as the input data. Wells with consistent results below detection for a particular analyte could be thought to be stable.

Of the 28 statistical trend analyses performed, there were three (3) instances of increasing trends, nine (9) instances of decreasing trends, nine (9) instances of stable trends, and seven (7) instances of no trends. Wells that generally showed decreasing contaminant concentrations include ERM-MW-9, ERM-MW-15, ERM-MW-17, and ERM-MW-18. Wells that generally showed increasing contaminant concentrations include ERM-MW-7 and ERM-MW-8, and wells that had predominantly stable or no trends include ERM-MW-3, ERM-MW-10, ERM-MW-13, ERM-MW-16, ERM-MW-19, ERM-MW-20, and ERM-MW-21.

1,1-Dichloroethene

For concentrations 1,1-dichloroethene, the statistical results show that the plume is stable or shrinking based on the following facts:

- Wells associated with the upgradient portion of the plume, ERM-MW-9 and ERM-MW-16, showed a stable trend or no trend, respectively;
- Wells associated with the downgradient portion of the plume (ERM-MW-18, ERM-MW-19, ERM-MW-20) show stable/ decreasing trends; and
- Wells at the tail of the plume (ERM-MW-15, ERM-MW-17, ERM-MW-21) show stable trends or no trends.
- Concentrations trends in ERM-MW-7, one of the deep wells at the site, are probably increasing, which suggests the plume has migrated vertically downwards to a more stable configuration.

Naphthalene

The results of the Mann-Kendall analysis for naphthalene show increasing concentrations trends at ERM-MW-8. Wells located in proximity to ERM-MW-8, however, had stable concentration trends (i.e., ERM-MW-3) or had an insufficient number of naphthalene detections to perform the Mann-Kendall evaluation. This suggests that while naphthalene concentrations at ERM-MW-8 may be increasing, the areal extent of such increases is limited. Based on this, the

naphthalene plume can generally be considered stable and does not appear to be migrating into any particular direction.

Vinyl Chloride

The results of the Mann-Kendall analysis for vinyl chloride show that the plume is stable based on the following facts:

- Wells associated with the upgradient portion of the plume (ERM-MW-9, ERM-MW-16) showed a decreasing/ stable trend;
- Wells associated with the downgradient area of the plume (ERM-MW-17 and ERM-MW-18) showed stable/ decreasing trends; and
- Wells at the tail of the plume (ERM-MW-20) show a stable trend.
- Concentrations trends in ERM-MW-7, one of the deep wells at the site, are probably increasing, which suggests the plume has migrated vertically downwards to a more stable configuration.

Xylenes

The results of the Mann-Kendall analysis for xylenes show that the plume not expanding based on the fact that ERM-MW-3 shows a decreasing trend while wells ERM-MW-10 and ERM-MW-13 showed no statistical trend. No increasing trends were identified. Additionally, xylenes have not been detected at any of the monitoring wells since April 2013.

Isopropylbenzene

For concentrations isopropylbenzene, the statistical results show that concentrations at ERM-MW-3 are stable. Concentrations at ERM-MW-8 and ERM-MW-13 show no trend and decreasing trend, respectively. No increasing trends were identified. Based on this, it is concluded that the isopropyl benzene plume is not expanding.

Ethylbenzene

The Mann-Kendall analysis results for ethylbenzene show that the plume is probably stable based on the fact that concentrations at ERM-MW-3 and ERM-MW-10 show a stable trend. Ethylbenzene concentrations at ERM-MW-13 showed no trend.

Chloroethane

The Mann-Kendall analysis for chloroethane was conducted for wells ERM-MW 9 and ERM-MW-18. The results showed no trend and stable, respectively.

A statistical evaluation could not be performed on analytes 1,1-dichloroethane, methyl ethyl ketone (2-butanone), toluene, and 1,1,1-trichloroethane because too few data points are available. Nevertheless, the available results of the Mann-Kendall analysis identified very few instances where concentrations trends in groundwater are increasing. In most cases, the Mann-Kendall results indicate decreasing trends, stable trends, or no trend. Overall, these results suggest that the plume is not expanding.

5.0 PREVIOUS RISK REDUCTION ACTIONS

Drums, drum remnants, waste materials, and soil at the site were removed during late July and early August 2003. Prior to the start of the removal activities, additional sampling for waste characterization and profiling was conducted. The first set of waste samples were collected by ERM in June 2002 and consisted of dried paint of various colors (e.g., blue, black, white, and yellow). These samples were evaluated using the TCLP. The TCLP extract from the samples were analyzed for barium, chromium, and lead. These metals are consistent with those reported in the waste characterization analyses conducted by WESI. The ignitability of the dried paint samples was also determined. The results of these analyses are summarized in Table 5-1. Copies of the laboratory reports were submitted to EPD in *Excavation and Disposal of Buried Materials* report dated October 16, 2003. The results indicated that some of the paint waste might have to be managed as a hazardous waste because they leach lead at concentrations exceeding the regulatory limit of 5 mg/L.

ERM conducted a more comprehensive round of waste characterization sampling in early July 2003. During this sampling, ERM unearthed 24 buried drums at the site. A sample of the contents of each drum was then collected and analyzed for total lead. Selected samples (e.g., those having the highest concentrations of total lead) were also evaluated using the TCLP. The TCLP extract was analyzed for lead. The results of these analyses are summarized in Table 5-1. Copies of the laboratory reports were submitted to EPD in *Excavation and Disposal of Buried Materials* report dated October 16, 2003.

ERM also collected samples from four (4) soil stockpiles located at the site. The stockpiles had been generated by WESI during their preliminary evaluation of the site (see Section 3.1 for details). The soil samples were analyzed for total lead. They were also evaluated using the TCLP. The TCLP extract from each sample was analyzed for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver (a.k.a., the RCRA metals). The results of these analyses are summarized in Table 5-1. Copies of the laboratory reports were submitted to EPD in *Excavation and Disposal of Buried Materials* report dated October 16, 2003. The results indicated that the soils in proximity to the buried wastes could be managed as a non-hazardous solid waste.

Based on the results of the waste characterization sampling and analyses discussed above, ERM determined that paint waste associated with foil-backed paper were characteristically toxic because they would leach lead at concentrations exceeding 5 mg/L when subjected to the TCLP. These wastes were typically green-colored paint solids.

Excavation of drums, waste materials, and soil was conducted at the site during the period July 28, 2003 through August 1, 2003. Prior to the start of the work, the following preliminary activities were completed:

- Temporary access roads were constructed for trucks to remove the wastes and supply clean fill.
- Silt fencing was installed to control erosion.
- A waste staging area was established.

Approximately 1,422 tons of material that were classified as nonhazardous waste and 9.36 tons of material that were classified as a hazardous waste were removed from the site. The waste materials included drums of dry paint, paint residue, drum remnants, and soil. The non-hazardous waste was excavated by a tracked excavator, loaded into dump trucks, and transported to Waste Management's Subtitle D Pecan Row landfill located in Valdosta, Georgia. The hazardous waste was excavated and transported in a similar fashion the Subtitle C landfill located in Emelle, Alabama.

The approximate boundaries of the excavated area are shown on Figure 5-1. The depth of the excavation ranged from approximately 5 to 10 feet. Although most metal components of the debris had oxidized, some drum lids still had labels that were legible. Most visible contents of the drums excavated from the site appeared to be cohesive and dry. Lime kiln dust was used to remove free water from some of the waste from the western portion of the excavated area.

Confirmation soil samples were collected at six (6) locations from the bottom of the excavation. The sampling locations are shown on Figure 5-1. The samples were collected using a hand auger that was decontaminated between samples. The confirmation soil samples were collected from within 6 inches of the bottom of the excavation and were analyzed for total barium, cadmium, chromium and lead by EPA Method 6010B, and for ethylbenzene, methyl ethyl ketone and xylenes by EPA Method 8260B. These analytes are consistent with the regulated constituents that were detected previously at the site by WESI. ASI conducted the analyses.

The results of the analyses for the excavation bottom confirmatory soil samples are summarized in Table 5-2. Copies of the laboratory reports were submitted to EPD in *Excavation and Disposal of Buried Materials* report dated October 16, 2003. The results show that concentrations of ethylbenzene, methyl ethyl ketone, and xylenes in the samples were below the reporting limits of the analytical methods. The concentrations of barium in some of the confirmatory soil samples were slightly greater than the estimated background level of 9.69 mg/kg. The same can be said for cadmium, which has an estimate background level of <1.17

mg/kg. The concentrations of chromium in all of the confirmatory soil samples exceeded the estimated background level of 2.37 mg/kg. The concentrations of lead in the confirmatory soil samples were generally consistent with the estimated background level of 7.34 mg/kg.

Once the confirmation soil samples were obtained, the excavated area was backfilled with approximately 2,208 tons of sandy soil. After backfilling, the area was graded, fertilized, seeded and mulched.

As requested by EPD in a correspondence dated October 19, 2004, additional soil samples were collected from the approximate perimeter of the excavated area. Sample locations are shown on Figure 5-1. These samples were collected in order to evaluate excavation "sidewall" conditions. A hand auger was used to collect the samples from a depth of 4 feet. The samples were analyzed for ethylbenzene, methyl ethyl ketone, and xylenes by EPA Method 8260B. They were also analyzed for barium, cadmium, chromium, and lead by EPA Method 6010B. Sample handling methods, equipment decontamination procedures, and sample analytical methods were as described in Section 4.2.

The results of the analyses conducted on the excavation "sidewall" samples are included in Table 5-2. The results show that ethylbenzene, methyl ethyl ketone, and xylenes were not present at concentrations greater than the reporting limits of the analytical methods in the confirmatory soil samples indicative of "sidewall" conditions. The concentrations of barium in some of the "sidewall" confirmatory soil samples were slightly greater than the estimated background level of 9.69 mg/kg. Cadmium was not present in any of these samples at concentrations greater than the reporting limit of the analytical method. The concentrations of chromium in four of these sidewall confirmatory soil samples exceeded the estimated background level of 2.37 mg/kg. The concentrations of lead in most of the "sidewall" confirmatory soil samples were less than the estimated background level of 7.34 mg/kg.

6.0 RECEPTORS

6.1 POTENTIAL ENVIRONMENTAL RECEPTORS

As discussed in Section 1, the BWAY Drum Site is located in a wooded area near Homerville, Clinch County, Georgia. The BWAY Lithographic Plant site is located immediately east of the drum site. The surrounding area is primarily rural.

A U.S. Fish and Wildlife Service Information for Planning and Conservations (IPaC) Trust Resources Report for the BWAY Drum site and Lithographic Plant properties was downloaded from *ecos.fws.gov/ipac/*. The IPaC report shows that the eastern indigo snake (threatened species) and gopher tortoise (candidate for classification as an endangered species) could be present at the properties. Neither have been observed by ERM at the properties, however.

The IPaC report lists 23 migratory birds that are considered birds of conservation concern may be present at the properties. The report also shows that wetlands are present on and around the properties.

6.2 POTENTIAL HUMAN RECEPTORS

Potential human receptors include employees of the BWAY Lithographic Plant and manufacturing facility, utility workers and trespassers.

7.0 DESCRIPTION OF SITE AND RESPONSIBLE PARTIES

7.1 SITE INFORMATION

The BWAY Drum Site address is:

Highway 84 West and Woodlake Drive
Homerville, Georgia 31634

The address for the Lithographic Plant is:

1631 Woodlake Drive
Homerville, GA 31634

The legal descriptions for these properties provided in Appendix E. The property owner's name, address, and telephone number are as follows:

BWAY Corporation
8607 Roberts Drive
Atlanta, Georgia 30350
770/645-4800

7.2 PARTIES RESPONSIBLE FOR THE SITE

The parties responsible for the site include:

BWAY Corporation (current owner of the property)
8607 Roberts Drive
Atlanta, Georgia 30350

Owens-Illinois Inc. (property owner prior to 1989)
1 Seagate
Toledo, OH 43604

8.0 DERIVATION OF RISK REDUCTION STANDARDS AND EVALUATION OF SITE COMPLIANCE

8.1 OVERVIEW

This section describes the procedures used to derive Risk Reduction Standards (RRS) for the site. It also evaluates the site's compliance with these standards. In making this evaluation, the following data were considered:

- Soils data from EPD files for the Lithographic Plant property as summarized in Section 3.
- Soils data collected during the efforts described in Sections 4 and 5.
- Groundwater quality data described in Section 4.

8.2 DERIVATION OF RISK REDUCTION STANDARDS

8.2.1 Soil

Regulated substances detected in soil at the BWAY Drum Site and the Lithographic Plant include barium, cadmium, chromium, copper, lead and zinc. Type 1 RRS for barium, cadmium, chromium, copper, and lead in soil were determined using the method described in Rule 391-3-19.07(6)(c). Type 1 and Type 3 RRS for zinc in soil were determined using the methods described in Rule 391-3-19.07(6)(c) and Rule 391-3-19.07(8)(d).

Ethylbenzene, MEK, methylene chloride, naphthalene, toluene, and xylenes were also detected in soils at the Lithographic Plant. Type 1 and Type 3 RRS for these regulated substances were calculated using the methods described in Rules 391-3-19-.07(6)(c) and 391-3-19-.07(8)(d).

The RRS for soils at the site are summarized in Table 8-1. Backup information for the calculation of the RRS for soils is provided in Appendix F.

8.2.2 Groundwater

Groundwater samples for barium, cadmium, chromium, and lead were collected at the site in December 2004 (see Sections 4.4.3 and 4.13.2). The Type 1 RRS for these metals in groundwater were determined using the method described in Rule 391-3-19-.07(6)(b).

RRS for the VOCs in groundwater at the site were calculated using the methods described in Rule 391-3-19-.07.

The RRS for groundwater at the site are summarized in Table 8-2. It should be noted that most of these RRS and the associated backup calculations were included in the in the Corrective Action Plan for the site dated March 2005, which was approved by EPD by way of a correspondence dated July 28, 2005.

8.3 COMPLIANCE WITH RISK REDUCTION STANDARDS

8.3.1 Soil

8.3.1.1 BWAY Drum Site

A comparison of metals concentrations in soils at the BWAY Drum Site to their respective Type 1 RRS is presented in Table 8-1. The concentrations of barium, cadmium, chromium, and lead in the soils at the BWAY Drum Site are less than their respective Type 1 RRS. Therefore, it is concluded that the site is in compliance with the Type 1 RRS for these metals in soils. The available data show that VOCs are not present in the soils at the site. Therefore, it is concluded that the site is in compliance with the Type 1 RRS for VOCs in soils.

The comparison of metals concentrations in soils at the BWAY Drum Site to their respective Type 1 RRS shown in Table 8-1 was provided to EPD in the Corrective Action Plan for the site dated March 2005. In a correspondence dated July 28, 2005, EPD concurred that the soils at the BWAY Drum Site were in compliance with the Type 1 RRS.

8.3.1.2 Lithographic Plant

A comparison of the concentrations of VOCs and metals detected in soils at the Lithographic Plant to RRS is presented in Table 8-1. The concentrations of ethylbenzene, methyl ethyl ketone, methylene chloride, naphthalene, toluene, and xylenes detected in soil at the Lithographic Plant were all less than their respective Type 1 RRS. Similarly, all concentrations of chromium, copper, and lead in soil at the Lithographic Plant were less than their respective Type 1 RRS.

The concentrations of zinc detected in soil at the Lithographic Plant were less than the Type 3 RRS for zinc.

8.3.2 Groundwater

The most recent groundwater sampling event was conducted in March 2016 and included 16 of the 28 wells. All but one the wells not included in the March 2016 sampling event, ERM-MW-8, were last sampled in March 2015. ERM-MW-8 was last sampled in January 2016.

A comparison of site groundwater quality data to the groundwater RRS is shown in Table 8-2. This table summarizes the maximum concentration for each regulated substance present in the most recent set of groundwater samples collected by ERM from the wells. The various RRS for the regulated substances are also presented in Table 8-2.

The information presented in Table 8-2 shows that the concentrations of 1,1-dichloroethane, ethylbenzene, methyl ethyl ketone, toluene, 1,1,1-trichloroethane, xylenes, barium, cadmium, chromium, and lead in the groundwater are in compliance with (i.e., less than) their respective Type 1 RRS. The concentrations of chloroethane and isopropylbenzene in the groundwater are in compliance with their respective Type 2 RRS. The concentrations of 1,1-dichloroethene are in compliance with the Type 4 RRS.

The concentrations of naphthalene at well ERM-MW-8 and vinyl chloride at well ERM-MW-27 are greater than the applicable Type 1, 2, 3, and 4 RRS for each. An institutional control in the form of Uniform Environmental Covenant (UEC) that restricts the use of groundwater will be established at the BWAY Drum Site and the Lithographic Plant property. Because of this and the fact that the Mann-Kendall analysis of the groundwater data shows that contaminant concentrations are mostly stable or decreasing, BWAY will apply the Type 5 RRS to naphthalene and vinyl chloride at the site.

Tables

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

Table 3-1
Analytical Results for Waste and Groundwater Samples Collected by WESI, 12/2001
BWAY, HSI Site No. 10731

Sample ID	Sample Type	Analyte Group	Analytes Detected	Concentration	Units
#1	Ground Water	VOCs	None		
#2	Ground Water	VOCs	Methyl ethyl ketone	0.082	mg/L
			Ethylbenzene	0.027	mg/L
			Xylenes, total	0.13	mg/L
#3	Waste	TCLP VOCs	None		
		TCLP SVOCs	None		
		TCLP Metals	Barium	0.0125	mg/L
			Cadmium	0.0822	mg/L
			Chromium	0.00511	mg/L
#4	Waste	TCLP VOCs	None		
		TCLP SVOCs	None		
		TCLP Metals	Barium	0.0108	mg/L
			Cadmium	0.0422	mg/L
#5	Waste	TCLP VOCs	None		
		TCLP SVOCs	o-cresol	8.6	mg/L
		TCLP Metals	Barium	1.51	mg/L
			Chromium	0.0731	mg/L
#6	Waste	TCLP VOCs	None		
		TCLP SVOCs	None		
		TCLP Metals	Barium	26.3	mg/L
			Cadmium	0.243	mg/L
			Chromium	0.069	mg/L
			Lead	913	mg/L

Table 3-2
Analytical Results for Soils at Lithographic Plant (mg/kg)
BWAY, HSI Site No. 10731

HSRA-Regulated Constituents Detected:				**Naphthalene**	**Ethyl Benzene**	**Xylenes**	**Toluene**	**MEK**	**Methylene Chloride**	**Chromium**	**Lead**	**Zinc**	**Copper**	**SVOCs**
Sample Location	**Depth (ft bgs)**	**Date**	**Collected By**											
E-1/MW-5/NMW5-SB01	0.2 - 0.7	1993	Environ	BDL	BDL	<0.011	<0.0068	<0.011	<0.0032	11	35	288	NA	NA
MW-6/SB01	1.5 - 3.5	1993	Environ	BDL	BDL	0.011	<0.0068	<0.011	0.01	2.2	2	4.6	NA	NA
VSB-1	0 - 0.5	1994	Golder	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA
G-2/VSB-2	0 - 0.5	1994	Golder	BDL	BDL	BDL	BDL	BDL	BDL	6.26	23.3	67	5.84	BDL
D-1	NA	1995	SRI	BDL	<0.005	<0.005	NA	<0.05	NA	NA	NA	NA	NA	NA
D-2	NA	1995	SRI	BDL	0.023	0.378	NA	<0.05	NA	NA	NA	NA	NA	NA
D-3	NA	1995	SRI	BDL	<0.005	<0.005	NA	<0.05	NA	NA	NA	NA	NA	NA
D-4	NA	1995	SRI	BDL	<0.1	<0.1	NA	<1	NA	NA	NA	NA	NA	NA
D-5	NA	1995	SRI	BDL	<0.005	<0.005	NA	2.67	NA	NA	NA	NA	NA	NA
D-6	NA	1995	SRI	9.84	<0.5	<0.5	NA	<5	NA	NA	NA	NA	NA	NA
D-7	NA	1995	SRI	BDL	<0.002	<0.002	NA	<0.02	NA	NA	NA	NA	NA	NA
SB-1	0-1	1995	Golder	NA	<0.005	0.0069	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-1	4	1995	Golder	BDL	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-2	0-1	1995	Golder	NA	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-2	4	1995	Golder	NA	1.28	1.24	0.796	<10	NA	NA	NA	NA	NA	NA
SB-3	0-1	1995	Golder	NA	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-3	4	1995	Golder	23	51.4	27.4	10.4	<20	NA	NA	NA	NA	NA	NA
SB-4	0-1	1995	Golder	NA	0.0094	0.0061	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-4	4	1995	Golder	NA	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-5	0-1	1995	Golder	NA	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-5	4	1995	Golder	NA	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-6	0-1	1995	Golder	NA	<0.005	0.0058	<0.005	<0.1	NA	NA	NA	NA	NA	NA
SB-6	4	1995	Golder	NA	<0.005	<0.005	<0.005	<0.1	NA	NA	NA	NA	NA	NA

BDL = Below Detection Limit.

NA= Not Analyzed or Not Available.

Sample depth is depth in feet taken below ground surface (bgs).

Table 4-1
Soil Samples Submitted for Analyses, 9/2003
BWAY, HSI Site No. 10731

Sample ID	Sample Depth (feet)	Analyses	Analytical Method
GP-1, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-1, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-2, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-3, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-4, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-5, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-6, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-7, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B
GP-8, 0-2	0-2	Barium, Cadmium, Chromium, Lead	6010B
		VOCs	8260B

Table 4-2
Analytical Results for Soils at BWAY Drum Site
BWAY, HSI Site No. 10731

Sample ID	Sample Depth (feet)	Results				
		Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	VOCs (mg/kg)
GP-1, 0-2	0-2	2.3	<1	1.9	<2.6	None Detected[1]
GP-2, 0-2	0-2	2.0	<1.1	1.8	<2.7	None Detected[1]
GP-3, 0-2	0-2	2.8	<1.1	2.1	<2.7	None Detected[1]
GP-4, 0-2	0-2	2.6	<1.1	1.8	<2.6	None Detected[1]
GP-5, 0-2	0-2	3.2	<1	1.4	<2.6	None Detected[1]
GP-6, 0-2	0-2	11	<1	2.0	5.6	None Detected[1]
GP-7, 0-2	0-2	1.8	<1.1	1.3	<2.7	None Detected[1]
GP-8, 0-2	0-2	3.4	<1.1	2.0	3.7	None Detected[1]
Mean		3.64	<1.06	1.79	4.65	NA
Std. Dev.		3.03	<0.05	0.29	1.34	NA
Estimated Background[2]		9.69	<1.17	2.37	7.34	NA

Note: 1. Analytical reports, including laboratory reporting limits, provided to EPD in CSR dated 11/17/2003.
2. Estimated background is equal to the mean plus 2 standard deviations.

Table 4-3
Monitoring Well Construction Records
BWAY, HSI Site No. 10731

Well ID	Date Installed	Installed By	Well Diameter (inches)	Total Depth (feet bgs)	Screen Length (feet)	Top Screen (feet bgs)	Bottom Screen (feet bgs)	Northing	Easting	Reference Point Elevation (feet amsl)	Ground Surface Elevation (feet amsl)	Comments
ERM-MW-1	09/15/03	ERM	2.0	22.0	10	10.0	20.0	375885.9	465916.2	182.14	178.53	Geologic log and well construction record provided to GAEPD in CSR dated 11-17-2003.
ERM-MW-2	09/15/03	ERM	2.0	22.0	10	10.0	20.0	375790.9	465698.3	182.51	179.59*	Geologic log and well construction record provided to GAEPD in CSR dated 11-17-2003.
ERM-MW-3	09/15/03	ERM	2.0	22.0	10	10.0	20.0	376188.2	465875.9	182.98	179.75	Geologic log and well construction record provided to GAEPD in CSR dated 11-17-2003.
ERM-MW-4	12/14/04	ERM	2.0	22.0	10	10.0	20.0	376396.7	465821.5	183.69	180.77	Geologic log and well construction record provided to GAEPD in CAP dated 3-2005.
MW-5	04/14/93	ENVIRON	4.0	17.0	15	2.0	17.0	375476.0	466115.2	179.49	179.96*	Geologic log and well construction record provided to GAEPD in CSR dated 11-17-2003.
MW-6R	11/08/10	ERM	2.0	17.0	15	1.8	16.8	375852.2	466208.8	179.91	180.00	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-7	02/21/06	ERM	2.0	52.4	10	42.1	52.1	376102.8	465879.1	182.66	179.78	Geologic log and well construction record provided to GAEPD in Corrective Action Progress Report dated 9-18-2006.
ERM-MW-8	06/14/07	ERM	2.0	21.0	10	10.0	20.0	376202.0	466063.9	182.41	179.71*	Geologic log and well construction record provided to GAEPD in 2nd Annual CAP Progress Report dated 8-30-2007.
ERM-MW-9	11/09/10	ERM	2.0	20.5	10	10.0	20.0	376152.8	465783.1	182.92	179.59	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-10	11/09/10	ERM	2.0	20.5	10	9.3	19.3	376194.9	456907.9	182.85	179.51	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-11	11/09/10	ERM	2.0	12.0	10	1.8	11.8	376097.4	465873.3	182.75	179.75	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-12	11/09/10	ERM	2.0	20.0	10	9.8	19.8	375852.5	465670.6	182.06	179.18	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-13	11/08/10	ERM	2.0	13.0	10	1.8	11.8	375882.2	465914.4	182.21	178.53	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-14	11/08/10	ERM	2.0	35.0	10	24.8	34.8	375878.5	465913.0	181.87	178.38	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-15	05/10/11	ERM	2.0	19.0	10	8.0	18.0	376236.7	465679.8	182.22	179.54	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-16	05/10/11	ERM	2.0	20.5	10	10.0	20.0	376116.1	465630.3	182.69	179.61	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-17	10/26/11	ERM	2.0	20.0	10	9.70	19.70	376107.5	465422.1	182.84	179.95	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-18	10/26/11	ERM	2.0	20.0	10	9.70	19.70	375939.3	465514.0	182.91	180.23	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-19	10/26/11	ERM	2.0	20.9	10	9.55	19.55	375820.2	465104.1	181.01	178.02	Geologic log and well construction record provided to GAEPD in 1st Semi-Annual VRP Progress Report dated 1-22-2012.
ERM-MW-20	03/26/12	ERM	2.0	22.0	10	10.0	20.0	376355.5	465074.2	181.52	178.30	Geologic log and well construction record provided to GAEPD in 2nd Semi-Annual VRP Progress Report dated 7-20-2012.
ERM-MW-21	03/28/12	ERM	2.0	22.0	10	10.0	20.0	375723.3	464738.7	178.40	175.53	Geologic log and well construction record provided to GAEPD in 2nd Semi-Annual VRP Progress Report dated 7-20-2012.
ERM-MW-22	03/27/12	ERM	2.0	22.0	10	10.0	20.0	375340.7	465110.8	179.63	176.71	Geologic log and well construction record provided to GAEPD in 2nd Semi-Annual VRP Progress Report dated 7-20-2012.
MW-23	07/29/02	CRA	2.0	21.0	10	11.0	21.0	375416.1	465628.7	182.34	178.55	Geologic log and well construction record provided to GAEPD in CSR dated 11-17-2003.
ERM-MW-24	02/11/13	ERM	2.0	22.0	10	10.0	20.0	376488.1	464980.0	180.22	176.87	Geologic log and well construction record provided to GAEPD in 4th Semi-Annual VRP Progress Report dated 8-5-2013.
ERM-MW-25	07/10/13	ERM	2.0	20.0	10	10.0	20.0	376030.4	464573.9	178.56	175.41	Geologic log and well construction record provided to GAEPD in 4th Semi-Annual VRP Progress Report dated 8-5-2013
ERM-MW-26	07/10/13	ERM	2.0	20.0	10	10.0	20.0	375544.2	464591.6	178.83	175.98	Geologic log and well construction record provided to GAEPD in 4th Semi-Annual VRP Progress Report dated 8-5-2013
ERM-MW-27	03/24/15	ERM	2.0	50.0	10	40.0	50.0	376226.7	465867.0	182.82	179.87*	Geologic log and well construction record provided to GAEPD in 8th Semi-Annual VRP Progress Report dated 7-22-2015
ERM-MW-28	01/13/16	ERM	2.0	20.0	10	9.0	19.0	376330.3	466309.4	182.14	178.91*	Geologic log and well construction record provided to GAEPD in 9th Semi-Annual VRP Progress Report dated 1-29-2016

Notes:
Reference Point refers to top of well casing
BGS = Below Ground Surface
* 2016 Survey Data
amsl = above mean sea level

Table 4-4
Groundwater Elevation Data, March 28, 2016
BWAY, HSI Site No. 10731

Well ID	Date Installed	Well Diameter (inches)	Top of PVC Elevation (feet)	Depth to Water (feet btoc)	Groundwater Elevation (feet)
ERM-MW-1	09/15/03	2	182.14	4.85	177.29
ERM-MW-2	09/15/03	2	182.51	5.60	176.91
ERM-MW-3	09/15/03	2	182.98	5.82	177.16
ERM-MW-4	12/14/04	2	183.69	6.76	176.93
MW-5	04/14/93	4	179.49	2.48	177.01
MW-6R	11/08/10	2	179.91	2.47	177.44
ERM-MW-7	02/21/06	2	182.66	23.12	159.54
ERM-MW-8	06/14/07	2	182.41	5.15	177.26
ERM-MW-9	11/09/10	2	182.92	5.80	177.12
ERM-MW-10	11/09/10	2	182.85	5.75	177.10
ERM-MW-11	11/09/10	2	182.75	5.29	177.46
ERM-MW-12	11/09/10	2	182.06	5.21	176.85
ERM-MW-13	11/08/10	2	182.21	4.73	177.48
ERM-MW-14	11/08/10	2	181.87	4.84	177.03
ERM-MW-15	05/10/11	2	182.22	5.13	177.09
ERM-MW-16	05/10/11	2	182.69	5.61	177.08
ERM-MW-17	10/26/11	2	182.84	5.96	176.88
ERM-MW-18	10/26/11	2	182.91	5.97	176.94
ERM-MW-19	10/26/11	2	181.01	3.75	177.26
ERM-MW-20	03/26/12	2	181.52	4.00	177.52
ERM-MW-21	03/28/12	2	178.4	2.76	175.64
ERM-MW-22	03/27/12	2	179.63	3.34	176.29
MW-23	07/29/02	2	182.34	6.15	176.19
ERM-MW-24	02/11/13	2	180.22	3.08	177.14
ERM-MW-25	07/10/13	2	178.56	2.64	175.92
ERM-MW-26	07/10/13	2	178.83	3.08	175.75
ERM-MW-27	03/15/15	2	182.82	6.11	176.71
ERM-MW-28	01/13/16	2	182.14	4.89	177.25

Table 4-5
Analytical Results for VOCs in Groundwater
BWAY, HSI Site No. 10731

		Concentrations (ug/L)										
Well ID	**Date**	**Chloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**Ethylbenzene**	**Isopropylbenzene**	**Methyl Ethyl Ketone (2-Butanone)**	**Naphthalene**	**Toluene**	**1,1,1-Trichloroethane**	**Vinyl Chloride**	**Xylenes, total**
VRP Delineation Criteria (µg/L)		*5*	*4000*	*7*	*700*	*5*	*2000*	*20*	*1000*	*200*	*2*	*10000*
ERM-MW-1	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-1	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-1	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-1	Oct-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-1	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-1	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-1	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-1	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-1	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-1	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-1	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-1	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-2	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-2	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-2	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-2	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-2	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-3	Nov-10	< 5	NA	< 2	**40**	< 10	<100	**45**	< 2	< 2	< 2	**60**
ERM-MW-3 (DUP-01)	Nov-10	< 5	NA	< 2	**37**	< 10	<100	**48**	< 2	< 2	< 2	**61**
ERM-MW-3	May-11	< 5	NA	< 2	< 2	< 10	<100	**39**	< 2	< 2	< 2	**30**
ERM-MW-3	Jun-11	< 5	NA	< 2	**99**	**23**	<100	**92**	< 2	< 2	< 2	**110**
ERM-MW-3 (DUP-2)	Jun-11	< 5	NA	< 2	**68**	**15**	<100	**57**	< 2	< 2	< 2	**69**
ERM-MW-3	Oct-11	< 5	NA	< 2	**140**	**33**	<100	**95**	< 2	< 2	< 2	**180**
ERM-MW-3	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-3	May-12	< 5	NA	< 2	**20**	< 10	<100	< 10	< 2	< 2	< 2	**5.5**
ERM-MW-3 (DUP-2)	May-12	< 5	NA	< 2	**85**	**23**	<100	**84**	< 2	< 2	< 2	**59**
ERM-MW-3	Nov-12	< 5	NA	< 2	**88**	**36**	<100	**130**	< 2	< 2	< 2	**65**
ERM-MW-3	Apr-13	< 5	NA	< 2	**43**	**16**	<100	**84**	< 2	< 2	< 2	**25**
ERM-MW-3	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-3	Oct-13	< 5	NA	< 2	< 2	< 10	< 100	**16**	< 2	< 2	< 2	< 5
ERM-MW-3	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	**5.2**	< 5	< 5	< 2	< 5
ERM-MW-4	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
ERM-MW-4 (DUP-02)	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
ERM-MW-4	May-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
ERM-MW-4	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
ERM-MW-4	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-4	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-4	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-4	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-4	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-4	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-4	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-4	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
MW-5	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
MW-5	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
MW-5	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	**2.8**	< 5	< 2	< 5
MW-5	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5

Table 4-5
Analytical Results for VOCs in Groundwater
BWAY, HSI Site No. 10731

		Concentrations (ug/L)										
Well ID	**Date**	**Chloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**Ethylbenzene**	**Isopropylbenzene**	**Methyl Ethyl Ketone (2-Butanone)**	**Naphthalene**	**Toluene**	**1,1,1-Trichloroethane**	**Vinyl Chloride**	**Xylenes, total**
VRP Delineation Criteria (µg/L)		*5*	*4000*	*7*	*700*	*5*	*2000*	*20*	*1000*	*200*	*2*	*10000*
MW-6/6R	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
MW-6/6R	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
MW-6/6R	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	**2.8**	< 5	< 2	< 5
MW-6/6R	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6/6R	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-7	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-7	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	Jun-11	< 5	NA	**2.6**	< 2	< 10	<100	< 10	< 5	< 5	< 2	< 5
ERM-MW-7	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	May-12	< 5	NA	**4.1**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-7	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-7	Mar-15	< 10	**14**	**6**	< 5	< 5	<50	< 5	< 5	< 5	**3.0**	< 5
ERM-MW-7	Sep-15	< 10	**15**	**5.4**	< 5	< 5	<50	< 5	< 5	< 5	**2.5**	< 5
ERM-MW-7	Mar-16	< 10	**21**	**8.6**	< 5	< 5	<50	< 5	< 5	< 5	**4.5**	< 5
ERM-MW-8	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-8	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-8 (DUP-1)	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-8	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-8	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-8	Mar-15	< 10	< 5	< 5	< 5	< 5	<50	**37**	< 5	< 5	< 2	< 5
ERM-MW-8	Nov-15	< 10	< 5	< 5	< 5	< 5	<50	**26**	< 5	< 5	< 2	< 5
ERM-MW-8 (DUP-01)	Nov-15	< 10	< 5	< 5	< 5	**5.6**	<50	**25**	< 5	< 5	< 2	< 5
ERM-MW-8	Jan-16	< 10	< 5	< 5	< 5	< 5	<50	**24**	< 5	< 5	< 2	< 5
ERM-MW-8 (DUP-1)	Jan-16	< 10	< 5	< 5	< 5	**6.5**	<50	**39**	< 5	< 5	< 2	< 5
ERM-MW-9	Nov-10	**13**	NA	**7.2**	< 2	< 10	<100	< 10	< 2	< 2	**16**	< 5
ERM-MW-9	May-11	< 5	NA	**7.3**	< 2	< 10	<100	< 10	< 2	< 2	**12**	< 5
ERM-MW-9 (DUP-1)	May-11	< 5	NA	**4.1**	< 2	< 10	<100	< 10	< 2	< 2	**3.5**	< 5
ERM-MW-9	Jun-11	< 5	NA	**7.7**	< 2	< 10	<100	< 10	< 2	< 2	**13**	< 5
ERM-MW-9	Oct-11	**17**	NA	**5.4**	< 2	< 10	<100	< 10	< 2	< 2	**7.1**	< 5
ERM-MW-9 (DUP-01)	Oct-11	**20**	NA	**6.1**	< 2	< 10	<100	< 10	< 2	< 2	**8.6**	< 5
ERM-MW-9	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-9	May-12	< 5	NA	**4.6**	< 2	< 10	<100	< 10	< 2	< 2	**7.3**	< 5
ERM-MW-9	Nov-12	< 5	NA	**7.8**	< 2	< 10	<100	< 10	< 2	< 2	**12**	< 5
ERM-MW-9	Apr-13	< 5	NA	**7.2**	< 2	< 10	<100	< 10	< 2	< 2	**14**	< 5
ERM-MW-9	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-9	Oct-13	**5.6**	NA	**3.8**	< 2	< 10	<100	< 10	< 2	< 2	**12**	< 5
ERM-MW-9	Mar-15	< 10	**5.3**	< 5	< 5	< 5	<50	< 5	< 5	< 5	**8.3**	< 5
ERM-MW-9	Mar-16	< 10	**6.9**	< 5	< 5	< 5	<50	< 5	< 5	< 5	**5.4**	< 5
ERM-MW-10	Nov-10	< 5	NA	< 2	**7.4**	< 10	<100	< 10	< 2	< 2	< 2	**7.3**
ERM-MW-10	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-10	Jun-11	< 5	NA	**3.7**	**9.3**	< 10	<100	< 10	< 2	< 2	< 2	**19**
ERM-MW-10	Oct-11	< 5	NA	**2.8**	**20**	< 10	<100	**14**	< 2	< 2	< 2	**32**
ERM-MW-10	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-10	May-12	< 5	NA	**3.1**	**4.5**	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-10	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-10	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 4-5
Analytical Results for VOCs in Groundwater
BWAY, HSI Site No. 10731

		Concentrations (ug/L)										
Well ID	**Date**	**Chloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**Ethylbenzene**	**Isopropylbenzene**	**Methyl Ethyl Ketone (2-Butanone)**	**Naphthalene**	**Toluene**	**1,1,1-Trichloroethane**	**Vinyl Chloride**	**Xylenes, total**
VRP Delineation Criteria (µg/L)		*5*	*4000*	*7*	*700*	*5*	*2000*	*20*	*1000*	*200*	*2*	*10000*
ERM-MW-10	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-10	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-10	Mar-15	< 10	< 5	< 5	< 5	< 5	<50	< 5	< 5	< 5	< 2	< 5
ERM-MW-10 (DUP-02)	Mar-15	< 10	< 5	< 5	< 5	< 5	<50	< 5	< 5	< 5	< 2	< 5
ERM-MW-11	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-11	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-11	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-11	Oct-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-11	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-11	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-11	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-11	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-11	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-11	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-11	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-12	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-12	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-12	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-12	Oct-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-12	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-12	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-12	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-12	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-12	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-12	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-12	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-13	Nov-10	< 5	NA	< 2	**5.1**	**33**	<100	< 10	< 2	< 2	< 2	**20**
ERM-MW-13	May-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-13	Jun-11	< 5	NA	< 2	**88**	**30**	<100	**25**	< 2	< 2	< 2	**250**
ERM-MW-13	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-13	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-13	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	**33**
ERM-MW-13	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-13	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-13	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-13	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-13	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 2
ERM-MW-14	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-14	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Jun-11	< 5	NA	**2.0**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-14	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-14	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Mar-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-14	Mar-16	< 10	< 5	< 5	< 5	< 5	<50	< 5	< 5	< 5	< 2	< 5
ERM-MW-15	Nov-10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
ERM-MW-15	May-11	< 5	NA	**6.1**	< 2	< 2	<100	< 10	< 10	< 2	< 2	< 2
ERM-MW-15	Jun-11	< 5	NA	**5.0**	**4.6**	< 10	<100	**10**	< 2	< 2	< 2	< 5
ERM-MW-15	Oct-11	< 5	NA	**3.2**	< 2	< 10	<100	**12**	< 2	< 2	< 2	< 5
ERM-MW-15	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-15	May-12	< 5	NA	**3.0**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-15 (Dup-01)	May-12	< 5	NA	**2.8**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-15	Nov-12	< 5	NA	**3.0**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-15	Apr-13	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-15	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-15	Oct-13	< 5	NA	**3.2**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-15	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-15	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5

Table 4-5
Analytical Results for VOCs in Groundwater
BWAY, HSI Site No. 10731

		Concentrations (ug/L)										
Well ID	**Date**	**Chloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**Ethylbenzene**	**Isopropylbenzene**	**Methyl Ethyl Ketone (2-Butanone)**	**Naphthalene**	**Toluene**	**1,1,1-Trichloroethane**	**Vinyl Chloride**	**Xylenes, total**
VRP Delineation Criteria (µg/L)		*5*	*4000*	*7*	*700*	*5*	*2000*	*20*	*1000*	*200*	*2*	*10000*
ERM-MW-16	Nov-10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
ERM-MW-16	May-11	< 5	NA	**5.4**	< 2	< 10	<100	< 10	< 2	< 2	**11**	<5
ERM-MW-16	Jun-11	< 5	NA	**7.1**	< 2	< 10	<100	< 10	< 2	< 2	**10**	< 5
ERM-MW-16	Oct-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	**7.0**	< 5
ERM-MW-16	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-16	May-12	< 5	NA	**2.3**	< 2	< 10	<100	< 10	< 2	< 2	**2.8**	< 5
ERM-MW-16	Nov-12	< 5	NA	**6.0**	< 2	< 10	<100	< 10	< 2	< 2	**6.4**	< 5
ERM-MW-16	Apr-13	< 5	NA	**3.6**	< 2	< 10	<100	< 10	< 2	< 2	**6.5**	< 5
ERM-MW-16 (Dup-01)	Apr-13	< 5	NA	**3.5**	< 2	< 10	<100	< 10	< 2	< 2	**7.0**	< 5
ERM-MW-16	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-16	Oct-13	< 5	NA	**3.7**	< 2	< 10	<100	< 10	< 2	< 2	**7.1**	< 5
ERM-MW-16 (Dup-01)	Oct-13	< 5	NA	**3.6**	< 2	< 10	<100	< 10	< 2	< 2	**6.7**	< 5
ERM-MW-16	Mar-15	< 10	**7.6**	**7.8**	< 5	< 5	< 50	< 5	< 5	< 5	**6.5**	< 5
ERM-MW-17[2]	Oct-11	**110**	NA	**41**	< 2	< 10	<100	< 10	< 2	< 2	**17**	< 5
ERM-MW-17	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-17	May-12	< 5	NA	**34**	< 2	< 10	< 100	< 10	< 2	< 2	**19**	< 5
ERM-MW-17	Nov-12	< 5	NA	**26**	< 2	< 10	< 100	< 10	< 2	< 2	**15**	< 5
ERM-MW-17	Apr-13	< 5	NA	**27**	< 2	< 10	< 100	< 10	< 2	< 2	**13**	< 5
ERM-MW-17	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-17	Oct-13	< 5	NA	**22**	< 2	< 10	< 100	< 10	< 2	< 2	**8.9**	< 5
ERM-MW-17	Mar-15	< 10	**21**	**27**	< 5	< 5	< 50	< 5	< 5	< 5	**12**	< 5
ERM-MW-17	Mar-16	< 10	**5.5**	< 5	< 5	< 5	< 50	< 5	< 5	< 5	**3.6**	< 5
ERM-MW-17 (DUP-02)	Mar-16	< 10	**6.5**	**5.5**	< 5	< 5	< 50	< 5	< 5	< 5	**4.2**	< 5
ERM-MW-18[2]	Oct-11	**130**	NA	**25**	< 2	< 10	<100	< 10	< 2	< 2	**5.3**	< 5
ERM-MW-18	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-18	May-12	**11**	NA	**18**	< 2	< 10	< 100	< 10	< 2	< 2	**4.9**	< 5
ERM-MW-18	Nov-12	**28**	NA	**31**	< 2	< 10	< 100	< 10	< 2	< 2	**13**	< 5
ERM-MW-18 (DUP-01)	Nov-12	**34**	NA	**32**	< 2	< 10	< 100	< 10	< 2	< 2	**15**	< 5
ERM-MW-18	Apr-13	**6.2**	NA	**21**	< 2	< 10	< 100	< 10	< 2	< 2	**5.2**	< 5
ERM-MW-18	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-18	Oct-13	< 5	NA	**2.8**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-18	Mar-15	< 10	**46**	**10**	< 5	< 5	< 50	< 5	< 5	< 5	**3.1**	< 5
ERM-MW-18	Mar-16	< 10	**100**	**23**	< 5	< 5	< 50	< 5	< 5	< 5	**9.0**	< 5
ERM-MW-19[2]	Oct-11	< 5	NA	**47**	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
ERM-MW-19	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-19	May-12	< 5	NA	**47**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-19	Nov-12	< 5	NA	**47**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-19	Apr-13	< 5	NA	**56**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-19	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-19	Oct-13	< 5	NA	**47**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-19	Mar-15	< 10	**9.4**	**25**	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-19	Mar-16	< 10	**9.9**	**25**	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-20[2]	Mar-12	< 5	NA	**30**	< 2	< 10	< 100	< 10	< 2	**2.1**	**4.2**	< 5
ERM-MW-20	May-12	< 5	NA	**41**	< 2	< 10	< 100	< 10	< 2	**2.1**	**8.7**	< 5
ERM-MW-20	Nov-12	< 5	NA	**13**	**11**	< 10	< 100	< 10	**30**	< 2	< 2	< 5
ERM-MW-20	Apr-13	< 5	NA	**35**	< 2	< 10	< 100	< 10	< 2	< 2	**4.3**	< 5
ERM-MW-20	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-20	Oct-13	< 5	NA	**31**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-20	Mar-15	< 10	**13**	**9.5**	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5

Table 4-5
Analytical Results for VOCs in Groundwater
BWAY, HSI Site No. 10731

		Concentrations (ug/L)										
Well ID	**Date**	**Chloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**Ethylbenzene**	**Isopropylbenzene**	**Methyl Ethyl Ketone (2-Butanone)**	**Naphthalene**	**Toluene**	**1,1,1-Trichloroethane**	**Vinyl Chloride**	**Xylenes, total**
VRP Delineation Criteria (µg/L)		*5*	*4000*	*7*	*700*	*5*	*2000*	*20*	*1000*	*200*	*2*	*10000*
ERM-MW-21[2]	Mar-12	< 5	NA	**2.2**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-21	May-12	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-21	Nov-12	< 5	NA	**15**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-21	Apr-13	< 5	NA	**13**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-21	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-21	Oct-13	< 5	NA	**30**	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-21	Mar-15	< 10	< 5	**14**	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-21	Mar-16	< 10	< 5	**13**	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-22[2]	Mar-12	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-22 (DUP-1)	Mar-12	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-22	May-12	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-22	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-22	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-22	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-22	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-22	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-22	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
MW-23	Nov-10	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
MW-23	May-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	Jun-11	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
MW-23	Oct-11	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	Mar-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	May-12	< 5	NA	< 2	< 2	< 10	<100	< 10	< 2	< 2	< 2	< 5
MW-23	Nov-12	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	Apr-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	Oct-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
MW-23	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-24[2]	Apr-13	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-24	Jul-13	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
ERM-MW-24	Oct-13	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-24	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-24 (DUP-03)	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-24	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-25[2]	Jul-13	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-25	Oct-13	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-25	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-25	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-26[2]	Jul-13	< 5	NA	< 2	< 2	< 10	< 100	< 10	< 2	< 2	< 2	< 5
ERM-MW-26	Oct-13	< 5	NA	< 2	< 2	< 10	< 100	< 10	**2.2**	< 2	< 2	< 5
ERM-MW-26	Mar-15	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-26	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-27[2]	Mar-15	< 10	**69**	**120**	< 5	< 5	< 50	< 5	< 5	< 5	**8.0**	< 5
ERM-MW-27 (DUP-01)	Mar-15	< 10	**62**	**110**	< 5	< 5	< 50	< 5	< 5	< 5	**5.6**	< 5
ERM-MW-27	Sep-15	< 10	**73**	**120**	< 5	< 5	< 50	< 5	< 5	< 5	**11**	< 5
ERM-MW-27 (DUP-01)	Sep-15	< 10	**73**	**110**	< 5	< 5	< 50	< 5	< 5	< 5	**11**	< 5
ERM-MW-27	Mar-16	< 10	**71**	**120**	< 5	< 5	< 50	< 5	< 5	< 5	**17**	< 5
ERM-MW-27 (DUP-01)	Mar-16	< 10	**76**	**130**	< 5	< 5	< 50	< 5	< 5	< 5	**19**	< 5
ERM-MW-28[2]	Jan-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5
ERM-MW-28	Mar-16	< 10	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 2	< 5

Notes:

[1] Only VOCs that have been detected in ground water at the site are listed in this table

[2] Indicate first groundwater sample analysis since installation of well

NA = Not Analyzed

NS = Not Sampled

NI = Not Installed

J = Estimated value

BOLD = Detected above laboratory detection limit

Detected above VRP delineation concentration

Table 4-6
Analytical Results for Metals in Groundwater
BWAY, HSI Site No. 10731

Well ID	Metals Concentrations (mg/L)			
	Barium	**Cadmium**	**Chromium**	**Lead**
MW-5	0.03	<0.005	<0.002	<0.005
MW-6	0.04	<0.005	<0.002	<0.005
MW-23	0.02	<0.005	<0.002	<0.005
ERM-MW-1	0.03	<0.005	<0.002	<0.005
ERM-MW-2	0.01	<0.005	<0.002	<0.005
ERM-MW-3	0.01	<0.005	<0.002	<0.005
ERM-MW-4	0.02	<0.005	<0.002	<0.005

Table 4-7
Results of Mann-Kendall Evaluation Through March 2016
BWAY, HSI Site No. 10731

Well ID	Chloroethane		1,1-Dichloroenthene		Ethylbenzene		Isopropylbenzene		Naphthalene		Vinyl Chloride		Xylenes, Total	
	Concentration Trend	**Confidence Factor (%)**	***Concentration Trend***	**Confidence Factor (%)**	***Concentration Trend***	**Confidence Factor (%)**	***Concentration Trend***	**Confidence Factor (%)**	***Concentration Trend***	**Confidence Factor (%)**	***Concentration Trend***	**Confidence Factor (%)**	***Concentration Trend***	**Confidence Factor (%)**
ERM-MW-3	---	---	---	---	*Stable*	72.8	*Stable*	61.9	*Stable*	72.8	---	---	***Decreasing***	95.1
ERM-MW-7	---	---	***Prob. Incr.***	91.8	---	---	---	---	---	---	***Increasing***	98.2	---	---
ERM-MW-8	---	---	---	---	---	---	*No Trend*	61.4	***Increasing***	95.2			---	---
ERM-MW-9	*No Trend*	53.5	***Decreasing***	97.7	---	---	---	---	---	---	***Decreasing***	95.5	---	---
ERM-MW-10	---	---	---	---	*Stable*	75.8	---	---	---	---	---	---	*No Trend*	67.5
ERM-MW-13	---	---	---	---	*No Trend*	50.0	***Prob. Decr.***	92.1	---	---	---	---	*No Trend*	59.2
ERM-MW-15	---	---	***Decreasing***	99.1	---	---	---	---	---	---	---	---	---	---
ERM-MW-16	---	---	*No Trend*	72.6	---	---	---	---	---	---	*Stable*	83.2	---	---
ERM-MW-17	---	---	***Decreasing***	97.5	---	---	---	---	---	---	***Decreasing***	99.5	---	---
ERM-MW-18	***Decreasing***	97.5	***Decreasing***	99.8	---	---	---	---	---	---	*Stable*	61.4	---	---
ERM-MW-19	---	---	*Stable*	84.5	---	---	---	---	---	---	---	---	---	---
ERM-MW-20	---	---	*Stable*	76.5	---	---	---	---	---	---	*Stable*	81.5	---	---
ERM-MW-21	---	---	*No Trend*	76.4	---	---	---	---	---	---	---	---	---	---

Notes:
--- Insufficient number of detections > laboratory reporting limits in sampling events since 2010 to perform Mann-Kendall evaluation.
Prob.= Probably

Table 5-1
Analytical Results for Waste Characterization Samples, ERM 2002 and 2003
BWAY, HSI Site No. 10731

Matrix	Sample Date	Sample ID	Total Lead (mg/kg)	TCLP Lead (mg/L)	TCLP Barium (mg/L)	TCLP Chromium (mg/L)	TCLP Arsenic(mg/L)	TCLP Cadmium (mg/L)	TCLP Mercury (mg/L)	TCLP Selenium (mg/L)	TCLP Silver (mg/L)	Ignitability (^{0}F)
Paint	6/25/2002	SB-6 (Blue)		0.7	0.9	<0.01						>212
Paint	6/25/2002	SB-8 (Black)		0.6	1.7	0.04						>212
Paint	6/25/2002	SB-7 (White)		<0.1	0.4	0.01						113
Paint	6/25/2002	SB-5 (Yellow)		16	0.8	0.12						>212
Paint	7/8/2003	Drum- 1	15									
Paint	7/8/2003	Drum- 2	18									
Paint	7/8/2003	Drum- 3	19									
Paint	7/8/2003	Drum- 4	42									
Paint	7/8/2003	Drum- 5	65									
Paint	7/8/2003	Drum- 6	79	0.1								
Paint	7/8/2003	Drum- 7	14									
Paint	7/8/2003	Drum- 8	65									
Paint	7/8/2003	Drum- 9	14									
Paint	7/8/2003	Drum-10	110	<0.1								
Paint	7/8/2003	Drum-11	14									
Paint	7/8/2003	Drum-12	74000	65								
Paint	7/8/2003	Drum-13	11									
Paint	7/8/2003	Drum-14	1100	<0.1								
Paint	7/8/2003	Drum-15	7.6									
Paint	7/8/2003	Drum-16	57									
Paint	7/8/2003	Drum-17	6.5									
Paint	7/8/2003	Drum-18	4.6									
Paint	7/8/2003	Drum-19	11									
Paint	7/8/2003	Drum-20	110	1								
Paint	7/8/2003	Drum-21	38									
Paint	7/8/2003	Drum-22	97	<0.1								
Paint	7/8/2003	Drum-23	220	0.6								
Paint	7/8/2003	Drum-24	420	0.2								
Soil	7/8/2003	N Pile Soil	120	0.3	0.3	<0.01	<2.5	<0.01	<0.005	<0.05	<0.01	
Soil	7/8/2003	Mid Pile Soil	150	0.1	<0.1	<0.01	<2.5	0.02	<0.005	<0.05	<0.01	
Soil	7/8/2003	S Pile Soil	120	0.8	0.3	<0.01	<2.5	<0.01	<0.005	<0.05	<0.01	
Soil	7/8/2003	E Fence Soil	240	4	0.6	<0.01	<2.5	<0.01	<0.005	<0.05	<0.01	

Table 5-2
Analytical Results for Confirmatory Soil Samples, 2003
BWAY, HSI Site No. 10731

Sample ID	Matrix	Location	Total Barium (mg/kg)	Total Cadmium (mg/kg)	Total Chromium (mg/kg)	Total Lead (mg/kg)	Ethylbenzene (mg/kg)	Methyl Ethyl Ketone (mg/kg)	Xylenes (mg/kg)
25' A South	Soil	Bottom	16	1.6	13	7.8	<0.110	<0.110	<0.110
25' B South	Soil	Bottom	16	1.5	13	7.4	<0.110	<0.110	<0.110
50' A Middle	Soil	Bottom	14	1.5	13	7.1	<0.120	<0.120	<0.120
50' B Middle	Soil	Bottom	15	1.3	13	7.8	<0.120	<0.120	<0.120
75' A North	Soil	Bottom	3.9	1.2	8.5	7.2	<0.110	<0.110	<0.110
75' B North	Soil	Bottom	4.3	<1.2	5.2	5	<0.110	<0.110	<0.110
CS-1	Soil	Sidewall	14	<1.2	11	4.5	<0.037	<0.074	<0.037
CS-2	Soil	Sidewall	12	<1.2	11	12	<0.0079	<0.160	<0.0079
CS-3	Soil	Sidewall	15	<1.3	10	5.5	<0.0054	<0.110	<0.0054
CS-4	Soil	Sidewall	2.5	<1.2	<1.2	<2.9	<0.005	<0.100	<0.005
CS-5	Soil	Sidewall	3.4	<1.2	<1.2	5.8	<0.006	<0.120	<0.006
CS-6	Soil	Sidewall	3.4	<1.2	1.6	2.9	<0.0042	<0.084	<0.0042

Table 8-1
Regulated Substances in Soils and Comparison to Risk Reduction Standards
BWAY, HSI Site No. 10731

Property	Regulated Substance	Highest Concentration Detected in Soil at the Site (mg/kg)	ID of Soil Sample With Highest Concentration	Type 1 RRS (mg/kg)	Type 3 RRS (mg/kg)	Comments
BWAY Drum Site	Barium	16	25' A South and 25' B South	1,000	NC	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for barium.
	Cadmium	1.6	25' A South	2	NC	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for cadmium.
	Chromium	13	25' A South, 25' B South, 50' A Middle, and 50' B Middle	100	1,200	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for chromium.
	Lead	7.8	25' A South 50' B Middle	75	400	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for lead.
Lithographic Plant	Ethylbenzene	51.4	SB-3	70	70	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for ethylbenzene.
	Methyl ethyl ketone	2.67	D-5	200	200	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for MEK.
	Methylene chloride	0.01	MW-6/SB01	0.5	0.5	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for methylene choride.
	Naphthalene	23	SB-3	27.5	100	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for naphthalene.
	Toluene	10.4	SB-3	100	100	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for toluene.
	Xylenes	27.4	SB-3	111	1,000	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for cadmium.
	Chromium	11	E-1/MW-5	100	1,200	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for chromium.
	Copper	5.84	G-2/VSB-2	100	15,000	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for copper.
	Lead	35	E-1/MW-5	75	400	Highest concentration is less than the Type 1 RRS. Soils are in compliance with the Type 1 RRS for lead.
	Zinc	288	E-1/MW-5	100	2,800	Highest concentration is less than the Type 3 RRS. Soils are in compliance with the Type 3 RRS for zinc.

Table 8-2
Regulated Substances in Ground Water and Comparison to Risk Reduction Standards
BWAY, HSI Site No. 10731

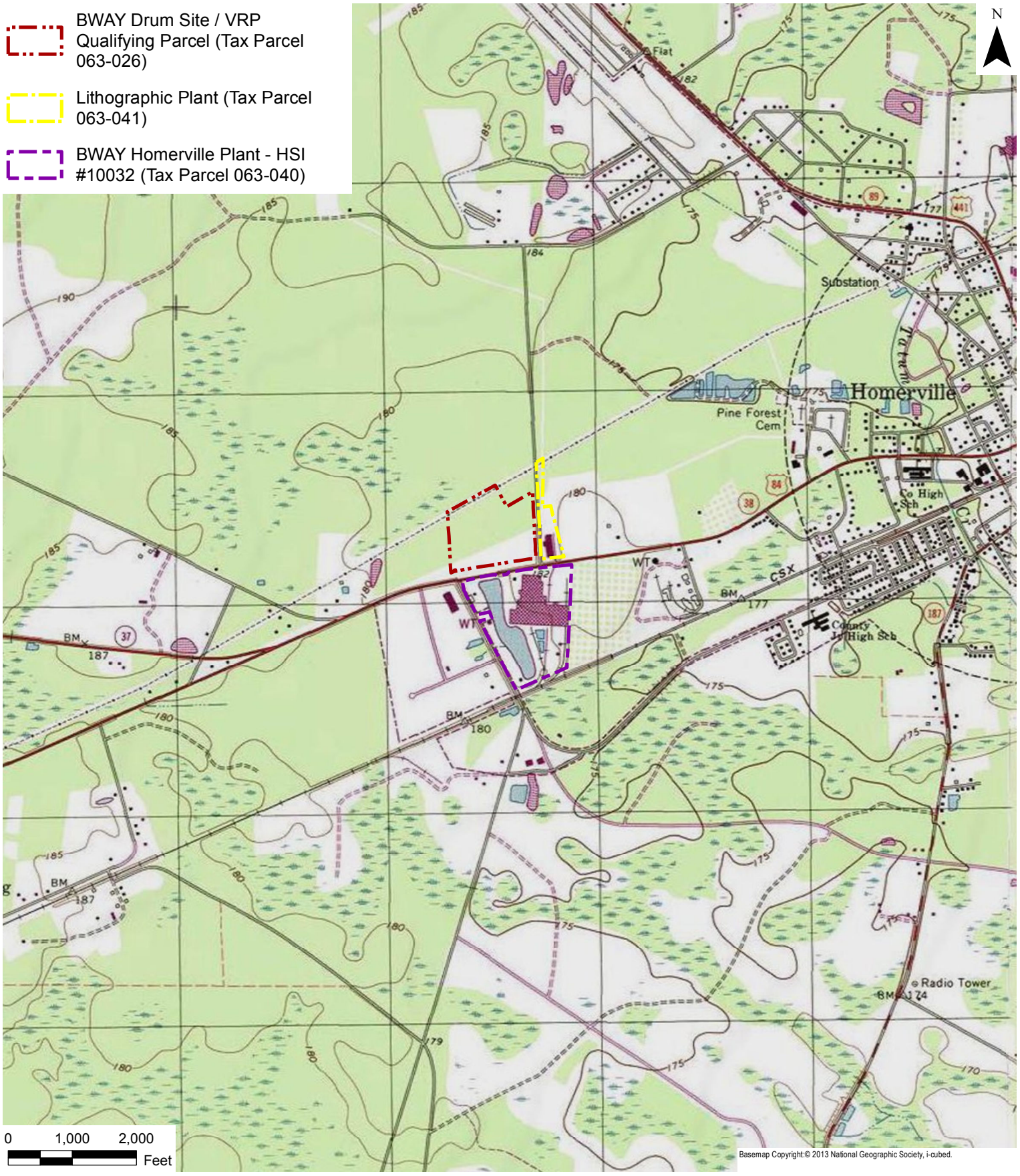
Regulated Substance	Highest Concentration Detected in Ground Water (mg/L)[1]	Well With Highest Concentration and Sampling Date[1]	Type 1 RRS (mg/L)	Type 2 RRS (mg/L)	Type 3 RRS (mg/L)	Type 4 RRS (mg/L)	Comments
Chloroethane	<0.01	All Wells Sampled	<0.005	0.629	<0.005	0.987	Highest concentration is less than the Type 2 RRS. Groundwater is in compliance with the Type 2 RRS for chloroethane.
1,1-dichloroethane	0.1	ERM-MW-18, March 2016	4	NC	NC	NC	Highest concentration is less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for 1,1-dichlorethane.
1,1-dichloroethene[2]	0.13	ERM-MW-27, March 2016	0.007	0.103	0.007	0.523	Highest concentration is less than the Type 4 RRS. Groundwater is in compliance with the Type RRS for 1,1-dichlorethene.
Ethylbenzene[2]	<0.005	All Wells Sampled	0.7	NC	NC	NC	Highest concentration is equal to the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for ethylbenzene.
Isopropylbenzene[2]	0.0065	ERM-MW-8, March 2016	<0.005	0.2	<0.005	1	Highest concentration is less than the Type 2 RRS. Groundwater is in compliance with the Type 2 RRS for isopropylbenzene.
Methyl ethyl ketone	<0.05	All Wells Sampled	2	NC	NC	NC	Highest concentration is lass than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for MEK.
Naphthalene[2]	0.039	ERM-MW-8, January 2016	0.02	0.002	0.02	0.009	Highest concentration is greater than the Type 1, 2, 3, and 4 RRS. Groundwater is not in compliance with the Type 1 - 4 RRS for naphthalene.
Toluene[2]	<0.005	All Wells Sampled	1	NC	NC	NC	Highest concentration is less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for toluene.
1,1,1-trichloroethane[2]	<0.005	All Wells Sampled	0.2	NC	NC	NC	1,1,1-TCA concentrations at all wells are less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for 1,1,1-TCA.
Vinyl chloride	0.019	ERM-MW-27, March 2016	0.002	0.0011	0.002	0.00327	Highest concentration is greater than the Type 1, 2, 3, and 4 RRS. Groundwater is not in compliance with the Type 1 - 4 RRS for vinyl chloride.
Xylenes, total[2]	<0.005	All Wells Sampled	10	NC	NC	NC	Highest concentration is less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for xylenes.
Barium[2]	0.04	MW-6, December 2004	2	NC	NC	NC	Highest concentration is less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for barium.
Cadmium[2]	<0.005	All Wells Sampled	0.005	NC	NC	NC	Cadmium concentrations at all wells are less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for cadmium.
Chromium[2]	<0.002	All Wells Sampled	0.1	NC	NC	NC	Chromium concentrations at all wells are less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for chromium.
Lead[2]	<0.005	All Wells Sampled	0.015	NC	NC	NC	Lead concentrations at all wells are less than the Type 1 RRS. Groundwater is in compliance with the Type 1 RRS for lead.

Note:
1. Based on most recent data available for each well.
2. RRS for this regulated substance approved by EPD in correspondence dated February 16, 2005.
3. NC = Not Calculated.

Figures

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700



ERM

Environmental Resources Management

DATE:	6/10/2016	SCALE:	AS SHOWN	DRAWN:	A Freeman

FILE: S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\BWay_F2-1SiteLoc.mxd

FIGURE 2-1
Site Location Map

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

Shallow Zone Monitor Well

Deep Zone Monitor Well

BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)

Former Drum Disposal Area

Pond

Off-Site Boundary

BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)

Lithographic Plant (Tax Parcel 063-041)

Note:
TOC = Top of Casing

GS = Ground Surface

Top of casing is the elevation of the PVC well in feet.

Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 6/13/2016

S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\BWay_F2-2WellLoc.mxd

FIGURE 2-2
Site Layout & Ground Water Monitoring Well Locations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

0 35 70 Feet

Analyte	SB-1		SB-2		SB-3		SB-4		SB-5		SB-6	
	(1')	(4')	(1')	(4')	(1')	(4')	(1')	(4')	(1')	(4')	(1')	(4')
Naphthalene	NA	BDL	NA	NA	NA	23	NA	NA	NA	NA	NA	NA
Ethyl Benzene	<0.005	<0.005	<0.005	1.28	<0.005	51.4	0.0094	<0.005	<0.005	<0.005	<0.005	<0.005
Xylenes	0.0069	<0.005	<0.005	1.24	<0.005	27.4	0.0061	<0.005	<0.005	<0.005	0.0058	<0.005
Toluene	<0.005	<0.005	<0.005	0.796	<0.005	10.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MEK	<0.1	<0.1	<0.1	<10	<0.1	<20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Analyte	VSB-1	MW06-SB01
Naphthalene	BDL	BDL
Ethyl Benzene	BDL	BDL
Xylenes	BDL	0.011
Toluene	BDL	<0.0068
MEK	BDL	<0.011
Methylene Chloride	BDL	0.01
Chromium	NA	2.2
Lead	NA	2.1
Zinc	NA	4.6
Copper	NA	NA
SVOCs	NA	NA

Analyte	D-1	D-2	D-3	D-4	D-5	D-6	D-7
Naphthalene	BDL	BDL	BDL	BDL	BDL	9.84	BDL
Ethyl Benzene	<0.005	0.023	<0.005	<0.1	<0.005	<0.5	<0.002
Xylenes	<0.005	0.378	<0.005	<0.1	<0.005	<0.5	<0.002
Toluene	NA	NA	NA	NA	NA	NA	NA
MEK	<0.05	<0.05	<0.05	<1	2.67	<5	<0.02
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
SVOCs	NA	NA	NA	NA	NA	NA	NA

Analyte	E-1/MW-5/NMW5-SB01	G-2/VSB-2
Naphthalene	BDL	BDL
Ethyl Benzene	BDL	BDL
Xylenes	<0.011	BDL
Toluene	<0.0068	BDL
MEK	<0.011	BDL
Methylene Chloride	<0.0032	BDL
Chromium	11	6.26
Lead	35	23.3
Zinc	288	67
Copper	NA	5.84
SVOCs	NA	BDL

HWY 84

VSB-1
MW-6R
MW-06 / SB-01
ERM-MW-28
E-1 / MW-5 / NMW-5-SB01
MW-5
SB-4
SB-1
SB-6
SB-5
SB-3
SB-2
G-2 / VSB-2
D-6
D-5
D-4
D-3
D-2
D-1
D-7
ERM-MW-8
Woodlake Dr
ERM-MW-1
ERM-MW-13
ERM-MW-14
ERM-MW-10
ERM-MW-3
ERM-MW-7
ERM-MW-11
ERM-MW-9

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

Historical Soil Samples

- Soil Samples (1993)
- Soil Samples (1994 by Golder)
- Soil Boring Samples (1995 by Golder)
- Excavation Samples (1995 by SRI)

Off-Site Boundary

- Lithographic Plant (Tax Parcel 063-041)

Note:
Sample results in mg/kg.

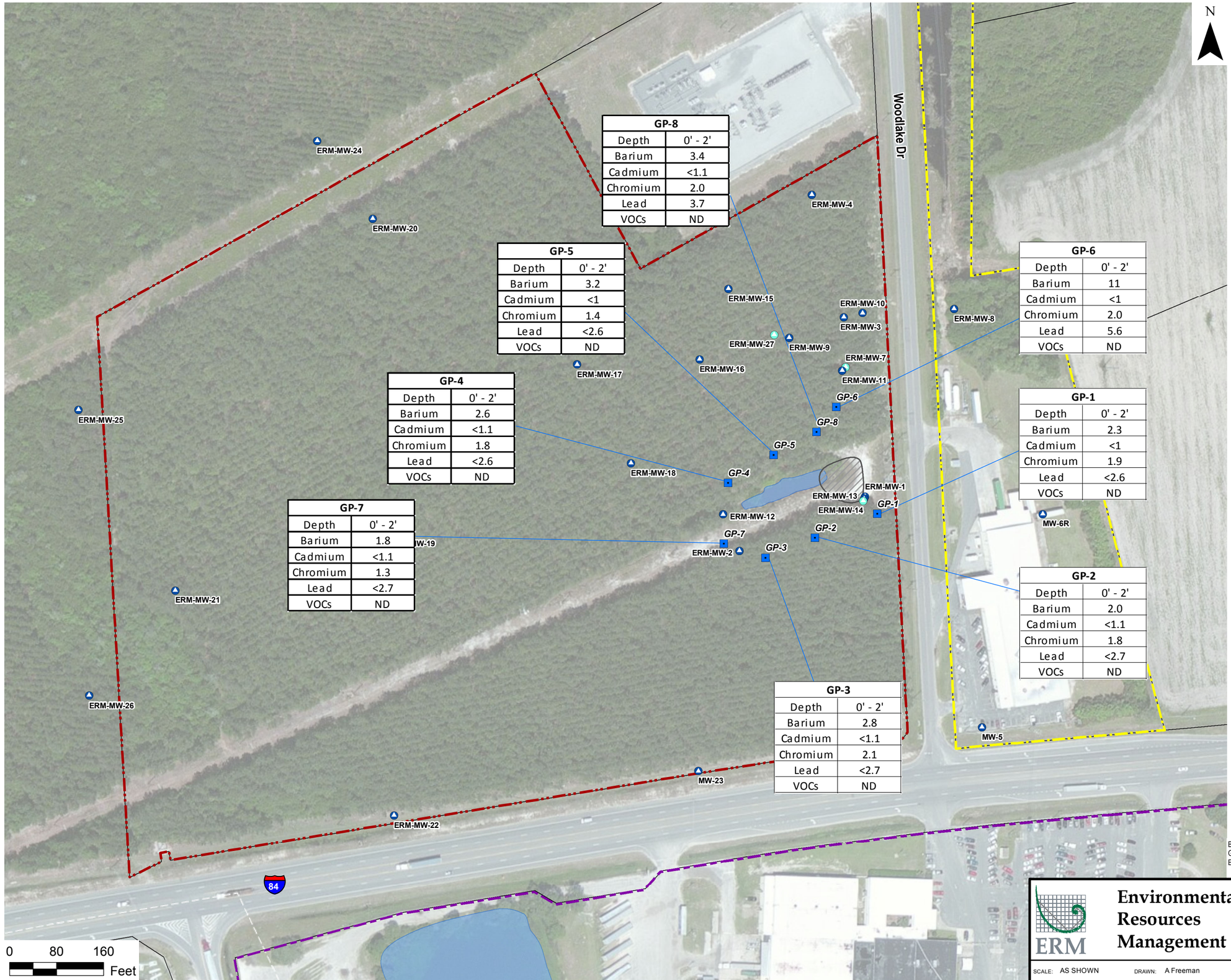
Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 6/10/2016

S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\BWay_F3-1LithoSoil.mxd

FIGURE 3-1 - Lithographic Plant Soil Boring & Sample Locations and Analytical Results (mg/kg)

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



GP-8	
Depth	0' - 2'
Barium	3.4
Cadmium	<1.1
Chromium	2.0
Lead	3.7
VOCs	ND

GP-5	
Depth	0' - 2'
Barium	3.2
Cadmium	<1
Chromium	1.4
Lead	<2.6
VOCs	ND

GP-6	
Depth	0' - 2'
Barium	11
Cadmium	<1
Chromium	2.0
Lead	5.6
VOCs	ND

GP-4	
Depth	0' - 2'
Barium	2.6
Cadmium	<1.1
Chromium	1.8
Lead	<2.6
VOCs	ND

GP-1	
Depth	0' - 2'
Barium	2.3
Cadmium	<1
Chromium	1.9
Lead	<2.6
VOCs	ND

GP-7	
Depth	0' - 2'
Barium	1.8
Cadmium	<1.1
Chromium	1.3
Lead	<2.7
VOCs	ND

GP-2	
Depth	0' - 2'
Barium	2.0
Cadmium	<1.1
Chromium	1.8
Lead	<2.7
VOCs	ND

GP-3	
Depth	0' - 2'
Barium	2.8
Cadmium	<1.1
Chromium	2.1
Lead	<2.7
VOCs	ND

Legend

- Soil Boring Location
- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
Results from soil samples obtained September 16, 2003.

Sample results in mg/kg.

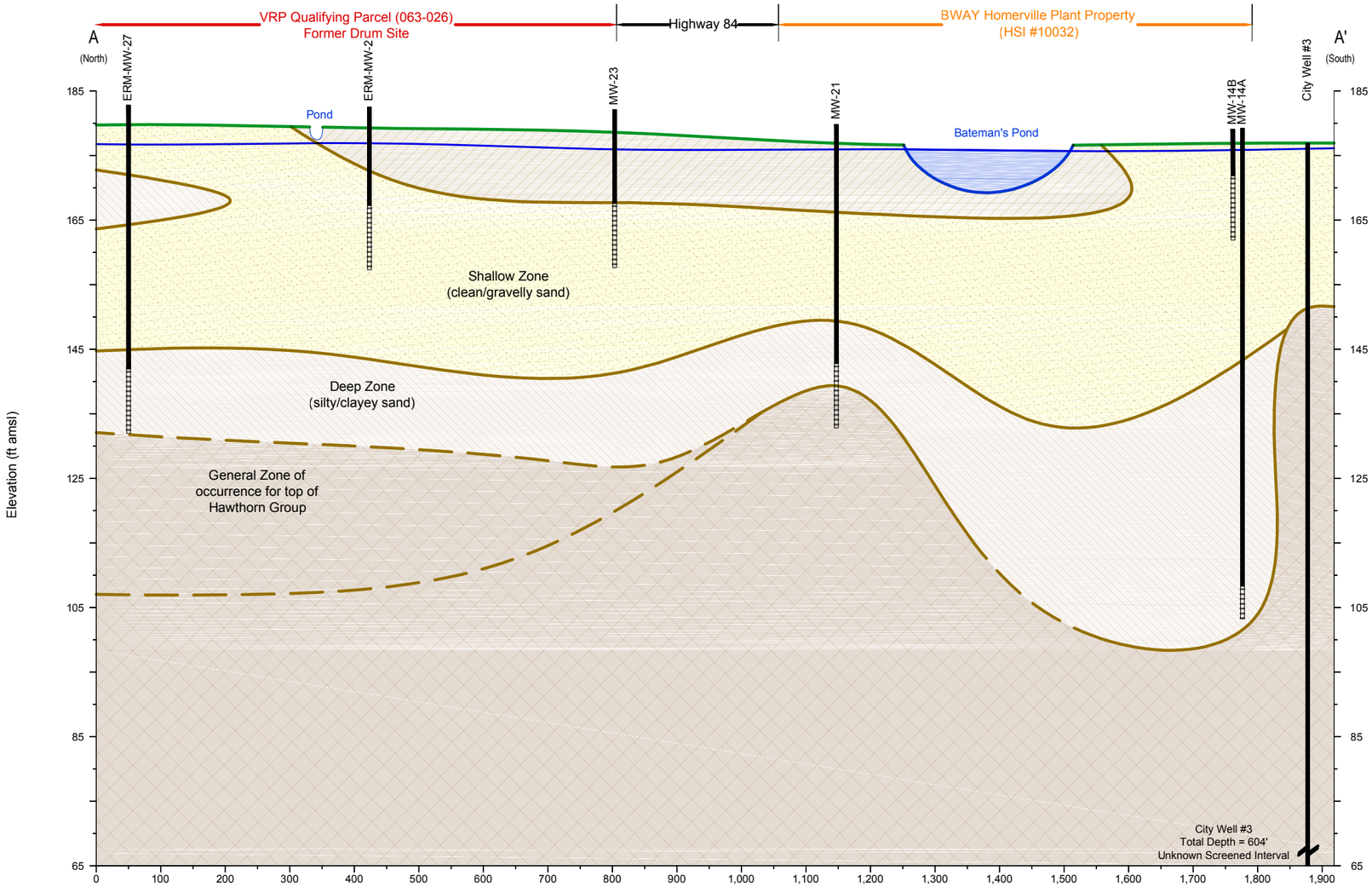
Environmental Resources Management

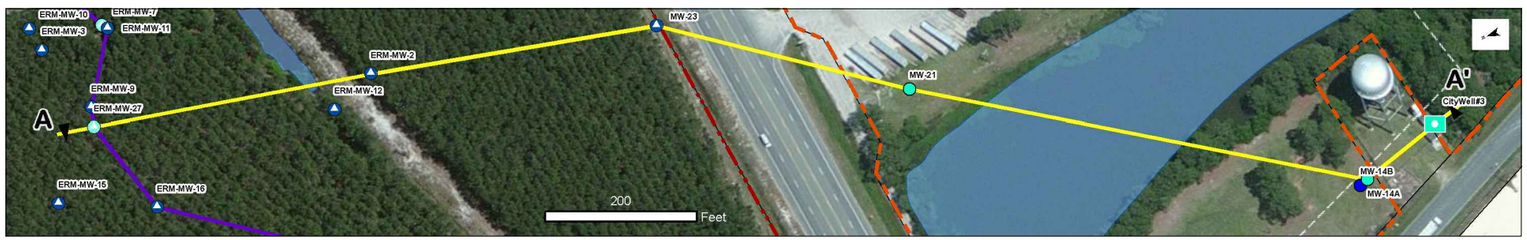
SCALE: AS SHOWN DRAWN: A Freeman DATE: 6/10/2016

S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\BWay_F4-1DrumSiteSoil.mxd

FIGURE 4-1 - BWAY Drum Site Soil Boring Locations and Analytical Results (mg/kg)

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia





Legend

- Monitor Well Riser
- Monitor Well Screened Interval
- Estimated Ground Surface
- Approximate Water Table Surface
- Lithologic Boundary
- Approximate/estimated Lithologic Boundary

VE = Vertical Exaggeration

Pleistocene to Recent Age

- SP and SW - medium/ coarse gravelly SAND
- SC and SM - silty/ clayey SAND
- CL - CLAY with sand

Miocene Age

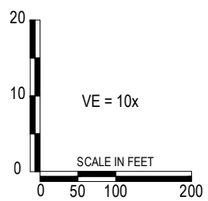
- CL* - Hawthorn Group upper confining unit

Notes

Lithological Profiles for wells MW-14A, MW-14B, MW-21, MW-23, and City Well #3 were adapted from figures in the CRA 2012 CAP(Ref No. 006975(17))

Bold - Analyte exceeds Type 1 RRS
NM - Not analyzed for
a - Sample result from March 2015. Well not sampled in March 2016
b - May 2012 data from GHD (formerly CRA) report dated August 2012
1,1-DCA - 1,1-dichloroethane
1,1-DCE - 1,1-dichloroethene

Analyte	Type 1 RRS	Groundwater Concentrations	ERM MW-27	ERM MW-2[a]	MW-23	MW-21[b]	MW-14B[b]	MW-14A[b]	MW-14B[b]
1,1-DCA	4000		76	< 5	< 5	25	< 5	< 5	< 5
1,1-DCE	7		**130**	< 5	< 5	**280**	< 5	< 5	< 5
Isopropylbenzene	5		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	20		< 5	< 5	< 5	NA	NA	NA	NA
Vinyl Chloride	2		**19**	< 2	< 2	< 2	< 2	< 2	< 2

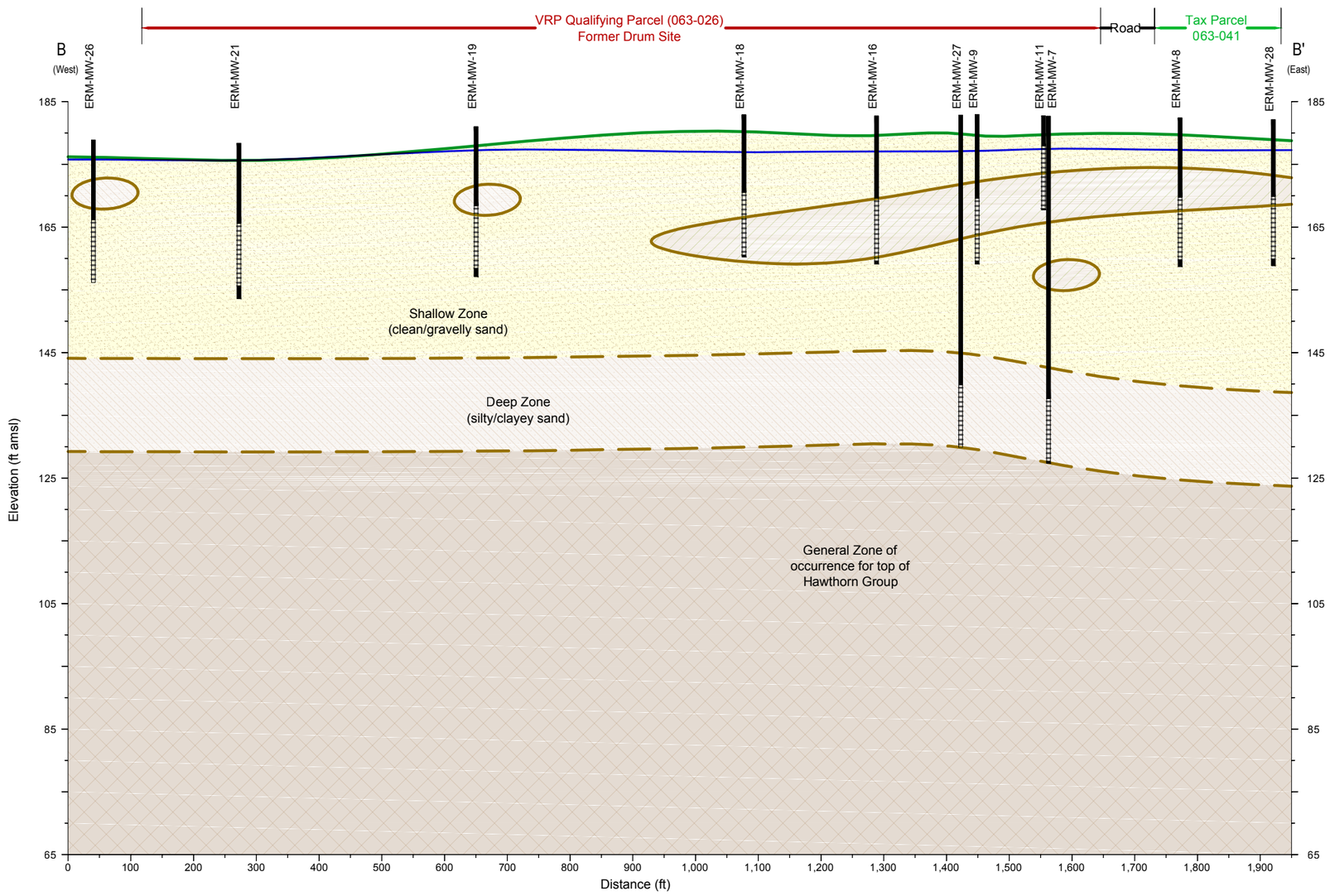


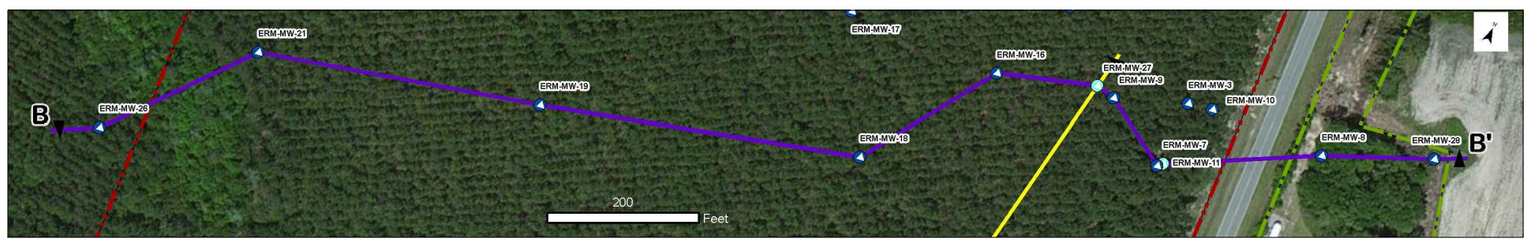
Environmental Resources Management

FIGURE 4-2
GENERALIZED GEOLOGIC CROSS-SECTION A - A'
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

DESIGN: AS	DRAWN: AF	CHKD.: AS
DATE: 6/22/2016	SCALE: AS SHOWN	REV.: 1

W.O.NO.: S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\X-Secs_BWay_20160525.dwg





Legend

- Monitor Well Riser
- Monitor Well Screened Interval
- Estimated Ground Surface
- Approximate Water Table Surface
- Lithologic Boundary
- Approximate/estimated Lithologic Boundary

VE = Vertical Exaggeration

Pleistocene to Recent Age

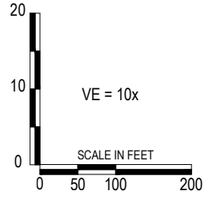
- SP and SW - medium/ coarse gravelly SAND
- SC and SM - silty/ clayey SAND
- CL - CLAY with sand

Miocene Age

- CL* - Hawthorn Group upper confining unit

Notes

Bold - Analyte exceeds Type 1 RRS
NM - Not analyzed for
a - Sample result from January 2016. Well not sampled in March 2016
b - Sample result from March 2015. Well not sampled in March 2016
1,1-DCA - 1,1-dichloroethane
1,1-DCE - 1,1-dichloroethene



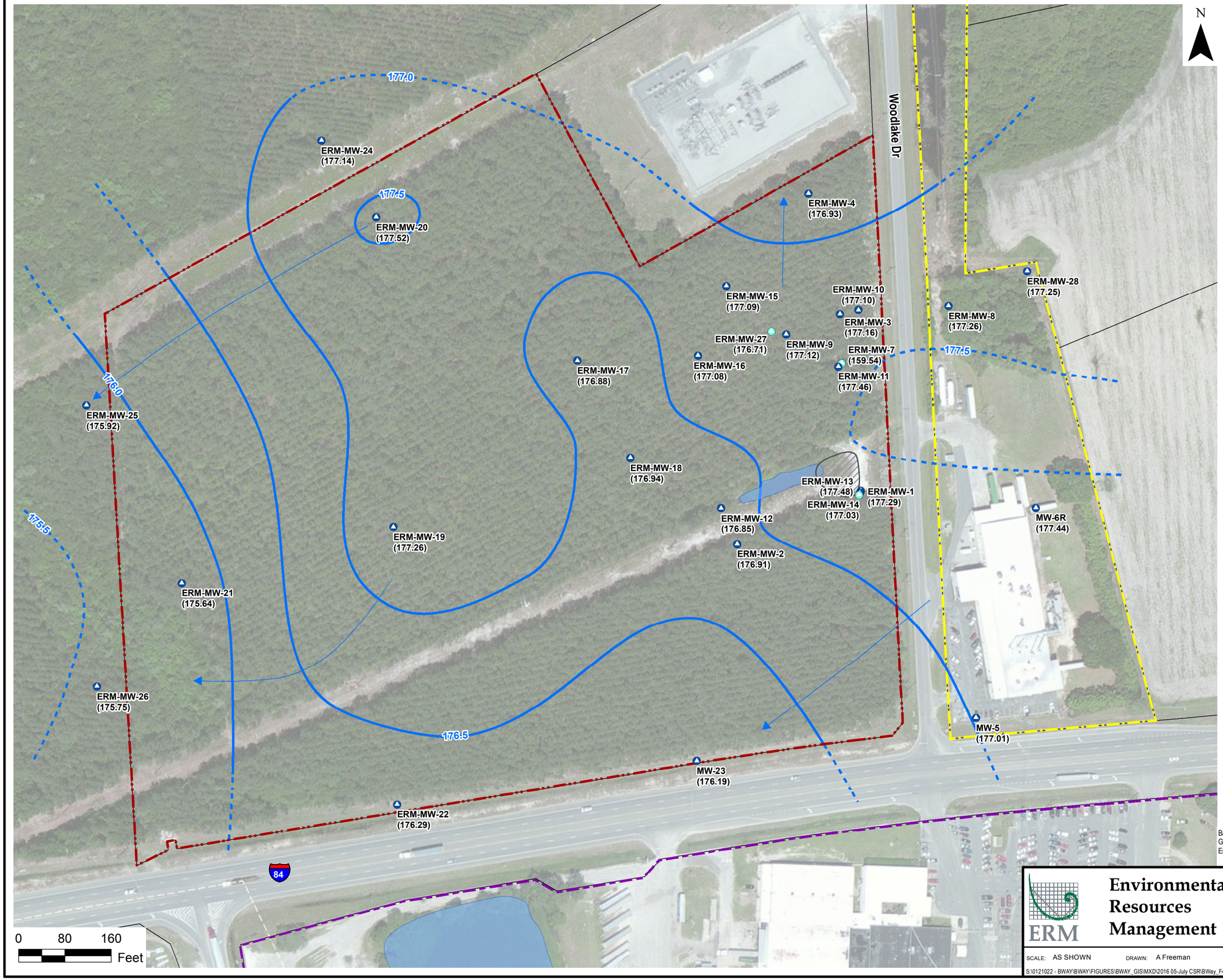
Analyte	Type 1 RRS		ERM MW-26	ERM MW-21	ERM MW-19	ERM MW-18	ERM MW-16[b]	ERM MW-27	ERM MW-9	ERM MW-11[b]	ERM MW-7	ERM MW-8[a]	ERM MW-28
1,1-DCA	4000	Groundwater Concentrations	< 5	< 5	9.9	100	7.6	76	6.9	< 5	21	< 5	< 5
1,1-DCE	7		< 5	**13**	**25**	**23**	**7.8**	**130**	< 5	< 5	**8.6**	< 5	< 5
Isopropylbenzene	5		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	**6.5**	< 5
Naphthalene	20		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	**39**	< 5
Vinyl Chloride	2		< 2	< 2	< 2	**9.0**	**6.5**	**19**	**5.4**	< 2	**4.5**	< 2	< 2

Environmental Resources Management

FIGURE 4-3
GENERALIZED GEOLOGIC CROSS-SECTION B - B'
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

DESIGN: AS	DRAWN: AF	CHKD.: AS
DATE: 6/22/2016	SCALE: AS SHOWN	REV.: 1

W.O.NO.: S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\X-Secs_BWay_20160525.dwg



Legend

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond
- Apparent Potentiometric Surface
- Apparent Potentiometric Surface (Inferred)
- Apparent Ground Water Flow Direction

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
Deep Zone wells ERM-MW-7, ERM-MW-14, and ERM-MW-27 were not used for contouring.

ERM Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/15/2016

S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\BWay_F4-4ShalGWElev_032816.mxd

FIGURE 4-4
Unconfined Shallow Aquifer Potentiometric Surface Map
March 28, 2016
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

Legend

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

1,1-Dichloroethane (1,1-DCA) Concentration

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
(21) 1,1-Dichloroethane (1,1-DCA) Concentration

All concentrations in micrograms per liter (µg/L)

Concentrations are from March 2016 unless otherwise noted

* = March 2015 Result

** = January 2016 Result

ND = Non Detect

Type 1 RRS = 4,000 ug/L

Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/19/2016

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FIGURE 4-5
1,1-Dichloroethane Concentrations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

N

Woodlake Dr

ERM-MW-24 (ND)

ERM-MW-20 (9.5)*

ERM-MW-4 (ND)*

ERM-MW-15 (ND)

ERM-MW-10 (ND)*

ERM-MW-27 (130)

ERM-MW-3 (ND)*

ERM-MW-9 (ND)

ERM-MW-8 (ND)**

ERM-MW-28 (ND)

ERM-MW-17 (5.5)

ERM-MW-16 (7.8)*

ERM-MW-7 (8.6)

ERM-MW-11 (ND)*

ERM-MW-25 (ND)

7.0

ERM-MW-18 (23)

ERM-MW-13 (ND)*

ERM-MW-1 (ND)

ERM-MW-14 (ND)

ERM-MW-12 (ND)*

MW-6R (ND)*

ERM-MW-19 (25)

ERM-MW-2 (ND)*

ERM-MW-21 (13)

ERM-MW-26 (ND)

7.0

MW-5 (ND)*

MW-23 (ND)

ERM-MW-22 (ND)

84

0 80 160 Feet

Legend

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

1,1-Dichloroethene (1,1-DCE) Concentration

- > 7.0 µg/L Type 1 RRS

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
(23) 1,1-Dichloroethene (1,1-DCE) Concentration

All concentrations are in micrograms per liter (µg/L)

Concentrations are from March 2016 unless otherwise noted

Deep zone wells ERM-MW-7 and ERM-MW-27 were not used for contouring

* = March 2015 Result

** = January 2016 Result

ND = Non Detect

Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/19/2016

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FIGURE 4-6
1,1-Dichloroethene Concentrations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

Legend

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

Isopropylbenzene Concentration

- > 5.0 µg/L Type 1 RRS

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
(6.5) Isopropylbenzene Concentration

All concentrations are in micrograms per liter (µg/L)

Concentrations are from March 2016 unless otherwise noted

* = March 2015 Result

** = January 2016 Result

ND = Non Detect

Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/15/2016

S:\0121022 - BWAY\BWAY\FIGURES\BWAY_GIS\MXD\2016 05-July CSR\BWay_F4-7ShallPB_032016.mxd

FIGURE 4-7
Isopropylbenzene Concentrations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

Legend

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

Naphthalene Concentration

- > 20 µg/L Type 1 RRS

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
(37) Naphthalene Concentration

All concentrations are in micrograms per liter (µg/L)

Concentrations are from March 2016 unless otherwise noted

* = March 2015 Result

** = January 2016 Result

ND = Non Detect

Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/15/2016

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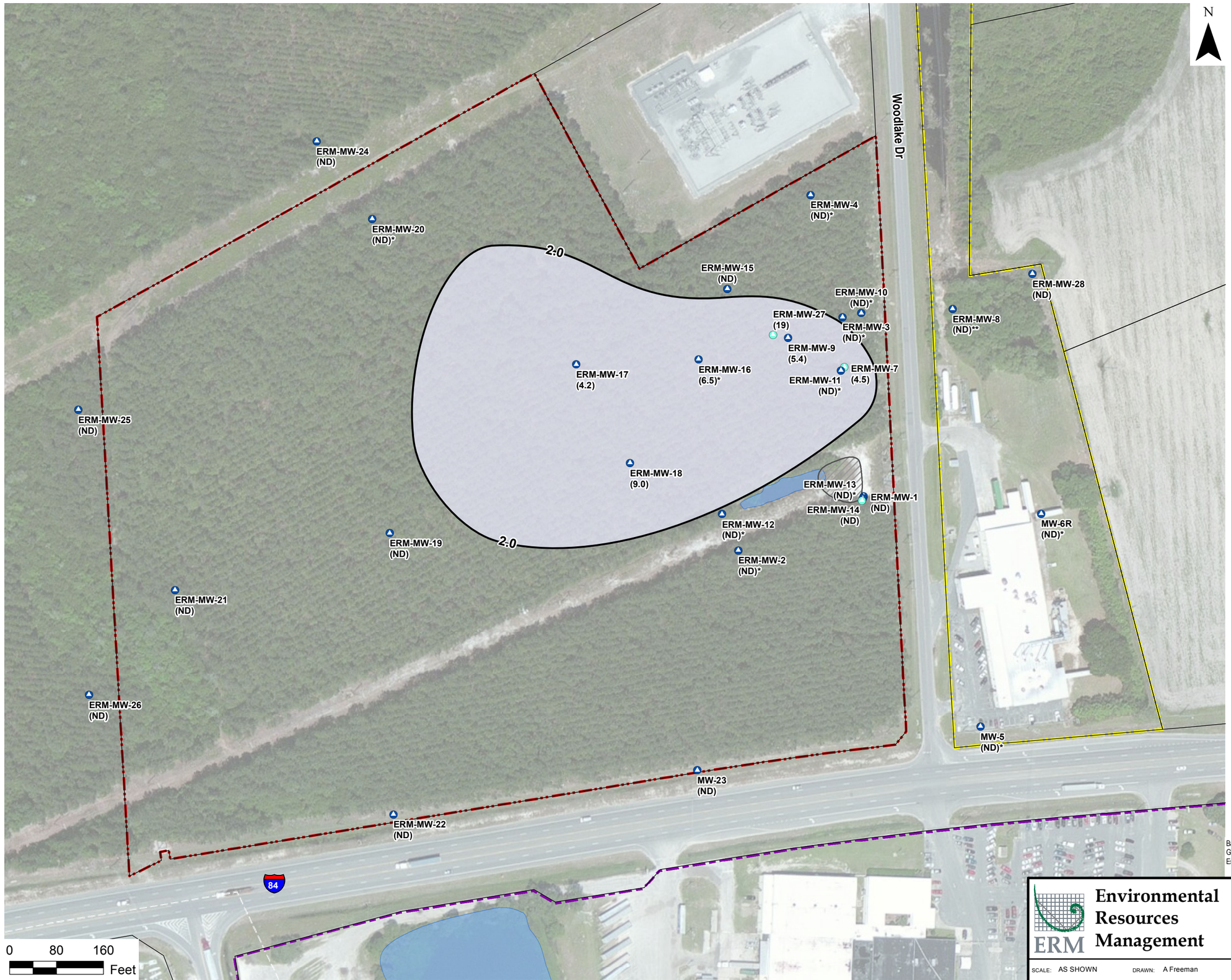
FIGURE 4-8
Naphthalene Concentrations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



Legend

- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

Vinyl Chloride Concentration

- > 2.0 µg/L Type 1 RRS

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
(9.0) Vinyl Chloride Concentration

All concentrations are in micrograms per liter (µg/L)

Concentrations are from March 2016 unless otherwise noted

* = March 2015 Result

** = January 2016 Result

ND = Non Detect

Environmental Resources Management

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/15/2016

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FIGURE 4-9
Vinyl Chloride Concentrations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

Legend

- Confirmation Soil Sample Location
- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- BWAY Drum Site / VRP Qualifying Parcel (Tax Parcel 063-026)
- Former Drum Disposal Area
- Pond

Off-Site Boundary

- BWAY Homerville Plant - HSI #10032 (Tax Parcel 063-040)
- Lithographic Plant (Tax Parcel 063-041)

Note:
Excavation area extents and confirmatory soil sample locations are approximate. Locations based on field observation. Excavation area extent is believed to be the former drum disposal area.

Environmental Resources Management

FIGURE 5-1 - BWAY Drum Site Extent of Excavated Area and Confirmatory Soil Sample Locations

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

SCALE: AS SHOWN DRAWN: A Freeman DATE: 7/7/2016

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Groundwater Sampling Logs
January 2016 (ERM-MW-28) and March 2016

Appendix A

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022.03 | Sampling Date: 1-26-16

Site/Location: Homerville, GA | Sampler's Name: B. Fischer

Well ID: ERM-MW-28 | Pump Type/Model: Peristaltic | Sample Collection Time: 1325

Total Depth (ft)[1]: 22.46 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 0.1

Depth to Water (ft): 5.88 | Pump Intake Depth (ft): ~17.4 | Sample ID: ERM-MW-28-20160126-01

Well Diameter (in): 2.0 | Start/Stop Purge Time: 1144 / 1322 | QA/QC Collected? Yes

Well Volume (gal) = 0.041d²h: 2.72 gal / 10.3 L | Purge Rate (L/min)[2]: 0.4 / 0.1 | QA/QC I.D. DUP-01-20160126-01

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 33.2 | Laboratory Analyses: VOC + Naphthalene

Well Condition: Good | Sampling Method (check all that apply): ☑ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

Purge Method: Low Flow (3 well vol) ☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1145	19.01	0.132	5.88	5.51	83.5	1.84	0.4	6.01	
1210	19.01	0.083	1.98	4.58	52.7	1.57	10.4	6.08	1 vol
1236	19.11	0.086	2.20	4.53	50.7	1.38	20.8	6.07	2 vol
1302	19.10	0.088	2.34	4.49	53.4	0.61	31.2	6.07	3 vol
1307	19.28	0.087	2.18	4.48	53.6	0.92	31.7	5.95	Flow Rate = 0.1 L/min
1312	19.13	0.088	2.21	4.53	54.3	1.74	32.2	5.95	
1317	19.16	0.087	2.21	4.52	55.0	0.91	32.7	5.95	
1322	19.23	0.087	2.23	4.53	55.7	0.44	33.2	5.95	
	Parameters	Stable,	Well	Ready	To	Sample			
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/28/16

Site/Location: Homerville, GA | Sampler's Name: W. Virgo

Well ID: ERM-MW-1 | Pump Type/Model: ~~Teflon~~ Alexis Peri | Sample Collection Time: 1800

Total Depth (ft)[1]: 22' | Tubing Material: Teflon/LDPE | Sample Purge Rate (L/min)[3]: Grav.

Depth to Water (ft): ~~2~~ 4.87 | Pump Intake Depth (ft): ~17' | Sample ID: ERM-MW-1-20160328-01

Well Diameter (in): 2" | Start/Stop Purge Time: 1630 / 1756 | QA/QC Collected? NO

Well Volume (gal) = 0.041d²h: 2.8 gal / 10.6L | Purge Rate (L/min)[2]: ~0.5 - 0.25 L/min | QA/QC I.D. —

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): ~38 | Laboratory Analyses: VOCs

Well Condition: Good | Sampling Method (check all that apply): ☒ ~~soda~~ straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1635	19.79	0.251	0.64	6.29	-34.7	168	2.5	5.11'	
1652	19.47	0.174	1.33	5.96	-15.0	47.9	11	5.12	
1714	19.48	0.151	0.60	5.97	-13.6	16.5	22	5.12	
1736	19.42	0.145	0.29	5.96	-10.9	7.90	33	5.12	
1741	19.87	0.148	0.25	5.98	-13.4	9.66	34.25	5.00	
1746	20.29	0.150	0.24	6.00	-14.8	7.49	35.5	5.00	
1751	19.93	0.151	0.22	6.00	-15.4	7.62	36.75	5.00	
1756	19.84	0.151	0.20	6.00	-13.9	8.72	38	5.00	
	Well	Parameters			Stable	✓	1756		
	Well		Sampled		✓	1800			
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/30/12

Site/Location: Homerville, GA | Sampler's Name: MR

Well ID: MW-7 | Pump Type/Model: Mega Monsoon XL | Sample Collection Time: 1735

Total Depth (ft)[1]: 52.4 | Tubing Material: LDPE | Sample Purge Rate (L/min)[3]: .2

Depth to Water (ft): 23.19 | Pump Intake Depth (ft): 47 | Sample ID: ERM-MW-7-033012-01

Well Diameter (in): 2 | Start/Stop Purge Time: 1410 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 4.79 gal / 18.12 L | Purge Rate (L/min)[2]: .5 - 1.0 L/min | QA/QC I.D. —

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 49.5 | Laboratory Analyses: VOCs

Well Condition: Good | Sampling Method (check all that apply): ☑ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1415	20.80	0.064	0.89	5.11	133.7	900	2.5	36.70	
1433	21.75	0.065	2.83	5.35	136.5	249	20.5	39.85	1st WV
1451	21.31	0.054	0.80	5.05	157.9	OR	38.5	48.90	2nd WV
1502	Well Went Dry after						49.5	50.87	Well dry will sample after recharge
	chasing the WL down					w/tubing			
	21.18	0.063	5.8	5.41	126.3	OR			
	Sampling at 1735								
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/29/16

Site/Location: Homerville, GA | Sampler's Name: W. Virgo

Well ID: ERM-MW-9 | Pump Type/Model: Alexis Peri | Sample Collection Time: 0955

Total Depth (ft)[1]: 20.5' | Tubing Material: Teflon lined Poly | Sample Purge Rate (L/min)[3]:

Depth to Water (ft): 5.97 | Pump Intake Depth (ft): ~ 15' | Sample ID: ERM-MW-9-20160329-01

Well Diameter (in): 2" | Start/Stop Purge Time: 0838/0952 | QA/QC Collected? NO

Well Volume (gal) = 0.041d²h: 2.4 gal / 9 L | Purge Rate (L/min)[2]: ~0.5 - 0.25 | QA/QC I.D.

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 38 L | Laboratory Analyses: VOCs

Well Condition: Good | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0843	18.52	0.422	0.78	5.08	51.2	11.3	7.5	6.02	
0856	18.46	0.347	1.82	5.35	62.9	26.1	9	6.02	Vol 1
0914	18.47	0.285	0.38	5.37	62.1	12.9	18	6.02	Vol 2
0932	18.72	0.252	0.31	5.42	58.1	6.27	27	6.02	Vol 3
0937	18.36	0.251	0.28	5.44	56.5	5.94	28.25	5.98	
0942	18.37	0.250	0.28	5.42	60.0	5.77	29.90	5.98	
0947	18.35	0.250	0.26	5.39	63.7	5.33	30.75	5.98	
0952	18.35	0.252	0.27	5.39	65.0	5.41	32	5.98	
	Well Parameters Stable @ 0952								
	Well Sampled @					0957			
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/30/16

Site/Location: Homerville, GA | Sampler's Name: M. R

Well ID: MW-14 | Pump Type/Model: Alexis Peristoltic | Sample Collection Time: 1320

Total Depth (ft)[1]: 35 | Tubing Material: Teflon Poly | Sample Purge Rate (L/min)[3]: Grv Feed

Depth to Water (ft): 5.21 | Pump Intake Depth (ft): 30 -> 32 | Sample ID: ERM-MW-14-20160330-01

Well Diameter (in): 2 | Start/Stop Purge Time: 1210 / 1256 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 4.8 gal / 18.46 L | Purge Rate (L/min)[2]: ~.5-.7 L/min | QA/QC I.D. -

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): ~22.5 | Laboratory Analyses: VOC's

Well Condition: Good | Sampling Method (check all that apply): ☑ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1215	20.14	0.043	1.08	4.39	193.9	7.55	2.5	8.6	
1252 1258	20.22	0.043	0.72	4.60	209.3	5.27	21.0	29.5	1st WV will most likely go dry
1255	20.37	0.043	0.66	4.56	211.1	10.5	22.5	31.2	Lowered tubing 2ft
		Dry	at 1256						
	Will let	recharge		then	sample				
	Sampling @ 1320								
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/30/16

Site/Location: Homerville, GA | Sampler's Name: M. Lon

Well ID: MW-15 | Pump Type/Model: Proactive Alexis Peristaltic | Sample Collection Time: 1123

Total Depth (ft)[1]: 19 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 100 mL/min

Depth to Water (ft): 5.49 | Pump Intake Depth (ft): 14 feet | Sample ID: ERM-MW-15-20160330-01

Well Diameter (in): 2" | Start/Stop Purge Time: 926 – Stop @ 1119 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 2.2 Gallons = 8.5 Liters | Purge Rate (L/min)[2]: 0.25 L/min | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 30 L | Laboratory Analyses: 8260 – Short List

Well Condition: Good | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
943	18.1	50	1.61	4.40	154	5.6	4 L	5.52	clear – No odor
951	18.1	50	1.37	4.42	157	5.5	2 L	5.52	clear – No odor – Purge Rate = 0.29 L/min
1001	18.1	50	1.14	4.43	162	5.2	3 L	5.52	clear – No odor – Purge Rate = 0.30 L/min
1015	18.2	50	0.84	4.46	165	3.4	4 L	5.53	clear – No odor – Purge Rate ~ 0.29 L/min
1029	18.3	50	0.75	4.46	168	2.0	3 L	5.53	clear – No odor – Purge Rate = 0.22 L/min
1036	18.4	50	0.69	4.49	168	1.3	2 L	3.53	clear – No odor – Purge Rate = 0.29 L/min
1050	18.4	50	0.66	4.49	170	1.4	4 L	5.53	clear – No odor
1102	18.5	50	0.59	4.51	171	1.00	3 L	5.53	" " " – Purge Rate = 0.25 L/min
1109	18.6	50	0.55	4.50	171	0.85	2 L	5.53	clear – No odor
1113	18.6	50	0.52	4.50	172	1.00	1 L	5.53	clear – Purge Rate ~ 0.25 L/min
1116	18.6	50	0.52	4.51	172	1.00	1 L	5.53	" " "
1119	18.6	50	0.52	4.51	172	1.00	1 L	5.53	" "
1123	—	MW 15	collected						
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/30/16

Site/Location: Homerville, GA | Sampler's Name: MJ Leon

Well ID: MW-17 | Pump Type/Model: Proactive - Alexa Peristaltic pump | Sample Collection Time: 17:25

Total Depth (ft)[1]: 20 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 100 mL/min

Depth to Water (ft): 6.00 | Pump Intake Depth (ft): 15 feet | Sample ID: ERM-MW-17-20160330-01

Well Diameter (in): 2" | Start/Stop Purge Time: 15:14 - stop @ 1720 | QA/QC Collected? Yes

Well Volume (gal) = 0.041d²h: 2.3 Gallons - 8.6 Liter | Purge Rate (L/min)[2]: 0.25 | QA/QC I.D. ERM-MW Dup-20160330-02

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 32 | Laboratory Analyses: 8260 Short List

Well Condition: OK | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1531	19.9	40	0.65	4.47	229	15	4	6.12	Clear - No odor -
1539	20.1	50	0.52	4.55	220	14	2	6.12	Clear - No odor - Purge Rate 0.25 L/min
1552	20.0	50	0.41	4.61	212	7.4	3	6.12	Clear - No odor - Purge Rate 0.23 L/min
1601	19.9	50	0.33	4.64	206	6.3	2	6.12	Clear - No odor - Purge Rate = 0.22
1614	20.2	50	0.28	4.69	203	4.0	3	6.12	Clear - No odor - " " = 0.23
1629	20.3	50	0.24	4.64	203	3.1	4	6.12	Clear - No odor - " " = 0.27
1645	20.3	50	0.21	4.68	201	5.0	4	6.12	Clear - No odor - " " = 0.25 L/min
1659	20.4	50	0.19	4.73	200	2.0	3	6.12	Clear - No odor - " " = 0.22 L/min
1708	20.0	50	0.18	4.69	197	1.5	2	6.12	Clear No odor " " 0.22
1712	19.9	50	0.18	4.73	196	1.5	1	6.12	Clear - No odor - 0.25 L/min
1716	19.9	50	0.17	4.77	195	1.1	1	6.12	Clear - No odor - 0.25 L/min
1720	19.8	50	0.17	4.74	193	1.0	1	6.12	Clear - No odor - 0.25 L/min
1725 - MW 17 collected.									
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/30/16

Site/Location: Homerville, GA | Sampler's Name: M Leon

Well ID: ERM-MW 18 | Pump Type/Model: Proactive - Alexis Peristaltic | Sample Collection Time: 1419

Total Depth (ft)[1]: 20 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 100 mL/min

Depth to Water (ft): 6.33 | Pump Intake Depth (ft): 15 feet | Sample ID: ERM-MW 18-20160330-01

Well Diameter (in): 2" | Start/Stop Purge Time: 1216 - Stop @ 1416 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 2.3 Gal = 8.5 L | Purge Rate (L/min)[2]: 0.25 L/min | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 32 L | Laboratory Analyses: 8260 Short List

Well Condition: OK | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1233	19.5	40	1.85	457	221.0	14.4	4	6.57	Clear - No odor -
1241	19.4	40	1.57	457	226	9.9	2	6.57	Clear - No odor
1251	19.6	40	1.05	453	229	6.0	3	6.57	Clear - No odor — Purge Rate 0.3 L/min
1307	19.8	40	0.64	4.59	210	2.8	4	6.57	Clear - No odor -> Purge Rate 0.25 L/min
1315	19.7	40	0.61	4.62	205	2.0	2	6.57	Clear - No odor - Purge @ 0.25 L/min
1324	19.7	40	0.63	4.65	202	2.3	3	6.57	
1344	19.8	40	0.54	4.73	189	1.3	5	6.57	Clear - No odor - Purge Rate 0.25 L/min
1351	19.9	40	0.49	4.71	190	1.3	2	6.57	Clear - No odor -
1357	19.8	40	0.48	4.75	187	1.0	2	6.57	Clear - No odor
1409	19.8	40	0.41	4.74	185	1.0	3	6.57	Clear - No odor
1413	19.8	40	0.39	4.73	185	0.80	1	6.57	Clear - No odor
1416	19.9	40	0.41	4.74	186	1.0	1	6.57	Clear - No odor
1419	—	MW 18	collected	-					
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3-31-16

Site/Location: Homerville, GA | Sampler's Name: MR

Well ID: MW-19 | Pump Type/Model: Alexis Peristaltic | Sample Collection Time: 1306

Total Depth (ft)[1]: 20.9 | Tubing Material: Teflon poly | Sample Purge Rate (L/min)[3]: Grav feed

Depth to Water (ft): 4.29 | Pump Intake Depth (ft): 15 | Sample ID: ERM-MW-19-033116-01

Well Diameter (in): 2 | Start/Stop Purge Time: 1137/1303 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 2.7gal/10.29 L | Purge Rate (L/min)[2]: .5 ~ .2 L/min | QA/QC I.D. —

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): | Laboratory Analyses: VOC's

Well Condition: Good | Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1142	19.68	0.052	3.52	5.16	95.61	24.3	1.0	4.51	Increase rate to .5 L/min
1204	18.65	0.051	1.45	4.83	150.3	6.89	12.0	4.63	1st WV
1226	18.66	0.052	1.50	4.87	163.9	3.47	[redacted]	4.67	2nd WV 23 L
1248	18.61	0.052	1.50	4.87	171.5	3.46	[redacted]	4.71	3rd WV 34 L
1253	19.16	0.053	1.48	4.93	169.4	1.74	35L	4.49	reduce rate to .2 L/min
1258	19.45	0.051	1.34	4.91	169.8	355	36L	4.41	
1303	19.54	0.052	1.36	4.92	169.1	3.00	37L	4.41	
Parameters Stable, well can be Sampled									
	Sampled @ 1306								
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

16.61

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/31/16

Site/Location: Homerville, GA | Sampler's Name: M. Lisw

Well ID: ERM - MW 21 | Pump Type/Model: Proactive - Alexis @ .8 | Sample Collection Time:

Total Depth (ft)[1]: 22 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 100 mL/min

Depth to Water (ft): 2.67 | Pump Intake Depth (ft): 16 feet | Sample ID: ERM-MW-21-20163103-D1

Well Diameter (in): 2" | Start/Stop Purge Time: Start @ 929 - Stop | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 3.20 Gall = 12L | Purge Rate (L/min)[2]: 0.16 L/min | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 60 L | Laboratory Analyses: 8260 Short List

Well Condition: OK | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1032	18.8	150	0.18	5.15	109	100	9	4.26	No odor - Clear - Light Brown
1053	18.8	140	0.16	5.16	111	90	3	4.31	No odor - Light Brown - Reduce Purge Rate 0.14
1116	18.6	140	0.12	5.16	109	70	4	5.67	- No odor. Clear
		Will	Begin	to turn on	Faster	purge	Rate -		Will Remove the 3 well — 0.17 L/m
			Volumes	& then	will	Reduce	purge		Rate -
		Consulted	with	Myles &	Andrea -				
1136	18.6	140	0.09	5.15	100	71	6	5.65	— Purge Rate 0.3 L/min
1146	18.7	140	0.08	5.15	94	74	22	5.72	— Clear - No odor 0.2 L/min
1202	18.6	130	0.08	5.16	84	89	5L	6.05	- Clear - H_2S odor: 0.31 L/min
1215	18.7	130	0.08	5.15	77	107	4L	6.15	- Clear - H_2S odor - 0.31 L/min
1225	18.6	130	0.08	5.14	67	131	3L	6.20	- Clear - H_2S odor - 0.30 L/min
					- Reduce	Purge	Rate -	Will	Begin to take
			Stability	readings					
1244	19.6	120	0.09	5.19	58	194	3L	5.01	- Light Brown - H_2S odor = 0.16 L/min
1250	19.8	120	0.09	5.19	56	205	1L	4.91	- turbid - Light Brown - H_2S odor. 0.16 L/min
1305	19.8	120	0.09	5.20	51	252	2L	4.76	- turbid - Light Brown - H_2S odor = 0.13 L/min
1318	19.6	120	0.10	5.22	50	280	2L	4.75	- turbid - Light Brown - H_2S odor = 0.15 L/min
1325	19.7	120	0.10	5.21	45	322	1L	4.73	- turbid - H_2S odor - Purge Rate 0.14 L/min
1331	19.6	120	0.10	5.20	45	328	1L	4.72	- turbid - H_2S odor Purge Rate = 0.17 L
1338	19.5	120	0.10	5.19	42	349	1L	4.70	- turbid - H_2S odor - 0.14 = L/min
1350	19.5	120	0.11	5.19	37	401	2L	4.68	- turbid - H_2S odor - 0.16 L/min
Stabilizing Criteria[5]	**+/- 1°C**	**+/- 3%**	**+/- 10% (see note below)[7]**	**+/- 0.1 unit**	**+/- 10 mV (see note below)[8]**	**+/- 10% or <10 NTUs**	**(see note below)[4]**	**(see note below)[6]**	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

continued Page (2)

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/31/16

Site/Location: Homerville, GA | Sampler's Name: M. Leon

Well ID: MW-21 | Pump Type/Model: | Sample Collection Time: 15:08

Total Depth (ft)[1]: 22 | Tubing Material: | Sample Purge Rate (L/min)[3]: 100 mL / min

Depth to Water (ft): 2.67 | Pump Intake Depth (ft): | Sample ID: EEM-MW-21-20163103-01

Well Diameter (in): 2" | Start/Stop Purge Time: | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: | Purge Rate (L/min)[2]: | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): | Laboratory Analyses: 8260 Short List

Well Condition: OK

Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Sell Page 1

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1416	19.7	120	0.11	520	28	510	4 L	465	
1443	19.8	120	0.11	522	19	598	4L	463	— Purge Rate = 0.14 - Turbid - H_2S odor
1504	20.0	120	0.10	5.23	15	701	3L	461	
	Remove 5 well volumes - turbidity Issues								
	Was not able to stabilized -								
	will Go ahead & Sample								
1508	—	MW 21 collected							
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/29/16

Site/Location: Homerville, GA | Sampler's Name: M LWW

Well ID: MW-22 | Pump Type/Model: Alexis Proactive - Peristaltic | Sample Collection Time: 1636

Total Depth (ft)[1]: 22 Feet | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 200 mL/min

Depth to Water (ft): 3.50 | Pump Intake Depth (ft): 17 feet | Sample ID: ERM-MW-22-20160329-01

Well Diameter (in): 2" | Start/Stop Purge Time: 1411 - stopped at 1632 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 3 Gallon | Purge Rate (L/min)[2]: 0.16 L/min | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 38.4 Liters | Laboratory Analyses: 8260 - short List

Well Condition: OK | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1452	20.8	80	0.09	5.11	-36	23	12L	4.25	Clear - No odor → 0.29 L/min
1533	20.8	80	0.07	5.16	-120	16	12L	4.25	Clear - No odor ~ 0.29 L/min
1617	20.8	80	0.08	5.17	-108	17	12L	4.25	Clear - No odor ~ 0.27 L/min - Reduce Purge Rate - check for turbidity
1622	20.8	80	0.09	5.18	-103	17	0.8	4.06	- Clear - No odor
1627	20.9	80	0.09	5.11	-93	16	0.8	4.04	- Clear - No odor Purge Rate = 0.16 L/min
1632	20.8	80	0.10	5.16	-81	18	0.8	4.04	- Clear - No odor
1636	—	MW-22 Collected							
Stabilizing Criteria[5]	**+/- 1°C**	**+/- 3%**	**+/- 10% (see note below)[7]**	**+/- 0.1 unit**	**+/- 10 mV (see note below)[8]**	**+/- 10% or <10 NTUs**	**(see note below)[4]**	**(see note below)[6]**	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/28/16

Site/Location: Homerville, GA | Sampler's Name: Manuel Leon

Well ID: MW-23 | Pump Type/Model: Alexis - Peristaltic | Sample Collection Time: 1907

Total Depth (ft)[1]: 21 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]:

Depth to Water (ft): 6.16 | Pump Intake Depth (ft): 15 | Sample ID: ~~ERT~~ MW 23-20160328-01

Well Diameter (in): 2" | Start/Stop Purge Time: 17:11 — stop 19:04 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 2.40 | Purge Rate (L/min)[2]: | QA/QC I.D.: NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): | Laboratory Analyses: 8260 short list

Well Condition: OK - Good | Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1713	23.2	160	2.08	4.50	169	7.13	Initial	6.16	Clear - No odor
1748	21.5	40	0.16	4.19	253	3.8	9.5	6.17	Clear - H2S odor
1821	21.1	40	0.13	4.21	264	1.8	9.5	6.17	Clear - H2S odor
1852	20.9	40	0.13	4.12	276	1.1	9.5	6.17	Clear - H2S odor
1856	20.9	40	0.14	4.08	279	1.0	0.8	6.17	" " "
1900	20.8	40	0.14	4.04	284	1.0	0.8	6.17	" " "
1904	20.7	40	0.13	4.09	278	1.0	0.8	6.17	" " "
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

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ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/29/16

Site/Location: Homerville, GA | Sampler's Name: M. Leslie

Well ID: MW-24 | Pump Type/Model: Alexis - Peristaltic | Sample Collection Time: 1322

Total Depth (ft)[1]: 22 | Tubing Material: teflon | Sample Purge Rate (L/min)[3]: 100 mL / min

Depth to Water (ft): 3.01 | Pump Intake Depth (ft): 16 feet | Sample ID: ERM-MW-24-20160329-01

Well Diameter (in): 2" | Start/Stop Purge Time: 902 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 3.0 | Purge Rate (L/min)[2]: 0.13 | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 36.5 | Laboratory Analyses: 8260 Short List

Well Condition: OK - | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
9:02	— Wells Need a		Redeveloped			- Set tubing originally at 18 feet			
	And It was Pulling		Sediment			- Then Raise			the tubing 2 feet -
954	17.8	20	3.49	4.94	198	475	3.5 Gal	334	Reduce purge Rate - turbidity is High
1124	18.4	20	3.47	4.98	237	220	11.5L	327	Pull tubing to 14 feet -
									Water is Light Brown - No odor
									DO is Above 20% saturation -
1156	18.7	20	3.48	5.02	246	170	4L	327	~0.13 L/min purge Rate
1238	18.7	20	3.37	5.06	252	140	4L	327	No odor - Light Brown
1311	18.8	20	3.22	5.08	257	125	4L	327	No odor - Light Brown
1317	18.9	20	3.32	5.09	257	124	0.5L	3.27	No odor - Light Brown
1323	19.0	20	3.37	5.08	259	123	0.5L	3.27	No odor - Light Brown
1329	19.0	20	3.34	5.11	259	124	0.5L	3.27	No odor - Light Brown
1333	—	MW-24	collected						
Stabilizing Criteria[5]	**+/- 1°C**	**+/- 3%**	**+/- 10% (see note below)[7]**	**+/- 0.1 unit**	**+/- 10 mV (see note below)[8]**	**+/- 10% or <10 NTUs**	**(see note below)[4]**	**(see note below)[6]**	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/31/16

Site/Location: Homerville, GA | Sampler's Name: M.R

Well ID: MW-25 | Pump Type/Model: Alexis Peristaltic | Sample Collection Time: 1546

Total Depth (ft)[1]: ~~20~~ | Tubing Material: Teflon Poly | Sample Purge Rate (L/min)[3]: Grav feed

Depth to Water (ft): 2.77 | Pump Intake Depth (ft): 15 | Sample ID: ERM-MW-25-033116-01

Well Diameter (in): 2 | Start/Stop Purge Time: ~~1415~~ 1417 | QA/QC Collected? No

Well Volume (gal) = 0.041d²h: 2.8gal / 10.68 L | Purge Rate (L/min)[2]: .500 - .200 L/min | QA/QC I.D. —

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): / | Laboratory Analyses: VOCs

Well Condition: Good | Sampling Method (check all that apply): ☑ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1422	19.58	0.169	1.63	5.20	340.3	OR	1.0	2.76	Dark brown, murky, odor. Raised rate to .5 L/min
1444	18.54	0.160	0.21	5.19	417.7	43.6	12.0	3.07	~~Start~~ 1st WV
1506	18.50	0.161	0.17	5.21	413.1	18.2	23.0	3.13	2nd WV
1528	18.52	0.162	0.15	5.22	35.9	12.3	34.0	3.14	3rd WV
1533	19.21	0.162	0.16	5.24	34.3	8.40	35.0	2.97	Lower rate to .2 L/min
1538	19.20	0.162	0.18	5.24	33.5	7.07	36.0	2.90	
1543	19.30	0.163	0.18	5.23	33.5	6.46	37.0	2.88	
Parameters				Stable		well		Can be Sampled	
	Sampled		at	1546					
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

1 of 3

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/31/16

Site/Location: Homerville, GA | Sampler's Name: MR

Well ID: MW-26 | Pump Type/Model: Alexis Peristaltic | Sample Collection Time: 1043

Total Depth (ft)[1]: 20 | Tubing Material: Teflon Poly | Sample Purge Rate (L/min)[3]: Grav Feed

Depth to Water (ft): 2.86 | Pump Intake Depth (ft): 15 | Sample ID: ERM-MW-26-033116-01

Well Diameter (in): 2 | Start/Stop Purge Time: 0910 / 1041 | QA/QC Collected? NO

Well Volume (gal) = 0.041d²h: 2.8 gal / 10.6 L | Purge Rate (L/min)[2]: 0.5 - 0.2 L/min | QA/QC I.D. -

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): / 38.0 | Laboratory Analyses: VOCs

Well Condition: Good | Sampling Method (check all that apply): ☑ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0915	18.45	0.206	6.94	6.81	25.6	240	1.0	3.55	
0934	18.29	0.158	0.22	4.98	22.6	255	12.0	5.96	1st WV
0959	18.37	0.158	0.13	4.99	20.7	194	23.0	6.46	2nd WV
1021	18.54	0.156	0.09	4.98	22.1	159	34.0	6.81	3rd WV
1026	18.81	0.159	0.10	5.02	19.1	158	35.0	6.44	reduce purge rate to .2 L/min
1031	18.88	0.160	0.10	5.01	20.4	168	36.0	6.38	
1036	18.85	0.159	0.10	5.01	20.3	161	37.0	6.22	
1041	18.84	0.159	0.09	5.02	20.1	166	38.0	6.19	
Parameters stable				turbidity w/ 10%			Well can be sampled		
Sampled @ 1043									
									After pulling up the tubing for Grav feed I notice it has a hole ~ 2 feet from the bottom; Cutting the extra piece so the total length of tubing is shorter ~ 2 ft now
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

17.14

ERM

GROUND WATER SAMPLING LOG SHEET

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/29/16

Site/Location: Homerville, GA | Sampler's Name: W. Virges

Well ID: ERM-MW-27 | Pump Type/Model: Alexis Peristaltic | Sample Collection Time: ~~1027~~ 1357

Total Depth (ft)[1]: 50' | Tubing Material: Teflon Poly | Sample Purge Rate (L/min)[3]: Grav Feed

Depth to Water (ft): 6.05 | Pump Intake Depth (ft): ~45' | Sample ID: ERM-MW-27-20160329-01

Well Diameter (in): 2" | Start/Stop Purge Time: 1019 / ~~1024~~ 1354 | QA/QC Collected? YES

Well Volume (gal) = 0.041d²h: 7.2gal / 27.3L | Purge Rate (L/min)[2]: ~0.5 - ~~0.25~~ L/min | QA/QC I.D. DUP-01 - 20160329-01

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 87.5 | Laboratory Analyses: VOCs

Well Condition: Good | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1024	19.79	0.084	0.74	5.86	16.9	39.3	2.5	8.09	
1114	19.53	0.087	0.58	5.86	-7.7	497	27.5	13.81	Vol 1
1209	19.70	~~0.075~~	0.35	5.86	2.6	41.6	55	15.27	Vol 2
1304	19.87	0.069	0.23	5.63	6.9	>1000	82.5	15.44	Vol 3
1309	20.23	0.071	0.96	5.77	5.0	413	83	14.01	
1314	20.30	0.069	0.99	5.74	6.9	>1000	83.5	13.24	After 3 well volumes Purge Rate decreased to 0.1 L/min
1319	20.34	0.068	0.76	5.70	5.9	>1000	84	12.34	to reduce turbidity
1324	20.28	0.068	0.64	5.68	5.0	907	84.5	12.05	
1329	20.30	0.068	0.59	5.68	5.3	841	85	11.56	
1334	20.28	0.068	0.58	5.67	6.0	807	85.5	11.29	
1339	20.43	0.068	0.58	5.66	6.3	691	86	10.94	
1344	20.54	0.068	0.56	5.65	8.0	559	86.5	10.67	
1349	20.64	0.068	0.59	5.64	10.4	538	87	10.53	
1354	20.67	0.068	0.59	5.64	9.4	553	87.5	10.41	
	well	Purge Water		Stable		w/ high turbidity			
		w/in		10%	over	3	Readings		
	well	Sampled		@		1357			
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
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(3) - Sampling rate to be 0.25 lpm or less.
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(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

GROUND WATER SAMPLING LOG SHEET

ERM

Client: BWAY | Project No.: 0121022 | Sampling Date: 3/29/16

Site/Location: Homerville, GA | Sampler's Name: M Lucas

Well ID: ERM - MW 28 | Pump Type/Model: Alexis - Peristaltic Pump | Sample Collection Time: 19:08

Total Depth (ft)[1]: 20 | Tubing Material: Teflon | Sample Purge Rate (L/min)[3]: 100 mL / min

Depth to Water (ft): 5.20 | Pump Intake Depth (ft): 15 | Sample ID: ERM - MW-28 - 20160329 - 01

Well Diameter (in): 2" | Start/Stop Purge Time: 1720 | QA/QC Collected? NO

Well Volume (gal) = 0.041d²h: 2.46 Gallon | Purge Rate (L/min)[2]: 0.33 | QA/QC I.D. NA

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 31.5 L | Laboratory Analyses: 8260 short list

Well Condition: OK | Sampling Method (check all that apply): ☒ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1733	19.0	90	1.71	4.46	168	8.3	4L	5.34	Clear - No odor - Increase purge Rate
1747	18.8	90	1.81	4.44	184	6.4	4L	5.36	Clear - No od - Flow = 0.27 L/min
1805	18.5	90	1.88	4.41	205	6.0	6L	5.36	Clear - No od - Purge Rate = 0.35 L/min
1817	18.5	90	1.94	4.40	215	5.0	4L	5.36	Clear - No od - Purge Rate = 0.33 L/min
1830	18.4	90	1.96	4.39	226	3.7	4L	5.36	Clear - No odor -
1842	18.3	90	2.01	4.37	232	2.3	4L	5.36	Clear - No od Purge Rate ~ 0.33 L/min
1854	18.3	90	2.03	4.37	238	1.7	4L	5.36	Clear - No odor —
1857	18.4	90	2.04	4.38	239	1.5	0.5L	5.36	Clear No Od
1900	18.4	90	2.04	4.38	240	1.4	0.5L	5.36	Clear - No od
1903	18.4	90	2.04	4.38	238	1.5	0.5L	5.36	" " "
1908	—	MW-28 collected							
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
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(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

Chain of Custody Records and Laboratory Reports
January 2016 (ERM-MW-28) and March 2016

Appendix B

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 03, 2016

Andreas Shoredits
ERM-Southeast
3200 Windy Hill Rd
Atlanta GA 30339

TEL: (678) 486-2700
FAX: (770) 590-9164

RE: BWAY

Dear Andreas Shoredits: Order No: 1601K44

Analytical Environmental Services, Inc. received 3 samples on 1/27/2016 12:30:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive Atlanta GA 30340-3906
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1601K44

Date: 1/27/2016 Page 1 of 1

COMPANY:	ADDRESS:
ERM	3200 Windy Hill Road SE STE 1500W Atlanta, GA 30339
PHONE: 678-486-2700	FAX:
SAMPLED BY: B. Fischer	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	8260 (SL)	No # of Containers	REMARKS
1	ERM-MW-28-20160126-01	1/26/2016	1325	✓		GW	✓	2	
2	DUP-01-20160126-01	1/26/2016	NA	✓		GW	✓	2	
3	TB-01-20160126-01	1/26/2016	NA	✓		W	✓	2	
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

ANALYSIS REQUESTED

PRESERVATION (See codes)

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	01-27-16/1020	1: Ty. WIRTH	Jan-27-16 1020
2: Ty.	Jan-27-16 1230	2: Christian Foster	1-27-16 1023
3:		3:	

PROJECT INFORMATION

PROJECT NAME: BWAY

PROJECT #: 0121022

SITE ADDRESS: Homerville, GA

SEND REPORT TO: andreas.shoredits@erm.com

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 6

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: [ ] I [ ] II [ ] III [ ] IV

SPECIAL INSTRUCTIONS/COMMENTS:

Sample For 8260 SL and Naphthalene

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

[ ] CLIENT [ ] FedEx [ ] UPS [ ] MAIL [X] COURIER

[ ] GREYHOUND [ ] OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED WITH STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) WW=Wastewater DW=Drinking Water O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Analytical Environmental Services, Inc **Date:** 3-Feb-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-28-20160126-01
Project Name:	BWAY	**Collection Date:**	1/26/2016 1:25:00 PM
Lab ID:	1601K44-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Surr: 4-Bromofluorobenzene	85.2	70.7-125		%REC	219155	1	02/03/2016 01:47	MD
Surr: Dibromofluoromethane	95.9	82.2-120		%REC	219155	1	02/03/2016 01:47	MD
Surr: Toluene-d8	95.4	81.8-120		%REC	219155	1	02/03/2016 01:47	MD
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,1,2-Trichloroethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,1-Dichloroethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,1-Dichloroethene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,2-Dibromoethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,2-Dichlorobenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,2-Dichloroethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,2-Dichloropropane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,3-Dichlorobenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
1,4-Dichlorobenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
2-Butanone	BRL	50		ug/L	219155	1	02/03/2016 01:47	MD
2-Hexanone	BRL	10		ug/L	219155	1	02/03/2016 01:47	MD
4-Methyl-2-pentanone	BRL	10		ug/L	219155	1	02/03/2016 01:47	MD
Acetone	BRL	50		ug/L	219155	1	02/03/2016 01:47	MD
Benzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Bromodichloromethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Bromoform	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Bromomethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Carbon disulfide	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Carbon tetrachloride	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Chlorobenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Chloroethane	BRL	10		ug/L	219155	1	02/03/2016 01:47	MD
Chloroform	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Chloromethane	BRL	10		ug/L	219155	1	02/03/2016 01:47	MD
cis-1,2-Dichloroethene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
cis-1,3-Dichloropropene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Cyclohexane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Dibromochloromethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Dichlorodifluoromethane	BRL	10		ug/L	219155	1	02/03/2016 01:47	MD
Ethylbenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Freon-113	BRL	10		ug/L	219155	1	02/03/2016 01:47	MD
Isopropylbenzene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Feb-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-28-20160126-01
Project Name:	BWAY	**Collection Date:**	1/26/2016 1:25:00 PM
Lab ID:	1601K44-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Methyl acetate	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Methyl tert-butyl ether	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Methylcyclohexane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Methylene chloride	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
o-Xylene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Styrene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Tetrachloroethene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Toluene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
trans-1,2-Dichloroethene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
trans-1,3-Dichloropropene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Trichloroethene	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Trichlorofluoromethane	BRL	5.0		ug/L	219155	1	02/03/2016 01:47	MD
Vinyl chloride	BRL	2.0		ug/L	219155	1	02/03/2016 01:47	MD
Surr: 4-Bromofluorobenzene	85.2	70.7-125		%REC	219155	1	02/03/2016 01:47	MD
Surr: Dibromofluoromethane	95.9	82.2-120		%REC	219155	1	02/03/2016 01:47	MD
Surr: Toluene-d8	95.4	81.8-120		%REC	219155	1	02/03/2016 01:47	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Feb-16

Client:	ERM-Southeast	**Client Sample ID:**	DUP-01-20160126-01
Project Name:	BWAY	**Collection Date:**	1/26/2016
Lab ID:	1601K44-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Surr: 4-Bromofluorobenzene	87.7	70.7-125		%REC	219155	1	02/02/2016 03:36	AR
Surr: Dibromofluoromethane	108	82.2-120		%REC	219155	1	02/02/2016 03:36	AR
Surr: Toluene-d8	106	81.8-120		%REC	219155	1	02/02/2016 03:36	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,1-Dichloroethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,1-Dichloroethene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,2-Dibromoethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,2-Dichloroethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,2-Dichloropropane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
2-Butanone	BRL	50		ug/L	219155	1	02/02/2016 03:36	AR
2-Hexanone	BRL	10		ug/L	219155	1	02/02/2016 03:36	AR
4-Methyl-2-pentanone	BRL	10		ug/L	219155	1	02/02/2016 03:36	AR
Acetone	BRL	50		ug/L	219155	1	02/02/2016 03:36	AR
Benzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Bromodichloromethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Bromoform	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Bromomethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Carbon disulfide	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Carbon tetrachloride	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Chlorobenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Chloroethane	BRL	10		ug/L	219155	1	02/02/2016 03:36	AR
Chloroform	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Chloromethane	BRL	10		ug/L	219155	1	02/02/2016 03:36	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Cyclohexane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Dibromochloromethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Dichlorodifluoromethane	BRL	10		ug/L	219155	1	02/02/2016 03:36	AR
Ethylbenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Freon-113	BRL	10		ug/L	219155	1	02/02/2016 03:36	AR
Isopropylbenzene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Feb-16

Client:	ERM-Southeast	**Client Sample ID:**	DUP-01-20160126-01
Project Name:	BWAY	**Collection Date:**	1/26/2016
Lab ID:	1601K44-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Methyl acetate	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Methylcyclohexane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Methylene chloride	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
o-Xylene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Styrene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Tetrachloroethene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Toluene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Trichloroethene	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Trichlorofluoromethane	BRL	5.0		ug/L	219155	1	02/02/2016 03:36	AR
Vinyl chloride	BRL	2.0		ug/L	219155	1	02/02/2016 03:36	AR
Surr: 4-Bromofluorobenzene	87.7	70.7-125		%REC	219155	1	02/02/2016 03:36	AR
Surr: Dibromofluoromethane	108	82.2-120		%REC	219155	1	02/02/2016 03:36	AR
Surr: Toluene-d8	106	81.8-120		%REC	219155	1	02/02/2016 03:36	AR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Feb-16

Client:	ERM-Southeast	**Client Sample ID:**	TB-01-20160126-01
Project Name:	BWAY	**Collection Date:**	1/26/2016
Lab ID:	1601K44-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Surr: 4-Bromofluorobenzene	81.5	70.7-125		%REC	219155	1	01/29/2016 16:14	CH
Surr: Dibromofluoromethane	116	82.2-120		%REC	219155	1	01/29/2016 16:14	CH
Surr: Toluene-d8	106	81.8-120		%REC	219155	1	01/29/2016 16:14	CH
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,1-Dichloroethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,1-Dichloroethene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,2-Dibromoethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,2-Dichloroethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,2-Dichloropropane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
2-Butanone	BRL	50		ug/L	219155	1	01/29/2016 16:14	CH
2-Hexanone	BRL	10		ug/L	219155	1	01/29/2016 16:14	CH
4-Methyl-2-pentanone	BRL	10		ug/L	219155	1	01/29/2016 16:14	CH
Acetone	BRL	50		ug/L	219155	1	01/29/2016 16:14	CH
Benzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Bromodichloromethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Bromoform	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Bromomethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Carbon disulfide	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Carbon tetrachloride	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Chlorobenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Chloroethane	BRL	10		ug/L	219155	1	01/29/2016 16:14	CH
Chloroform	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Chloromethane	BRL	10		ug/L	219155	1	01/29/2016 16:14	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Cyclohexane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Dibromochloromethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Dichlorodifluoromethane	BRL	10		ug/L	219155	1	01/29/2016 16:14	CH
Ethylbenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Freon-113	BRL	10		ug/L	219155	1	01/29/2016 16:14	CH
Isopropylbenzene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Feb-16

Client:	ERM-Southeast	**Client Sample ID:**	TB-01-20160126-01
Project Name:	BWAY	**Collection Date:**	1/26/2016
Lab ID:	1601K44-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Methyl acetate	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Methylcyclohexane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Methylene chloride	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
o-Xylene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Styrene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Tetrachloroethene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Toluene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Trichloroethene	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Trichlorofluoromethane	BRL	5.0		ug/L	219155	1	01/29/2016 16:14	CH
Vinyl chloride	BRL	2.0		ug/L	219155	1	01/29/2016 16:14	CH
Surr: 4-Bromofluorobenzene	81.5	70.7-125		%REC	219155	1	01/29/2016 16:14	CH
Surr: Dibromofluoromethane	116	82.2-120		%REC	219155	1	01/29/2016 16:14	CH
Surr: Toluene-d8	106	81.8-120		%REC	219155	1	01/29/2016 16:14	CH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EAM Work Order Number 1601K44

Checklist completed by [signature] 1/27/16
Signature Date

Carrier name: FedEx __ UPS __ Courier ✓ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 2.5 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **MB-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6641340**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **MB-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6641340**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	43.38	0	50.00		86.8	70.7	125				
Surr: Dibromofluoromethane	52.58	0	50.00		105	82.2	120				
Surr: Toluene-d8	50.19	0	50.00		100	81.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **MB-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642081**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,1-Dichloropropene	BRL	5.0									
1,2,3-Trichlorobenzene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2,4-Trimethylbenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3,5-Trimethylbenzene	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,3-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2,2-Dichloropropane	BRL	5.0									
2-Butanone	BRL	50									
2-Chloroethyl vinyl ether	BRL	5.0									
2-Chlorotoluene	BRL	5.0									
2-Hexanone	BRL	10									
4-Chlorotoluene	BRL	5.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **MB-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642081**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4-Isopropyltoluene	BRL	5.0									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrolein	BRL	20									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromobenzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Hexachlorobutadiene	BRL	5.0									
Iodomethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **MB-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642081**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
n-Butylbenzene	BRL	5.0									
n-Propylbenzene	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
sec-Butylbenzene	BRL	5.0									
Styrene	BRL	5.0									
tert-Butylbenzene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	43.38	0	50.00		86.8	70.7	125				
Surr: Dibromofluoromethane	52.58	0	50.00		105	82.2	120				
Surr: Toluene-d8	50.19	0	50.00		100	81.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **LCS-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6641339**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.88	5.0	50.00		106	65.3	137				
Benzene	55.22	5.0	50.00		110	74.9	123				
Chlorobenzene	54.68	5.0	50.00		109	73.9	124				
Toluene	50.95	5.0	50.00		102	75	124				
Trichloroethene	53.94	5.0	50.00		108	73.1	128				
Surr: 4-Bromofluorobenzene	41.49	0	50.00		83.0	70.7	125				
Surr: Dibromofluoromethane	51.93	0	50.00		104	82.2	120				
Surr: Toluene-d8	49.75	0	50.00		99.5	81.8	120				

Sample ID: **LCS-219155** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642080**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.88	5.0	50.00		106	65.3	137				
Benzene	55.22	5.0	50.00		110	74.9	123				
Chlorobenzene	54.68	5.0	50.00		109	73.9	124				
Toluene	50.95	5.0	50.00		102	75	124				
Trichloroethene	53.94	5.0	50.00		108	73.1	128				
Surr: 4-Bromofluorobenzene	41.49	0	50.00		83.0	70.7	125				
Surr: Dibromofluoromethane	51.93	0	50.00		104	82.2	120				
Surr: Toluene-d8	49.75	0	50.00		99.5	81.8	120				

Sample ID: **1601L84-001AMS** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642065**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.04	5.0	50.00		110	60	150				
Benzene	57.84	5.0	50.00		116	70.1	132				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **1601L84-001AMS** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642065**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	53.19	5.0	50.00		106	70.9	131				
Toluene	53.43	5.0	50.00		107	70.1	133				
Trichloroethene	54.14	5.0	50.00		108	70	136				
Surr: 4-Bromofluorobenzene	44.90	0	50.00		89.8	70.7	125				
Surr: Dibromofluoromethane	54.37	0	50.00		109	82.2	120				
Surr: Toluene-d8	51.81	0	50.00		104	81.8	120				

Sample ID: **1601L84-001AMS** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642086**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.04	5.0	50.00		110	60	150				
Benzene	57.84	5.0	50.00		116	70.1	132				
Chlorobenzene	53.19	5.0	50.00		106	70.9	131				
Toluene	53.43	5.0	50.00		107	70.1	133				
Trichloroethene	54.14	5.0	50.00		108	70	136				
Surr: 4-Bromofluorobenzene	44.90	0	50.00		89.8	70.7	125				
Surr: Dibromofluoromethane	54.37	0	50.00		109	82.2	120				
Surr: Toluene-d8	51.81	0	50.00		104	81.8	120				

Sample ID: **1601L84-001AMSD** Client ID: Units: **ug/L** Prep Date: **01/29/2016** Run No: **309315**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **219155** Analysis Date: **01/29/2016** Seq No: **6642066**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	54.28	5.0	50.00		109	60	150	55.04	1.39	17.7	
Benzene	55.55	5.0	50.00		111	70.1	132	57.84	4.04	20	
Chlorobenzene	50.66	5.0	50.00		101	70.9	131	53.19	4.87	20	
Toluene	50.87	5.0	50.00		102	70.1	133	53.43	4.91	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1601K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 219155

Sample ID: **1601L84-001AMSD**	Client ID:		Units: **ug/L**	Prep Date: **01/29/2016**	Run No: **309315**
SampleType: **MSD**	TestCode: **TCL VOLATILE ORGANICS SW8260B**		BatchID: **219155**	Analysis Date: **01/29/2016**	Seq No: **6642066**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	51.74	5.0	50.00		103	70	136	54.14	4.53	20	
Surr: 4-Bromofluorobenzene	42.50	0	50.00		85.0	70.7	125	44.90	0	0	
Surr: Dibromofluoromethane	53.59	0	50.00		107	82.2	120	54.37	0	0	
Surr: Toluene-d8	50.41	0	50.00		101	81.8	120	51.81	0	0	

Sample ID: **1601L84-001AMSD**	Client ID:		Units: **ug/L**	Prep Date: **01/29/2016**	Run No: **309315**
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **219155**	Analysis Date: **01/29/2016**	Seq No: **6642091**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	54.28	5.0	50.00		109	60	150	55.04	1.39	17.7	
Benzene	55.55	5.0	50.00		111	70.1	132	57.84	4.04	20	
Chlorobenzene	50.66	5.0	50.00		101	70.9	131	53.19	4.87	20	
Toluene	50.87	5.0	50.00		102	70.1	133	53.43	4.91	20	
Trichloroethene	51.74	5.0	50.00		103	70	136	54.14	4.53	20	
Surr: 4-Bromofluorobenzene	42.50	0	50.00		85.0	70.7	125	44.90	0	0	
Surr: Dibromofluoromethane	53.59	0	50.00		107	82.2	120	54.37	0	0	
Surr: Toluene-d8	50.41	0	50.00		101	81.8	120	51.81	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

April 13, 2016

Andreas Shoredits
ERM-Southeast
3200 Windy Hill Rd
Atlanta GA 30339

TEL: (678) 486-2700
FAX: (770) 590-9164

RE: BWAY

Dear Andreas Shoredits: Order No: 1604138

Analytical Environmental Services, Inc. received 19 samples on 4/1/2016 3:42:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

Revision 4/13/2016

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Residential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1604138

Date: _____ Page 1 of 2

COMPANY: ERM

ADDRESS: 3200 Windy Hill Rd Suite 1500 W

PHONE: 770-380-0861

FAX:

SAMPLED BY: Will Virgo, Manuel Leon, Myles Rogers

SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) H+I	No # of Containers
1	ERM-MW-23-20160328-01	3/28/16	1907	✓	✓	GW	2	
2	ERM-MW-1-20160328-01	3/28/16	1806	✓		GW	2	
3	ERM-MW-28-20160329-01	3/29/16	1908	✓		GW	2	
4	ERM-MW-22-20160329-01	3/29/16	1636	✓		GW	2	
5	ERM-MW-24-20160329-01	3/29/16	1322	✓		GW	2	
6	ERM-MW-27-20160329-01	3/29/16	1357	✓		GW	2	
7	DUP-01-20160329-01	3/29/16	—	✓		GW	2	
8	ERM-MW-9-20160329-01	3/29/16	0955	✓		GW	2	
9	ERM-MW-14-20160330-01	3/30/16	1320	✓		GW	2	
10	ERM-MW-7-20160330-01	3/30/16	1735	✓		GW	2	
11	ERM-MW-15-20160330-01	3/30/16	1123	✓		GW	2	
12	ERM-MW-18-20160330-01	3/30/16	1419	✓		GW	2	
13	ERM-MW-17-20160330-01	3/30/16	1725	✓		GW	2	
14	ERM-DUP-20160330-02	3/30/16	—	✓		GW	2	

ANALYSIS REQUESTED: VOC 8260 short list

REMARKS

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY 1: Myles Rogers DATE/TIME 4/1/16 3:42

RECEIVED BY 1: Manuel Leon DATE/TIME 4/1/16 3:42

2:

3:

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: BWAY
PROJECT #:
SITE ADDRESS:
SEND REPORT TO: Andreas.Shroeder5@erm.com
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 1

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1604138

Date: _____ Page 2 of 2

COMPANY: ERM	ADDRESS: 3201 Windy Hill Rd Suite 1500W
PHONE: 770-380-7861	FAX:
SAMPLED BY: Will Virgo, Myles Rogers, Manuel Yon	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) H+I	No # of Containers
1	ERM-MW-19-033116-01	3/31/16	1306	✓		GW	2	
2	ERM-MW-26-033116-01	3/31/16	1643	✓		GW	2	
3	ERM-MW-25-033116-01	3/31/16	1516	✓		GW	2	
4	ERM-MW-21-20163103-01	3/31/16	1568	✓		GW	2	
5	TB-20160401-01	4/1/16	1500	✓		W	1	
6								
7								
8								
9								
10								
11								
12								
13								
14								

ANALYSIS REQUESTED: SVOC 8260 Short List

REMARKS

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Myles Rogers	4/1/16 342	1: Manuel Yon	4/1/16 342
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: BWAY
PROJECT #:
SITE ADDRESS:
SEND REPORT TO: Andreas.Storeidt@erm.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 1

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT FOR SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	MW-23-2060328-01
Project Name:	BWAY	**Collection Date:**	3/28/2016 7:07:00 PM
Lab ID:	1604138-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Surr: 4-Bromofluorobenzene	88.3	70.7-125		%REC	222156	1	04/04/2016 15:47	AR
Surr: Dibromofluoromethane	97.3	82.2-120		%REC	222156	1	04/04/2016 15:47	AR
Surr: Toluene-d8	96.4	81.8-120		%REC	222156	1	04/04/2016 15:47	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 15:47	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 15:47	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 15:47	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 15:47	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 15:47	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 15:47	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 15:47	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 15:47	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	MW-23-2060328-01
Project Name:	BWAY	**Collection Date:**	3/28/2016 7:07:00 PM
Lab ID:	1604138-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:47	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/04/2016 15:47	AR
Surr: 4-Bromofluorobenzene	88.3	70.7-125		%REC	222156	1	04/04/2016 15:47	AR
Surr: Dibromofluoromethane	97.3	82.2-120		%REC	222156	1	04/04/2016 15:47	AR
Surr: Toluene-d8	96.4	81.8-120		%REC	222156	1	04/04/2016 15:47	AR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-1-20160328-01
Project Name:	BWAY	**Collection Date:**	3/28/2016 6:00:00 PM
Lab ID:	1604138-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Surr: 4-Bromofluorobenzene	93.5	70.7-125		%REC	222156	1	04/04/2016 17:13	AR
Surr: Dibromofluoromethane	97.4	82.2-120		%REC	222156	1	04/04/2016 17:13	AR
Surr: Toluene-d8	99.1	81.8-120		%REC	222156	1	04/04/2016 17:13	AR
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 17:13	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 17:13	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 17:13	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 17:13	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 17:13	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 17:13	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 17:13	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 17:13	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-1-20160328-01
Project Name:	BWAY	**Collection Date:**	3/28/2016 6:00:00 PM
Lab ID:	1604138-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 17:13	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/04/2016 17:13	AR
Surr: 4-Bromofluorobenzene	93.5	70.7-125		%REC	222156	1	04/04/2016 17:13	AR
Surr: Dibromofluoromethane	97.4	82.2-120		%REC	222156	1	04/04/2016 17:13	AR
Surr: Toluene-d8	99.1	81.8-120		%REC	222156	1	04/04/2016 17:13	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-28-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 7:08:00 PM
Lab ID:	1604138-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Surr: 4-Bromofluorobenzene	86.7	70.7-125		%REC	222156	1	04/05/2016 00:57	AR
Surr: Dibromofluoromethane	89.8	82.2-120		%REC	222156	1	04/05/2016 00:57	AR
Surr: Toluene-d8	91.3	81.8-120		%REC	222156	1	04/05/2016 00:57	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
2-Butanone	BRL	50		ug/L	222156	1	04/05/2016 00:57	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/05/2016 00:57	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/05/2016 00:57	AR
Acetone	BRL	50		ug/L	222156	1	04/05/2016 00:57	AR
Benzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Chloroethane	BRL	10		ug/L	222156	1	04/05/2016 00:57	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Chloromethane	BRL	10		ug/L	222156	1	04/05/2016 00:57	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/05/2016 00:57	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Freon-113	BRL	10		ug/L	222156	1	04/05/2016 00:57	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-28-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 7:08:00 PM
Lab ID:	1604138-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Styrene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Toluene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/05/2016 00:57	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/05/2016 00:57	AR
Surr: 4-Bromofluorobenzene	86.7	70.7-125		%REC	222156	1	04/05/2016 00:57	AR
Surr: Dibromofluoromethane	89.8	82.2-120		%REC	222156	1	04/05/2016 00:57	AR
Surr: Toluene-d8	91.3	81.8-120		%REC	222156	1	04/05/2016 00:57	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-22-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 4:36:00 PM
Lab ID:	1604138-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Surr: 4-Bromofluorobenzene	91.9	70.7-125		%REC	222156	1	04/04/2016 20:35	AR
Surr: Dibromofluoromethane	88.3	82.2-120		%REC	222156	1	04/04/2016 20:35	AR
Surr: Toluene-d8	93.5	81.8-120		%REC	222156	1	04/04/2016 20:35	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 20:35	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 20:35	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 20:35	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 20:35	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 20:35	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 20:35	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 20:35	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 20:35	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-22-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 4:36:00 PM
Lab ID:	1604138-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 20:35	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/04/2016 20:35	AR
Surr: 4-Bromofluorobenzene	91.9	70.7-125		%REC	222156	1	04/04/2016 20:35	AR
Surr: Dibromofluoromethane	88.3	82.2-120		%REC	222156	1	04/04/2016 20:35	AR
Surr: Toluene-d8	93.5	81.8-120		%REC	222156	1	04/04/2016 20:35	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-24-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 1:22:00 PM
Lab ID:	1604138-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Surr: 4-Bromofluorobenzene	89.9	70.7-125		%REC	222156	1	04/04/2016 21:04	AR
Surr: Dibromofluoromethane	91	82.2-120		%REC	222156	1	04/04/2016 21:04	AR
Surr: Toluene-d8	93.7	81.8-120		%REC	222156	1	04/04/2016 21:04	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 21:04	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 21:04	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 21:04	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 21:04	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 21:04	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 21:04	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 21:04	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 21:04	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-24-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 1:22:00 PM
Lab ID:	1604138-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:04	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/04/2016 21:04	AR
Surr: 4-Bromofluorobenzene	89.9	70.7-125		%REC	222156	1	04/04/2016 21:04	AR
Surr: Dibromofluoromethane	91	82.2-120		%REC	222156	1	04/04/2016 21:04	AR
Surr: Toluene-d8	93.7	81.8-120		%REC	222156	1	04/04/2016 21:04	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-27-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 1:57:00 PM
Lab ID:	1604138-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Surr: 4-Bromofluorobenzene	92.5	70.7-125		%REC	222156	1	04/04/2016 21:33	AR
Surr: Dibromofluoromethane	93.4	82.2-120		%REC	222156	1	04/04/2016 21:33	AR
Surr: Toluene-d8	98.4	81.8-120		%REC	222156	1	04/04/2016 21:33	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,1-Dichloroethane	71	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,1-Dichloroethene	120	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 21:33	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 21:33	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 21:33	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 21:33	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 21:33	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 21:33	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 21:33	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 21:33	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-27-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 1:57:00 PM
Lab ID:	1604138-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 21:33	AR
Vinyl chloride	17	2.0		ug/L	222156	1	04/04/2016 21:33	AR
Surr: 4-Bromofluorobenzene	92.5	70.7-125		%REC	222156	1	04/04/2016 21:33	AR
Surr: Dibromofluoromethane	93.4	82.2-120		%REC	222156	1	04/04/2016 21:33	AR
Surr: Toluene-d8	98.4	81.8-120		%REC	222156	1	04/04/2016 21:33	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	DUP-01-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016
Lab ID:	1604138-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Surr: 4-Bromofluorobenzene	87.5	70.7-125		%REC	222156	1	04/04/2016 22:02	AR
Surr: Dibromofluoromethane	89.7	82.2-120		%REC	222156	1	04/04/2016 22:02	AR
Surr: Toluene-d8	94.6	81.8-120		%REC	222156	1	04/04/2016 22:02	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,1-Dichloroethane	76	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,1-Dichloroethene	130	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 22:02	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 22:02	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 22:02	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 22:02	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 22:02	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 22:02	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 22:02	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 22:02	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	DUP-01-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016
Lab ID:	1604138-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:02	AR
Vinyl chloride	19	2.0		ug/L	222156	1	04/04/2016 22:02	AR
Surr: 4-Bromofluorobenzene	87.5	70.7-125		%REC	222156	1	04/04/2016 22:02	AR
Surr: Dibromofluoromethane	89.7	82.2-120		%REC	222156	1	04/04/2016 22:02	AR
Surr: Toluene-d8	94.6	81.8-120		%REC	222156	1	04/04/2016 22:02	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-9-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 9:55:00 AM
Lab ID:	1604138-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Surr: 4-Bromofluorobenzene	83.8	70.7-125		%REC	222156	1	04/04/2016 22:31	AR
Surr: Dibromofluoromethane	87.1	82.2-120		%REC	222156	1	04/04/2016 22:31	AR
Surr: Toluene-d8	92.4	81.8-120		%REC	222156	1	04/04/2016 22:31	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,1-Dichloroethane	6.9	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 22:31	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 22:31	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 22:31	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 22:31	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 22:31	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 22:31	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 22:31	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 22:31	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-9-20160329-01
Project Name:	BWAY	**Collection Date:**	3/29/2016 9:55:00 AM
Lab ID:	1604138-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 22:31	AR
Vinyl chloride	5.4	2.0		ug/L	222156	1	04/04/2016 22:31	AR
Surr: 4-Bromofluorobenzene	83.8	70.7-125		%REC	222156	1	04/04/2016 22:31	AR
Surr: Dibromofluoromethane	87.1	82.2-120		%REC	222156	1	04/04/2016 22:31	AR
Surr: Toluene-d8	92.4	81.8-120		%REC	222156	1	04/04/2016 22:31	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-14-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 1:20:00 PM
Lab ID:	1604138-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Surr: 4-Bromofluorobenzene	83.4	70.7-125		%REC	222156	1	04/04/2016 23:00	AR
Surr: Dibromofluoromethane	87.7	82.2-120		%REC	222156	1	04/04/2016 23:00	AR
Surr: Toluene-d8	91.8	81.8-120		%REC	222156	1	04/04/2016 23:00	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 23:00	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 23:00	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 23:00	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 23:00	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 23:00	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 23:00	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 23:00	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 23:00	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-14-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 1:20:00 PM
Lab ID:	1604138-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 23:00	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/04/2016 23:00	AR
Surr: 4-Bromofluorobenzene	83.4	70.7-125		%REC	222156	1	04/04/2016 23:00	AR
Surr: Dibromofluoromethane	87.7	82.2-120		%REC	222156	1	04/04/2016 23:00	AR
Surr: Toluene-d8	91.8	81.8-120		%REC	222156	1	04/04/2016 23:00	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-7-033016-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 5:35:00 PM
Lab ID:	1604138-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Surr: 4-Bromofluorobenzene	88.6	70.7-125		%REC	222156	1	04/05/2016 22:01	AR
Surr: Dibromofluoromethane	101	82.2-120		%REC	222156	1	04/05/2016 22:01	AR
Surr: Toluene-d8	92.8	81.8-120		%REC	222156	1	04/05/2016 22:01	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,1-Dichloroethane	21	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,1-Dichloroethene	8.6	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
2-Butanone	BRL	50		ug/L	222156	1	04/05/2016 22:01	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/05/2016 22:01	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/05/2016 22:01	AR
Acetone	BRL	50		ug/L	222156	1	04/05/2016 22:01	AR
Benzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Chloroethane	BRL	10		ug/L	222156	1	04/05/2016 22:01	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Chloromethane	BRL	10		ug/L	222156	1	04/05/2016 22:01	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/05/2016 22:01	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Freon-113	BRL	10		ug/L	222156	1	04/05/2016 22:01	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-7-033016-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 5:35:00 PM
Lab ID:	1604138-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Styrene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Toluene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:01	AR
Vinyl chloride	4.5	2.0		ug/L	222156	1	04/05/2016 22:01	AR
Surr: 4-Bromofluorobenzene	88.6	70.7-125		%REC	222156	1	04/05/2016 22:01	AR
Surr: Dibromofluoromethane	101	82.2-120		%REC	222156	1	04/05/2016 22:01	AR
Surr: Toluene-d8	92.8	81.8-120		%REC	222156	1	04/05/2016 22:01	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-15-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 11:23:00 AM
Lab ID:	1604138-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Surr: 4-Bromofluorobenzene	90.6	70.7-125		%REC	222156	1	04/05/2016 22:29	AR
Surr: Dibromofluoromethane	95.5	82.2-120		%REC	222156	1	04/05/2016 22:29	AR
Surr: Toluene-d8	93.9	81.8-120		%REC	222156	1	04/05/2016 22:29	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
2-Butanone	BRL	50		ug/L	222156	1	04/05/2016 22:29	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/05/2016 22:29	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/05/2016 22:29	AR
Acetone	BRL	50		ug/L	222156	1	04/05/2016 22:29	AR
Benzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Chloroethane	BRL	10		ug/L	222156	1	04/05/2016 22:29	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Chloromethane	BRL	10		ug/L	222156	1	04/05/2016 22:29	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/05/2016 22:29	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Freon-113	BRL	10		ug/L	222156	1	04/05/2016 22:29	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-15-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 11:23:00 AM
Lab ID:	1604138-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Styrene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Toluene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/05/2016 22:29	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/05/2016 22:29	AR
Surr: 4-Bromofluorobenzene	90.6	70.7-125		%REC	222156	1	04/05/2016 22:29	AR
Surr: Dibromofluoromethane	95.5	82.2-120		%REC	222156	1	04/05/2016 22:29	AR
Surr: Toluene-d8	93.9	81.8-120		%REC	222156	1	04/05/2016 22:29	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-18-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 2:19:00 PM
Lab ID:	1604138-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Surr: 4-Bromofluorobenzene	91	70.7-125		%REC	222156	1	04/06/2016 01:24	AR
Surr: Dibromofluoromethane	95	82.2-120		%REC	222156	1	04/06/2016 01:24	AR
Surr: Toluene-d8	95.1	81.8-120		%REC	222156	1	04/06/2016 01:24	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,1-Dichloroethane	100	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,1-Dichloroethene	23	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 01:24	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 01:24	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 01:24	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 01:24	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 01:24	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 01:24	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 01:24	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 01:24	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-18-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 2:19:00 PM
Lab ID:	1604138-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:24	AR
Vinyl chloride	9.0	2.0		ug/L	222156	1	04/06/2016 01:24	AR
Surr: 4-Bromofluorobenzene	91	70.7-125		%REC	222156	1	04/06/2016 01:24	AR
Surr: Dibromofluoromethane	95	82.2-120		%REC	222156	1	04/06/2016 01:24	AR
Surr: Toluene-d8	95.1	81.8-120		%REC	222156	1	04/06/2016 01:24	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-17-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 5:25:00 PM
Lab ID:	1604138-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Surr: 4-Bromofluorobenzene	87.2	70.7-125		%REC	222156	1	04/06/2016 01:52	AR
Surr: Dibromofluoromethane	92.9	82.2-120		%REC	222156	1	04/06/2016 01:52	AR
Surr: Toluene-d8	95.8	81.8-120		%REC	222156	1	04/06/2016 01:52	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,1-Dichloroethane	5.5	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 01:52	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 01:52	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 01:52	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 01:52	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 01:52	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 01:52	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 01:52	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 01:52	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-17-20160330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016 5:25:00 PM
Lab ID:	1604138-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 01:52	AR
Vinyl chloride	3.6	2.0		ug/L	222156	1	04/06/2016 01:52	AR
Surr: 4-Bromofluorobenzene	87.2	70.7-125		%REC	222156	1	04/06/2016 01:52	AR
Surr: Dibromofluoromethane	92.9	82.2-120		%REC	222156	1	04/06/2016 01:52	AR
Surr: Toluene-d8	95.8	81.8-120		%REC	222156	1	04/06/2016 01:52	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	DUP-2060330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016
Lab ID:	1604138-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Surr: 4-Bromofluorobenzene	89.1	70.7-125		%REC	222156	1	04/06/2016 02:21	AR
Surr: Dibromofluoromethane	94.9	82.2-120		%REC	222156	1	04/06/2016 02:21	AR
Surr: Toluene-d8	99.8	81.8-120		%REC	222156	1	04/06/2016 02:21	AR
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,1-Dichloroethane	6.5	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,1-Dichloroethene	5.5	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 02:21	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 02:21	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 02:21	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 02:21	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 02:21	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 02:21	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 02:21	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 02:21	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	DUP-2060330-01
Project Name:	BWAY	**Collection Date:**	3/30/2016
Lab ID:	1604138-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:21	AR
Vinyl chloride	4.2	2.0		ug/L	222156	1	04/06/2016 02:21	AR
Surr: 4-Bromofluorobenzene	89.1	70.7-125		%REC	222156	1	04/06/2016 02:21	AR
Surr: Dibromofluoromethane	94.9	82.2-120		%REC	222156	1	04/06/2016 02:21	AR
Surr: Toluene-d8	99.8	81.8-120		%REC	222156	1	04/06/2016 02:21	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-19-033116-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 1:06:00 PM
Lab ID:	1604138-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Surr: 4-Bromofluorobenzene	92.1	70.7-125		%REC	222156	1	04/06/2016 02:50	AR
Surr: Dibromofluoromethane	102	82.2-120		%REC	222156	1	04/06/2016 02:50	AR
Surr: Toluene-d8	94.9	81.8-120		%REC	222156	1	04/06/2016 02:50	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,1-Dichloroethane	9.9	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,1-Dichloroethene	25	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 02:50	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 02:50	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 02:50	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 02:50	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 02:50	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 02:50	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 02:50	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 02:50	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-19-033116-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 1:06:00 PM
Lab ID:	1604138-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 02:50	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/06/2016 02:50	AR
Surr: 4-Bromofluorobenzene	92.1	70.7-125		%REC	222156	1	04/06/2016 02:50	AR
Surr: Dibromofluoromethane	102	82.2-120		%REC	222156	1	04/06/2016 02:50	AR
Surr: Toluene-d8	94.9	81.8-120		%REC	222156	1	04/06/2016 02:50	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-26-033116-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 10:43:00 AM
Lab ID:	1604138-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Surr: 4-Bromofluorobenzene	92.4	70.7-125		%REC	222156	1	04/06/2016 03:19	AR
Surr: Dibromofluoromethane	98.7	82.2-120		%REC	222156	1	04/06/2016 03:19	AR
Surr: Toluene-d8	97.2	81.8-120		%REC	222156	1	04/06/2016 03:19	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 03:19	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 03:19	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 03:19	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 03:19	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 03:19	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 03:19	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 03:19	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 03:19	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-26-033116-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 10:43:00 AM
Lab ID:	1604138-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:19	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/06/2016 03:19	AR
Surr: 4-Bromofluorobenzene	92.4	70.7-125		%REC	222156	1	04/06/2016 03:19	AR
Surr: Dibromofluoromethane	98.7	82.2-120		%REC	222156	1	04/06/2016 03:19	AR
Surr: Toluene-d8	97.2	81.8-120		%REC	222156	1	04/06/2016 03:19	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-25-033116-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 3:46:00 PM
Lab ID:	1604138-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Surr: 4-Bromofluorobenzene	90.9	70.7-125		%REC	222156	1	04/06/2016 03:48	AR
Surr: Dibromofluoromethane	104	82.2-120		%REC	222156	1	04/06/2016 03:48	AR
Surr: Toluene-d8	99.1	81.8-120		%REC	222156	1	04/06/2016 03:48	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 03:48	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 03:48	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 03:48	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 03:48	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 03:48	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 03:48	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 03:48	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 03:48	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-25-033116-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 3:46:00 PM
Lab ID:	1604138-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 03:48	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/06/2016 03:48	AR
Surr: 4-Bromofluorobenzene	90.9	70.7-125		%REC	222156	1	04/06/2016 03:48	AR
Surr: Dibromofluoromethane	104	82.2-120		%REC	222156	1	04/06/2016 03:48	AR
Surr: Toluene-d8	99.1	81.8-120		%REC	222156	1	04/06/2016 03:48	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-21-20163103-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 3:08:00 PM
Lab ID:	1604138-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Surr: 4-Bromofluorobenzene	93.3	70.7-125		%REC	222156	1	04/06/2016 04:16	AR
Surr: Dibromofluoromethane	94.4	82.2-120		%REC	222156	1	04/06/2016 04:16	AR
Surr: Toluene-d8	97.2	81.8-120		%REC	222156	1	04/06/2016 04:16	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,1-Dichloroethene	13	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
2-Butanone	BRL	50		ug/L	222156	1	04/06/2016 04:16	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/06/2016 04:16	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/06/2016 04:16	AR
Acetone	BRL	50		ug/L	222156	1	04/06/2016 04:16	AR
Benzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Chloroethane	BRL	10		ug/L	222156	1	04/06/2016 04:16	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Chloromethane	BRL	10		ug/L	222156	1	04/06/2016 04:16	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/06/2016 04:16	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Freon-113	BRL	10		ug/L	222156	1	04/06/2016 04:16	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	ERM-MW-21-20163103-01
Project Name:	BWAY	**Collection Date:**	3/31/2016 3:08:00 PM
Lab ID:	1604138-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Styrene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Toluene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/06/2016 04:16	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/06/2016 04:16	AR
Surr: 4-Bromofluorobenzene	93.3	70.7-125		%REC	222156	1	04/06/2016 04:16	AR
Surr: Dibromofluoromethane	94.4	82.2-120		%REC	222156	1	04/06/2016 04:16	AR
Surr: Toluene-d8	97.2	81.8-120		%REC	222156	1	04/06/2016 04:16	AR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	TB-20160401-01
Project Name:	BWAY	**Collection Date:**	4/1/2016 3:00:00 PM
Lab ID:	1604138-019	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Surr: 4-Bromofluorobenzene	92.3	70.7-125		%REC	222156	1	04/04/2016 15:18	AR
Surr: Dibromofluoromethane	96	82.2-120		%REC	222156	1	04/04/2016 15:18	AR
Surr: Toluene-d8	97.9	81.8-120		%REC	222156	1	04/04/2016 15:18	AR
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,1,2-Trichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,1-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,1-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,2-Dibromoethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,2-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,2-Dichloroethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,2-Dichloropropane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,3-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
1,4-Dichlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
2-Butanone	BRL	50		ug/L	222156	1	04/04/2016 15:18	AR
2-Hexanone	BRL	10		ug/L	222156	1	04/04/2016 15:18	AR
4-Methyl-2-pentanone	BRL	10		ug/L	222156	1	04/04/2016 15:18	AR
Acetone	BRL	50		ug/L	222156	1	04/04/2016 15:18	AR
Benzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Bromodichloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Bromoform	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Bromomethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Carbon disulfide	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Carbon tetrachloride	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Chlorobenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Chloroethane	BRL	10		ug/L	222156	1	04/04/2016 15:18	AR
Chloroform	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Chloromethane	BRL	10		ug/L	222156	1	04/04/2016 15:18	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Cyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Dibromochloromethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Dichlorodifluoromethane	BRL	10		ug/L	222156	1	04/04/2016 15:18	AR
Ethylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Freon-113	BRL	10		ug/L	222156	1	04/04/2016 15:18	AR
Isopropylbenzene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 13-Apr-16

Client:	ERM-Southeast	**Client Sample ID:**	TB-20160401-01
Project Name:	BWAY	**Collection Date:**	4/1/2016 3:00:00 PM
Lab ID:	1604138-019	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
m,p-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Methyl acetate	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Methyl tert-butyl ether	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Methylcyclohexane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Methylene chloride	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
o-Xylene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Styrene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Tetrachloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Toluene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Trichloroethene	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Trichlorofluoromethane	BRL	5.0		ug/L	222156	1	04/04/2016 15:18	AR
Vinyl chloride	BRL	2.0		ug/L	222156	1	04/04/2016 15:18	AR
Surr: 4-Bromofluorobenzene	92.3	70.7-125		%REC	222156	1	04/04/2016 15:18	AR
Surr: Dibromofluoromethane	96	82.2-120		%REC	222156	1	04/04/2016 15:18	AR
Surr: Toluene-d8	97.9	81.8-120		%REC	222156	1	04/04/2016 15:18	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EKM Work Order Number 1604138

Checklist completed by Signature 4/1/16 Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 0.8 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **MB-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753069**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **MB-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753069**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	43.93	0	50.00		87.9	70.7	125				
Surr: Dibromofluoromethane	48.32	0	50.00		96.6	82.2	120				
Surr: Toluene-d8	47.34	0	50.00		94.7	81.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **LCS-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753068**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.65	5.0	50.00		105	65.3	137				
Benzene	46.98	5.0	50.00		94.0	74.9	123				
Chlorobenzene	41.82	5.0	50.00		83.6	73.9	124				
Toluene	46.69	5.0	50.00		93.4	75	124				
Trichloroethene	45.53	5.0	50.00		91.1	73.1	128				
Surr: 4-Bromofluorobenzene	47.46	0	50.00		94.9	70.7	125				
Surr: Dibromofluoromethane	45.32	0	50.00		90.6	82.2	120				
Surr: Toluene-d8	47.26	0	50.00		94.5	81.8	120				

Sample ID: **1604138-001AMS** Client ID: **MW-23-2060328-01** Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753072**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.32	5.0	50.00		115	60	150				
Benzene	51.47	5.0	50.00		103	70.1	132				
Chlorobenzene	46.68	5.0	50.00		93.4	70.9	131				
Toluene	48.96	5.0	50.00		97.9	70.1	133				
Trichloroethene	49.31	5.0	50.00		98.6	70	136				
Surr: 4-Bromofluorobenzene	44.96	0	50.00		89.9	70.7	125				
Surr: Dibromofluoromethane	49.57	0	50.00		99.1	82.2	120				
Surr: Toluene-d8	46.85	0	50.00		93.7	81.8	120				

Sample ID: **1604138-001AMSD** Client ID: **MW-23-2060328-01** Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753073**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	53.87	5.0	50.00		108	60	150	57.32	6.21	17.7	
Benzene	48.59	5.0	50.00		97.2	70.1	132	51.47	5.76	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **1604138-001AMSD** Client ID: **MW-23-2060328-01** Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753073**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	44.98	5.0	50.00		90.0	70.9	131	46.68	3.71	20	
Toluene	48.78	5.0	50.00		97.6	70.1	133	48.96	0.368	20	
Trichloroethene	45.98	5.0	50.00		92.0	70	136	49.31	6.99	20	
Surr: 4-Bromofluorobenzene	49.47	0	50.00		98.9	70.7	125	44.96	0	0	
Surr: Dibromofluoromethane	47.88	0	50.00		95.8	82.2	120	49.57	0	0	
Surr: Toluene-d8	46.81	0	50.00		93.6	81.8	120	46.85	0	0	

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **MB-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753111**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,1-Dichloropropene	BRL	5.0									
1,2,3-Trichlorobenzene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2,4-Trimethylbenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3,5-Trimethylbenzene	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,3-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2,2-Dichloropropane	BRL	5.0									
2-Butanone	BRL	50									
2-Chloroethyl vinyl ether	BRL	5.0									
2-Chlorotoluene	BRL	5.0									
2-Hexanone	BRL	10									
4-Chlorotoluene	BRL	5.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **MB-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753111**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4-Isopropyltoluene	BRL	5.0									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrolein	BRL	20									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromobenzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Hexachlorobutadiene	BRL	5.0									
Iodomethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **MB-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753111**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
n-Butylbenzene	BRL	5.0									
n-Propylbenzene	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
sec-Butylbenzene	BRL	5.0									
Styrene	BRL	5.0									
tert-Butylbenzene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	43.93	0	50.00		87.9	70.7	125				
Surr: Dibromofluoromethane	48.32	0	50.00		96.6	82.2	120				
Surr: Toluene-d8	47.34	0	50.00		94.7	81.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **LCS-222156** Client ID: Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753110**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.65	5.0	50.00		105	65.3	137				
Benzene	46.98	5.0	50.00		94.0	74.9	123				
Chlorobenzene	41.82	5.0	50.00		83.6	73.9	124				
Toluene	46.69	5.0	50.00		93.4	75	124				
Trichloroethene	45.53	5.0	50.00		91.1	73.1	128				
Surr: 4-Bromofluorobenzene	47.46	0	50.00		94.9	70.7	125				
Surr: Dibromofluoromethane	45.32	0	50.00		90.6	82.2	120				
Surr: Toluene-d8	47.26	0	50.00		94.5	81.8	120				

Sample ID: **1604138-001AMS** Client ID: **MW-23-2060328-01** Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753113**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.32	5.0	50.00		115	60	150				
Benzene	51.47	5.0	50.00		103	70.1	132				
Chlorobenzene	46.68	5.0	50.00		93.4	70.9	131				
Toluene	48.96	5.0	50.00		97.9	70.1	133				
Trichloroethene	49.31	5.0	50.00		98.6	70	136				
Surr: 4-Bromofluorobenzene	44.96	0	50.00		89.9	70.7	125				
Surr: Dibromofluoromethane	49.57	0	50.00		99.1	82.2	120				
Surr: Toluene-d8	46.85	0	50.00		93.7	81.8	120				

Sample ID: **1604138-001AMSD** Client ID: **MW-23-2060328-01** Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753114**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	53.87	5.0	50.00		108	60	150	57.32	6.21	17.7	
Benzene	48.59	5.0	50.00		97.2	70.1	132	51.47	5.76	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: BWAY
Workorder: 1604138

ANALYTICAL QC SUMMARY REPORT

BatchID: 222156

Sample ID: **1604138-001AMSD** Client ID: **MW-23-2060328-01** Units: **ug/L** Prep Date: **04/04/2016** Run No: **313922**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222156** Analysis Date: **04/04/2016** Seq No: **6753114**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	44.98	5.0	50.00		90.0	70.9	131	46.68	3.71	20	
Toluene	48.78	5.0	50.00		97.6	70.1	133	48.96	0.368	20	
Trichloroethene	45.98	5.0	50.00		92.0	70	136	49.31	6.99	20	
Surr: 4-Bromofluorobenzene	49.47	0	50.00		98.9	70.7	125	44.96	0	0	
Surr: Dibromofluoromethane	47.88	0	50.00		95.8	82.2	120	49.57	0	0	
Surr: Toluene-d8	46.81	0	50.00		93.6	81.8	120	46.85	0	0	

Groundwater Flow Rate Calculations

Appendix C

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

ERM • Kennesaw, GA 30144 • (770) 590-8383 • File _____

ERM

Project BWAY 0121022 | Project No _____ | Sheet 1 of 1

Subject Groundwater Velocity | By JNB | Date 6-1-16

Chkd By GEJ | Date 7-19-16

$K = 3.14$ ft/day (April/May 2008)

9.27 ft/day (April/May 2008)

$i = 0.002$ (3/28/16)

0.003 (3/28/16)

$\theta = 0.2$ (assumed)

$$V = \frac{Ki}{\theta}$$

$$V = \frac{3.14 \text{ ft/day} \times 0.002}{0.2} = 3.14 \times 10^{-2} \text{ ft/day}$$

$$V = \frac{9.27 \text{ ft/day} \times 0.003}{0.2} = 1.39 \times 10^{-1} \text{ ft/day}$$

Mann-Kendall Statistic Analysis/ Plume Stability Model

Appendix D

July 22, 2016
Project No. 0121022
BWAY Drum Site

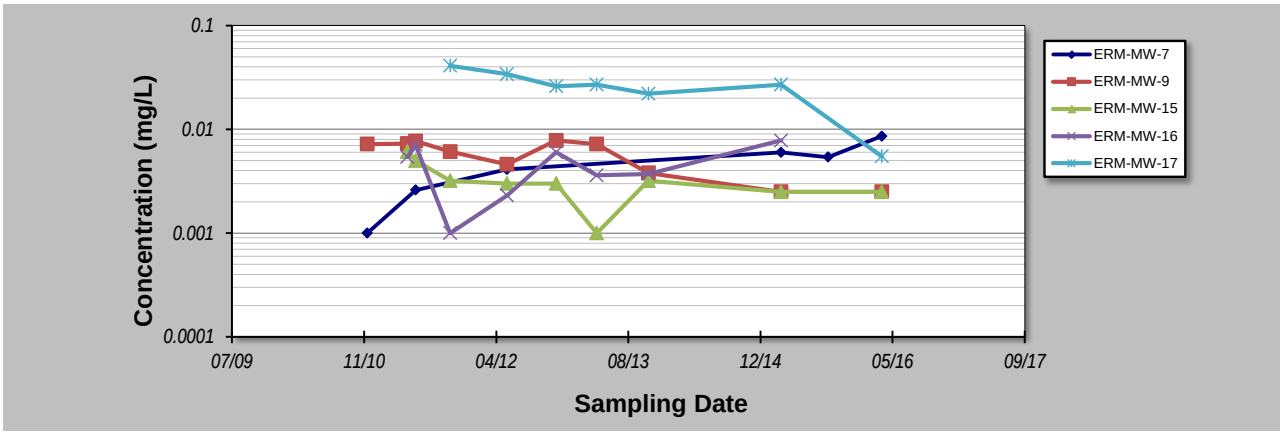
Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **5-May-16**
Facility Name: **BWAY Corporation - Homerville, GA**
Conducted By: **Andreas Shoredits**

Job ID: **0121022**
Constituent: **1,1-Dichloroethene**
Concentration Units: **mg/L**

Sampling Point ID:	ERM-MW-7	ERM-MW-9	ERM-MW-15	ERM-MW-16	ERM-MW-17		
Sampling Event	Sampling Date	1,1-DICHLOROETHENE CONCENTRATION (mg/L)						
1	30-Nov-10	0.001	0.0072	-	-	-		
2	1-May-11	-	0.0073	0.0061	0.0054	-		
3	1-Jun-11	0.003	0.0077	0.005	0.0071	-		
4	10-Oct-11	-	0.0061	0.0032	0.001	0.041		
5	28-Mar-12	-	-	-	-	-		
6	12-May-12	0.004	0.0046	0.003	0.0023	0.034		
7	14-Nov-12	-	0.0078	0.003	0.006	0.026		
8	16-Apr-13	-	0.0072	0.001	0.0036	0.027		
9	1-Jul-13	-	-	-	-	-		
10	29-Oct-13	-	0.0038	0.0032	0.0037	0.022		
11	15-Mar-15	0.006	0.0025	0.0025	0.0078	0.027		
12	9-Sep-15	0.005	-	-	-	-		
13	30-Mar-16	0.009	0.0025	0.0025	-	0.0055		
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.51	0.38	0.45	0.51	0.42		
Mann-Kendall Statistic (S):		24	-23	-23	6	-14		
Confidence Factor:		91.8%	97.7%	99.1%	72.6%	97.5%		
Concentration Trend:		Prob. Increasing	Decreasing	Decreasing	No Trend	Decreasing		



Notes:

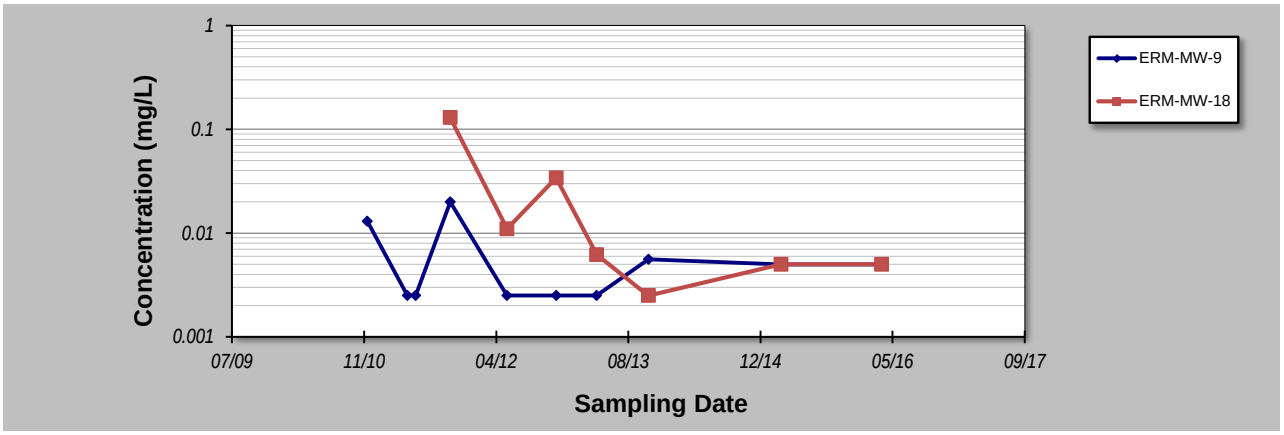
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 5-May-16
Facility Name: BWAY Corporation - Homerville, GA
Conducted By: Andreas Shoredits

Job ID: 0121022
Constituent: Chloroethane
Concentration Units: mg/L

Sampling Point ID:	ERM-MW-9	ERM-MW-18					
Sampling Event	Sampling Date	CHLOROETHANE CONCENTRATION (mg/L)						
1	30-Nov-10	0.013	-					
2	1-May-11	0.003	-					
3	1-Jun-11	0.003	-					
4	10-Oct-11	0.020	0.130					
5	28-Mar-12	-	-					
6	12-May-12	0.003	0.011					
7	14-Nov-12	0.003	0.034					
8	16-Apr-13	0.003	0.006					
9	1-Jul-13	-	-					
10	29-Oct-13	0.006	0.003					
11	15-Mar-15	0.005	0.005					
12	29-Mar-16	0.005	0.005					
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.96	1.68					
Mann-Kendall Statistic (S):		2	-14					
Confidence Factor:		53.5%	97.5%					
Concentration Trend:		No Trend	Decreasing					



Notes:

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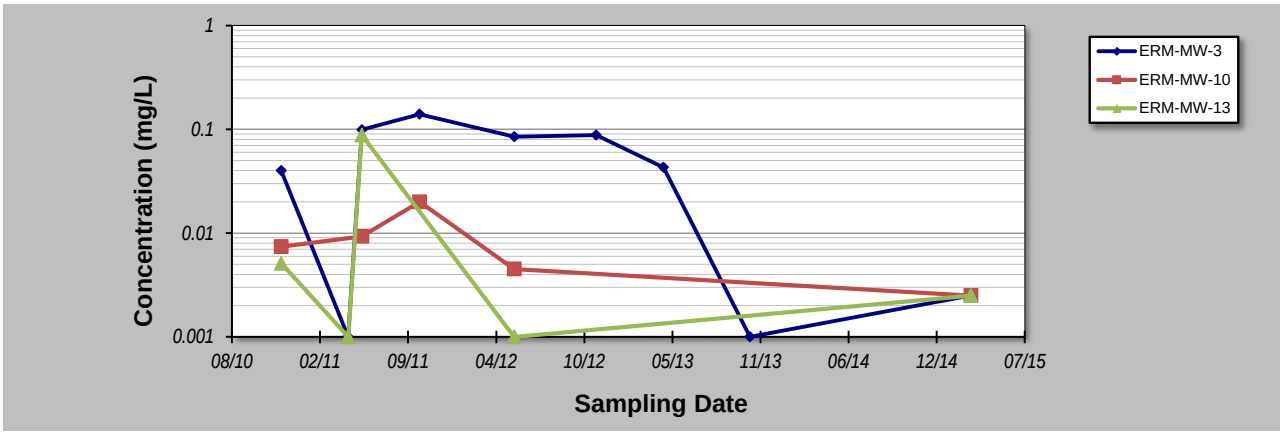
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **5-May-16**
Facility Name: **BWAY Corporation - Homerville, GA**
Conducted By: **Andreas Shoredits**

Job ID: **0121022**
Constituent: **Ethylbenzene**
Concentration Units: **mg/L**

Sampling Point ID:	ERM-MW-3	ERM-MW-10	ERM-MW-13				
Sampling Event	Sampling Date	ETHYLBENZENE CONCENTRATION (mg/L)						
1	30-Nov-10	0.040	0.007	0.0051				
2	1-May-11	0.001	-	0.001				
3	1-Jun-11	0.099	0.009	0.088				
4	10-Oct-11	0.140	0.02	-				
5	28-Mar-12	-	-	-				
6	12-May-12	0.085	0.0045	0.001				
7	14-Nov-12	0.088	-	-				
8	16-Apr-13	0.043	-	-				
9	1-Jul-13	-	-	-				
10	29-Oct-13	0.001	-	-				
11	15-Mar-15	0.003	0.0025	0.0025				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.90	0.78	1.96				
Mann-Kendall Statistic (S):		-7	-4	-1				
Confidence Factor:		72.8%	75.8%	50.0%				
Concentration Trend:		Stable	Stable	No Trend				



Notes:

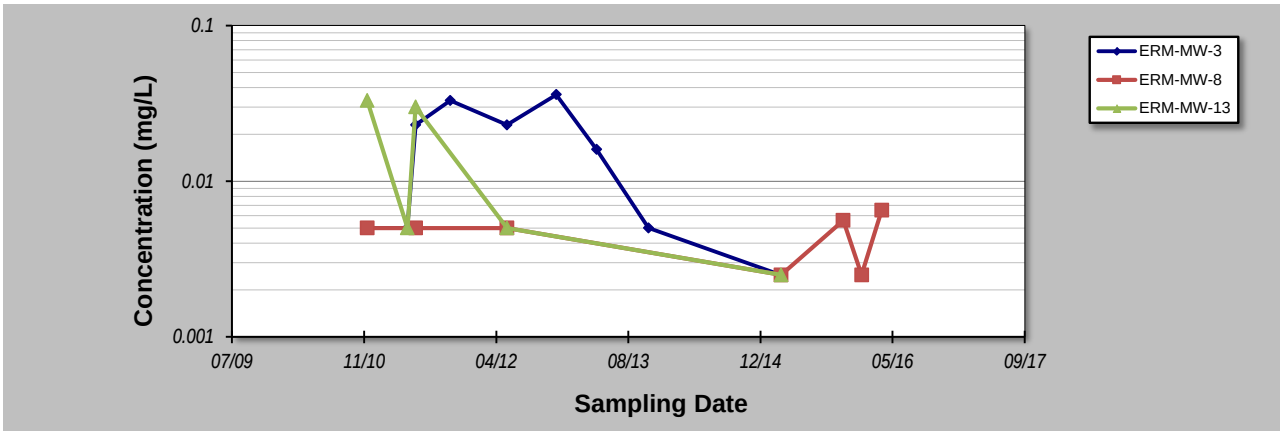
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 5-May-16
Facility Name: BWAY Corporation - Homerville, GA
Conducted By: Andreas Shoredits

Job ID: 0121022
Constituent: Isopropylbenzene
Concentration Units: mg/L

Sampling Point ID:	ERM-MW-3	ERM-MW-8	ERM-MW-13				
Sampling Event	Sampling Date	ISOPROPYLBENZENE CONCENTRATION (mg/L)						
1	30-Nov-10	0.005	0.005	0.033				
2	1-May-11	0.005	-	0.005				
3	1-Jun-11	0.023	0.005	0.03				
4	10-Oct-11	0.033	-	-				
5	28-Mar-12	-	-	-				
6	12-May-12	0.023	0.005	0.005				
7	14-Nov-12	0.036	-	-				
8	16-Apr-13	0.016	-	-				
9	1-Jul-13	-	-	-				
10	29-Oct-13	0.005	-	-				
11	15-Mar-15	0.003	0.0025	0.0025				
12	9-Sep-16	-	-	-				
13	5-Nov-15	-	0.0056	-				
14	14-Jan-16	-	0.0025	-				
15	30-Mar-16	-	0.0065	-				
16								
17								
18								
19								
20								
Coefficient of Variation:		0.78	0.33	1.00				
Mann-Kendall Statistic (S):		-4	3	-7				
Confidence Factor:		61.9%	61.4%	92.1%				
Concentration Trend:		Stable	No Trend	Prob. Decreasing				



Notes:

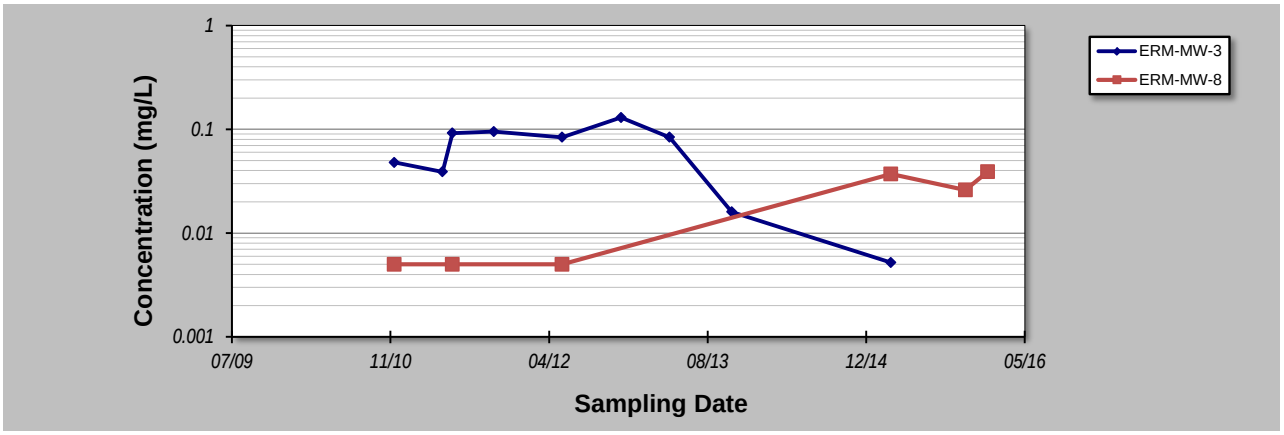
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **5-May-16**
Facility Name: **BWAY Corporation - Homerville, GA**
Conducted By: **Andreas Shoredits**

Job ID: **0121022**
Constituent: **Naphthalene**
Concentration Units: **mg/L**

Sampling Point ID:	ERM-MW-3	ERM-MW-8					
Sampling Event	Sampling Date	NAPHTHALENE CONCENTRATION (mg/L)						
1	30-Nov-10	0.048	0.005					
2	1-May-11	0.039	-					
3	1-Jun-11	0.092	0.005					
4	10-Oct-11	0.095	-					
5	28-Mar-12	-	-					
6	12-May-12	0.084	0.005					
7	14-Nov-12	0.130	-					
8	16-Apr-13	0.084	-					
9	1-Jul-13	-	-					
10	29-Oct-13	0.016	-					
11	15-Mar-15	0.005	0.037					
12	5-Nov-15	-	0.026					
13	14-Jan-16	-	0.039					
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.62	0.85					
Mann-Kendall Statistic (S):		-7	10					
Confidence Factor:		72.8%	95.2%					
Concentration Trend:		Stable	Increasing					



Notes:

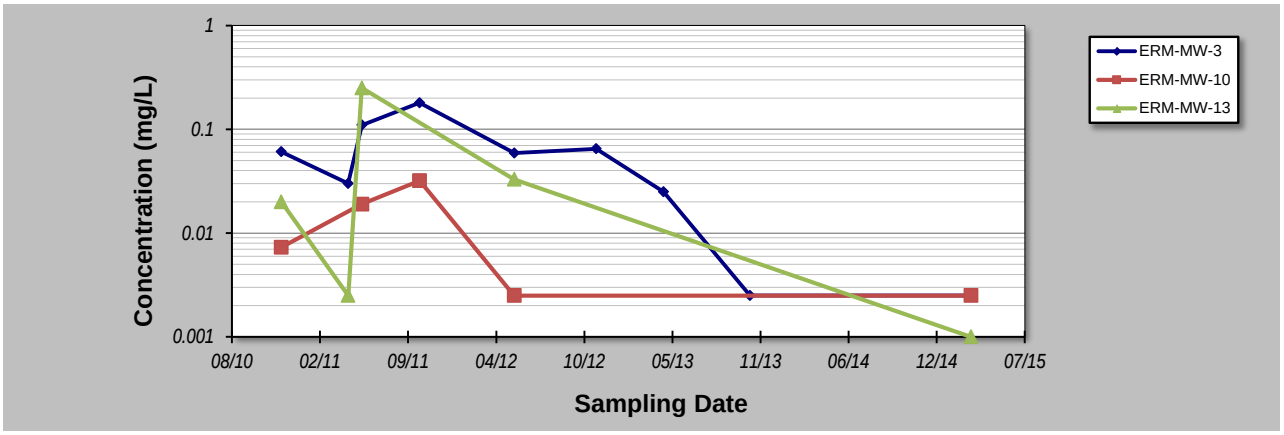
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **5-May-16**
Facility Name: **BWAY Corporation - Homerville, GA**
Conducted By: **Andreas Shoredits**

Job ID: **0121022**
Constituent: **Xylenes, Total**
Concentration Units: **mg/L**

Sampling Point ID:	ERM-MW-3	ERM-MW-10	ERM-MW-13				
Sampling Event	Sampling Date	XYLENES, TOTAL CONCENTRATION (mg/L)						
1	30-Nov-10	0.061	0.007	0.02				
2	1-May-11	0.03	-	0.0025				
3	1-Jun-11	0.11	0.019	0.25				
4	10-Oct-11	0.180	0.032	-				
5	28-Mar-12	-	-	-				
6	12-May-12	0.059	0.0025	0.033				
7	14-Nov-12	0.065	-	-				
8	16-Apr-13	0.025	-	-				
9	1-Jul-13	-	-	-				
10	29-Oct-13	0.003	-	-				
11	15-Mar-15	0.003	0.0025	0.001				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.95	1.01	1.73				
Mann-Kendall Statistic (S):		-17	-3	-2				
Confidence Factor:		95.1%	67.5%	59.2%				
Concentration Trend:		Decreasing	No Trend	No Trend				



Notes:

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2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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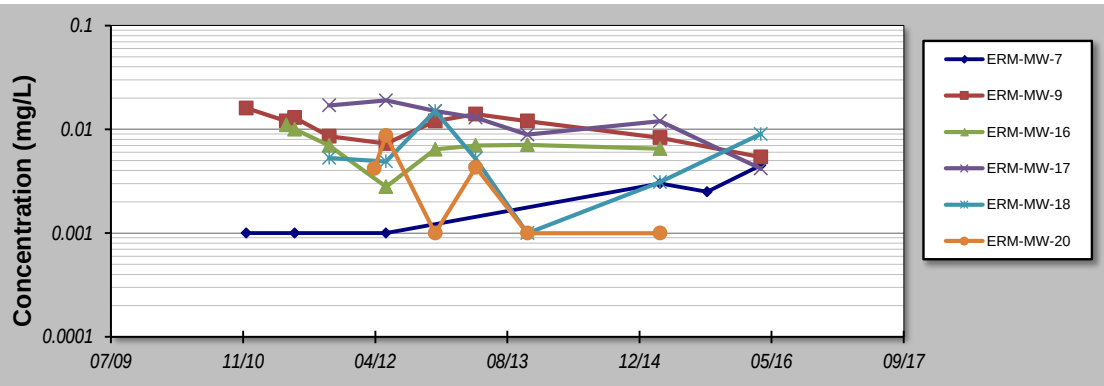
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 5-May-16
Facility Name: BWAY Corporation - Homerville, GA
Conducted By: Andreas Shoredits

Job ID: 0121022
Constituent: Vinyl Chloride
Concentration Units: mg/L

Sampling Point ID:	ERM-MW-7	ERM-MW-9	ERM-MW-16	ERM-MW-17	ERM-MW-18	ERM-MW-20
Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (mg/L)					
1	30-Nov-10	0.001	0.0160	-	-	-	-
2	1-May-11	-	0.0120	0.011	-	-	-
3	1-Jun-11	0.001	0.0130	0.01	-	-	-
4	10-Oct-11	-	0.0086	0.007	0.017	0.0053	-
5	28-Mar-12	-	-	NS	-	-	0.0042
6	12-May-12	0.001	0.0073	0.0028	0.019	0.0049	0.0087
7	14-Nov-12	-	0.012	0.0064	0.015	0.015	0.001
8	16-Apr-13	-	0.014	0.007	0.013	0.0052	0.0043
9	1-Jul-13	-	-	-	-	-	-
10	29-Oct-13	-	0.012	0.0071	0.0089	0.001	0.001
11	15-Mar-15	0.003	0.0083	0.0065	0.012	0.0031	0.001
12	9-Sep-15	0.003	-	-	-	-	-
13	30-Mar-16	0.005	0.0054	-	0.0042	0.009	-
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.73	0.31	0.34	0.39	0.74	0.91
Mann-Kendall Statistic (S):		35	-20	-9	-17	-3	-6
Confidence Factor:		98.2%	95.5%	83.2%	99.5%	61.4%	81.5%
Concentration Trend:		Increasing	Decreasing	Stable	Decreasing	Stable	Stable



Notes:

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Legal Description

Appendix E

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

L.C. -372

UNITED STATES OF AMERICA)

THIS INDENTURE made and entered into on this 15th day of December, 1972, by and between UNION CAMP CORPORATION (formerly UNION BAG CAMP PAPER CORPORATION), a corporation of Virginia, domesticated under the laws of Georgia, with an office and place of business in Chatham County, Georgia, hereinafter called Party of the First Part, and STANDARD CONTAINER COMPANY, a Georgia corporation with an office and place of business in Clinch County, Georgia, hereinafter called Party of the Second Part,

W I T N E S S E T H :

THAT the Party of the First Part for and in consideration of the sum of FORTY-NINE THOUSAND NINE HUNDRED TWENTY-FIVE and no/100 ($49,925.00) DOLLARS to it in hand paid, at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto the said Party of the Second Part, its successors and assigns, the following described property, to-wit:

All those certain tracts or parcels of land situate, lying and being on the East side of Land Lot 496 in Clinch County, Georgia, being a portion of Union Camp's lands known locally as its Bruce Douglas No. 2 "B" Tract, containing 39.94 acres, more or less, and being more particularly described as follows:

Seventh Land District

TRACT NO. ONE:

Beginning at an iron rod located on the Western right of way line of a paved County road (said right of way having a width of 80 feet) and located by reference, in feet, to the grid coordinates of the Georgia Coordinate System, East Zone, at Y(Lat) 376,895.74 and X (Dep) 309,809.70, and running thence South 02°54' East along the Western right of way line of said County road a distance of 1,518.81 feet to an iron rod located at the intersection of the Northern right of way line of U. S. Highway 84 (said right of way having a width of 60 feet) with the Western right of way line of said paved County road; running thence South 80°47' West along the Northern right of way line of U. S. Highway 84 a distance of 1,346.40 feet to a concrete monument; running thence North 02°54' West a distance of 1,003.07 feet to a point marked by a lighter wood hub, which point is located on the centerline of a powerline right of way; running thence North 60°43' East along the centerline of said powerline right of way a distance of 1,494.11 feet to the iron rod, the Point of Beginning, and containing 38.74 acres, more or less.

TRACT NO. TWO:

Beginning at a concrete monument located by reference, in feet, to the grid coordinates of the Georgia Coordinate System, East Zone, at Y(Lat) 376,226.47 and X(Dep) 309,972.33 and running thence South 77°44' West a distance of 49.40 feet to an iron rod located on the Eastern right of way line of a paved County road (said right of way having a width of 80 feet); running thence North 02°54' West along the eastern right of way line of the aforesaid paved County road a distance of 724.43 feet to an iron rod; running thence North 60°43' East a distance of 104.54 feet to an iron rod; and running thence South 00°29' West a distance of 764.21 feet to the concrete monument, the Point of Beginning, and containing 1.20 acres, more or less.

AND BEING SUBJECT to a right of way easement granted to Georgia Power & Light Company for the erection, operation and maintenance of electric transmission lines by easement dated May 16, 1952, and to rights of way or easements as evidenced by record or use.

Said tract of land as hereby conveyed is more fully described and delineated upon a boundary map of a transit survey of said lands made and prepared under the direction of and certified by Robert L. Cubbedge, Georgia Registered Surveyor No. 1676, under date of November 15, 1972, with the boundaries, metes, courses, distances and controls as shown thereon having been fixed and determined in accordance with the grid coordinates, in feet, of the Georgia Coordinate System, East Zone, as established by the United States Coast and Geodetic Survey, a copy of which map is filed in Plat Record Book C Folio 103 in the Office of the Clerk of Superior Court of Clinch County, Georgia, as well as a copy of which is attached hereto and reference to which is hereby expressly made for a more full and complete description of said lands hereby conveyed.

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining to the only proper use, benefit, and behoof of the said Party of the Second Part, its successors and assigns, in fee simple; subject, nevertheless, to rights of way or easements as may be of record or evidenced by use.

IN WITNESS WHEREOF, the said Party of the First Part, by and through its officers duly authorized so to do, has hereunto set its hand and affixed its seal and delivered these presents on this the day and year first above written.

UNION CAMP CORPORATION

By: James M. Pitts
Senior Vice President

ATTEST: [illegible]
Assistant Secretary

(corporate seal)

Signed, sealed and delivered
in the presence of:

Linda C. Brown

Robert A. Abrams
Notary Public, Chatham County,
Georgia

(N. P. Seal)

Clinch County, Georgia
Real Estate Transfer Tax
Paid $ 50.00
Date 1-15-1973
Sarah Belle C. Booth
Clerk of Superior Court

Recorded Jan. 15, 1973 Sarah Belle C. Booth
Clerk

Derivation of Risk Reduction Standards

Appendix F

July 22, 2016
Project No. 0121022
BWAY Drum Site

Environmental Resources Management
3200 Windy Hill Rd. Suite 1500W
Atlanta, GA 30339
(678) 486-2700

Table A-1
BWAY, HSI Site No. 10731
Compliance Status Report 7-22-16
Risk Reduction Standards for Soil (mg/kg)

Chemical	CAS No.	Maximum Lithographic Plant Soil Concentrations (mg/kg)	Type 1 RRS Soil (mg/kg)	Type 3 RRS	
				Surface Soil (0-2') (mg/kg)	Subsurface Soil (>2') (mg/kg)
Chromium(III)	16065-83-1	1.10E+01	1.00E+02	1.20E+03	1.20E+03
Chromium(VI)	18540-29-9		1.00E+02	1.09E+02	1.20E+03
Copper	7440-50-8	5.84E+00	1.00E+02	1.50E+03	1.50E+03
Ethylbenzene	100-41-4	5.14E+01	7.00E+01	7.00E+01	7.00E+01
Lead	7439-92-1	3.50E+01	7.50E+01	4.00E+02	4.00E+02
MEK (2-Butanone)	78-93-3	2.67E+00	2.00E+02	2.00E+02	2.00E+02
Methylene Chloride	75-09-2	1.00E-02	5.00E-01	5.00E-01	5.00E-01
Naphthalene	91-20-3	2.30E+01	2.75E+01	1.00E+02	1.00E+02
Toluene	108-88-3	1.04E+01	1.00E+02	1.00E+02	1.00E+02
Vinyl Chloride	1330-20-7	--	2.00E-01	2.00E-01	2.00E-01
Xylenes	1330-20-7	2.74E+01	1.11E+02	1.00E+03	1.00E+03
Zinc	7440-66-6	2.88E+02	1.00E+02	2.80E+03	2.80E+03

Notes:
RRS - Risk Reduction Standards
Type 1 RRS - concentrations that pose no significant risk on the basis of standardized exposure assumptions and defined risk levels for residential properties. See Table A-2 for the basis of the Type 1 RRS.
Type 3 RRS - concentrations that pose no significant risk on the basis of standardized exposure assumptions and defined risk levels for the non-residential use scenario. See Table A-3 for the basis of the Type 3 RRS.

Table A-2
BWAY, HSI Site No. 10731
Compliance Status Report 7-22-16
Type 1 Risk Reduction Standards for Soil

Chemical	CAS No.	Table 2 Appendix III (mg/kg)	Appendix I NC (mg/kg) (i)	100X (mg/kg) (ii)	Leachate (mg/kg) (iii)	(6)(c)(1) = MAX (i-iii) (mg/kg)	Type 1 Non-Carcinogen (mg/kg)	Type 1 Carcinogen (mg/kg)	Type 1 RRS (mg/kg)
Chromium(III)	16065-83-1	1.00E+02	1.20E+03	1.00E+01	-	1.20E+03	1.17E+05	-	1.00E+02
Chromium(VI)	18540-29-9	1.00E+02	1.20E+03	1.00E+01	-	1.20E+03	2.34E+02	1.81E+01	1.00E+02
Copper	7440-50-8	1.00E+02	1.50E+03	1.30E+02	-	1.50E+03	3.13E+03	-	1.00E+02
Ethylbenzene	100-41-4	-	2.00E+01	7.00E+01	-	7.00E+01	9.73E+02	4.88E+02	7.00E+01
Lead	7439-92-1	7.50E+01	4.00E+02	1.50E+00	-	4.00E+02	-	-	7.50E+01
MEK (2-Butanone)	78-93-3	-	7.90E-01	2.00E+02	-	2.00E+02	5.08E+03	-	2.00E+02
Methylene Chloride	75-09-2	-	8.00E-02	5.00E-01	-	5.00E-01	1.33E+02	2.01E+03	5.00E-01
Naphthalene	91-20-3	-	1.00E+02	2.00E+00	-	1.00E+02	2.75E+01	3.21E+02	2.75E+01
Toluene	108-88-3	-	1.44E+01	1.00E+02	-	1.00E+02	2.48E+03	-	1.00E+02
Vinyl Chloride	75-01-4	-	4.00E-02	2.00E-01	-	2.00E-01	8.17E+00	1.91E+00	2.00E-01
Xylenes	1330-20-7	-	2.00E+01	1.00E+03	-	1.00E+03	1.11E+02	-	1.11E+02
Zinc	7440-66-6	1.00E+02	2.80E+03	2.00E+02	-	2.80E+03	2.35E+04	-	1.00E+02

Notes:
- Not Available
RRS - Risk Reduction Standards
Type 1 RRS - concentrations that pose no significant risk on the basis of standardized exposure assumptions and defined risk levels for residential properties. Type 1 RRS for soil are identified as follows:

(a) For metals, concentrations in Table 2 of Appendix III, or

(b) For regulated substances not listed in Table 2 of Appendix III, the minimum of the following:

(1) Per Rule 391-3-19-07(06)(c)1, the highest of the following concentrations that will not result in contamination of groundwater above Type 1 groundwater criteria:

(i) Notification Concentration (NC) , in Appendix I, excluding values in square brackets per Rule 391-3-19-.07(6)(c)1(i)

(ii) Type 1 groundwater value multiplied by 100, per Rule 391-3-19-.07(6)(c)2 (Type 1 groundwater RRS are provided in Table A-4)

(iii) Toxicity Characteristic Leaching Procedure (TCLP), or other approved leachate method that will not generate leachate concentrations that exceed Type 1 groundwater RRS per , per Rule 391-3-19-.07(6)(c)3.

(2) Per Rule 391-3-19-.07(6)(c)2, concentration unlikely to cause non-cancer toxic effects from soil ingestion and inhalation of volatiles and particulates using Equation 7 of RAGS Part B and residential exposure assumptions in Table 3 of Appendix III. Calculations are provided in Table A-5.

(3) Per Rule 391-3-19-.07(6)(c)3, concentration for which the target excess cancer risk is less than or equal to 10-05 (10-04 for class C carcinogens) from soil ingestion and inhalation of volatiles and particulates using Equation 6 of RAGS Part B and residential exposure assumptions in Table 3 of Appendix III. Calculations are provided in Table A-5.

Table A-3
BWAY, HSI Site No. 10731
Compliance Status Report 7-22-16
Type 3 Risk Reduction Standards for Soil

Chemical	CAS No.	App I NC (mg/kg) (i)	100X (mg/kg) (ii)	Leachate (mg/kg) (iii)	App III Table 2 (mg/kg) (iv)	(8)(d)(1) MAX (i-iv) (mg/kg)	(8)(d)(2)(i) Type 3 Non-Carcinogen (mg/kg)	(8)(d)(2)(ii) Type 3 Carcinogen (mg/kg)	Type 3 RRS Surface Soil (0-2') (mg/kg)	Type 3 RRS Subsurface Soil (>2') (mg/kg)
Chromium(III)	16065-83-1	1.20E+03	1.00E+01	-	1.00E+02	1.20E+03	3.07E+06	-	1.20E+03	1.20E+03
Chromium(VI)	18540-29-9	1.20E+03	1.00E+01	-	1.00E+02	1.20E+03	6.08E+03	1.09E+02	1.09E+02	1.20E+03
Copper	7440-50-8	1.50E+03	1.30E+02	-	1.00E+02	1.50E+03	8.18E+04	-	1.50E+03	1.50E+03
Ethylbenzene	100-41-4	2.00E+01	7.00E+01	-	-	7.00E+01	1.05E+04	1.22E+03	7.00E+01	7.00E+01
Lead	7439-92-1	4.00E+02	1.50E+00	-	7.50E+01	4.00E+02	-	-	4.00E+02	4.00E+02
MEK (2-Butanone)	78-93-3	7.90E-01	2.00E+02	-	-	2.00E+02	5.45E+04	-	2.00E+02	2.00E+02
Methylene Chloride	75-09-2	8.00E-02	5.00E-01	-	-	5.00E-01	1.61E+03	6.63E+03	5.00E-01	5.00E-01
Naphthalene	91-20-3	1.00E+02	2.00E+00	-	-	1.00E+02	2.78E+02	7.70E+02	1.00E+02	1.00E+02
Toluene	108-88-3	1.44E+01	1.00E+02	-	-	1.00E+02	3.28E+04	-	1.00E+02	1.00E+02
Vinyl Chloride	75-01-4	4.00E-02	2.00E-01	-	-	2.00E-01	8.36E+01	5.05E+00	2.00E-01	2.00E-01
Xylenes	1330-20-7	2.00E+01	1.00E+03	-	-	1.00E+03	1.12E+03	-	1.00E+03	1.00E+03
Zinc	7440-66-6	2.80E+03	2.00E+02	-	1.00E+02	2.80E+03	6.13E+05	-	2.80E+03	2.80E+03

Notes:
- Not Available
RRS - Risk Reduction Standards
Type 3 RRS - concentrations that pose no significant risk on the basis of standardized exposure assumptions and defined risk levels for the non-residential use scenario. Type 3 RRS for soil are identified as follows:

(a) Per Rule 391-3-19-.07(8)(d)1, Soil concentrations at any point above the uppermost groundwater zone shall not exceed the maximum of (1), (2), and (3) below:

(1) Concentrations described in Rule 391-3-19-.07(6)(c)1, i.e., the maximum of the following concentrations that will not result in contamination of groundwater above Type 1 groundw

(i) Notification Concentration (NC) , in Appendix I, excluding values in square brackets per Rule 391-3-19-.07(6)(c)1(i)

(ii) Type 1 groundwater value multiplied by 100, per Rule 391-3-19-.07(6)(c)2 (Type 1 groundwater RRS are provided in Table A-4)

(iii) Toxicity Characteristic Leaching Procedure (TCLP), or other approved leachate method that will not generate leachate concentrations that exceed Type 1 groundwater RRS per , per Rule 391-3-19-.07(6)(c)3.

(2) For metals, concentrations in Table 2 of Appendix III

(3) For lead, 400 mg/kg

(b) Concentrations in surface soil (0-2 feet below ground surface) shall meet criteria of (a) above, and additionally shall not exceed the minimum of (1) through (3) below:

(1) Per Rule 391-3-19-.07(8)(d)2(i), concentration unlikely to result in any non-cancer toxic effects on human health due to ingestion of soil and inhalation of volatiles and particulates, determined using Equation 7 of RAGS Part B and standard non-residential exposure assumptions in Table 3 of Appendix III. Calculations are provided in Table A-5.

(2) Per Rule 391-3-19-.07(8)(d)2(ii), concentration for which the target excess cancer risk is less than or equal to 10-5 (10-4 for Class C carcinogens) from ingestion of soil and inhalation of volatiles and particulates using Equation 6 of RAGS Part B and standard non-residential exposure assumptions in Table 3 of Appendix III. Calculations are provided in Table A-5.

Table A-4
BWAY, HSI Site No. 10731
Compliance Status Report 7-22-16
Risk Reduction Standards for Ground Water (mg/L)

Chemical	CAS No.	RAGS Part B Calculations				Appendix III Table 1 (mg/L)	GA MCL (mg/L)	Ground Water (mg/L)			
		Residential (mg/L)		Non-Residential (mg/L)				Type 1 RRS	Type 2 RRS	Type 3 RRS	Type 4 RRS
		Carc.	Non-Carc.	Carc.	Non-Carc.						
Chromium(III)	16065-83-1	-	2.35E+01	-	1.53E+02	1.00E-01	1.00E-01	1.00E-01	2.35E+01	1.00E-01	1.53E+02
Chromium(VI)	18540-29-9	1.70E-03	4.69E-02	5.72E-03	3.07E-01	1.00E-01	1.00E-01	1.00E-01	1.70E-03	1.00E-01	5.72E-03
Copper	7440-50-8	-	6.26E-01	-	4.09E+00	1.30E+00	-	1.30E+00	6.26E-01	1.30E+00	4.09E+00
Ethylbenzene	100-41-4	1.94E-02	4.32E-01	2.91E-02	2.27E+00	7.00E-01	7.00E-01	7.00E-01	1.94E-02	7.00E-01	2.91E-02
Lead	7439-92-1	-	-	-	-	1.50E-02	-	1.50E-02	1.50E-02	1.50E-02	1.50E-02
MEK (2-Butanone)	78-93-3	-	2.26E+00	-	1.18E+01	2.00E+00	-	2.00E+00	2.26E+00	2.00E+00	1.18E+01
Methylene Chloride	75-09-2	4.00E-01	7.43E-02	1.22E+00	4.54E-01	5.00E-03	-	5.00E-03	7.43E-02	5.00E-03	4.54E-01
Naphthalene	91-20-3	1.91E-03	1.78E-03	2.40E-03	8.72E-03	2.00E-02	-	2.00E-02	1.78E-03	2.00E-02	2.40E-03
Toluene	108-88-3	-	8.81E-01	-	5.24E+00	1.00E+00	1.00E+00	1.00E+00	8.81E-01	1.00E+00	5.24E+00
Vinyl Chloride	1330-20-7	1.10E-03	2.63E-02	3.27E-03	1.50E-01	2.00E-03	2.00E-03	2.00E-03	1.10E-03	2.00E-03	3.27E-03
Xylenes	1330-20-7	-	5.85E-02	-	2.88E-01	1.00E+01	1.00E+01	1.00E+01	5.85E-02	1.00E+01	2.88E-01
Zinc	7440-66-6	-	4.69E+00	-	3.07E+01	2.00E+00	-	2.00E+00	4.69E+00	2.00E+00	3.07E+01

Table A-5
BWAY, HSI Site No. 10731
Compliance Status Report 7-22-16
Calculation of RAGS Part B Risk-Based Levels for Ground Water and Soil

Parameter	Unit	Symbol	Non-Specific	Residential Adult (RA) (a)	Residential Child (RC) (b)	Non-Residential / Industrial Worker (IW) (a)
Exposure frequency	days/year	EF		350	350	250
Exposure duration	years	ED		30	6	25
Exposure Interval	s	T		9.5E+08	1.9E+08	7.9E+08
Ingestion rate, soil	mg/day	IR (soil)		114	200	50
Inhalation rate	m3/day	IR (air)		15	15	20
Ingestion rate, water	liter/day	IR (water)		2	1	1
Body weight	kg	BW		70	15	70
Averaging time, nc	years	ATnc		30	6	25
Averaging time, carc	years	ATc	70			
Particulate emission factor	m3/kg	PEF	4.63E+09			
Volatilization factor (wate	L/m3	K	0.5			
Target risk (groundwater	none	TR_GW	1.00E-05			
Target hazard index	none	THI	1			
Length of Contamination	m	LS	45			
Wind speed (mixing zone	m/s	V	2.25			
Diffusion Height	m	DH	2			
Contaminated Area	cm2	A	2.03E+07			
Soil Porosity	none	E	0.35			
Particulate Density	g/cm3	ps	2.65			
Organic Carbon (for VF)	none	OC_vf	0.02			

		Toxicity Information (c)													Chemical / Physical Properties and Transport Parameters (c)													GROUNDWATER												Ground Water (mg/L)			
																												CARCINOGENIC							NONCARCINOGENIC							Residential		Non-Residential	
Chemical	CAS No	SFo (mg/kg-d)$^{-1}$	IUR (ug/m3)-1	SFi (GW) (mg/kg-d)$^{-1}$	SFi (Soil) (mg/kg-d)$^{-1}$	RfDo (mg/kg-d)	1/RfDo	RfC (mg/m3)	RfDi (GW) (mg/kg-d)	1/RfDi_GW	RfDi (Soil) (mg/kg-d)	1/RfDi_Soil	Carc Class	Target Risk (TR)	Mutagen	C	NC	VF_RA (soil-air) (m3/kg)	1/VF_RA (kg/m3	VF_RC (soil-air) (m3/kg)	1/VF_RC (kg/m3	VF_IW (soil-air) (m3/kg)	1/VF_IW (kg/m3	Koc (L/kg)	H' (unitless)	V/NV	Kd (L/kg)	HLC (atm-m3/mole)	Kas (H/Kd)	α (cm2/s)	Di (cm2/s)	Dei (cm2/s)	Ingestion-INV	Inhalation-INV	RAGS1-RA	Ingestion-INV	Inhalation-INV	RAGS1-RC	Ingestion-INV	Inhalation-INV	RAGS1-IW	Ingestion-INV	Inhalation-INV	RAGS2-RA	Ingestion-INV	Inhalation-INV	RAGS2-RC	Ingestion-INV	Inhalation-INV	RAGS2-IW	Carc	NC	Carc	NC
Chromium(III)	16065-83-1			-	-	1.50E+00	6.67E-01		-	-	-	-	Inl	-		No	Yes	-	0	-	0	-	0			NV	1.80E+06		-			-	-	-	1.83E-02	-	5.48E+01	4.26E-02	-	2.35E+01	6.52E-03	-	1.53E+02	-	2.35E+01	-	1.53E+02
Chromium(VI)	18540-29-9	5.00E-01	8.40E-02	-	2.94E+02	3.00E-03	3.33E+02	1.00E-04	-	-	2.86E-05	3.50E+04	CH	1.0E-05	M	Yes	Yes	-	0	-	0	-	0			NV	1.90E+01		-	-	-	5.87E+02	-	1.70E-03	2.74E+02	-	3.65E-03	1.75E+02	-	5.72E-03	9.13E+00	-	1.10E-01	2.13E+01	-	4.69E-02	3.26E+00	-	3.07E-01	1.70E-03	4.69E-02	5.72E-03	3.07E-01
Copper	7440-50-8			-	-	4.00E-02	2.50E+01		-	-	-	-	D			No	Yes	-	0	-	0	-	0			NV	3.50E+01		-	-	-	-	-	-	6.85E-01	-	1.46E+00	1.60E+00	-	6.26E-01	2.45E-01	-	4.09E+00	-	6.26E-01	-	4.09E+00
Ethylbenzene	100-41-4	1.10E-02	2.50E-06	8.75E-03	8.75E-03	1.00E-01	1.00E+01	1.00E+00	2.86E-01	3.50E+00	2.86E-01	3.50E+00	D	1.0E-04		Yes	Yes	8.34E+03	######	3.73E+03	######	7.62E+03	######	4.46E+02	3.22E-01	V	8.92E+00	7.88E-03	3.61E-02	3.53E-04	6.85E-02	4.84E-02	1.29E+01	3.85E+01	1.94E-02	6.03E+00	3.60E+01	2.38E-02	3.84E+00	3.06E+01	2.91E-02	2.74E-01	3.60E-01	1.58E+00	6.39E-01	1.68E+00	4.32E-01	9.78E-02	3.42E-01	2.27E+00	1.94E-02	4.32E-01	2.91E-02	2.27E+00
Lead	7439-92-1			-	-	--	--	-	-	-	-	-	B2	-		No	No	-	0	-	0	-	0			NV	9.00E+02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MEK (2-Butanone)	78-93-3			-	-	6.00E-01	1.67E+00	5.00E+00	1.43E+00	7.00E-01	1.43E+00	7.00E-01	Inl	-		No	Yes	8.55E+03	######	3.82E+03	######	7.81E+03	######	4.51E+00	2.33E-03	V	9.02E-02	5.69E-05	2.58E-02	3.37E-04	9.14E-02	6.47E-02	-	-	-	-	-	-	-	-	-	4.57E-02	7.19E-02	8.50E+00	1.07E-01	3.36E-01	2.26E+00	1.63E-02	6.85E-02	1.18E+01	-	2.26E+00	-	1.18E+01
Methylene Chloride	75-09-2	2.00E-03	1.00E-08	3.50E-05	3.50E-05	6.00E-03	1.67E+02	6.00E-01	1.71E-01	5.83E+00	1.71E-01	5.83E+00	LH	1.0E-05	M	Yes	Yes	2.31E+03	######	1.03E+03	######	2.11E+03	######	2.17E+01	1.33E-01	V	4.35E-01	3.25E-03	3.06E-01	4.13E-03	9.99E-02	7.07E-02	2.35E+00	1.54E-01	4.00E-01	1.10E+00	1.44E-01	8.07E-01	6.99E-01	1.22E-01	1.22E+00	4.57E+00	5.99E-01	1.94E-01	1.07E+01	2.80E+00	7.43E-02	1.63E+00	5.71E-01	4.54E-01	4.00E-01	7.43E-02	1.22E+00	4.54E-01
Naphthalene	91-20-3		3.40E-05	1.19E-01	1.19E-01	2.00E-02	5.00E+01	3.00E-03	8.57E-04	1.17E+03	8.57E-04	1.17E+03	C	1.0E-04		Yes	Yes	7.01E+04	######	3.14E+04	######	6.40E+04	######	1.54E+03	1.80E-02	V	3.09E+01	4.40E-04	5.83E-04	5.06E-06	6.05E-02	4.28E-02	-	5.24E+02	1.91E-03	-	4.89E+02	2.04E-03	-	4.16E+02	2.40E-03	1.37E+00	1.20E+02	8.25E-03	3.20E+00	5.59E+02	1.78E-03	4.89E-01	1.14E+02	8.72E-03	1.91E-03	1.78E-03	2.40E-03	8.72E-03
Toluene	108-88-3			-	-	8.00E-02	1.25E+01	5.00E+00	1.43E+00	7.00E-01	1.43E+00	7.00E-01	Inl	-		No	Yes	6.16E+03	######	2.75E+03	######	5.62E+03	######	2.34E+02	2.71E-01	V	4.68E+00	6.64E-03	5.80E-02	6.41E-04	7.78E-02	5.50E-02	-	-	-	-	-	-	-	-	-	3.42E-01	7.19E-02	2.41E+00	7.99E-01	3.36E-01	8.81E-01	1.22E-01	6.85E-02	5.24E+00	-	8.81E-01	-	5.24E+00
Vinyl Chloride	75-01-4	7.20E-01	4.40E-06	1.54E-02	1.54E-02	3.00E-03	3.33E+02	1.00E-01	2.86E-02	3.50E+01	2.86E-02	3.50E+01	CH	1.0E-05	M	Yes	Yes	6.36E+02	######	2.84E+02	######	5.80E+02	######	2.17E+01	1.14E+00	V	4.35E-01	2.78E-02	2.62E+00	2.63E-02	1.07E-01	7.58E-02	8.45E+02	6.78E+01	1.10E-03	3.95E+02	6.33E+01	2.18E-03	2.52E+02	5.38E+01	3.27E-03	9.13E+00	3.60E+00	7.86E-02	2.13E+01	1.68E+01	2.63E-02	3.26E+00	3.42E+00	1.50E-01	1.10E-03	2.63E-02	3.27E-03	1.50E-01
Xylenes	1330-20-7			-	-	2.00E-01	5.00E+00	1.00E-01	2.86E-02	3.50E+01	2.86E-02	3.50E+01	Inl	-		No	Yes	8.42E+03	######	3.77E+03	######	7.69E+03	######	3.83E+02	2.71E-01	V	7.66E+00	6.63E-03	3.54E-02	3.46E-04	6.85E-02	4.85E-02	-	-	-	-	-	-	-	-	-	1.37E-01	3.60E+00	2.68E-01	3.20E-01	1.68E+01	5.85E-02	4.89E-02	3.42E+00	2.88E-01	-	5.85E-02	-	2.88E-01
Zinc	7440-66-6			-	-	3.00E-01	3.33E+00		-	-	-	-	D	-		No	Yes	-	0	-	0	-	0			NV	6.20E+01		-	-	-	-	-	-	9.13E-02	-	1.10E+01	2.13E-01	-	4.69E+00	3.26E-02	-	3.07E+01	-	4.69E+00	-	3.07E+01

Notes:
(a) Default exposure assumptions from Table 3 Appendix III.
(b) Default values from "Comparison of Existing Contamination to RRS 391-3-19-.07", Common Mistakes
(c) Toxicity values and chemical/physical properties obtained from EPA RSL tables, updated May 2016.
SFo - carcinogenic oral slope factor
IUR - carcinogenic inhalation unit risk
SFi - carcinogenic inhalation slope factor (IUR * 70 * 1000/20)
RfDo – Oral reference dose
RfC – Inhalation reference concentration
RfDi – Inhalation reference dose (RfC * 20/70)

Notes (continued):
VF - volatilization factor, calculated in accordance with the equation in Table 3 of Appendix III
Koc - organic carbon partition coefficient
H' - unitless Henry's Law Constant, calculated as H (atm-m3/mol) * 41
V/NV - chemical's volatility status, per EPA, volatile if H ≥ 1 x 10-5 atm-m3/mole or vapor pressure ≥ to 1 mm Hg.
Kd - soil-water partition coefficient, calculated as Koc * OC
Kas - soil-air partition coefficient, calculated as H'/Kd
α - intermediate parameter in the VF calculation, calculated as (Dei x E)/[E + (ps)(1-E)/Kas]
Di - molecular diffusivity (air)
Dei - effective diffusivity, calculated as Di x E^0.33

Table A-5
BWAY, HSI Site No. 10731
Compliance Status Report 7-22-16
Calculation of RAGS Part B Risk-Based Levels for Ground Water and Soil

RAGS Equations 6 and 7

Equation 6

$$C\ (mg/kg) = \frac{(TR)(BW)(ATc)(365\ days/year)}{(EF)(ED)\{(SFo)(10\text{-}6\ kg/mg)(IRs) + (SFi)(IRa)\{(1/VF) + (1/PEF)\}\}}$$

Equation 7

$$C\ (mg/kg) = \frac{(THI)(BW)(ATnc)(365\ days/year)}{(EF)(ED)\{(1/RfDo)(10\text{-}6\ kg/mg)(IRs) + (1/RfDi)(IRa)\{(1/VF) + (1/PEF)\}\}}$$

		SOIL - RAGS B Equations 6 and 7																	Soil Risk-Based Criteria (mg/kg)			
		CARCINOGENIC									NONCARCINOGENIC								Residential		Non-Residential	
Chemical	**CAS No**	Ingestion-INV	Inhalation-INV	**RAGS6-RA**	Ingestion-INV	Inhalation-INV	**RAGS6-RC**	Ingestion-INV	Inhalation-INV	**RAGS6-IW**	Ingestion-INV	Inhalation INV	**RAGS7-RA**	Ingestion-INV	Inhalation-INV	**RAGS7-RC**	Ingestion-INV	Inhalation-INV	**RAGS7-IW**	**Carc**	**Non-Carc**	**Carc**	**Non-Carc**
Chromium(III)	16065-83-1	-	-	-	-	-	-	-	-	-	1.04E-06	-	9.61E+05	8.52E-06	-	1.17E+05	3.26E-07	-	3.07E+06	-	**1.17E+05**	-	**3.07E+06**
Chromium(VI)	18540-29-9	3.35E-02	5.59E-04	2.94E+01	5.48E-02	5.22E-04	1.81E+01	8.74E-03	4.44E-04	1.09E+02	5.21E-04	1.55E-06	1.92E+03	4.26E-03	7.25E-06	2.34E+02	1.63E-04	1.48E-06	6.08E+03	**1.81E+01**	**2.34E+02**	**1.09E+02**	**6.08E+03**
Copper	7440-50-8	-	-	-	-	-	-	-	-	-	3.90E-05	-	2.56E+04	3.20E-04	-	3.13E+03	1.22E-05	-	8.18E+04	-	**3.13E+03**	-	**8.18E+04**
Ethylbenzene	100-41-4	7.36E-05	9.24E-04	1.00E+03	1.21E-04	1.93E-03	4.88E+02	1.92E-05	8.03E-04	1.22E+03	1.56E-05	8.62E-05	9.82E+03	1.28E-04	9.00E-04	9.73E+02	4.89E-06	8.99E-05	1.05E+04	**4.88E+02**	**9.73E+02**	**1.22E+03**	**1.05E+04**
Lead	7439-92-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MEK (2-Butanone)	78-93-3	-	-	-	-	-	-	-	-	-	2.60E-06	1.68E-05	5.15E+04	2.13E-05	1.76E-04	5.08E+03	8.15E-07	1.75E-05	5.45E+04	-	**5.08E+03**	-	**5.45E+04**
Methylene Chloride	75-09-2	1.34E-04	1.33E-04	3.74E+03	2.19E-04	2.78E-04	2.01E+03	3.49E-05	1.16E-04	6.63E+03	2.60E-04	5.19E-04	1.28E+03	2.13E-03	5.41E-03	1.33E+02	8.15E-05	5.41E-04	1.61E+03	**2.01E+03**	**1.33E+02**	**6.63E+03**	**1.61E+03**
Naphthalene	91-20-3	-	1.49E-03	6.69E+02	-	3.12E-03	3.21E+02	-	1.30E-03	7.70E+02	7.81E-05	3.42E-03	2.86E+02	6.39E-04	3.57E-02	2.75E+01	2.45E-05	3.57E-03	2.78E+02	**3.21E+02**	**2.75E+01**	**7.70E+02**	**2.78E+02**
Toluene	108-88-3	-	-	-	-	-	-	-	-	-	1.95E-05	2.34E-05	2.33E+04	1.60E-04	2.44E-04	2.48E+03	6.12E-06	2.44E-05	3.28E+04	-	**2.48E+03**	-	**3.28E+04**
Vinyl Chloride	75-01-4	4.82E-02	2.13E-01	3.82E+00	7.89E-02	4.45E-01	1.91E+00	1.26E-02	1.85E-01	5.05E+00	5.21E-04	1.13E-02	8.45E+01	4.26E-03	1.18E-01	8.17E+00	1.63E-04	1.18E-02	8.36E+01	**1.91E+00**	**8.17E+00**	**5.05E+00**	**8.36E+01**
Xylenes	1330-20-7	-	-	-	-	-	-	-	-	-	7.81E-06	8.54E-04	1.16E+03	6.39E-05	8.91E-03	1.11E+02	2.45E-06	8.91E-04	1.12E+03	-	**1.11E+02**	-	**1.12E+03**
Zinc	7440-66-6	-	-	-	-	-	-	-	-	-	5.21E-06	-	1.92E+05	4.26E-05	-	2.35E+04	1.63E-06	-	6.13E+05	-	**2.35E+04**	-	**6.13E+05**

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Acephate	30560-19-1	8.7E-03	I			4.0E-03	I					1	0.1		Acephate	30560-19-1	2.5E+01	n	2.6E+02	c**					8.0E+00	n		1.8E-03	n	
Acetaldehyde	75-07-0			2.2E-06	I			9.0E-03	I	V		1		1.1E+05	Acetaldehyde	75-07-0	8.2E+00	n	3.4E+01	n	9.4E-01	n	3.9E+00	n	1.9E+00	n		3.8E-04	n	
Acetochlor	34256-82-1					2.0E-02	I					1	0.1		Acetochlor	34256-82-1	1.3E+02	n	1.6E+03	n					3.5E+01	n		2.8E-02	n	
Acetone	67-64-1					9.0E-01	I	3.1E+01	A	V		1		1.1E+05	Acetone	67-64-1	6.1E+03	n	6.7E+04	n	3.2E+03	n	1.4E+04	n	1.4E+03	n		2.9E-01	n	
Acetone Cyanohydrin	75-86-5							2.0E-03	X			1	0.1		Acetone Cyanohydrin	75-86-5	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n						
Acetonitrile	75-05-8							6.0E-02	I	V		1		1.3E+05	Acetonitrile	75-05-8	8.1E+01	n	3.4E+02	n	6.3E+00	n	2.6E+01	n	1.3E+01	n		2.6E-03	n	
Acetylaminofluorene, 2-	98-86-2 / 53-96-3	3.8E+00	C	1.3E-03	C	1.0E-01	I			V		1	0.1	2.5E+03	Acetylaminofluorene, 2-	98-86-2 / 53-96-3	7.8E+02 / 1.4E-01	n / c	1.2E+04 / 6.0E-01	ns / c	2.2E-03	c	9.4E-03	c	1.9E+02 / 1.6E-02	n / c		5.8E-02 / 7.2E-05	n / c	
Acrolein	107-02-8					5.0E-04	I	2.0E-05	I	V		1		2.3E+04	Acrolein	107-02-8	1.4E-02	n	6.0E-02	n	2.1E-03	n	8.8E-03	n	4.2E-03	n		8.4E-07	n	
Acrylamide	79-06-1	5.0E-01	I	1.0E-04	I	2.0E-03	I	6.0E-03	I		M	1	0.1		Acrylamide	79-06-1	2.4E-01	c*	4.6E+00	c*	1.0E-02	c*	1.2E-01	c*	5.0E-02	c*		1.1E-05	c*	
Acrylic Acid	79-10-7					5.0E-01	I	1.0E-03	I	V		1		1.1E+05	Acrylic Acid	79-10-7	9.9E+00	n	4.2E+01	n	1.0E-01	n	4.4E-01	n	2.1E-01	n		4.2E-05	n	
Acrylonitrile	107-13-1	5.4E-01	I	6.8E-05	I	4.0E-02	A	2.0E-03	I	V		1		1.1E+04	Acrylonitrile	107-13-1	2.5E-01	c**	1.1E+00	c**	4.1E-02	c**	1.8E-01	c**	5.2E-02	c**		1.1E-05	c**	
Adiponitrile	111-69-3							6.0E-03	P			1	0.1		Adiponitrile	111-69-3	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n						
Alachlor	15972-60-8	5.6E-02	C			1.0E-02	I					1	0.1		Alachlor	15972-60-8	9.7E+00	c**	4.1E+01	c*					1.1E+00	c*	2.0E+00	8.7E-04	c*	1.6E-03
Aldicarb	116-06-3					1.0E-03	I					1	0.1		Aldicarb	116-06-3	6.3E+00	n	8.2E+01	n					2.0E+00	n	3.0E+00	4.9E-04	n	7.5E-04
Aldicarb Sulfone	1646-88-4					1.0E-03	I					1	0.1		Aldicarb Sulfone	1646-88-4	6.3E+00	n	8.2E+01	n					2.0E+00	n	2.0E+00	4.4E-04	n	4.4E-04
Aldicarb sulfoxide	1646-87-3											1	0.1		Aldicarb sulfoxide	1646-87-3											4.0E+00			8.8E-04
Aldrin	309-00-2	1.7E+01	I	4.9E-03	I	3.0E-05	I			V		1			Aldrin	309-00-2	3.9E-02	c**	1.8E-01	c*	5.7E-04	c	2.5E-03	c	9.2E-04	c*		1.5E-04	c*	
Allyl Alcohol	107-18-6					5.0E-03	I	1.0E-04	X	V		1		1.1E+05	Allyl Alcohol	107-18-6	3.5E-01	n	1.5E+00	n	1.0E-02	n	4.4E-02	n	2.1E-02	n		4.2E-06	n	
Allyl Chloride	107-05-1	2.1E-02	C	6.0E-06	C			1.0E-03	I	V		1		1.4E+03	Allyl Chloride	107-05-1	1.7E-01	n	6.9E-01	n	1.00E-01	n	4.40E-01	n	2.1E-01	n		6.7E-05	n	
Aluminum	7429-90-5					1.0E+00	P	5.0E-03	P			1			Aluminum	7429-90-5	7.7E+03	n	1.1E+05	nm	5.2E-01	n	2.2E+00	n	2.0E+03	n		3.0E+03	n	
Aluminum Phosphide	20859-73-8					4.0E-04	I					1			Aluminum Phosphide	20859-73-8	3.1E+00	n	4.7E+01	n					8.0E-01	n			n	
Ametryn	834-12-8					9.0E-03	I					1	0.1		Ametryn	834-12-8	5.7E+01	n	7.4E+02	n					1.5E+01	n		1.6E-02	n	
Aminobiphenyl, 4-	92-67-1	2.1E+01	C	6.0E-03	C							1	0.1		Aminobiphenyl, 4-	92-67-1	2.6E-02	c	1.1E-01	c	4.7E-04	c	2.0E-03	c	3.0E-03	c		1.5E-05	c	
Aminophenol, m-	591-27-5					8.0E-02	P					1	0.1		Aminophenol, m-	591-27-5	5.1E+02	n	6.6E+03	n					1.6E+02	n		6.1E-02	n	
Aminophenol, p-	123-30-8					2.0E-02	P					1	0.1		Aminophenol, p-	123-30-8	1.3E+02	n	1.6E+03	n					4.0E+01	n		1.5E-02	n	
Amitraz	33089-61-1					2.5E-03	I					1	0.1		Amitraz	33089-61-1	1.6E+01	n	2.1E+02	n					8.2E-01	n		4.2E-01	n	
Ammonia	7664-41-7							1.0E-01	I	V		1			Ammonia	7664-41-7					1.0E+01	n	4.4E+01	n						
Ammonium Sulfamate	7773-06-0					2.0E-01	I					1			Ammonium Sulfamate	7773-06-0	1.6E+03	n	2.3E+04	n					4.0E+02	n			n	
Amyl Alcohol, tert-	75-85-4							3.0E-03	X	V		1		1.4E+04	Amyl Alcohol, tert-	75-85-4	8.2E+00	n	3.4E+01	n	3.1E-01	n	1.3E+00	n	6.3E-01	n		1.3E-04	n	
Aniline	62-53-3	5.7E-03	I	1.6E-06	C	7.0E-03	P	1.0E-03	I			1	0.1		Aniline	62-53-3	4.4E+01	n	4.0E+02	c**	1.0E-01	n	4.4E-01	n	1.3E+01	c**		4.6E-03	c**	
Anthraquinone, 9,10-	84-65-1	4.0E-02	P			2.0E-03	X					1	0.1		Anthraquinone, 9,10-	84-65-1	1.3E+01	n	5.7E+01	c**					1.4E+00	c**		1.4E-02	c**	
Antimony (metallic)	7440-36-0					4.0E-04	I					0.2			Antimony (metallic)	7440-36-0	3.1E+00	n	4.7E+01	n					7.8E-01	n	6.0E+00	3.5E-02	n	2.7E-01
Antimony Pentoxide	1314-60-9					5.0E-04	H					0.2			Antimony Pentoxide	1314-60-9	3.9E+00	n	5.8E+01	n					9.7E-01	n			n	
Antimony Tetroxide	1332-81-6					4.0E-04	H					0.2			Antimony Tetroxide	1332-81-6	3.1E+00	n	4.7E+01	n					7.8E-01	n			n	
Antimony Trioxide	1309-64-4							2.0E-04	I			0.2			Antimony Trioxide	1309-64-4	2.8E+04	n	1.2E+05	nm	2.1E-02	n	8.8E-02	n						
Arsenic, Inorganic	7440-38-2	1.5E+00	I	4.3E-03	I	3.0E-04	I	1.5E-05	C			1	0		Arsenic, Inorganic	7440-38-2	6.8E-01	c** R	3.0E+00	c*R	6.5E-04	c**	2.9E-03	c**	5.2E-02	c*	1.0E+01	1.5E-03	c*	2.9E-01
Arsine	7784-42-1					3.5E-06	C	5.0E-05	I			1			Arsine	7784-42-1	2.7E-02	n	4.1E-01	n	5.2E-03	n	2.2E-02	n	7.0E-03	n			n	
Asulam	3337-71-1					5.0E-02	I					1	0.1		Asulam	3337-71-1	3.2E+02	n	4.1E+03	n					1.0E+02	n		2.6E-02	n	
Atrazine	1912-24-9	2.3E-01	C			3.5E-02	I					1	0.1		Atrazine	1912-24-9	2.4E+00	c*	1.0E+01	c					3.0E-01	c	3.0E+00	2.0E-04	c	1.9E-03
Auramine	492-80-8	8.8E-01	C	2.5E-04	C							1	0.1		Auramine	492-80-8	6.2E-01	c	2.6E+00	c	1.1E-02	c	4.9E-02	c	6.7E-02	c		6.1E-04	c	
Avermectin B1	65195-55-3					4.0E-04	I					1	0.1		Avermectin B1	65195-55-3	2.5E+00	n	3.3E+01	n					8.0E-01	n		1.4E+00	n	
Azinphos-methyl	86-50-0					3.0E-03	A	1.0E-02	A			1	0.1		Azinphos-methyl	86-50-0	1.9E+01	n	2.5E+02	n	1.0E+00	n	4.4E+00	n	5.6E+00	n		1.7E-03	n	
Azobenzene	103-33-3	1.1E-01	I	3.1E-05	I					V		1			Azobenzene	103-33-3	5.6E+00	c	2.6E+01	c	9.1E-02	c	4.0E-01	c	1.2E-01	c		9.3E-04	c	
Azodicarbonamide	123-77-3					1.0E+00	P	7.0E-06	P			1	0.1		Azodicarbonamide	123-77-3	8.6E+02	n	4.0E+03	n	7.3E-04	n	3.1E-03	n	2.0E+03	n		6.8E-01	n	
Barium	7440-39-3					2.0E-01	I	5.0E-04	H			0.1			Barium	7440-39-3	1.5E+03	n	2.2E+04	n	5.2E-02	n	2.2E-01	n	3.8E+02	n	2.0E+03	1.6E+01	n	8.2E+01
Barium Chromate	10294-40-3	5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0			Barium Chromate	10294-40-3	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
Benfluralin	1861-40-1					3.0E-01	I			V		1			Benfluralin	1861-40-1	2.3E+03	n	3.5E+04	n					1.7E+02	n		5.6E+00	n	
Benomyl	17804-35-2					5.0E-02	I					1	0.1		Benomyl	17804-35-2	3.2E+02	n	4.1E+03	n					9.7E+01	n		8.5E-02	n	
Bensulfuron-methyl	83055-99-6					2.0E-01	I					1	0.1		Bensulfuron-methyl	83055-99-6	1.3E+03	n	1.6E+04	n					3.9E+02	n		1.0E-01	n	
Bentazon	25057-89-0					3.0E-02	I					1	0.1		Bentazon	25057-89-0	1.9E+02	n	2.5E+03	n					5.7E+01	n		1.2E-02	n	
Benzaldehyde	100-52-7	4.0E-03	P			1.0E-01	I			V		1		1.2E+03	Benzaldehyde	100-52-7	1.7E+02	c**	8.2E+02	c*					1.9E+01	c*		4.1E-03	c*	
Benzene	71-43-2	5.5E-02	I	7.8E-06	I	4.0E-03	I	3.0E-02	I	V		1		1.8E+03	Benzene	71-43-2	1.2E+00	c**	5.1E+00	c**	3.6E-01	c**	1.6E+00	c**	4.6E-01	c**	5.0E+00	2.3E-04	c**	2.6E-03
Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	1.0E-01	X			3.0E-04	X					1	0.1		Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	1.9E+00	n	2.3E+01	c**					6.0E-01	n		1.7E-04	n	
Benzenethiol	108-98-5					1.0E-03	P			V		1		1.3E+03	Benzenethiol	108-98-5	7.8E+00	n	1.2E+02	n					1.7E+00	n		1.1E-03	n	
Benzidine	92-87-5	2.3E+02	I	6.7E-02	I	3.0E-03	I				M	1	0.1		Benzidine	92-87-5	5.3E-04	c	1.0E-02	c	1.5E-05	c	1.8E-04	c	1.1E-04	c		2.8E-07	c	
Benzoic Acid	65-85-0					4.0E+00	I					1	0.1		Benzoic Acid	65-85-0	2.5E+04	n	3.3E+05	nm					7.5E+03	n		1.5E+00	n	
Benzotrichloride	98-07-7	1.3E+01	I							V		1		3.2E+02	Benzotrichloride	98-07-7	5.3E-02	c	2.5E-01	c					3.0E-03	c		6.6E-06	c	
Benzyl Alcohol	100-51-6					1.0E-01	P					1	0.1		Benzyl Alcohol	100-51-6	6.3E+02	n	8.2E+03	n					2.0E+02	n		4.8E-02	n	
Benzyl Chloride	100-44-7	1.7E-01	I	4.9E-05	C	2.0E-03	P	1.0E-03	P	V		1		1.5E+03	Benzyl Chloride	100-44-7	1.1E+00	c**	4.8E+00	c**	5.7E-02	c**	2.5E-01	c**	8.9E-02	c**		9.8E-05	c**	
Beryllium and compounds	7440-41-7			2.4E-03	I	2.0E-03	I	2.0E-05	I			0			Beryllium and compounds	7440-41-7	1.6E+01	n	2.3E+02	n	1.2E-03	c**	5.1E-03	c**	2.5E+00	n	4.0E+00	1.9E+00	n	3.2E+00
Bifenox	42576-02-3					9.0E-03	P					1	0.1		Bifenox	42576-02-3	5.7E+01	n	7.4E+02	n					1.0E+01	n		7.6E-02	n	
Biphenthrin	82657-04-3					1.5E-02	I					1	0.1		Biphenthrin	82657-04-3	9.5E+01	n	1.2E+03	n					3.0E+01	n		1.4E+02	n	
Biphenyl, 1,1'-Bis(2-chloro-1-methylethyl) ether	92-52-4 / 108-60-1	8.0E-03	I			5.0E-01 / 4.0E-02	I	4.0E-04	X	V		1		1.0E+03	Biphenyl, 1,1'-Bis(2-chloro-1-methylethyl) ether	92-52-4 / 108-60-1	4.7E+00 / 3.1E+02	n	2.0E+01 / 4.7E+03	n / ns	4.2E-02 /	n	1.8E-01 /	n	8.3E-02 / 7.1E+01	n		8.7E-04 / 2.6E-02	n	
Bis(2-chloroethoxy) methane	111-91-1					3.0E-03	P					1	0.1		Bis(2-chloroethoxy) methane	111-91-1	1.9E+01	n	2.5E+02	n					5.9E+00	n		1.3E-03	n	
Bis(2-chloroethyl)ether	111-44-4	1.1E+00	I	3.3E-04	I					V		1		5.1E+03	Bis(2-chloroethyl)ether	111-44-4	2.3E-01	c	1.0E+00	c	8.5E-03	c	3.7E-02	c	1.4E-02	c		3.6E-06	c	
Bis(chloromethyl)ether	542-88-1	2.2E+02	I	6.2E-02	I					V		1		4.2E+03	Bis(chloromethyl)ether	542-88-1	8.3E-05	c	3.6E-04	c	4.5E-05	c	2.0E-04	c	7.2E-05	c		1.7E-08	c	
Bisphenol A	80-05-7					5.0E-02	I					1	0.1		Bisphenol A	80-05-7	3.2E+02	n	4.1E+03	n					7.7E+01	n		5.8E+00	n	
Boron And Borates Only	7440-42-8					2.0E-01	I	2.0E-02	H			1			Boron And Borates Only	7440-42-8	1.6E+03	n	2.3E+04	n	2.1E+00	n	8.8E+00	n	4.0E+02	n		1.3E+00	n	
Boron Trichloride	10294-34-5					2.0E+00	P	2.0E-02	P	V		1			Boron Trichloride	10294-34-5	1.6E+04	n	2.3E+05	nm	2.1E+00	n	8.8E+00	n	4.2E+00	n			n	
Boron Trifluoride	7637-07-2					4.0E-02	C	1.3E-02	C	V		1			Boron Trifluoride	7637-07-2	3.1E+02	n	4.7E+03	n	1.4E+00	n	5.7E+00	n	2.6E+00	n			n	
Bromate	15541-45-4	7.0E-01	I			4.0E-03	I					1			Bromate	15541-45-4	9.9E-01	c*	4.7E+00	c					1.1E-01	c*	1.0E+01	8.5E-04	c*	7.7E-02
Bromo-2-chloroethane, 1-	107-04-0	2.0E+00	X	6.0E-04	X					V		1		2.4E+03	Bromo-2-chloroethane, 1-	107-04-0	2.6E-02	c	1.1E-01	c	4.7E-03	c	2.0E-02	c	7.4E-03	c		2.1E-06	c	
Bromobenzene	108-86-1					8.0E-03	I	6.0E-02	I	V		1		6.8E+02	Bromobenzene	108-86-1	2.9E+01	n	1.8E+02	n	6.3E+00	n	2.6E+01	n	6.2E+00	n		4.2E-03	n	
Bromochloromethane	74-97-5							4.0E-02	X	V		1		4.0E+03	Bromochloromethane	74-97-5	1.5E+01	n	6.3E+01	n	4.2E+00	n	1.8E+01	n	8.3E+00	n		2.1E-03	n	
Bromodichloromethane	75-27-4	6.2E-02	I	3.7E-05	C	2.0E-02	I			V		1		9.3E+02	Bromodichloromethane	75-27-4	2.9E-01	c	1.3E+00	c	7.6E-02	c	3.3E-01	c	1.3E-01	c	8.0E+01(F)	3.6E-05	c	2.2E-02
Bromoform	75-25-2	7.9E-03	I	1.1E-06	I	2.0E-02	I			V		1		9.2E+02	Bromoform	75-25-2	1.9E+01	c**	8.6E+01	c*	2.6E+00	c	1.1E+01	c	3.3E+00	c*	8.0E+01(F)	8.7E-04	c*	2.1E-02
Bromomethane	74-83-9					1.4E-03	I	5.0E-03	I	V		1		3.6E+03	Bromomethane	74-83-9	6.8E-01	n	3.0E+00	n	5.2E-01	n	2.2E+00	n	7.5E-01	n		1.9E-04	n	
Bromophos	2104-96-3					5.0E-03	H			V		1			Bromophos	2104-96-3	3.9E+01	n	5.8E+02	n					3.5E+00	n		1.5E-02	n	
Bromoxynil	1689-84-5					2.0E-02	I					1	0.1		Bromoxynil	1689-84-5	1.3E+02	n	1.6E+03	n					3.3E+01	n		2.8E-02	n	
Bromoxynil Octanoate	1689-99-2					2.0E-02	I			V		1			Bromoxynil Octanoate	1689-99-2	1.6E+02	n	2.3E+03	n					1.4E+01	n		1.2E-01	n	
1,3-Butanol, N-	106-99-0 / 71-36-3	3.4E+00	C	3.0E-05	I	1.0E-01	I	2.0E-03	I	V		1		6.7E+02 / 7.6E+03	1,3-Butanol, N-	106-99-0 / 71-36-3	5.8E-02 / 7.8E+02	c** / n	2.6E-01 / 1.2E+04	c** / ns	9.4E-02	c**	4.1E-01	c**	1.8E-02 / 2.0E+02	c* / n		9.9E-06 / 4.1E-02	c* / n	
Butyl alcohol, sec-	78-92-2					2.0E+00	P	3.0E+01	P	V		1		2.1E+04	Butyl alcohol, sec-	78-92-2	1.3E+04	n	1.5E+05	nm s	3.1E+03	n	1.3E+04	n	2.4E+03	n		5.0E-01	n	
Butylate	2008-41-5					5.0E-02	I			V		1			Butylate	2008-41-5	3.9E+02	n	5.8E+03	n					4.6E+01	n		4.5E-02	n	
Butylated hydroxyanisole	25013-16-5	2.0E-04	C	5.7E-08	C							1	0.1		Butylated hydroxyanisole	25013-16-5	2.7E+03	c	1.1E+04	c	4.9E+01	c	2.2E+02	c	1.5E+02	c		2.9E-01	c	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Butylated hydroxytoluene	128-37-0	3.6E-03	P			3.0E-01	P					1	0.1		Butylated hydroxytoluene	128-37-0	1.5E+02	c*	6.4E+02	c*					3.4E+00	c*		1.0E-01	c*	
Butylbenzene, n-	104-51-8					5.0E-02	P			V		1		1.1E+02	Butylbenzene, n-	104-51-8	3.9E+02	ns	5.8E+03	ns					1.0E+02	n		3.2E-01	n	
Butylbenzene, sec-	135-98-8					1.0E-01	X			V		1		1.5E+02	Butylbenzene, sec-	135-98-8	7.8E+02	ns	1.2E+04	ns					2.0E+02	n		5.9E-01	n	
Butylbenzene, tert-	98-06-6					1.0E-01	X			V		1		1.8E+02	Butylbenzene, tert-	98-06-6	7.8E+02	ns	1.2E+04	ns					6.9E+01	n		1.6E-01	n	
Cacodylic Acid	75-60-5					2.0E-02	A					1	0.1		Cacodylic Acid	75-60-5	1.3E+02	n	1.6E+03	n					4.0E+01	n		1.1E-02	n	
Cadmium (Diet)	7440-43-9			1.8E-03	I	1.0E-03	I	1.0E-05	A			0	0		Cadmium (Diet)	7440-43-9	7.1E+00	n	9.8E+01	n										
Cadmium (Water)	7440-43-9			1.8E-03	I	5.0E-04	I	1.0E-05	A			0.1	0		Cadmium (Water)	7440-43-9					1.0E-03	n	4.4E-03	n	9.2E-01	n	5.0E+00	6.9E-02	n	3.8E-01
Calcium Chromate	13765-19-0	5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0			Calcium Chromate	13765-19-0	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
Caprolactam	105-60-2					5.0E-01	I	2.2E-03	C			1	0.1		Caprolactam	105-60-2	3.1E+03	n	4.0E+04	n	2.3E-01	n	9.6E-01	n	9.9E+02	n		2.5E-01	n	
Captafol	2425-06-1	1.5E-01	C	4.3E-05	C	2.0E-03	I					1	0.1		Captafol	2425-06-1	3.6E+00	c**	1.5E+01	c*	6.5E-02	c	2.9E-01	c	4.0E-01	c**		7.1E-04	c**	
Captan	133-06-2	2.3E-03	C	6.6E-07	C	1.3E-01	I					1	0.1		Captan	133-06-2	2.4E+02	c**	1.0E+03	c*	4.3E+00	c	1.9E+01	c	3.1E+01	c**		2.2E-02	c**	
Carbaryl	63-25-2					1.0E-01	I					1	0.1		Carbaryl	63-25-2	6.3E+02	n	8.2E+03	n					1.8E+02	n		1.7E-01	n	
Carbofuran	1563-66-2					5.0E-03	I					1	0.1		Carbofuran	1563-66-2	3.2E+01	n	4.1E+02	n					9.4E+00	n	4.0E+01	3.7E-03	n	1.6E-02
Carbon Disulfide	75-15-0					1.0E-01	I	7.0E-01	I	V		1		7.4E+02	Carbon Disulfide	75-15-0	7.7E+01	n	3.5E+02	n	7.3E+01	n	3.1E+02	n	8.1E+01	n		2.4E-02	n	
Carbon Tetrachloride	56-23-5	7.0E-02	I	6.0E-06	I	4.0E-03	I	1.0E-01	I	V		1		4.6E+02	Carbon Tetrachloride	56-23-5	6.5E-01	c*	2.9E+00	c*	4.7E-01	c*	2.0E+00	c*	4.6E-01	c*	5.0E+00	1.8E-04	c*	1.9E-03
Carbonyl Sulfide	463-58-1							1.0E-01	P	V		1		5.9E+03	Carbonyl Sulfide	463-58-1	6.7E+00	n	2.8E+01	n	1.0E+01	n	4.4E+01	n	2.1E+01	n		5.1E-02	n	
Carbosulfan	55285-14-8					1.0E-02	I					1	0.1		Carbosulfan	55285-14-8	6.3E+01	n	8.2E+02	n					5.1E+00	n		1.2E-01	n	
Carboxin	5234-68-4					1.0E-01	I					1	0.1		Carboxin	5234-68-4	6.3E+02	n	8.2E+03	n					1.9E+02	n		1.0E-01	n	
Ceric oxide	1306-38-3							9.0E-04	I			1			Ceric oxide	1306-38-3	1.3E+05	nm	5.4E+05	nm	9.4E-02	n	3.9E-01	n						
Chloral Hydrate	302-17-0					1.0E-01	I			V		1			Chloral Hydrate	302-17-0	7.8E+02	n	1.2E+04	n					2.0E+02	n		4.0E-02	n	
Chloramben	133-90-4					1.5E-02	I					1	0.1		Chloramben	133-90-4	9.5E+01	n	1.2E+03	n					2.9E+01	n		7.0E-03	n	
Chloranil	118-75-2	4.0E-01	H									1	0.1		Chloranil	118-75-2	1.3E+00	c	5.7E+00	c					1.8E-01	c		1.5E-04	c	
Chlordane	12789-03-6	3.5E-01	I	1.0E-04	I	5.0E-04	I	7.0E-04	I	V		1	0		Chlordane	12789-03-6	1.7E+00	c**	7.7E+00	c**	2.8E-02	c**	1.2E-01	c**	2.0E-02	c**	2.0E+00	2.7E-03	c**	2.7E-01
Chlordecone (Kepone)	143-50-0	1.0E+01	I	4.6E-03	C	3.0E-04	I					1	0.1		Chlordecone (Kepone)	143-50-0	5.4E-02	c*	2.3E-01	c	6.1E-04	c	2.7E-03	c	3.5E-03	c*		1.2E-04	c*	
Chlorfenvinphos	470-90-6					7.0E-04	A					1	0.1		Chlorfenvinphos	470-90-6	4.4E+00	n	5.7E+01	n					1.1E+00	n		3.1E-03	n	
Chlorimuron, Ethyl-	90982-32-4					2.0E-02	I					1	0.1		Chlorimuron, Ethyl-	90982-32-4	1.3E+02	n	1.6E+03	n					3.9E+01	n		1.3E-02	n	
Chlorine	7782-50-5					1.0E-01	I	1.5E-04	A	V		1		2.8E+03	Chlorine	7782-50-5	1.8E-02	n	7.8E-02	n	1.5E-02	n	6.4E-02	n	3.0E-02	n		1.4E-05	n	
Chlorine Dioxide	10049-04-4					3.0E-02	I	2.0E-04	I	V		1			Chlorine Dioxide	10049-04-4	2.3E+02	n	3.4E+03	n	2.1E-02	n	8.8E-02	n	4.2E-02	n			n	
Chlorite (Sodium Salt)	7758-19-2					3.0E-02	I					1			Chlorite (Sodium Salt)	7758-19-2	2.3E+02	n	3.5E+03	n					6.0E+01	n	1.0E+03		n	
Chloro-1,1-difluoroethane, 1-	75-68-3							5.0E+01	I	V		1		1.2E+03	Chloro-1,1-difluoroethane, 1-	75-68-3	5.4E+03	ns	2.3E+04	ns	5.2E+03	n	2.2E+04	n	1.0E+04	n		5.2E+00	n	
Chloro-1,3-butadiene, 2-	126-99-8			3.0E-04	I	2.0E-02	H	2.0E-02	I	V		1		7.9E+02	Chloro-1,3-butadiene, 2-	126-99-8	1.0E-02	c	4.4E-02	c	9.4E-03	c	4.1E-02	c	1.9E-02	c		9.8E-06	c	
Chloro-2-methylaniline HCl, 4-	3165-93-3	4.6E-01	H									1	0.1		Chloro-2-methylaniline HCl, 4-	3165-93-3	1.2E+00	c	5.0E+00	c					1.7E-01	c		1.5E-04	c	
Chloro-2-methylaniline, 4-	95-69-2	1.0E-01	P	7.7E-05	C	3.0E-03	X					1	0.1		Chloro-2-methylaniline, 4-	95-69-2	5.4E+00	c**	2.3E+01	c*	3.6E-02	c	1.6E-01	c	7.0E-01	c**		4.0E-04	c**	
Chloroacetaldehyde, 2-	107-20-0	2.7E-01	X							V		1		1.2E+04	Chloroacetaldehyde, 2-	107-20-0	2.6E+00	c	1.2E+01	c					2.9E-01	c		5.8E-05	c	
Chloroacetic Acid	79-11-8											1	0.1		Chloroacetic Acid	79-11-8											6.0E+01			1.2E-02
Chloroacetophenone, 2-	532-27-4							3.0E-05	I			1	0.1		Chloroacetophenone, 2-	532-27-4	4.3E+03	n	1.8E+04	n	3.1E-03	n	1.3E-02	n						
Chloroaniline, p-	106-47-8	2.0E-01	P			4.0E-03	I					1	0.1		Chloroaniline, p-	106-47-8	2.7E+00	c**	1.1E+01	c*					3.7E-01	c*		1.6E-04	c*	
Chlorobenzene	108-90-7					2.0E-02	I	5.0E-02	P	V		1		7.6E+02	Chlorobenzene	108-90-7	2.8E+01	n	1.3E+02	n	5.2E+00	n	2.2E+01	n	7.8E+00	n	1.0E+02	5.3E-03	n	6.8E-02
Chlorobenzilate	510-15-6	1.1E-01	C	3.1E-05	C	2.0E-02	I					1	0.1		Chlorobenzilate	510-15-6	4.9E+00	c*	2.1E+01	c*	9.1E-02	c	4.0E-01	c	3.1E-01	c*		1.0E-03	c*	
Chlorobenzoic Acid, p-	74-11-3					3.0E-02	X					1	0.1		Chlorobenzoic Acid, p-	74-11-3	1.9E+02	n	2.5E+03	n					5.1E+01	n		1.3E-02	n	
Chlorobenzotrifluoride, 4-	98-56-6					3.0E-03	P	3.0E-01	P	V		1		2.9E+02	Chlorobenzotrifluoride, 4-	98-56-6	2.1E+01	n	2.5E+02	n	3.1E+01	n	1.3E+02	n	3.5E+00	n		1.2E-02	n	
Chlorobutane, 1-	109-69-3					4.0E-02	P			V		1		7.3E+02	Chlorobutane, 1-	109-69-3	3.1E+02	n	4.7E+03	ns					6.4E+01	n		2.6E-02	n	
Chlorodifluoromethane	75-45-6							5.0E+01	I	V		1		1.7E+03	Chlorodifluoromethane	75-45-6	4.9E+03	ns	2.1E+04	ns	5.2E+03	n	2.2E+04	n	1.0E+04	n		4.3E+00	n	
Chloroethanol, 2-	107-07-3					2.0E-02	P			V		1		1.1E+05	Chloroethanol, 2-	107-07-3	1.6E+02	n	2.3E+03	n					4.0E+01	n		8.1E-03	n	
Chloroform	67-66-3	3.1E-02	C	2.3E-05	I	1.0E-02	I	9.8E-02	A	V		1		2.5E+03	Chloroform	67-66-3	3.2E-01	c*	1.4E+00	c*	1.2E-01	c*	5.3E-01	c*	2.2E-01	c*	8.0E+01(F)	6.1E-05	c*	2.2E-02
Chloromethane	74-87-3							9.0E-02	I	V		1		1.3E+03	Chloromethane	74-87-3	1.1E+01	n	4.6E+01	n	9.4E+00	n	3.9E+01	n	1.9E+01	n		4.9E-03	n	
Chloromethyl Methyl Ether	107-30-2	2.4E+00	C	6.9E-04	C					V		1		9.3E+03	Chloromethyl Methyl Ether	107-30-2	2.0E-02	c	8.9E-02	c	4.1E-03	c	1.8E-02	c	6.5E-03	c		1.4E-06	c	
Chloronitrobenzene, o-	88-73-3	3.0E-01	P			3.0E-03	P	1.0E-05	X			1	0.1		Chloronitrobenzene, o-	88-73-3	1.8E+00	c*	7.7E+00	c*	1.0E-03	n	4.4E-03	n	2.4E-01	c*		2.2E-04	c*	
Chloronitrobenzene, p-	100-00-5	6.0E-02	P			7.0E-04	P	2.0E-03	P			1	0.1		Chloronitrobenzene, p-	100-00-5	4.4E+00	n	3.8E+01	c**	2.1E-01	n	8.8E-01	n	1.2E+00	c**		1.1E-03	c**	
Chlorophenol, 2-	95-57-8					5.0E-03	I			V		1		2.7E+04	Chlorophenol, 2-	95-57-8	3.9E+01	n	5.8E+02	n					9.1E+00	n		8.9E-03	n	
Chloropicrin	76-06-2							4.0E-04	C	V		1		6.2E+02	Chloropicrin	76-06-2	2.0E-01	n	8.2E-01	n	4.2E-02	n	1.8E-01	n	8.3E-02	n		2.5E-05	n	
Chlorothalonil	1897-45-6	3.1E-03	C	8.9E-07	C	1.5E-02	I					1	0.1		Chlorothalonil	1897-45-6	9.5E+01	n	7.4E+02	c**	3.2E+00	c	1.4E+01	c	2.2E+01	c**		5.0E-02	c**	
Chlorotoluene, o-	95-49-8					2.0E-02	I			V		1		9.1E+02	Chlorotoluene, o-	95-49-8	1.6E+02	n	2.3E+03	ns					2.4E+01	n		2.3E-02	n	
Chlorotoluene, p-	106-43-4					2.0E-02	X			V		1		2.5E+02	Chlorotoluene, p-	106-43-4	1.6E+02	n	2.3E+03	ns					2.5E+01	n		2.4E-02	n	
Chlorozotocin	54749-90-5	2.4E+02	C	6.9E-02	C							1	0.1		Chlorozotocin	54749-90-5	2.3E-03	c	9.6E-03	c	4.1E-05	c	1.8E-04	c	3.2E-04	c		7.1E-08	c	
Chlorpropham	101-21-3					2.0E-01	I					1	0.1		Chlorpropham	101-21-3	1.3E+03	n	1.6E+04	n					2.8E+02	n		2.6E-01	n	
Chlorpyrifos	2921-88-2					1.0E-03	A					1	0.1		Chlorpyrifos	2921-88-2	6.3E+00	n	8.2E+01	n					8.4E-01	n		1.2E-02	n	
Chlorpyrifos Methyl	5598-13-0					1.0E-02	H					1	0.1		Chlorpyrifos Methyl	5598-13-0	6.3E+01	n	8.2E+02	n					1.2E+01	n		5.4E-02	n	
Chlorsulfuron	64902-72-3					5.0E-02	I					1	0.1		Chlorsulfuron	64902-72-3	3.2E+02	n	4.1E+03	n					9.9E+01	n		8.3E-02	n	
Chlorthal-dimethyl	1861-32-1					1.0E-02	I					1	0.1		Chlorthal-dimethyl	1861-32-1	6.3E+01	n	8.2E+02	n					1.2E+01	n		1.5E-02	n	
Chlorthiophos	60238-56-4					8.0E-04	H					1	0.1		Chlorthiophos	60238-56-4	5.1E+00	n	6.6E+01	n					2.8E-01	n		7.3E-03	n	
Insoluble Salts	16065-83-1					1.5E+00	I					0			Insoluble Salts	16065-83-1	1.2E+04	n	1.8E+05	nm					2.2E+03	n		4.0E+06	n	
Chromium(VI)	18540-29-9	5.0E-01	J	8.4E-02	S	3.0E-03	I	1.0E-04	I		M	0			Chromium(VI)	18540-29-9	3.0E-01	c*	6.3E+00	c*	1.2E-05	c	1.5E-04	c	3.5E-02	c		6.7E-04	c	
Chromium, Total	7440-47-3											0			Chromium, Total	7440-47-3											1.0E+02			1.8E+05
Clofentezine	74115-24-5					1.3E-02	I					1	0.1		Clofentezine	74115-24-5	8.2E+01	n	1.1E+03	n					2.3E+01	n		1.4E+00	n	
Cobalt	7440-48-4			9.0E-03	P	3.0E-04	P	6.0E-06	P			1			Cobalt	7440-48-4	2.3E+00	n	3.5E+01	n	3.1E-04	c**	1.4E-03	c**	6.0E-01	n		2.7E-02	n	
Coke Oven Emissions	8007-45-2			6.2E-04	I					V	M	1			Coke Oven Emissions	8007-45-2					1.6E-03	c	2.0E-02	c						
Copper	7440-50-8					4.0E-02	H					1			Copper	7440-50-8	3.1E+02	n	4.7E+03	n					8.0E+01	n	1.3E+03	2.8E+00	n	4.6E+01
Cresol, m-	108-39-4					5.0E-02	I	6.0E-01	C			1	0.1		Cresol, m-	108-39-4	3.2E+02	n	4.1E+03	n	6.3E+01	n	2.6E+02	n	9.3E+01	n		7.4E-02	n	
Cresol, o-	95-48-7					5.0E-02	I	6.0E-01	C			1	0.1		Cresol, o-	95-48-7	3.2E+02	n	4.1E+03	n	6.3E+01	n	2.6E+02	n	9.3E+01	n		7.5E-02	n	
Cresol, p-	106-44-5					1.0E-01	A	6.0E-01	C			1	0.1		Cresol, p-	106-44-5	6.3E+02	n	8.2E+03	n	6.3E+01	n	2.6E+02	n	1.9E+02	n		1.5E-01	n	
Cresol, p-chloro-m-	59-50-7					1.0E-01	A					1	0.1		Cresol, p-chloro-m-	59-50-7	6.3E+02	n	8.2E+03	n					1.4E+02	n		1.7E-01	n	
Cresols	1319-77-3					1.0E-01	A	6.0E-01	C			1	0.1		Cresols	1319-77-3	6.3E+02	n	8.2E+03	n	6.3E+01	n	2.6E+02	n	1.5E+02	n		1.3E-01	n	
Crotonaldehyde, trans-	123-73-9	1.9E+00	H			1.0E-03	P			V		1		1.7E+04	Crotonaldehyde, trans-	123-73-9	3.7E-01	c*	1.7E+00	c*					4.0E-02	c*		8.2E-06	c*	
Cumene	98-82-8					1.0E-01	I	4.0E-01	I	V		1		2.7E+02	Cumene	98-82-8	1.9E+02	n	9.9E+02	ns	4.2E+01	n	1.8E+02	n	4.5E+01	n		7.4E-02	n	
Cupferron	135-20-6	2.2E-01	C	6.3E-05	C							1	0.1		Cupferron	135-20-6	2.5E+00	c	1.0E+01	c	4.5E-02	c	1.9E-01	c	3.5E-01	c		6.1E-04	c	
Cyanazine	21725-46-2	8.4E-01	H			2.0E-03	H					1	0.1		Cyanazine	21725-46-2	6.5E-01	c*	2.7E+00	c*					8.8E-02	c*		4.1E-05	c*	
Cyanides															Cyanides															
~Calcium Cyanide	592-01-8					1.0E-03	I					1			~Calcium Cyanide	592-01-8	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
~Copper Cyanide	544-92-3					5.0E-03	I					1			~Copper Cyanide	544-92-3	3.9E+01	n	5.8E+02	n					1.0E+01	n			n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
~Cyanide (CN-)	57-12-5					6.0E-04	I	8.0E-04	S	V		1		9.5E+05	~Cyanide (CN-)	57-12-5	2.3E+00	n	1.5E+01	n	8.3E-02	n	3.5E-01	n	1.5E-01	n	2.0E+02	1.5E-03	n	2.0E+00
~Cyanogen	460-19-5					1.0E-03	I			V		1			~Cyanogen	460-19-5	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
~Cyanogen Bromide	506-68-3					9.0E-02	I			V		1			~Cyanogen Bromide	506-68-3	7.0E+02	n	1.1E+04	n					1.8E+02	n			n	
~Cyanogen Chloride	506-77-4					5.0E-02	I			V		1			~Cyanogen Chloride	506-77-4	3.9E+02	n	5.8E+03	n					1.0E+02	n			n	
~Hydrogen Cyanide	74-90-8					6.0E-04	I	8.0E-04	I	V		1		1.0E+07	~Hydrogen Cyanide	74-90-8	2.3E+00	n	1.5E+01	n	8.3E-02	n	3.5E-01	n	1.5E-01	n		1.5E-03	n	
~Potassium Cyanide	151-50-8					2.0E-03	I					1			~Potassium Cyanide	151-50-8	1.6E+01	n	2.3E+02	n					4.0E+00	n			n	
Silver Cyanide	506-61-6					5.0E-03	I					0			Silver Cyanide	506-61-6	3.9E+01	n	5.8E+02	n					8.2E+00	n			n	
~Silver Cyanide	506-64-9					1.0E-01	I					0			~Silver Cyanide	506-64-9	7.8E+02	n	1.2E+04	n					1.8E+02	n			n	
~Sodium Cyanide	143-33-9					1.0E-03	I					1			~Sodium Cyanide	143-33-9	7.8E+00	n	1.2E+02	n					2.0E+00	n	2.0E+02		n	
s	NA					2.0E-04	P					1			s	NA	1.6E+00	n	2.3E+01	n					4.0E-01	n			n	
~Thiocyanic Acid	463-56-9					2.0E-04	X			V		1			~Thiocyanic Acid	463-56-9	1.6E+00	n	2.3E+01	n					4.0E-01	n			n	
Cyanide	557-21-1					5.0E-02	I					1			Cyanide	557-21-1	3.9E+02	n	5.8E+03	n					1.0E+02	n			n	
Cyclohexane	110-82-7							6.0E+00	I	V		1		1.2E+02	Cyclohexane	110-82-7	6.5E+02	ns	2.7E+03	ns	6.3E+02	n	2.6E+03	n	1.3E+03	n		1.3E+00	n	
Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.3E-02	H									1	0.1		Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.4E+01	c	1.0E+02	c					2.4E+00	c		1.4E-02	c	
Cyclohexanone	108-94-1					5.0E+00	I	7.0E-01	P	V		1		5.1E+03	Cyclohexanone	108-94-1	2.8E+03	n	1.3E+04	ns	7.3E+01	n	3.1E+02	n	1.4E+02	n		3.4E-02	n	
Cyclohexene	110-83-8					5.0E-03	P	1.0E+00	X	V		1		2.8E+02	Cyclohexene	110-83-8	3.1E+01	n	3.1E+02	ns	1.0E+02	n	4.4E+02	n	7.0E+00	n		4.6E-03	n	
Cyclohexylamine	108-91-8					2.0E-01	I			V		1		2.9E+05	Cyclohexylamine	108-91-8	1.6E+03	n	2.3E+04	n					3.8E+02	n		1.0E-01	n	
Cyfluthrin	68359-37-5					2.5E-02	I					1	0.1		Cyfluthrin	68359-37-5	1.6E+02	n	2.1E+03	n					1.2E+01	n		3.1E+00	n	
Cyhalothrin	68085-85-8					5.0E-03	I					1	0.1		Cyhalothrin	68085-85-8	3.2E+01	n	4.1E+02	n					1.0E+01	n		6.8E+00	n	
Cypermethrin	52315-07-8					1.0E-02	I					1	0.1		Cypermethrin	52315-07-8	6.3E+01	n	8.2E+02	n					2.0E+01	n		3.2E+00	n	
Cyromazine	66215-27-8					7.5E-03	I					1	0.1		Cyromazine	66215-27-8	4.7E+01	n	6.2E+02	n					1.5E+01	n		3.8E-03	n	
DDD	72-54-8	2.4E-01	I	6.9E-05	C							1	0.1		DDD	72-54-8	2.3E+00	c	9.6E+00	c	4.1E-02	c	1.8E-01	c	3.2E-02	c		7.5E-03	c	
DDE, p,p'-	72-55-9	3.4E-01	I	9.7E-05	C					V		1			DDE, p,p'-	72-55-9	2.0E+00	c	9.3E+00	c	2.9E-02	c	1.3E-01	c	4.6E-02	c		1.1E-02	c	
DDT	50-29-3	3.4E-01	I	9.7E-05	I	5.0E-04	I					1	0		DDT	50-29-3	1.9E+00	c**	8.5E+00	c**	2.9E-02	c	1.3E-01	c	2.3E-01	c**		7.7E-02	c**	
Dalapon	75-99-0					3.0E-02	I					1	0.1		Dalapon	75-99-0	1.9E+02	n	2.5E+03	n					6.0E+01	n	2.0E+02	1.2E-02	n	4.1E-02
Daminozide	1596-84-5	1.8E-02	C	5.1E-06	C	1.5E-01	I					1	0.1		Daminozide	1596-84-5	3.0E+01	c*	1.3E+02	c*	5.5E-01	c	2.4E+00	c	4.3E+00	c*		9.5E-04	c*	
Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	7.0E-04	I			7.0E-03	I					1	0.1		Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	4.4E+01	n	5.7E+02	n					1.4E+01	n		7.8E+00	n	
Demeton	8065-48-3					4.0E-05	I					1	0.1		Demeton	8065-48-3	2.5E-01	n	3.3E+00	n					4.2E-02	n			n	
Di(2-ethylhexyl)adipate	103-23-1	1.2E-03	I			6.0E-01	I					1	0.1		Di(2-ethylhexyl)adipate	103-23-1	4.5E+02	c**	1.9E+03	c*					6.5E+01	c*	4.0E+02	4.7E+00	c*	2.9E+01
Diallate	2303-16-4	6.1E-02	H									1	0.1		Diallate	2303-16-4	8.9E+00	c	3.8E+01	c					5.4E-01	c		8.0E-04	c	
Diazinon	333-41-5					7.0E-04	A					1	0.1		Diazinon	333-41-5	4.4E+00	n	5.7E+01	n					1.0E+00	n		6.5E-03	n	
Dibenzothiophene	132-65-0					1.0E-02	X			V		1			Dibenzothiophene	132-65-0	7.8E+01	n	1.2E+03	n					6.5E+00	n		1.2E-01	n	
Dibromo-3-chloropropane, 1,2-	96-12-8	8.0E-01	P	6.0E-03	P	2.0E-04	P	2.0E-04	I	V	M	1		9.8E+02	Dibromo-3-chloropropane, 1,2-	96-12-8	5.3E-03	c*	6.4E-02	c*	1.7E-04	c	2.0E-03	c*	3.3E-04	c	2.0E-01	1.4E-07	c	8.6E-05
Dibromobenzene, 1,3-	108-36-1					4.0E-04	X			V		1		1.6E+02	Dibromobenzene, 1,3-	108-36-1	3.1E+00	n	4.7E+01	n					5.3E-01	n		5.1E-04	n	
Dibromobenzene, 1,4-	106-37-6					1.0E-02	I			V		1			Dibromobenzene, 1,4-	106-37-6	7.8E+01	n	1.2E+03	n					1.3E+01	n		1.2E-02	n	
Dibromochloromethane	124-48-1	8.4E-02	I			2.0E-02	I			V		1		8.0E+02	Dibromochloromethane	124-48-1	8.3E+00	c*	3.9E+01	c*					8.7E-01	c*	8.0E+01(F)	2.3E-04	c*	2.1E-02
Dibromoethane, 1,2-	106-93-4	2.0E+00	I	6.0E-04	I	9.0E-03	I	9.0E-03	I	V		1		1.3E+03	Dibromoethane, 1,2-	106-93-4	3.6E-02	c	1.6E-01	c	4.7E-03	c	2.0E-02	c	7.5E-03	c	5.0E-02	2.1E-06	c	1.4E-05
Dibromomethane (Methylene Bromide)	74-95-3							4.0E-03	X	V		1		2.8E+03	Dibromomethane (Methylene Bromide)	74-95-3	2.4E+00	n	9.9E+00	n	4.2E-01	n	1.8E+00	n	8.3E-01	n		2.1E-04	n	
Dibutyltin Compounds	NA					3.0E-04	P					1	0.1		Dibutyltin Compounds	NA	1.9E+00	n	2.5E+01	n					6.0E-01	n			n	
Dicamba	1918-00-9					3.0E-02	I					1	0.1		Dicamba	1918-00-9	1.9E+02	n	2.5E+03	n					5.7E+01	n		1.5E-02	n	
Dichloro-2-butene, 1,4-	764-41-0			4.2E-03	P					V		1		5.5E+02	Dichloro-2-butene, 1,4-	764-41-0	2.1E-03	c	9.4E-03	c	6.7E-04	c	2.9E-03	c	1.3E-03	c		6.6E-07	c	
Dichloro-2-butene, cis-1,4-	1476-11-5			4.2E-03	P					V		1		5.2E+02	Dichloro-2-butene, cis-1,4-	1476-11-5	7.4E-03	c	3.2E-02	c	6.7E-04	c	2.9E-03	c	1.3E-03	c		6.2E-07	c	
Dichloro-2-butene, trans-1,4-	110-57-6			4.2E-03	P					V		1		7.6E+02	Dichloro-2-butene, trans-1,4-	110-57-6	7.4E-03	c	3.2E-02	c	6.7E-04	c	2.9E-03	c	1.3E-03	c		6.2E-07	c	
Dichloroacetic Acid	79-43-6	5.0E-02	I			4.0E-03	I					1	0.1		Dichloroacetic Acid	79-43-6	1.1E+01	c**	4.6E+01	c**					1.5E+00	c**	6.0E+01	3.1E-04	c**	1.2E-02
Dichlorobenzene, 1,2-	95-50-1					9.0E-02	I	2.0E-01	H	V		1		3.8E+02	Dichlorobenzene, 1,2-	95-50-1	1.8E+02	n	9.3E+02	ns	2.1E+01	n	8.8E+01	n	3.0E+01	n	6.0E+02	3.0E-02	n	5.8E-01
Dichlorobenzene, 1,4-	106-46-7	5.4E-03	C	1.1E-05	C	7.0E-02	A	8.0E-01	I	V		1			Dichlorobenzene, 1,4-	106-46-7	2.6E+00	c	1.1E+01	c	2.6E-01	c	1.1E+00	c	4.8E-01	c	7.5E+01	4.6E-04	c	7.2E-02
Dichlorobenzidine, 3,3'-	91-94-1	4.5E-01	I	3.4E-04	C							1	0.1		Dichlorobenzidine, 3,3'-	91-94-1	1.2E+00	c	5.1E+00	c	8.3E-03	c	3.6E-02	c	1.3E-01	c		8.2E-04	c	
Dichlorobenzophenone, 4,4'-	90-98-2					9.0E-03	X					1	0.1		Dichlorobenzophenone, 4,4'-	90-98-2	5.7E+01	n	7.4E+02	n					7.8E+00	n		4.7E-02	n	
Dichlorodifluoromethane	75-71-8					2.0E-01	I	1.0E-01	X	V		1		8.5E+02	Dichlorodifluoromethane	75-71-8	8.7E+00	n	3.7E+01	n	1.0E+01	n	4.4E+01	n	2.0E+01	n		3.0E-02	n	
Dichloroethane, 1,1-	75-34-3	5.7E-03	C	1.6E-06	C	2.0E-01	P			V		1		1.7E+03	Dichloroethane, 1,1-	75-34-3	3.6E+00	c	1.6E+01	c	1.8E+00	c	7.7E+00	c	2.8E+00	c		7.8E-04	c	
Dichloroethane, 1,2-	107-06-2	9.1E-02	I	2.6E-05	I	6.0E-03	X	7.0E-03	P	V		1		3.0E+03	Dichloroethane, 1,2-	107-06-2	4.6E-01	c**	2.0E+00	c**	1.1E-01	c**	4.7E-01	c**	1.7E-01	c**	5.0E+00	4.8E-05	c**	1.4E-03
Dichloroethylene, 1,1-	75-35-4					5.0E-02	I	2.0E-01	I	V		1		1.2E+03	Dichloroethylene, 1,1-	75-35-4	2.3E+01	n	1.0E+02	n	2.1E+01	n	8.8E+01	n	2.8E+01	n	7.0E+00	1.0E-02	n	2.5E-03
Dichloroethylene, 1,2-cis-	156-59-2					2.0E-03	I			V		1		2.4E+03	Dichloroethylene, 1,2-cis-	156-59-2	1.6E+01	n	2.3E+02	n					3.6E+00	n	7.0E+01	1.1E-03	n	2.1E-02
Dichloroethylene, 1,2-trans-	156-60-5					2.0E-02	I			V		1		1.9E+03	Dichloroethylene, 1,2-trans-	156-60-5	1.6E+02	n	2.3E+03	ns					3.6E+01	n	1.0E+02	1.1E-02	n	3.1E-02
Dichlorophenol, 2,4-	120-83-2					3.0E-03	I					1	0.1		Dichlorophenol, 2,4-	120-83-2	1.9E+01	n	2.5E+02	n					4.6E+00	n		2.3E-03	n	
Dichlorophenoxy Acetic Acid, 2,4-	94-75-7					1.0E-02	I					1	0.1		Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	7.0E+01	n	9.6E+02	n					1.7E+01	n	7.0E+01	4.5E-03	n	1.8E-02
Dichlorophenoxy)butyric Acid, 4-(2,4-	94-82-6					8.0E-03	I					1	0.1		Dichlorophenoxy)butyric Acid, 4-(2,4-	94-82-6	5.1E+01	n	6.6E+02	n					1.2E+01	n		1.1E-02	n	
Dichloropropane, 1,2-	78-87-5	3.6E-02	C	1.0E-05	C	9.0E-02	A	4.0E-03	I	V		1		1.4E+03	Dichloropropane, 1,2-	78-87-5	1.0E+00	c**	4.4E+00	c**	2.8E-01	c**	1.2E+00	c**	4.4E-01	c**	5.0E+00	1.5E-04	c**	1.7E-03
Dichloropropane, 1,3-	142-28-9					2.0E-02	P			V		1		1.5E+03	Dichloropropane, 1,3-	142-28-9	1.6E+02	n	2.3E+03	ns					3.7E+01	n		1.3E-02	n	
Dichloropropanol, 2,3-	616-23-9					3.0E-03	I					1	0.1		Dichloropropanol, 2,3-	616-23-9	1.9E+01	n	2.5E+02	n					5.9E+00	n		1.3E-03	n	
Dichloropropene, 1,3-	542-75-6	1.0E-01	I	4.0E-06	I	3.0E-02	I	2.0E-02	I	V		1		1.6E+03	Dichloropropene, 1,3-	542-75-6	1.8E+00	c**	8.2E+00	c**	7.0E-01	c**	3.1E+00	c**	4.7E-01	c**		1.7E-04	c**	
Dichlorvos	62-73-7	2.9E-01	I	8.3E-05	C	5.0E-04	I	5.0E-04	I			1	0.1		Dichlorvos	62-73-7	1.9E+00	c**	7.9E+00	c**	3.4E-02	c**	1.5E-01	c**	2.6E-01	c**		8.1E-05	c**	
Dicrotophos	141-66-2					1.0E-04	I					1	0.1		Dicrotophos	141-66-2	6.3E-01	n	8.2E+00	n					2.0E-01	n		4.7E-05	n	
Dicyclopentadiene	77-73-6					8.0E-02	P	3.0E-04	X	V		1		2.6E+02	Dicyclopentadiene	77-73-6	1.3E-01	n	5.4E-01	n	3.1E-02	n	1.3E-01	n	6.3E-02	n		2.2E-04	n	
Dieldrin	60-57-1	1.6E+01	I	4.6E-03	I	5.0E-05	I					1	0.1		Dieldrin	60-57-1	3.4E-02	c**	1.4E-01	c*	6.1E-04	c	2.7E-03	c	1.8E-03	c*		7.1E-05	c*	
Diesel Engine Exhaust	NA			3.0E-04	C			5.0E-03	I			1	0.1		Diesel Engine Exhaust	NA					9.4E-03	c*	4.1E-02	c*						
Diethanolamine	111-42-2					2.0E-03	P	2.0E-04	P			1	0.1		Diethanolamine	111-42-2	1.3E+01	n	1.6E+02	n	2.1E-02	n	8.8E-02	n	4.0E+00	n		8.1E-04	n	
Diethylene Glycol Monobutyl Ether	112-34-5					3.0E-02	P	1.0E-04	P			1	0.1		Diethylene Glycol Monobutyl Ether	112-34-5	1.9E+02	n	2.4E+03	n	1.0E-02	n	4.4E-02	n	6.0E+01	n		1.3E-02	n	
Diethylene Glycol Monoethyl Ether	111-90-0					6.0E-02	P	3.0E-04	P			1	0.1		Diethylene Glycol Monoethyl Ether	111-90-0	3.8E+02	n	4.8E+03	n	3.1E-02	n	1.3E-01	n	1.2E+02	n		2.4E-02	n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Diethylformamide	617-84-5					1.0E-03	P			V		1		1.1E+05	Diethylformamide	617-84-5	7.8E+00	n	1.2E+02	n					2.0E+00	n		4.1E-04	n	
Diethylstilbestrol	56-53-1	3.5E+02	C	1.0E-01	C							1	0.1		Diethylstilbestrol	56-53-1	1.6E-03	c	6.6E-03	c	2.8E-05	c	1.2E-04	c	5.1E-05	c		2.8E-05	c	
Difenzoquat	43222-48-6					8.0E-02	I					1	0.1		Difenzoquat	43222-48-6	5.1E+02	n	6.6E+03	n					1.6E+02	n		2.5E+01	n	
Diflubenzuron	35367-38-5					2.0E-02	I					1	0.1		Diflubenzuron	35367-38-5	1.3E+02	n	1.6E+03	n					2.9E+01	n		3.3E-02	n	
Difluoroethane, 1,1-	75-37-6							4.0E+01	I	V		1		1.4E+03	Difluoroethane, 1,1-	75-37-6	4.8E+03	ns	2.0E+04	ns	4.2E+03	n	1.8E+04	n	8.3E+03	n		2.8E+00	n	
Diisopropyl Ether	108-20-3							7.0E-01	P	V		1		2.3E+03	Diisopropyl Ether	108-20-3	2.2E+02	n	9.4E+02	n	7.3E+01	n	3.1E+02	n	1.5E+02	n		3.7E-02	n	
Diisopropyl Methylphosphonate	1445-75-6					8.0E-02	I			V		1		5.3E+02	Diisopropyl Methylphosphonate	1445-75-6	6.3E+02	ns	9.3E+03	ns					1.6E+02	n		4.5E-02	n	
Dimethipin	55290-64-7					2.0E-02	I					1	0.1		Dimethipin	55290-64-7	1.3E+02	n	1.6E+03	n					4.0E+01	n		8.8E-03	n	
Dimethoate	60-51-5					2.0E-04	I					1	0.1		Dimethoate	60-51-5	1.3E+00	n	1.6E+01	n					4.0E-01	n		9.0E-05	n	
Dimethoxybenzidine, 3,3'-	119-90-4	1.6E+00	P									1	0.1		Dimethoxybenzidine, 3,3'-	119-90-4	3.4E-01	c	1.4E+00	c					4.7E-02	c		5.8E-05	c	
Dimethyl methylphosphonate	756-79-6	1.7E-03	P			6.0E-02	P					1	0.1		Dimethyl methylphosphonate	756-79-6	3.2E+02	c**	1.4E+03	c**					4.6E+01	c**		9.6E-03	c**	
Dimethylamino azobenzene [p-]	60-11-7	4.6E+00	C	1.3E-03	C							1	0.1		Dimethylamino azobenzene [p-]	60-11-7	1.2E-01	c	5.0E-01	c	2.2E-03	c	9.4E-03	c	5.0E-03	c		2.1E-05	c	
Dimethylaniline HCl, 2,4-	21436-96-4	5.8E-01	H									1	0.1		Dimethylaniline HCl, 2,4-	21436-96-4	9.4E-01	c	4.0E+00	c					1.3E-01	c		1.2E-04	c	
Dimethylaniline, 2,4-	95-68-1	2.0E-01	P			2.0E-03	X					1	0.1		Dimethylaniline, 2,4-	95-68-1	2.7E+00	c**	1.1E+01	c*					3.7E-01	c*		2.1E-04	c*	
Dimethylaniline, N,N-	121-69-7					2.0E-03	I			V		1		8.3E+02	Dimethylaniline, N,N-	121-69-7	1.6E+01	n	2.3E+02	n					3.5E+00	n		1.3E-03	n	
Dimethylbenzidine, 3,3'-	119-93-7	1.1E+01	P									1	0.1		Dimethylbenzidine, 3,3'-	119-93-7	4.9E-02	c	2.1E-01	c					6.5E-03	c		4.3E-05	c	
Dimethylformamide	68-12-2					1.0E-01	P	3.0E-02	I	V		1		1.1E+05	Dimethylformamide	68-12-2	2.6E+02	n	1.5E+03	n	3.1E+00	n	1.3E+01	n	6.1E+00	n		1.2E-03	n	
Dimethylhydrazine, 1,1-	57-14-7					1.0E-04	X	2.0E-06	X	V		1		1.7E+05	Dimethylhydrazine, 1,1-	57-14-7	5.7E-03	n	2.4E-02	n	2.1E-04	n	8.8E-04	n	4.2E-04	n		9.3E-08	n	
Dimethylhydrazine, 1,2-	540-73-8	5.5E+02	C	1.6E-01	C					V		1		1.9E+05	Dimethylhydrazine, 1,2-	540-73-8	8.8E-04	c	4.1E-03	c	1.8E-05	c	7.7E-05	c	2.8E-05	c		6.5E-09	c	
Dimethylphenol, 2,4-	105-67-9					2.0E-02	I					1	0.1		Dimethylphenol, 2,4-	105-67-9	1.3E+02	n	1.6E+03	n					3.6E+01	n		4.2E-02	n	
Dimethylphenol, 2,6-	576-26-1					6.0E-04	I					1	0.1		Dimethylphenol, 2,6-	576-26-1	3.8E+00	n	4.9E+01	n					1.1E+00	n		1.3E-03	n	
Dimethylphenol, 3,4-	95-65-8					1.0E-03	I					1	0.1		Dimethylphenol, 3,4-	95-65-8	6.3E+00	n	8.2E+01	n					1.8E+00	n		2.1E-03	n	
Dimethylvinyl chloride	513-37-1	4.5E-02	C	1.3E-05	C					V		1		4.7E+02	Dimethylvinyl chloride	513-37-1	1.1E+00	c	4.8E+00	c	2.2E-01	c	9.4E-01	c	3.3E-01	c		1.1E-04	c	
Dinitro-o-cresol, 4,6-	534-52-1					8.0E-05	X					1	0.1		Dinitro-o-cresol, 4,6-	534-52-1	5.1E-01	n	6.6E+00	n					1.5E-01	n		2.6E-04	n	
Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5					2.0E-03	I					1	0.1		Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	1.3E+01	n	1.6E+02	n					2.3E+00	n		7.7E-02	n	
Dinitrobenzene, 1,2-	528-29-0					1.0E-04	P					1	0.1		Dinitrobenzene, 1,2-	528-29-0	6.3E-01	n	8.2E+00	n					1.9E-01	n		1.8E-04	n	
Dinitrobenzene, 1,3-	99-65-0					1.0E-04	I					1	0.1		Dinitrobenzene, 1,3-	99-65-0	6.3E-01	n	8.2E+00	n					2.0E-01	n		1.8E-04	n	
Dinitrobenzene, 1,4-	100-25-4					1.0E-04	P					1	0.1		Dinitrobenzene, 1,4-	100-25-4	6.3E-01	n	8.2E+00	n					2.0E-01	n		1.8E-04	n	
Dinitrophenol, 2,4-	51-28-5					2.0E-03	I					1	0.1		Dinitrophenol, 2,4-	51-28-5	1.3E+01	n	1.6E+02	n					3.9E+00	n		4.4E-03	n	
Dinitrotoluene Mixture, 2,4/2,6-	NA	6.8E-01	I									1	0.1		Dinitrotoluene Mixture, 2,4/2,6-	NA	8.0E-01	c	3.4E+00	c					1.1E-01	c		1.5E-04	c	
Dinitrotoluene, 2,4-	121-14-2	3.1E-01	C	8.9E-05	C	2.0E-03	I					1	0.1		Dinitrotoluene, 2,4-	121-14-2	1.7E+00	c**	7.4E+00	c*	3.2E-02	c	1.4E-01	c	2.4E-01	c*		3.2E-04	c*	
Dinitrotoluene, 2,6-	606-20-2	1.5E+00	P			3.0E-04	X					1	0.1		Dinitrotoluene, 2,6-	606-20-2	3.6E-01	c**	1.5E+00	c*					4.9E-02	c*		6.7E-05	c*	
Dinitrotoluene, 2-Amino-4,6-	35572-78-2					2.0E-03	S					1	0		Dinitrotoluene, 2-Amino-4,6-	35572-78-2	1.5E+01	n	2.3E+02	n					3.9E+00	n		3.0E-03	n	
Dinitrotoluene, 4-Amino-2,6-	19406-51-0					2.0E-03	S					1	0		Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.5E+01	n	2.3E+02	n					3.9E+00	n		3.0E-03	n	
Dinitrotoluene, Technical grade	25321-14-6	4.5E-01	X			9.0E-04	X					1	0.1		Dinitrotoluene, Technical grade	25321-14-6	1.2E+00	c**	5.1E+00	c*					1.0E-01	c*		1.4E-04	c*	
Dinoseb	88-85-7					1.0E-03	I					1	0.1		Dinoseb	88-85-7	6.3E+00	n	8.2E+01	n					1.5E+00	n	7.0E+00	1.3E-02	n	6.2E-02
Dioxane, 1,4-	123-91-1	1.0E-01	I	5.0E-06	I	3.0E-02	I	3.0E-02	I	V		1		1.2E+05	Dioxane, 1,4-	123-91-1	5.3E+00	c*	2.4E+01	c*	5.6E-01	c**	2.5E+00	c**	4.6E-01	c*		9.4E-05	c*	
Dioxins ibenzo-p-dioxin, Mixture	NA	6.2E+03	I	1.3E+00	I							1	0		Dioxins ibenzo-p-dioxin, Mixture	NA	1.0E-04	c	4.7E-04	c	2.2E-06	c	9.4E-06	c	1.3E-05	c		1.7E-05	c	
~TCDD, 2,3,7,8-	1746-01-6	1.3E+05	C	3.8E+01	C	7.0E-10	I	4.0E-08	C	V		1	0		~TCDD, 2,3,7,8-	1746-01-6	4.8E-06	c**	2.2E-05	c**	7.4E-08	c*	3.2E-07	c*	1.2E-07	c*	3.0E-05	5.9E-08	c*	1.5E-05
Diphenamid	957-51-7					3.0E-02	I					1	0.1		Diphenamid	957-51-7	1.9E+02	n	2.5E+03	n					5.3E+01	n		5.2E-01	n	
Diphenyl Sulfone	127-63-9					8.0E-04	X					1	0.1		Diphenyl Sulfone	127-63-9	5.1E+00	n	6.6E+01	n					1.5E+00	n		3.6E-03	n	
Diphenylamine	122-39-4					2.5E-02	I					1	0.1		Diphenylamine	122-39-4	1.6E+02	n	2.1E+03	n					3.1E+01	n		5.8E-02	n	
Diphenylhydrazine, 1,2-	122-66-7	8.0E-01	I	2.2E-04	I							1	0.1		Diphenylhydrazine, 1,2-	122-66-7	6.8E-01	c	2.9E+00	c	1.3E-02	c	5.6E-02	c	7.8E-02	c		2.5E-04	c	
Diquat	85-00-7					2.2E-03	I					1	0.1		Diquat	85-00-7	1.4E+01	n	1.8E+02	n					4.4E+00	n	2.0E+01	8.3E-02	n	3.7E-01
Direct Black 38	1937-37-7	7.1E+00	C	1.4E-01	C							1	0.1		Direct Black 38	1937-37-7	7.6E-02	c	3.2E-01	c	2.0E-05	c	8.8E-05	c	1.1E-02	c		5.3E+00	c	
Direct Blue 6	2602-46-2	7.4E+00	C	1.4E-01	C							1	0.1		Direct Blue 6	2602-46-2	7.3E-02	c	3.1E-01	c	2.0E-05	c	8.8E-05	c	1.1E-02	c		1.7E+01	c	
Direct Brown 95	16071-86-6	6.7E+00	C	1.4E-01	C							1	0.1		Direct Brown 95	16071-86-6	8.1E-02	c	3.4E-01	c	2.0E-05	c	8.8E-05	c	1.2E-02	c		1.6E-01	c	
Disulfoton	298-04-4					4.0E-05	I					1	0.1		Disulfoton	298-04-4	2.5E-01	n	3.3E+00	n					5.0E-02	n		9.4E-05	n	
Dithiane, 1,4-	505-29-3					1.0E-02	I			V		1			Dithiane, 1,4-	505-29-3	7.8E+01	n	1.2E+03	n					2.0E+01	n		9.7E-03	n	
Diuron	330-54-1					2.0E-03	I					1	0.1		Diuron	330-54-1	1.3E+01	n	1.6E+02	n					3.6E+00	n		1.5E-03	n	
Dodine	2439-10-3					4.0E-03	I					1	0.1		Dodine	2439-10-3	2.5E+01	n	3.3E+02	n					8.0E+00	n		4.1E-02	n	
EPTC	759-94-4					2.5E-02	I			V		1			EPTC	759-94-4	2.0E+02	n	2.9E+03	n					3.8E+01	n		2.0E-02	n	
Endosulfan	115-29-7					6.0E-03	I			V		1			Endosulfan	115-29-7	4.7E+01	n	7.0E+02	n					1.0E+01	n		1.4E-01	n	
Endothall	145-73-3					2.0E-02	I					1	0.1		Endothall	145-73-3	1.3E+02	n	1.6E+03	n					3.8E+01	n	1.0E+02	9.1E-03	n	2.4E-02
Endrin	72-20-8					3.0E-04	I					1	0.1		Endrin	72-20-8	1.9E+00	n	2.5E+01	n					2.3E-01	n	2.0E+00	9.2E-03	n	8.1E-02
Epichlorohydrin	106-89-8	9.9E-03	I	1.2E-06	I	6.0E-03	P	1.0E-03	I	V		1		1.1E+04	Epichlorohydrin	106-89-8	1.9E+00	n	8.2E+00	n	1.0E-01	n	4.4E-01	n	2.0E-01	n		4.5E-05	n	
Epoxybutane, 1,2-	106-88-7							2.0E-02	I	V		1		1.5E+04	Epoxybutane, 1,2-	106-88-7	1.6E+01	n	6.7E+01	n	2.1E+00	n	8.8E+00	n	4.2E+00	n		9.2E-04	n	
Ethanol, 2-(2-methoxyethoxy)-	111-77-3					4.0E-02	P					1	0.1		Ethanol, 2-(2-methoxyethoxy)-	111-77-3	2.5E+02	n	3.3E+03	n					8.0E+01	n		1.6E-02	n	
Ethephon	16672-87-0					5.0E-03	I					1	0.1		Ethephon	16672-87-0	3.2E+01	n	4.1E+02	n					1.0E+01	n		2.1E-03	n	
Ethion	563-12-2					5.0E-04	I					1	0.1		Ethion	563-12-2	3.2E+00	n	4.1E+01	n					4.3E-01	n		8.5E-04	n	
Ethoxyethanol Acetate, 2-	111-15-9					1.0E-01	P	6.0E-02	P	V		1		2.4E+04	Ethoxyethanol Acetate, 2-	111-15-9	2.6E+02	n	1.4E+03	n	6.3E+00	n	2.6E+01	n	1.2E+01	n		2.5E-03	n	
Ethoxyethanol, 2-	110-80-5					9.0E-02	P	2.0E-01	I	V		1		1.1E+05	Ethoxyethanol, 2-	110-80-5	5.2E+02	n	4.7E+03	n	2.1E+01	n	8.8E+01	n	3.4E+01	n		6.8E-03	n	
Ethyl Acetate	141-78-6					9.0E-01	I	7.0E-02	P	V		1		1.1E+04	Ethyl Acetate	141-78-6	6.2E+01	n	2.6E+02	n	7.3E+00	n	3.1E+01	n	1.4E+01	n		3.1E-03	n	
Ethyl Acrylate	140-88-5					5.0E-03	P	8.0E-03	P	V		1		2.5E+03	Ethyl Acrylate	140-88-5	4.7E+00	n	2.1E+01	n	8.3E-01	n	3.5E+00	n	1.4E+00	n		3.2E-04	n	
Ethyl Chloride (Chloroethane)	75-00-3							1.0E+01	I	V		1		2.1E+03	Ethyl Chloride (Chloroethane)	75-00-3	1.4E+03	n	5.7E+03	ns	1.0E+03	n	4.4E+03	n	2.1E+03	n		5.9E-01	n	
Ethyl Ether	60-29-7					2.0E-01	I			V		1		1.0E+04	Ethyl Ether	60-29-7	1.6E+03	n	2.3E+04	ns					3.9E+02	n		8.8E-02	n	
Ethyl Methacrylate	97-63-2							3.0E-01	P	V		1		1.1E+03	Ethyl Methacrylate	97-63-2	1.8E+02	n	7.6E+02	n	3.1E+01	n	1.3E+02	n	6.3E+01	n		1.5E-02	n	
Ethyl-p-nitrophenyl Phosphonate	2104-64-5					1.0E-05	I					1	0.1		Ethyl-p-nitrophenyl Phosphonate	2104-64-5	6.3E-02	n	8.2E-01	n					8.9E-03	n		2.8E-04	n	
Ethylbenzene	100-41-4	1.1E-02	C	2.5E-06	C	1.0E-01	I	1.0E+00	I	V		1		4.8E+02	Ethylbenzene	100-41-4	5.8E+00	c*	2.5E+01	c*	1.1E+00	c*	4.9E+00	c*	1.5E+00	c*	7.0E+02	1.7E-03	c*	7.8E-01
Ethylene Cyanohydrin	109-78-4					7.0E-02	P					1	0.1		Ethylene Cyanohydrin	109-78-4	4.4E+02	n	5.7E+03	n					1.4E+02	n		2.8E-02	n	
Ethylene Diamine	107-15-3					9.0E-02	P			V		1		1.9E+05	Ethylene Diamine	107-15-3	7.0E+02	n	1.1E+04	n					1.8E+02	n		4.1E-02	n	
Ethylene Glycol	107-21-1					2.0E+00	I	4.0E-01	C			1	0.1		Ethylene Glycol	107-21-1	1.3E+04	n	1.6E+05	nm	4.2E+01	n	1.8E+02	n	4.0E+03	n		8.1E-01	n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Ethylene Glycol Monobutyl Ether	111-76-2					1.0E-01	I	1.6E+00	I			1	0.1		Ethylene Glycol Monobutyl Ether	111-76-2	6.3E+02	n	8.2E+03	n	1.7E+02	n	7.0E+02	n	2.0E+02	n		4.1E-02	n	
Ethylene Oxide	75-21-8	3.1E-01	C	8.8E-05	C			3.0E-02	C	V		1		1.2E+05	Ethylene Oxide	75-21-8	1.8E-01	c	7.9E-01	c	3.2E-02	c*	1.4E-01	c*	5.1E-02	c		1.1E-05	c	
Ethylene Thiourea	96-45-7	4.5E-02	C	1.3E-05	C	8.0E-05	I					1	0.1		Ethylene Thiourea	96-45-7	5.1E-01	n	6.6E+00	n	2.2E-01	c	9.4E-01	c	1.6E-01	n		3.6E-05	n	
Ethyleneimine	151-56-4	6.5E+01	C	1.9E-02	C					V		1		1.5E+05	Ethyleneimine	151-56-4	2.7E-03	c	1.2E-02	c	1.5E-04	c	6.5E-04	c	2.4E-04	c		5.2E-08	c	
Ethyl Glycolate	84-72-0					3.0E+00	I					1	0.1		Ethyl Glycolate	84-72-0	1.9E+04	n	2.5E+05	nm					5.8E+03	n		1.3E+01	n	
Fenamiphos	22224-92-6					2.5E-04	I					1	0.1		Fenamiphos	22224-92-6	1.6E+00	n	2.1E+01	n					4.4E-01	n		4.3E-04	n	
Fenpropathrin	39515-41-8					2.5E-02	I					1	0.1		Fenpropathrin	39515-41-8	1.6E+02	n	2.1E+03	n					6.4E+00	n		2.9E-01	n	
Fenvalerate	51630-58-1					2.5E-02	I					1	0.1		Fenvalerate	51630-58-1	1.6E+02	n	2.1E+03	n					5.0E+01	n		3.2E+01	n	
Fluometuron	2164-17-2					1.3E-02	I					1	0.1		Fluometuron	2164-17-2	8.2E+01	n	1.1E+03	n					2.4E+01	n		1.9E-02	n	
Fluoride	16984-48-8					4.0E-02	C	1.3E-02	C			1			Fluoride	16984-48-8	3.1E+02	n	4.7E+03	n	1.4E+00	n	5.7E+00	n	8.0E+01	n		1.2E+01	n	
Fluorine (Soluble Fluoride)	7782-41-4					6.0E-02	I	1.3E-02	C			1			Fluorine (Soluble Fluoride)	7782-41-4	4.7E+02	n	7.0E+03	n	1.4E+00	n	5.7E+00	n	1.2E+02	n	4.0E+03	1.8E+01	n	6.0E+02
Fluridone	59756-60-4					8.0E-02	I					1	0.1		Fluridone	59756-60-4	5.1E+02	n	6.6E+03	n					1.4E+02	n		1.6E+01	n	
Flurprimidol	56425-91-3					2.0E-02	I					1	0.1		Flurprimidol	56425-91-3	1.3E+02	n	1.6E+03	n					3.4E+01	n		1.6E-01	n	
Flusilazole	85509-19-9					7.0E-04	I					1	0.1		Flusilazole	85509-19-9	4.4E+00	n	5.7E+01	n					1.1E+00	n		1.8E-01	n	
Flutolanil	66332-96-5					6.0E-02	I					1	0.1		Flutolanil	66332-96-5	3.8E+02	n	4.9E+03	n					9.5E+01	n		5.0E-01	n	
Fluvalinate	69409-94-5					1.0E-02	I					1	0.1		Fluvalinate	69409-94-5	6.3E+01	n	8.2E+02	n					2.0E+01	n		2.9E+01	n	
Folpet	133-07-3	3.5E-03	I			1.0E-01	I					1	0.1		Folpet	133-07-3	1.6E+02	c**	6.6E+02	c*					2.0E+01	c**		4.7E-03	c**	
Fomesafen	72178-02-0	1.9E-01	I									1	0.1		Fomesafen	72178-02-0	2.9E+00	c	1.2E+01	c					3.9E-01	c		1.3E-03	c	
Fonofos	944-22-9					2.0E-03	I					1	0.1		Fonofos	944-22-9	1.3E+01	n	1.6E+02	n					2.4E+00	n		4.7E-03	n	
Formaldehyde	50-00-0			1.3E-05	I	2.0E-01	I	9.8E-03	A	V		1		4.2E+04	Formaldehyde	50-00-0	1.7E+01	c**	7.3E+01	c**	2.2E-01	c**	9.4E-01	c**	4.3E-01	c**		8.7E-05	c**	
Formic Acid	64-18-6					9.0E-01	P	3.0E-04	X	V		1		1.1E+05	Formic Acid	64-18-6	2.9E+00	n	1.2E+01	n	3.1E-02	n	1.3E-01	n	6.3E-02	n		1.3E-05	n	
Fosetyl-AL	39148-24-8					3.0E+00	I					1	0.1		Fosetyl-AL	39148-24-8	1.9E+04	n	2.5E+05	nm					6.0E+03	n		7.9E+01	n	
Furans															Furans															
n	132-64-9					1.0E-03	X			V		1	0		n	132-64-9	7.3E+00	n	1.0E+02	n					7.9E-01	n		1.5E-02	n	
~Furan	110-00-9					1.0E-03	I			V		1	0	6.2E+03	~Furan	110-00-9	7.3E+00	n	1.0E+02	n					1.9E+00	n		7.3E-04	n	
~Tetrahydrofuran	109-99-9					9.0E-01	I	2.0E+00	I	V		1	0	1.7E+05	~Tetrahydrofuran	109-99-9	1.8E+03	n	9.4E+03	n	2.1E+02	n	8.8E+02	n	3.4E+02	n		7.5E-02	n	
Furazolidone	67-45-8	3.8E+00	H									1	0.1		Furazolidone	67-45-8	1.4E-01	c	6.0E-01	c					2.0E-02	c		3.9E-05	c	
Furfural	98-01-1					3.0E-03	I	5.0E-02	H	V		1		1.0E+04	Furfural	98-01-1	2.1E+01	n	2.6E+02	n	5.2E+00	n	2.2E+01	n	3.8E+00	n		8.1E-04	n	
Furium	531-82-8	1.5E+00	C	4.3E-04	C							1	0.1		Furium	531-82-8	3.6E-01	c	1.5E+00	c	6.5E-03	c	2.9E-02	c	5.1E-02	c		6.8E-05	c	
Furmecyclox	60568-05-0	3.0E-02	I	8.6E-06	C							1	0.1		Furmecyclox	60568-05-0	1.8E+01	c	7.7E+01	c	3.3E-01	c	1.4E+00	c	1.1E+00	c		1.2E-03	c	
Glufosinate, Ammonium	77182-82-2					4.0E-04	I					1	0.1		Glufosinate, Ammonium	77182-82-2	2.5E+00	n	3.3E+01	n					8.0E-01	n		1.8E-04	n	
Glutaraldehyde	111-30-8							8.0E-05	C			1	0.1		Glutaraldehyde	111-30-8	1.1E+04	n	4.8E+04	n	8.3E-03	n	3.5E-02	n						
Glycidyl	765-34-4					4.0E-04	I	1.0E-03	H	V		1		1.1E+05	Glycidyl	765-34-4	2.3E+00	n	2.1E+01	n	1.0E-01	n	4.4E-01	n	1.7E-01	n		3.3E-05	n	
Glyphosate	1071-83-6					1.0E-01	I					1	0.1		Glyphosate	1071-83-6	6.3E+02	n	8.2E+03	n					2.0E+02	n	7.0E+02	8.8E-01	n	3.1E+00
Guanidine	113-00-8					1.0E-02	X			V		1			Guanidine	113-00-8	7.8E+01	n	1.2E+03	n					2.0E+01	n		4.5E-03	n	
Guanidine Chloride	50-01-1					2.0E-02	P					1	0.1		Guanidine Chloride	50-01-1	1.3E+02	n	1.6E+03	n					4.0E+01	n			n	
Haloxyfop, Methyl	69806-40-2					5.0E-05	I					1	0.1		Haloxyfop, Methyl	69806-40-2	3.2E-01	n	4.1E+00	n					7.6E-02	n		8.4E-04	n	
Heptachlor	76-44-8	4.5E+00	I	1.3E-03	I	5.0E-04	I			V		1			Heptachlor	76-44-8	1.3E-01	c*	6.3E-01	c*	2.2E-03	c	9.4E-03	c	1.4E-03	c*	4.0E-01	1.2E-04	c*	3.3E-02
Heptachlor Epoxide	1024-57-3	9.1E+00	I	2.6E-03	I	1.3E-05	I			V		1			Heptachlor Epoxide	1024-57-3	7.0E-02	c**	3.3E-01	c**	1.1E-03	c	4.7E-03	c	1.4E-03	c**	2.0E-01	2.8E-05	c**	4.1E-03
Hexabromobenzene	87-82-1					2.0E-03	I			V		1			Hexabromobenzene	87-82-1	1.6E+01	n	2.3E+02	n					4.0E+00	n		2.3E-02	n	
Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2					2.0E-04	I					1	0.1		Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2	1.3E+00	n	1.6E+01	n					4.0E-01	n			n	
Hexachlorobenzene	118-74-1	1.6E+00	I	4.6E-04	I	8.0E-04	I			V		1			Hexachlorobenzene	118-74-1	2.1E-01	c*	9.6E-01	c*	6.1E-03	c	2.7E-02	c	9.8E-03	c	1.0E+00	1.2E-04	c	1.3E-02
Hexachlorobutadiene	87-68-3	7.8E-02	I	2.2E-05	I	1.0E-03	P			V		1		1.7E+01	Hexachlorobutadiene	87-68-3	1.2E+00	c**	5.3E+00	c*	1.3E-01	c	5.6E-01	c	1.4E-01	c**		2.7E-04	c**	
Hexachlorocyclohexane, Alpha-	319-84-6	6.3E+00	I	1.8E-03	I	8.0E-03	A					1	0.1		Hexachlorocyclohexane, Alpha-	319-84-6	8.6E-02	c	3.6E-01	c	1.6E-03	c	6.8E-03	c	7.2E-03	c		4.2E-05	c	
Hexachlorocyclohexane, Beta-	319-85-7	1.8E+00	I	5.3E-04	I							1	0.1		Hexachlorocyclohexane, Beta-	319-85-7	3.0E-01	c	1.3E+00	c	5.3E-03	c	2.3E-02	c	2.5E-02	c		1.5E-04	c	
Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	1.1E+00	C	3.1E-04	C	3.0E-04	I					1	0		Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	5.7E-01	c**	2.5E+00	c*	9.1E-03	c	4.0E-02	c	4.2E-02	c**	2.0E-01	2.4E-04	c**	1.2E-03
Hexachlorocyclohexane, Technical	608-73-1	1.8E+00	I	5.1E-04	I							1	0.1		Hexachlorocyclohexane, Technical	608-73-1	3.0E-01	c	1.3E+00	c	5.5E-03	c	2.4E-02	c	2.5E-02	c		1.5E-04	c	
Hexachlorocyclopentadiene	77-47-4					6.0E-03	I	2.0E-04	I	V		1		1.6E+01	Hexachlorocyclopentadiene	77-47-4	1.8E-01	n	7.5E-01	n	2.1E-02	n	8.8E-02	n	4.1E-02	n	5.0E+01	1.3E-04	n	1.6E-01
Hexachloroethane	67-72-1	4.0E-02	I	1.1E-05	C	7.0E-04	I	3.0E-02	I	V		1			Hexachloroethane	67-72-1	1.8E+00	c**	8.0E+00	c**	2.6E-01	c*	1.1E+00	c*	3.3E-01	c**		2.0E-04	c**	
Hexachlorophene	70-30-4					3.0E-04	I					1	0.1		Hexachlorophene	70-30-4	1.9E+00	n	2.5E+01	n					6.0E-01	n		8.0E-01	n	
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	1.1E-01	I			3.0E-03	I					1	0		Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	6.1E+00	c**	2.8E+01	c*					7.0E-01	c**		2.7E-04	c**	
Hexamethylene Diisocyanate, 1,6-	822-06-0							1.0E-05	I	V		1		3.4E+03	Hexamethylene Diisocyanate, 1,6-	822-06-0	3.1E-01	n	1.3E+00	n	1.0E-03	n	4.4E-03	n	2.1E-03	n		2.1E-05	n	
Hexamethylphosphoramide	680-31-9					4.0E-04	P					1	0.1		Hexamethylphosphoramide	680-31-9	2.5E+00	n	3.3E+01	n					8.0E-01	n		1.8E-04	n	
Hexane, N-	110-54-3							7.0E-01	I	V		1		1.4E+02	Hexane, N-	110-54-3	6.1E+01	n	2.5E+02	ns	7.3E+01	n	3.1E+02	n	1.5E+02	n		1.0E+00	n	
Hexanedioic Acid	124-04-9					2.0E+00	P					1	0.1		Hexanedioic Acid	124-04-9	1.3E+04	n	1.6E+05	nm					4.0E+03	n		9.9E-01	n	
Hexanone, 2-	591-78-6					5.0E-03	I	3.0E-02	I	V		1		3.3E+03	Hexanone, 2-	591-78-6	2.0E+01	n	1.3E+02	n	3.1E+00	n	1.3E+01	n	3.8E+00	n		8.8E-04	n	
Hexazinone	51235-04-2					3.3E-02	I					1	0.1		Hexazinone	51235-04-2	2.1E+02	n	2.7E+03	n					6.4E+01	n		3.0E-02	n	
Hexythiazox	78587-05-0					2.5E-02	I					1	0.1		Hexythiazox	78587-05-0	1.6E+02	n	2.1E+03	n					1.1E+01	n		5.0E-02	n	
Hydramethylnon	67485-29-4					3.0E-04	I					1	0.1		Hydramethylnon	67485-29-4	1.9E+00	n	2.5E+01	n					5.9E-01	n		2.1E+02	n	
Hydrazine	302-01-2	3.0E+00	I	4.9E-03	I			3.0E-05	P	V		1			Hydrazine	302-01-2	2.3E-01	c	1.1E+00	c	5.7E-04	c**	2.5E-03	c**	1.1E-03	c**			c**	
Hydrazine Sulfate	10034-93-2	3.0E+00	I	4.9E-03	I							1			Hydrazine Sulfate	10034-93-2	2.3E-01	c	1.1E+00	c	5.7E-04	c	2.5E-03	c	2.6E-02	c			c	
Hydrogen Chloride	7647-01-0							2.0E-02	I	V		1			Hydrogen Chloride	7647-01-0	2.8E+06	nm	1.2E+07	nm	2.1E+00	n	8.8E+00	n	4.2E+00	n			n	
Hydrogen Fluoride	7664-39-3					4.0E-02	C	1.4E-02	C	V		1			Hydrogen Fluoride	7664-39-3	3.1E+02	n	4.7E+03	n	1.5E+00	n	6.1E+00	n	2.8E+00	n			n	
Hydrogen Sulfide	7783-06-4							2.0E-03	I	V		1			Hydrogen Sulfide	7783-06-4	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n	4.2E-01	n			n	
Hydroquinone	123-31-9	6.0E-02	P			4.0E-02	P					1	0.1		Hydroquinone	123-31-9	9.0E+00	c*	3.8E+01	c*					1.3E+00	c*		8.7E-04	c*	
Imazalil	35554-44-0					1.3E-02	I					1	0.1		Imazalil	35554-44-0	8.2E+01	n	1.1E+03	n					1.9E+01	n		3.2E-01	n	
Imazaquin	81335-37-7					2.5E-01	I					1	0.1		Imazaquin	81335-37-7	1.6E+03	n	2.1E+04	n					4.9E+02	n		2.4E+00	n	
Imazethapyr	81335-77-5					2.5E-01	I					1	0.1		Imazethapyr	81335-77-5	1.6E+03	n	2.1E+04	n					4.7E+02	n		4.1E-01	n	
Iodine	7553-56-2					1.0E-02	A					1			Iodine	7553-56-2	7.8E+01	n	1.2E+03	n					2.0E+01	n		1.2E+00	n	
Iprodione	36734-19-7					4.0E-02	I					1	0.1		Iprodione	36734-19-7	2.5E+02	n	3.3E+03	n					7.4E+01	n		2.2E-02	n	
Iron	7439-89-6					7.0E-01	P					1			Iron	7439-89-6	5.5E+03	n	8.2E+04	n					1.4E+03	n		3.5E+01	n	
Isobutyl Alcohol	78-83-1					3.0E-01	I			V		1		1.0E+04	Isobutyl Alcohol	78-83-1	2.3E+03	n	3.5E+04	ns					5.9E+02	n		1.2E-01	n	
Isophorone	78-59-1	9.5E-04	I			2.0E-01	I	2.0E+00	C			1	0.1		Isophorone	78-59-1	5.7E+02	c**	2.4E+03	c**	2.1E+02	n	8.8E+02	n	7.8E+01	c**		2.6E-02	c**	
Isopropalin	33820-53-0					1.5E-02	I			V		1			Isopropalin	33820-53-0	1.2E+02	n	1.8E+03	n					4.0E+00	n		9.2E-02	n	
Isopropanol	67-63-0					2.0E+00	P	2.0E-01	P	V		1		1.1E+05	Isopropanol	67-63-0	5.6E+02	n	2.4E+03	n	2.1E+01	n	8.8E+01	n	4.1E+01	n		8.4E-03	n	
Isopropyl Methyl Phosphonic Acid	1832-54-8					1.0E-01	I					1	0.1		Isopropyl Methyl Phosphonic Acid	1832-54-8	6.3E+02	n	8.2E+03	n					2.0E+02	n		4.3E-02	n	
Isoxaben	82558-50-7					5.0E-02	I					1	0.1		Isoxaben	82558-50-7	3.2E+02	n	4.1E+03	n					7.3E+01	n		2.0E-01	n	
JP-7	NA							3.0E-01	A	V		1			JP-7	NA	4.3E+07	nm	1.8E+08	nm	3.1E+01	n	1.3E+02	n	6.3E+01	n			n	
Lactofen	77501-63-4					2.0E-03	I					1	0.1		Lactofen	77501-63-4	1.3E+01	n	1.6E+02	n					2.5E+00	n		1.2E-01	n	
Lead Compounds															Lead Compounds															
~Lead Chromate	7758-97-6	5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0			~Lead Chromate	7758-97-6	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
~Lead Phosphate	7446-27-7	8.5E-03	C	1.2E-05	C							1			~Lead Phosphate	7446-27-7	8.2E+01	c	3.8E+02	c	2.3E-01	c	1.0E+00	c	9.1E+00	c			c	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information														Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
~Lead acetate	301-04-2	8.5E-03	C	1.2E-05	C							1	0.1		~Lead acetate	301-04-2	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		1.8E-03	c	
~Lead and Compounds	7439-92-1											1			~Lead and Compounds	7439-92-1	4.0E+02	L	8.0E+02	L	1.5E-01	L			1.5E+01	L	1.5E+01		L	1.4E+01
~Lead subacetate	1335-32-6	8.5E-03	C	1.2E-05	C							1	0.1		~Lead subacetate	1335-32-6	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		2.0E-03	c	
~Tetraethyl Lead	78-00-2					1.0E-07	I			V		1		2.4E+00	~Tetraethyl Lead	78-00-2	7.8E-04	n	1.2E-02	n					1.3E-04	n		4.7E-07	n	
Lewisite	541-25-3					5.0E-06	P			V		1		3.8E+02	Lewisite	541-25-3	3.9E-02	n	5.8E-01	n					9.0E-03	n		3.8E-06	n	
Linuron	330-55-2					2.0E-03	I					1	0.1		Linuron	330-55-2	1.3E+01	n	1.6E+02	n					3.3E+00	n		2.9E-03	n	
Lithium	7439-93-2					2.0E-03	P					1			Lithium	7439-93-2	1.6E+01	n	2.3E+02	n					4.0E+00	n		1.2E+00	n	
MCPA	94-74-6					5.0E-04	I					1	0.1		MCPA	94-74-6	3.2E+00	n	4.1E+01	n					7.5E-01	n		2.0E-04	n	
MCPB	94-81-5					1.0E-02	I					1	0.1		MCPB	94-81-5	6.3E+01	n	8.2E+02	n					1.5E+01	n		5.8E-03	n	
MCPP	93-65-2					1.0E-03	I					1	0.1		MCPP	93-65-2	6.3E+00	n	8.2E+01	n					1.6E+00	n		4.7E-04	n	
Malathion	121-75-5					2.0E-02	I					1	0.1		Malathion	121-75-5	1.3E+02	n	1.6E+03	n					3.9E+01	n		1.0E-02	n	
Maleic Anhydride	108-31-6					1.0E-01	I	7.0E-04	C			1	0.1		Maleic Anhydride	108-31-6	6.3E+02	n	8.0E+03	n	7.3E-02	n	3.1E-01	n	1.9E+02	n		3.8E-02	n	
Maleic Hydrazide	123-33-1					5.0E-01	I					1	0.1		Maleic Hydrazide	123-33-1	3.2E+03	n	4.1E+04	n					1.0E+03	n		2.1E-01	n	
Malononitrile	109-77-3					1.0E-04	P					1	0.1		Malononitrile	109-77-3	6.3E-01	n	8.2E+00	n					2.0E-01	n		4.1E-05	n	
Mancozeb	8018-01-7					3.0E-02	H					1	0.1		Mancozeb	8018-01-7	1.9E+02	n	2.5E+03	n					5.4E+01	n		7.6E-02	n	
Maneb	12427-38-2					5.0E-03	I					1	0.1		Maneb	12427-38-2	3.2E+01	n	4.1E+02	n					9.8E+00	n		1.4E-02	n	
Manganese (Diet)	7439-96-5					1.4E-01	I	5.0E-05	I			1			Manganese (Diet)	7439-96-5														
Manganese (Non-diet)	7439-96-5					2.4E-02	S	5.0E-05	I			0			Manganese (Non-diet)	7439-96-5	1.8E+02	n	2.6E+03	n	5.2E-03	n	2.2E-02	n	4.3E+01	n		2.8E+00	n	
Mephosfolan	950-10-7					9.0E-05	H					1	0.1		Mephosfolan	950-10-7	5.7E-01	n	7.4E+00	n					1.8E-01	n		2.6E-04	n	
Mepiquat Chloride	24307-26-4					3.0E-02	I					1	0.1		Mepiquat Chloride	24307-26-4	1.9E+02	n	2.5E+03	n					6.0E+01	n		2.0E-02	n	
Mercury Compounds ~Mercuric Chloride (and other Mercury salts)	7487-94-7					3.0E-04	I	3.0E-04	S			0.1			Mercury Compounds ~Mercuric Chloride (and other Mercury salts)	7487-94-7	2.3E+00	n	3.5E+01	n	3.1E-02	n	1.3E-01	n	5.7E-01	n	2.0E+00		n	
~Mercury (elemental)	7439-97-6							3.0E-04	I	V		1		3.1E+00	~Mercury (elemental)	7439-97-6	1.1E+00	n	4.6E+00	ns	3.1E-02	n	1.3E-01	n	6.3E-02	n	2.0E+00	3.3E-03	n	1.0E-01
~Methyl Mercury	22967-92-6					1.0E-04	I					1			~Methyl Mercury	22967-92-6	7.8E-01	n	1.2E+01	n					2.0E-01	n			n	
~Phenylmercuric Acetate	62-38-4					8.0E-05	I					1	0.1		~Phenylmercuric Acetate	62-38-4	5.1E-01	n	6.6E+00	n					1.6E-01	n		5.0E-05	n	
Merphos	150-50-5					3.0E-05	I			V		1			Merphos	150-50-5	2.3E-01	n	3.5E+00	n					6.0E-02	n		5.9E-03	n	
Merphos Oxide	78-48-8					3.0E-05	I					1	0.1		Merphos Oxide	78-48-8	1.9E-01	n	2.5E+00	n					8.5E-03	n		4.2E-05	n	
Metalaxyl	57837-19-1					6.0E-02	I					1	0.1		Metalaxyl	57837-19-1	3.8E+02	n	4.9E+03	n					1.2E+02	n		3.3E-02	n	
Methacrylonitrile	126-98-7					1.0E-04	I	3.0E-02	P	V		1		4.6E+03	Methacrylonitrile	126-98-7	7.5E-01	n	1.0E+01	n	3.1E+00	n	1.3E+01	n	1.9E-01	n		4.3E-05	n	
Methamidophos	10265-92-6					5.0E-05	I					1	0.1		Methamidophos	10265-92-6	3.2E-01	n	4.1E+00	n					1.0E-01	n		2.1E-05	n	
Methanol	67-56-1					2.0E+00	I	2.0E+01	I	V		1		1.1E+05	Methanol	67-56-1	1.2E+04	n	1.2E+05	nms	2.1E+03	n	8.8E+03	n	2.0E+03	n		4.1E-01	n	
Methidathion	950-37-8					1.0E-03	I					1	0.1		Methidathion	950-37-8	6.3E+00	n	8.2E+01	n					1.9E+00	n		4.7E-04	n	
Methomyl	16752-77-5					2.5E-02	I					1	0.1		Methomyl	16752-77-5	1.6E+02	n	2.1E+03	n					5.0E+01	n		1.1E-02	n	
Methoxy-5-nitroaniline, 2-	99-59-2	4.9E-02	C	1.4E-05	C							1	0.1		Methoxy-5-nitroaniline, 2-	99-59-2	1.1E+01	c	4.7E+01	c	2.0E-01	c	8.8E-01	c	1.5E+00	c		5.3E-04	c	
Methoxychlor	72-43-5					5.0E-03	I					1	0.1		Methoxychlor	72-43-5	3.2E+01	n	4.1E+02	n					3.7E+00	n	4.0E+01	2.0E-01	n	2.2E+00
Methoxyethanol Acetate, 2-	110-49-6					8.0E-03	P	1.0E-03	P	V		1		1.2E+05	Methoxyethanol Acetate, 2-	110-49-6	1.1E+01	n	5.1E+01	n	1.0E-01	n	4.4E-01	n	2.1E-01	n		4.2E-05	n	
Methoxyethanol, 2-	109-86-4					5.0E-03	P	2.0E-02	I	V		1		1.1E+05	Methoxyethanol, 2-	109-86-4	3.3E+01	n	3.5E+02	n	2.1E+00	n	8.8E+00	n	2.9E+00	n		5.9E-04	n	
Methyl Acetate	79-20-9					1.0E+00	X			V		1		2.9E+04	Methyl Acetate	79-20-9	7.8E+03	n	1.2E+05	nms					2.0E+03	n		4.1E-01	n	
Methyl Acrylate	96-33-3							2.0E-02	P	V		1		6.8E+03	Methyl Acrylate	96-33-3	1.5E+01	n	6.1E+01	n	2.1E+00	n	8.8E+00	n	4.2E+00	n		8.9E-04	n	
Methyl Ethyl Ketone (2-Butanone)	78-93-3					6.0E-01	I	5.0E+00	I	V		1		2.8E+04	Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.7E+03	n	1.9E+04	n	5.2E+02	n	2.2E+03	n	5.6E+02	n		1.2E-01	n	
Methyl Hydrazine	60-34-4			1.0E-03	X	1.0E-03	P	2.0E-05	X	V		1		1.8E+05	Methyl Hydrazine	60-34-4	1.0E-01	n	4.4E-01	n	2.1E-03	n	8.8E-03	n	4.2E-03	n		9.4E-07	n	
Methyl Isobutyl Ketone (4-methyl-2-)	108-10-1							3.0E+00	I	V		1		3.4E+03	Methyl Isobutyl Ketone (4-methyl-2-)	108-10-1	3.3E+03	n	1.4E+04	ns	3.1E+02	n	1.3E+03	n	6.3E+02	n		1.4E-01	n	
Methyl Isocyanate	624-83-9							1.0E-03	C	V		1		1.0E+04	Methyl Isocyanate	624-83-9	4.6E-01	n	1.9E+00	n	1.0E-01	n	4.4E-01	n	2.1E-01	n		5.9E-05	n	
Methyl Methacrylate	80-62-6					1.4E+00	I	7.0E-01	I	V		1		2.4E+03	Methyl Methacrylate	80-62-6	4.4E+02	n	1.9E+03	n	7.3E+01	n	3.1E+02	n	1.4E+02	n		3.0E-02	n	
Methyl Parathion	298-00-0					2.5E-04	I					1	0.1		Methyl Parathion	298-00-0	1.6E+00	n	2.1E+01	n					4.5E-01	n		7.4E-04	n	
Methyl Phosphonic Acid	993-13-5					6.0E-02	X					1	0.1		Methyl Phosphonic Acid	993-13-5	3.8E+02	n	4.9E+03	n					1.2E+02	n		2.4E-02	n	
Styrene (Mixed Isomers)	25013-15-4					6.0E-03	H	4.0E-02	H	V		1		3.9E+02	Styrene (Mixed Isomers)	25013-15-4	3.2E+01	n	2.6E+02	n	4.2E+00	n	1.8E+01	n	2.3E+00	n		3.8E-03	n	
Methyl methanesulfonate	66-27-3	9.9E-02	C	2.8E-05	C							1	0.1		Methyl methanesulfonate	66-27-3	5.5E+00	c	2.3E+01	c	1.0E-01	c	4.4E-01	c	7.9E-01	c		1.6E-04	c	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	1.8E-03	C	2.6E-07	C			3.0E+00	I	V		1		8.9E+03	Methyl tert-Butyl Ether (MTBE)	1634-04-4	4.7E+01	c*	2.1E+02	c*	1.1E+01	c*	4.7E+01	c*	1.4E+01	c*		3.2E-03	c*	
Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2					3.0E-04	X					1	0.1		Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2	1.9E+00	n	2.5E+01	n					6.0E-01	n		3.6E-04	n	
Methyl-5-Nitroaniline, 2-	99-55-8	9.0E-03	P			2.0E-02	X					1	0.1		Methyl-5-Nitroaniline, 2-	99-55-8	6.0E+01	c**	2.6E+02	c**					8.2E+00	c**		4.6E-03	c**	
Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	8.3E+00	C	2.4E-03	C							1	0.1		Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	6.5E-02	c	2.8E-01	c	1.2E-03	c	5.1E-03	c	9.4E-03	c		3.2E-06	c	
Methylaniline Hydrochloride, 2-	636-21-5	1.3E-01	C	3.7E-05	C							1	0.1		Methylaniline Hydrochloride, 2-	636-21-5	4.2E+00	c	1.8E+01	c	7.6E-02	c	3.3E-01	c	6.0E-01	c		2.6E-04	c	
Methylarsonic acid	124-58-3					1.0E-02	A					1	0.1		Methylarsonic acid	124-58-3	6.3E+01	n	8.2E+02	n					2.0E+01	n		5.8E-03	n	
Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7					2.0E-04	X					1	0.1		Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7	1.3E+00	n	1.6E+01	n					4.0E-01	n			n	
Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	1.0E-01	X			3.0E-04	X					1	0.1		Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	1.9E+00	n	2.3E+01	c**					6.0E-01	n			n	
Methylcholanthrene, 3-	56-49-5	2.2E+01	C	6.3E-03	C						M	1	0.1		Methylcholanthrene, 3-	56-49-5	5.5E-03	c	1.0E-01	c	1.6E-04	c	1.9E-03	c	1.1E-03	c		2.2E-03	c	
Methylene Chloride	75-09-2	2.0E-03	I	1.0E-08	I	6.0E-03	I	6.0E-01	I	V	M	1		3.3E+03	Methylene Chloride	75-09-2	3.5E+01	n	3.2E+02	n	6.3E+01	n	2.6E+02	n	1.1E+01	n	5.0E+00	2.7E-03	n	1.3E-03
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.0E-01	P	4.3E-04	C	2.0E-03	P				M	1	0.1		Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.2E+00	c*	2.3E+01	c**	2.4E-03	c	2.9E-02	c	1.6E-01	c*		1.8E-03	c*	
Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	4.6E-02	I	1.3E-05	C							1	0.1		Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.2E+01	c	5.0E+01	c	2.2E-01	c	9.4E-01	c	4.8E-01	c		2.6E-03	c	
Methylenebis benzenamine, 4,4'-	101-77-9	1.6E+00	C	4.6E-04	C			2.0E-02	C			1	0.1		Methylenebis benzenamine, 4,4'-	101-77-9	3.4E-01	c	1.4E+00	c	6.1E-03	c	2.7E-02	c	4.7E-02	c		2.1E-04	c	
Methylenediphenyl Diisocyanate	101-68-8							6.0E-04	I			1	0.1		Methylenediphenyl Diisocyanate	101-68-8	8.5E+04	n	3.6E+05	nm	6.3E-02	n	2.6E-01	n						
Methylstyrene, Alpha-	98-83-9					7.0E-02	H			V		1		5.0E+02	Methylstyrene, Alpha-	98-83-9	5.5E+02	ns	8.2E+03	ns					7.8E+01	n		1.2E-01	n	
Metolachlor	51218-45-2					1.5E-01	I					1	0.1		Metolachlor	51218-45-2	9.5E+02	n	1.2E+04	n					2.7E+02	n		3.2E-01	n	
Metribuzin	21087-64-9					2.5E-02	I					1	0.1		Metribuzin	21087-64-9	1.6E+02	n	2.1E+03	n					4.9E+01	n		1.5E-02	n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Metsulfuron-methyl	74223-64-6					2.5E-01	I					1	0.1		Metsulfuron-methyl	74223-64-6	1.6E+03	n	2.1E+04	n					4.9E+02	n		1.9E-01	n	
Mineral oils	8012-95-1					3.0E+00	P			V		1		3.4E-01	Mineral oils	8012-95-1	2.3E+04	ns	3.5E+05	nms					6.0E+03	n		2.4E+02	n	
Mirex	2385-85-5	1.8E+01	C	5.1E-03	C	2.0E-04	I			V		1			Mirex	2385-85-5	3.6E-02	c*	1.7E-01	c	5.5E-04	c	2.4E-03	c	8.8E-04	c		6.3E-04	c	
Molinate	2212-67-1					2.0E-03	I					1	0.1		Molinate	2212-67-1	1.3E+01	n	1.6E+02	n					3.0E+00	n		1.7E-03	n	
Molybdenum	7439-98-7					5.0E-03	I					1			Molybdenum	7439-98-7	3.9E+01	n	5.8E+02	n					1.0E+01	n		2.0E-01	n	
Monochloramine	10599-90-3					1.0E-01	I					1			Monochloramine	10599-90-3	7.8E+02	n	1.2E+04	n					2.0E+02	n	4.0E+03		n	
Monomethylaniline	100-61-8					2.0E-03	P					1	0.1		Monomethylaniline	100-61-8	1.3E+01	n	1.6E+02	n					3.8E+00	n		1.4E-03	n	
Myclobutanil	88671-89-0					2.5E-02	I					1	0.1		Myclobutanil	88671-89-0	1.6E+02	n	2.1E+03	n					4.5E+01	n		5.6E-01	n	
N,N'-Diphenyl-1,4-benzenediamine	74-31-7					3.0E-04	X					1	0.1		N,N'-Diphenyl-1,4-benzenediamine	74-31-7	1.9E+00	n	2.5E+01	n					3.6E-01	n		3.7E-02	n	
Naled	300-76-5					2.0E-03	I			V		1			Naled	300-76-5	1.6E+01	n	2.3E+02	n					4.0E+00	n		1.8E-03	n	
Naphtha, High Flash Aromatic (HFAN)	64742-95-6					3.0E-02	X	1.0E-01	P	V		1			Naphtha, High Flash Aromatic (HFAN)	64742-95-6	2.3E+02	n	3.5E+03	n	1.0E+01	n	4.4E+01	n	1.5E+01	n			n	
Naphthylamine, 2-	91-59-8	1.8E+00	C	0.0E+00	C							1	0.1		Naphthylamine, 2-	91-59-8	3.0E-01	c	1.3E+00	c					3.9E-02	c		2.0E-04	c	
Napropamide	15299-99-7					1.0E-01	I					1	0.1		Napropamide	15299-99-7	6.3E+02	n	8.2E+03	n					1.6E+02	n		1.1E+00	n	
Acetate	373-02-4			2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1		Acetate	373-02-4	6.7E+01	n	8.1E+02	n	1.5E-03	n	6.1E-03	n	2.2E+01	n		4.5E-03	n	
Nickel Carbonate	3333-67-3			2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1		Nickel Carbonate	3333-67-3	6.7E+01	n	8.1E+02	n	1.5E-03	n	6.1E-03	n	2.2E+01	n			n	
Nickel Carbonyl	13463-39-3			2.6E-04	C	1.1E-02	C	1.4E-05	C	V		1			Nickel Carbonyl	13463-39-3	8.2E+01	n	1.1E+03	n	1.5E-03	n	6.1E-03	n	2.9E-03	n			n	
Nickel Hydroxide	12054-48-7			2.6E-04	C	1.1E-02	C	1.4E-05	C			0			Nickel Hydroxide	12054-48-7	8.2E+01	n	1.1E+03	n	1.5E-03	n	6.1E-03	n	2.0E+01	n			n	
Nickel Oxide	1313-99-1			2.6E-04	C	1.1E-02	C	2.0E-05	C			0			Nickel Oxide	1313-99-1	8.4E+01	n	1.2E+03	n	2.1E-03	n	8.8E-03	n	2.0E+01	n			n	
Nickel Refinery Dust	NA			2.4E-04	I	1.1E-02	C	1.4E-05	C			0			Nickel Refinery Dust	NA	8.2E+01	n	1.1E+03	n	1.5E-03	n	6.1E-03	n	2.2E+01	n		3.2E+00	n	
Nickel Soluble Salts	7440-02-0			2.6E-04	C	2.0E-02	I	9.0E-05	A			0			Nickel Soluble Salts	7440-02-0	1.5E+02	n	2.2E+03	n	9.4E-03	n	3.9E-02	n	3.9E+01	n		2.6E+00	n	
Nickel Subsulfide	12035-72-2	1.7E+00	C	4.8E-04	I	1.1E-02	C	1.4E-05	C			0			Nickel Subsulfide	12035-72-2	4.1E-01	c	1.9E+00	c	1.5E-03	n	6.1E-03	n	4.5E-02	c			c	
Nickelocene	1271-28-9			2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1		Nickelocene	1271-28-9	6.7E+01	n	8.1E+02	n	1.5E-03	n	6.1E-03	n	2.2E+01	n			n	
Nitrate	14797-55-8					1.6E+00	I					1			Nitrate	14797-55-8	1.3E+04	n	1.9E+05	nm					3.2E+03	n	1.0E+04		n	
Nitrate + Nitrite (as N)	NA											1			Nitrate + Nitrite (as N)	NA											1.0E+04			
Nitrite	14797-65-0					1.0E-01	I					1			Nitrite	14797-65-0	7.8E+02	n	1.2E+04	n					2.0E+02	n	1.0E+03		n	
Nitroaniline, 2-	88-74-4					1.0E-02	X	5.0E-05	X			1	0.1		Nitroaniline, 2-	88-74-4	6.3E+01	n	8.0E+02	n	5.2E-03	n	2.2E-02	n	1.9E+01	n		8.0E-03	n	
Nitroaniline, 4-	100-01-6	2.0E-02	P			4.0E-03	P	6.0E-03	P			1	0.1		Nitroaniline, 4-	100-01-6	2.5E+01	n	1.1E+02	c**	6.3E-01	n	2.6E+00	n	3.8E+00	c**		1.6E-03	c**	
Nitrobenzene	98-95-3			4.0E-05	I	2.0E-03	I	9.0E-03	I	V		1		3.1E+03	Nitrobenzene	98-95-3	5.1E+00	c**	2.2E+01	c**	7.0E-02	c*	3.1E-01	c*	1.4E-01	c**		9.2E-05	c**	
Nitrocellulose	9004-70-0					3.0E+03	P					1	0.1		Nitrocellulose	9004-70-0	1.9E+07	nm	2.5E+08	nm					6.0E+06	n		1.3E+03	n	
Nitrofurantoin	67-20-9					7.0E-02	H					1	0.1		Nitrofurantoin	67-20-9	4.4E+02	n	5.7E+03	n					1.4E+02	n		6.1E-02	n	
Nitrofurazone	59-87-0	1.3E+00	C	3.7E-04	C							1	0.1		Nitrofurazone	59-87-0	4.2E-01	c	1.8E+00	c	7.6E-03	c	3.3E-02	c	6.0E-02	c		5.4E-05	c	
Nitroglycerin	55-63-0	1.7E-02	P			1.0E-04	P					1	0.1		Nitroglycerin	55-63-0	6.3E-01	n	8.2E+00	n					2.0E-01	n		8.5E-05	n	
e	556-88-7					1.0E-01	I					1	0.1		e	556-88-7	6.3E+02	n	8.2E+03	n					2.0E+02	n		4.8E-02	n	
Nitromethane	75-52-5			8.8E-06	P			5.0E-03	P	V		1		1.8E+04	Nitromethane	75-52-5	5.4E+00	c**	2.4E+01	c**	3.2E-01	c**	1.4E+00	c**	6.4E-01	c**		1.4E-04	c**	
Nitropropane, 2-	79-46-9			2.7E-03	H			2.0E-02	I	V		1		4.9E+03	Nitropropane, 2-	79-46-9	1.4E-02	c	6.0E-02	c	1.0E-03	c	4.5E-03	c	2.1E-03	c		5.4E-07	c	
Nitroso-N-ethylurea, N-	759-73-9	2.7E+01	C	7.7E-03	C						M	1	0.1		Nitroso-N-ethylurea, N-	759-73-9	4.5E-03	c	8.5E-02	c	1.3E-04	c	1.6E-03	c	9.2E-04	c		2.2E-07	c	
Nitroso-N-methylurea, N-	684-93-5	1.2E+02	C	3.4E-02	C						M	1	0.1		Nitroso-N-methylurea, N-	684-93-5	1.0E-03	c	1.9E-02	c	3.0E-05	c	3.6E-04	c	2.1E-04	c		4.6E-08	c	
Nitroso-di-N-butylamine, N-	924-16-3	5.4E+00	I	1.6E-03	I					V		1			Nitroso-di-N-butylamine, N-	924-16-3	9.9E-02	c	4.6E-01	c	1.8E-03	c	7.7E-03	c	2.7E-03	c		5.5E-06	c	
Nitroso-di-N-propylamine, N-	621-64-7	7.0E+00	I	2.0E-03	C							1	0.1		Nitroso-di-N-propylamine, N-	621-64-7	7.8E-02	c	3.3E-01	c	1.4E-03	c	6.1E-03	c	1.1E-02	c		8.1E-06	c	
Nitrosodiethanolamine, N-	1116-54-7	2.8E+00	I	8.0E-04	C							1	0.1		Nitrosodiethanolamine, N-	1116-54-7	1.9E-01	c	8.2E-01	c	3.5E-03	c	1.5E-02	c	2.8E-02	c		5.6E-06	c	
Nitrosodiethylamine, N-	55-18-5	1.5E+02	I	4.3E-02	I						M	1	0.1		Nitrosodiethylamine, N-	55-18-5	8.1E-04	c	1.5E-02	c	2.4E-05	c	2.9E-04	c	1.7E-04	c		6.1E-08	c	
Nitrosodimethylamine, N-	62-75-9	5.1E+01	I	1.4E-02	I	8.0E-06	P	4.0E-05	X	V	M	1		2.4E+05	Nitrosodimethylamine, N-	62-75-9	2.0E-03	c*	3.4E-02	c*	7.2E-05	c*	8.8E-04	c*	1.1E-04	c*		2.7E-08	c*	
Nitrosodiphenylamine, N-	86-30-6	4.9E-03	I	2.6E-06	C							1	0.1		Nitrosodiphenylamine, N-	86-30-6	1.1E+02	c	4.7E+02	c	1.1E+00	c	4.7E+00	c	1.2E+01	c		6.7E-02	c	
Nitrosomethylethylamine, N-	10595-95-6	2.2E+01	I	6.3E-03	C					V		1		1.1E+05	Nitrosomethylethylamine, N-	10595-95-6	2.0E-02	c	9.1E-02	c	4.5E-04	c	1.9E-03	c	7.1E-04	c		2.0E-07	c	
Nitrosomorpholine [N-]	59-89-2	6.7E+00	C	1.9E-03	C							1	0.1		Nitrosomorpholine [N-]	59-89-2	8.1E-02	c	3.4E-01	c	1.5E-03	c	6.5E-03	c	1.2E-02	c		2.8E-06	c	
Nitrosopiperidine [N-]	100-75-4	9.4E+00	C	2.7E-03	C							1	0.1		Nitrosopiperidine [N-]	100-75-4	5.8E-02	c	2.4E-01	c	1.0E-03	c	4.5E-03	c	8.2E-03	c		4.4E-06	c	
Nitrosopyrrolidine, N-	930-55-2	2.1E+00	I	6.1E-04	I							1	0.1		Nitrosopyrrolidine, N-	930-55-2	2.6E-01	c	1.1E+00	c	4.6E-03	c	2.0E-02	c	3.7E-02	c		1.4E-05	c	
Nitrotoluene, m-	99-08-1					1.0E-04	X					1	0.1		Nitrotoluene, m-	99-08-1	6.3E-01	n	8.2E+00	n					1.7E-01	n		1.6E-04	n	
o-	88-72-2	2.2E-01	P			9.0E-04	P			V		1		1.5E+03	o-	88-72-2	3.2E+00	c**	1.5E+01	c**					3.1E-01	c**		3.0E-04	c**	
p-	99-99-0	1.6E-02	P			4.0E-03	P					1	0.1		p-	99-99-0	2.5E+01	n	1.4E+02	c**					4.3E+00	c**		4.0E-03	c**	
Nonane, n-	111-84-2					3.0E-04	X	2.0E-02	P	V		1		6.9E+00	Nonane, n-	111-84-2	1.1E+00	n	7.2E+00	ns	2.1E+00	n	8.8E+00	n	5.3E-01	n		7.5E-03	n	
Norflurazon	27314-13-2					4.0E-02	I					1	0.1		Norflurazon	27314-13-2	2.5E+02	n	3.3E+03	n					7.7E+01	n		5.0E-01	n	
Octabromodiphenyl Ether	32536-52-0					3.0E-03	I					1	0.1		Octabromodiphenyl Ether	32536-52-0	1.9E+01	n	2.5E+02	n					6.0E+00	n		1.2E+00	n	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0					5.0E-02	I					1	0		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	3.9E+02	n	5.7E+03	n					1.0E+02	n		1.3E-01	n	
Octamethylpyrophosphoramide	152-16-9					2.0E-03	H					1	0.1		Octamethylpyrophosphoramide	152-16-9	1.3E+01	n	1.6E+02	n					4.0E+00	n		9.6E-04	n	
Oryzalin	19044-88-3					5.0E-02	I					1	0.1		Oryzalin	19044-88-3	3.2E+02	n	4.1E+03	n					8.1E+01	n		1.5E-01	n	
Oxadiazon	19666-30-9					5.0E-03	I					1	0.1		Oxadiazon	19666-30-9	3.2E+01	n	4.1E+02	n					4.7E+00	n		4.8E-02	n	
Oxamyl	23135-22-0					2.5E-02	I					1	0.1		Oxamyl	23135-22-0	1.6E+02	n	2.1E+03	n					5.0E+01	n	2.0E+02	1.1E-02	n	4.4E-02
Oxyfluorfen	42874-03-3					3.0E-03	I					1	0.1		Oxyfluorfen	42874-03-3	1.9E+01	n	2.5E+02	n					3.2E+00	n		2.5E-01	n	
Paclobutrazol	76738-62-0					1.3E-02	I					1	0.1		Paclobutrazol	76738-62-0	8.2E+01	n	1.1E+03	n					2.3E+01	n		4.6E-02	n	
Paraquat Dichloride	1910-42-5					4.5E-03	I					1	0.1		Paraquat Dichloride	1910-42-5	2.8E+01	n	3.7E+02	n					9.0E+00	n		1.2E-01	n	
Parathion	56-38-2					6.0E-03	H					1	0.1		Parathion	56-38-2	3.8E+01	n	4.9E+02	n					8.6E+00	n		4.3E-02	n	
Pebulate	1114-71-2					5.0E-02	H			V		1			Pebulate	1114-71-2	3.9E+02	n	5.8E+03	n					5.6E+01	n		4.5E-02	n	
Pendimethalin	40487-42-1					4.0E-02	I					1	0.1		Pendimethalin	40487-42-1	2.5E+02	n	3.3E+03	n					1.8E+01	n		2.1E-01	n	
Pentabromodiphenyl Ether	32534-81-9					2.0E-03	I			V		1		3.1E-01	Pentabromodiphenyl Ether	32534-81-9	1.6E+01	ns	2.3E+02	ns					4.0E+00	n		1.7E-01	n	
Pentabromodiphenyl ether, 2,2',4,4',5-(BDE-99)	60348-60-9					1.0E-04	I					1	0.1		Pentabromodiphenyl ether, 2,2',4,4',5-(BDE-99)	60348-60-9	6.3E-01	n	8.2E+00	n					2.0E-01	n		8.7E-03	n	
Pentachlorobenzene	608-93-5					8.0E-04	I			V		1			Pentachlorobenzene	608-93-5	6.3E+00	n	9.3E+01	n					3.2E-01	n		2.4E-03	n	
Pentachloroethane	76-01-7	9.0E-02	P							V		1		4.6E+02	Pentachloroethane	76-01-7	7.7E+00	c	3.6E+01	c					6.5E-01	c		3.1E-04	c	
Pentachloronitrobenzene	82-68-8	2.6E-01	H			3.0E-03	I			V		1			Pentachloronitrobenzene	82-68-8	2.7E+00	c**	1.3E+01	c*					1.2E-01	c*		1.5E-03	c*	
Pentachlorophenol	87-86-5	4.0E-01	I	5.1E-06	C	5.0E-03	I					1	0.3		Pentachlorophenol	87-86-5	1.0E+00	c*	4.0E+00	c*	5.5E-01	c	2.4E+00	c	4.1E-02	c*	1.0E+00	5.7E-05	c*	1.4E-03
Pentaerythritol tetranitrate (PETN)	78-11-5	4.0E-03	X			2.0E-03	P					1	0.1		Pentaerythritol tetranitrate (PETN)	78-11-5	1.3E+01	n	1.6E+02	n					3.9E+00	n		5.8E-03	n	
Pentane, n-	109-66-0							1.0E+00	P	V		1		3.9E+02	Pentane, n-	109-66-0	8.1E+01	n	3.4E+02	n	1.0E+02	n	4.4E+02	n	2.1E+02	n		1.0E+00	n	
Perchlorates ~Ammonium Perchlorate	7790-98-9					7.0E-04	I					1			Perchlorates ~Ammonium Perchlorate	7790-98-9	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
~Lithium Perchlorate ~Perchlorate and Perchlorate Salts	14797-73-0					7.0E-04	I					1			~Lithium Perchlorate ~Perchlorate and Perchlorate Salts	14797-73-0	5.5E+00	n	8.2E+01	n					1.4E+00	n	1.5E+01(F)		n	

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Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
~Potassium Perchlorate	7778-74-7					7.0E-04	I					1			~Potassium Perchlorate	7778-74-7	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
~Sodium Perchlorate	7601-89-0					7.0E-04	I					1			~Sodium Perchlorate	7601-89-0	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
Perfluorobutane Sulfonate	375-73-5					2.0E-02	P			V		1			Perfluorobutane Sulfonate	375-73-5	1.6E+02	n	2.3E+03	n					3.8E+01	n		2.1E-02	n	
Permethrin	52645-53-1					5.0E-02	I					1	0.1		Permethrin	52645-53-1	3.2E+02	n	4.1E+03	n					1.0E+02	n		2.4E+01	n	
Phenacetin	62-44-2	2.2E-03	C	6.3E-07	C							1	0.1		Phenacetin	62-44-2	2.5E+02	c	1.0E+03	c	4.5E+00	c	1.9E+01	c	3.4E+01	c		9.7E-03	c	
Phenmedipham	13684-63-4					2.5E-01	I					1	0.1		Phenmedipham	13684-63-4	1.6E+03	n	2.1E+04	n					4.0E+02	n		2.1E+00	n	
Phenol	108-95-2					3.0E-01	I	2.0E-01	C			1	0.1		Phenol	108-95-2	1.9E+03	n	2.5E+04	n	2.1E+01	n	8.8E+01	n	5.8E+02	n		3.3E-01	n	
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1					4.0E-03	I					1	0.1		Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	2.5E+01	n	3.3E+02	n					7.8E+00	n		2.5E-03	n	
Phenothiazine	92-84-2					5.0E-04	X					1	0.1		Phenothiazine	92-84-2	3.2E+00	n	4.1E+01	n					4.3E-01	n		1.4E-03	n	
Phenylenediamine, m-	108-45-2					6.0E-03	I					1	0.1		Phenylenediamine, m-	108-45-2	3.8E+01	n	4.9E+02	n					1.2E+01	n		3.2E-03	n	
Phenylenediamine, o-	95-54-5	4.7E-02	H									1	0.1		Phenylenediamine, o-	95-54-5	1.2E+01	c	4.9E+01	c					1.6E+00	c		4.4E-04	c	
Phenylenediamine, p-	106-50-3					1.9E-01	H					1	0.1		Phenylenediamine, p-	106-50-3	1.2E+03	n	1.6E+04	n					3.8E+02	n		1.0E-01	n	
Phenylphenol, 2-	90-43-7	1.9E-03	H									1	0.1		Phenylphenol, 2-	90-43-7	2.8E+02	c	1.2E+03	c					3.0E+01	c		4.1E-01	c	
Phorate	298-02-2					2.0E-04	H					1	0.1		Phorate	298-02-2	1.3E+00	n	1.6E+01	n					3.0E-01	n		3.4E-04	n	
Phosgene	75-44-5							3.0E-04	I	V		1		1.6E+03	Phosgene	75-44-5	3.1E-02	n	1.3E-01	n	3.1E-02	n	1.3E-01	n						
Phosmet	732-11-6					2.0E-02	I					1	0.1		Phosmet	732-11-6	1.3E+02	n	1.6E+03	n					3.7E+01	n		8.2E-03	n	
Phosphates, Inorganic ~Aluminum metaphosphate	13776-88-0					4.9E+01	P					1			Phosphates, Inorganic ~Aluminum metaphosphate	13776-88-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
polyphosphate	68333-79-9					4.9E+01	P					1			polyphosphate	68333-79-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Calcium pyrophosphate	7790-76-3					4.9E+01	P					1			~Calcium pyrophosphate	7790-76-3	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Diammonium phosphate	7783-28-0					4.9E+01	P					1			~Diammonium phosphate	7783-28-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Dicalcium phosphate	7757-93-9					4.9E+01	P					1			~Dicalcium phosphate	7757-93-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Dimagnesium phosphate	7782-75-4					4.9E+01	P					1			~Dimagnesium phosphate	7782-75-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Dipotassium phosphate	7758-11-4					4.9E+01	P					1			~Dipotassium phosphate	7758-11-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Disodium phosphate	7558-79-4					4.9E+01	P					1			~Disodium phosphate	7558-79-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Monoaluminum phosphate	13530-50-2					4.9E+01	P					1			~Monoaluminum phosphate	13530-50-2	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Monoammonium phosphate	7722-76-1					4.9E+01	P					1			~Monoammonium phosphate	7722-76-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Monocalcium phosphate	7758-23-8					4.9E+01	P					1			~Monocalcium phosphate	7758-23-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Monomagnesium phosphate	7757-86-0					4.9E+01	P					1			~Monomagnesium phosphate	7757-86-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Monopotassium phosphate	7778-77-0					4.9E+01	P					1			~Monopotassium phosphate	7778-77-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Monosodium phosphate	7558-80-7					4.9E+01	P					1			~Monosodium phosphate	7558-80-7	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Polyphosphoric acid	8017-16-1					4.9E+01	P					1			~Polyphosphoric acid	8017-16-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Potassium tripolyphosphate	13845-36-8					4.9E+01	P					1			~Potassium tripolyphosphate	13845-36-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium acid pyrophosphate	7758-16-9					4.9E+01	P					1			~Sodium acid pyrophosphate	7758-16-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium aluminum phosphate (acidic)	7785-88-8					4.9E+01	P					1			~Sodium aluminum phosphate (acidic)	7785-88-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium aluminum phosphate (anhydrous)	10279-59-1					4.9E+01	P					1			~Sodium aluminum phosphate (anhydrous)	10279-59-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium aluminum phosphate (tetrahydrate)	10305-76-7					4.9E+01	P					1			~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium hexametaphosphate polyphosphate	10124-56-8					4.9E+01	P					1			~Sodium hexametaphosphate polyphosphate	10124-56-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
	68915-31-1					4.9E+01	P					1				68915-31-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium trimetaphosphate	7785-84-4					4.9E+01	P					1			~Sodium trimetaphosphate	7785-84-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Sodium tripolyphosphate	7758-29-4					4.9E+01	P					1			~Sodium tripolyphosphate	7758-29-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Tetrapotassium phosphate	7320-34-5					4.9E+01	P					1			~Tetrapotassium phosphate	7320-34-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Tetrasodium pyrophosphate	7722-88-5					4.9E+01	P					1			~Tetrasodium pyrophosphate	7722-88-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Trialuminum sodium tetradecahydrogenoctaorthophosphate (dihydrate)	15136-87-5					4.9E+01	P					1			~Trialuminum sodium tetradecahydrogenoctaorthophosphate (dihydrate)	15136-87-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Tricalcium phosphate	7758-87-4					4.9E+01	P					1			~Tricalcium phosphate	7758-87-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Trimagnesium phosphate	7757-87-1					4.9E+01	P					1			~Trimagnesium phosphate	7757-87-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Tripotassium phosphate	7778-53-2					4.9E+01	P					1			~Tripotassium phosphate	7778-53-2	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
~Trisodium phosphate	7601-54-9					4.9E+01	P					1			~Trisodium phosphate	7601-54-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
Phosphine	7803-51-2					3.0E-04	I	3.0E-04	I	V		1			Phosphine	7803-51-2	2.3E+00	n	3.5E+01	n	3.1E-02	n	1.3E-01	n	5.7E-02	n			n	
Phosphoric Acid	7664-38-2					4.9E+01	P	1.0E-02	I			1			Phosphoric Acid	7664-38-2	3.0E+05	nm	2.9E+06	nm	1.0E+00	n	4.4E+00	n	9.7E+04	n			n	
Phosphorus, White	7723-14-0					2.0E-05	I			V		1			Phosphorus, White	7723-14-0	1.6E-01	n	2.3E+00	n					4.0E-02	n		1.5E-04	n	
Phthalates															Phthalates															
~Bis(2-ethylhexyl)phthalate	117-81-7	1.4E-02	I	2.4E-06	C	2.0E-02	I					1	0.1		~Bis(2-ethylhexyl)phthalate	117-81-7	3.9E+01	c**	1.6E+02	c*	1.2E+00	c	5.1E+00	c	5.6E+00	c**	6.0E+00	1.3E+00	c**	1.4E+00
~Butyl Benzyl Phthalate	85-68-7	1.9E-03	P			2.0E-01	I					1	0.1		~Butyl Benzyl Phthalate	85-68-7	2.9E+02	c**	1.2E+03	c*					1.6E+01	c*		2.4E-01	c*	
~Butylphthalyl Butylglycolate	85-70-1					1.0E+00	I					1	0.1		~Butylphthalyl Butylglycolate	85-70-1	6.3E+03	n	8.2E+04	n					1.3E+03	n		3.1E+01	n	
~Dibutyl Phthalate	84-74-2					1.0E-01	I					1	0.1		~Dibutyl Phthalate	84-74-2	6.3E+02	n	8.2E+03	n					9.0E+01	n		2.3E-01	n	
~Diethyl Phthalate	84-66-2					8.0E-01	I					1	0.1		~Diethyl Phthalate	84-66-2	5.1E+03	n	6.6E+04	n					1.5E+03	n		6.1E-01	n	
~Dimethyltere phthalate	120-61-6					1.0E-01	I			V		1			~Dimethyltere phthalate	120-61-6	7.8E+02	n	1.2E+04	n					1.9E+02	n		4.9E-02	n	
~Octyl Phthalate, di-N-	117-84-0					1.0E-02	P					1	0.1		~Octyl Phthalate, di-N-	117-84-0	6.3E+01	n	8.2E+02	n					2.0E+01	n		5.7E+00	n	

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Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
~Phthalic Acid, P-	100-21-0					1.0E+00	H					1	0.1		~Phthalic Acid, P-	100-21-0	6.3E+03	n	8.2E+04	n					1.9E+03	n		6.8E-01	n	
~Phthalic Anhydride	85-44-9					2.0E+00	I	2.0E-02	C			1	0.1		~Phthalic Anhydride	85-44-9	1.3E+04	n	1.6E+05	nm	2.1E+00	n	8.8E+00	n	3.9E+03	n		8.5E-01	n	
Picloram	1918-02-1					7.0E-02	I					1	0.1		Picloram	1918-02-1	4.4E+02	n	5.7E+03	n					1.4E+02	n	5.0E+02	3.8E-02	n	1.4E-01
Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3					1.0E-04	X					1	0.1		Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3	6.3E-01	n	8.2E+00	n					2.0E-01	n		1.3E-04	n	
(2,4,6-Trinitrophenol)	88-89-1					9.0E-04	X					1	0.1		(2,4,6-Trinitrophenol)	88-89-1	5.7E+00	n	7.4E+01	n					1.8E+00	n		8.4E-03	n	
Pirimiphos, Methyl	29232-93-7					1.0E-02	I					1	0.1		Pirimiphos, Methyl	29232-93-7	6.3E+01	n	8.2E+02	n					1.2E+01	n		1.2E-02	n	
Polybrominated Biphenyls	59536-65-1	3.0E+01	C	8.6E-03	C	7.0E-06	H					1	0.1		Polybrominated Biphenyls	59536-65-1	1.8E-02	c**	7.7E-02	c**	3.3E-04	c	1.4E-03	c	2.6E-03	c**			c**	
Polychlorinated Biphenyls (PCBs)															Polychlorinated Biphenyls (PCBs)															
~Aroclor 1016	12674-11-2	7.0E-02	S	2.0E-05	S	7.0E-05	I			V		1	0.1		~Aroclor 1016	12674-11-2	4.1E-01	n	5.1E+00	n	1.4E-01	c	6.1E-01	c	1.4E-01	n		1.3E-02	n	
~Aroclor 1221	11104-28-2	2.0E+00	S	5.7E-04	S					V		1	0.1		~Aroclor 1221	11104-28-2	2.0E-01	c	8.3E-01	c	4.9E-03	c	2.1E-02	c	4.7E-03	c		8.0E-05	c	
~Aroclor 1232	11141-16-5	2.0E+00	S	5.7E-04	S					V		1	0.1		~Aroclor 1232	11141-16-5	1.7E-01	c	7.2E-01	c	4.9E-03	c	2.1E-02	c	4.7E-03	c		8.0E-05	c	
~Aroclor 1242	53469-21-9	2.0E+00	S	5.7E-04	S					V		1	0.1		~Aroclor 1242	53469-21-9	2.3E-01	c	9.5E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c		1.2E-03	c	
~Aroclor 1248	12672-29-6	2.0E+00	S	5.7E-04	S					V		1	0.1		~Aroclor 1248	12672-29-6	2.3E-01	c	9.5E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c		1.2E-03	c	
~Aroclor 1254	11097-69-1	2.0E+00	S	5.7E-04	S	2.0E-05	I			V		1	0.1		~Aroclor 1254	11097-69-1	1.2E-01	n	9.7E-01	c**	4.9E-03	c	2.1E-02	c	7.8E-03	c**		2.0E-03	c**	
~Aroclor 1260	11096-82-5	2.0E+00	S	5.7E-04	S					V		1	0.1		~Aroclor 1260	11096-82-5	2.4E-01	c	9.9E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c		5.5E-03	c	
~Aroclor 5460	11126-42-4					6.0E-04	X			V		1	0.1		~Aroclor 5460	11126-42-4	3.5E+00	n	4.4E+01	n					1.2E+00	n		2.0E-01	n	
~Heptachloro biphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Heptachloro biphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.3E-01	c**	5.2E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		2.8E-03	c*	
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*	
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.2E-01	c**	5.0E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*	
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	1.2E-01	c**	5.0E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*	
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	3.9E+03	E	1.1E+00	E	2.3E-08	E	1.3E-06	E	V		1	0.1		~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.2E-04	c**	5.1E-04	c**	2.5E-06	c*	1.1E-05	c*	4.0E-06	c*		1.7E-06	c*	
~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.2E-01	c**	4.9E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.0E-03	c*	
~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.2E-01	c**	4.9E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.0E-03	c*	
~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.2E-01	c**	4.9E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.0E-03	c*	
~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.1		~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.2E-01	c**	5.0E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.0E-03	c*	
~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	1.3E+04	E	3.8E+00	E	7.0E-09	E	4.0E-07	E	V		1	0.1		~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	3.6E-05	c**	1.5E-04	c**	7.4E-07	c*	3.2E-06	c*	1.2E-06	c*		3.0E-07	c*	
~Polychlorinated Biphenyls (high risk)	1336-36-3	2.0E+00	I	5.7E-04	I					V		1	0.1		~Polychlorinated Biphenyls (high risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c			5.0E-01			
~Polychlorinated Biphenyls (low risk)	1336-36-3	4.0E-01	I	1.0E-04	I					V		1	0.1		~Polychlorinated Biphenyls (low risk)	1336-36-3					2.8E-02	c	1.2E-01	c	4.4E-02	c	5.0E-01	6.8E-03	c	7.8E-02
~Polychlorinated Biphenyls (lowest risk)	1336-36-3	7.0E-02	I	2.0E-05	I					V		1	0.1		~Polychlorinated Biphenyls (lowest risk)	1336-36-3					1.4E-01	c	6.1E-01	c			5.0E-01			
~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	1.3E+01	E	3.8E-03	E	7.0E-06	E	4.0E-04	E			1	0.1		~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	3.8E-02	c**	1.6E-01	c**	7.4E-04	c*	3.2E-03	c*	6.0E-03	c**		9.4E-04	c**	
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	3.9E+01	E	1.1E-02	E	2.3E-06	E	1.3E-04	E	V		1	0.1		~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	1.2E-02	c**	4.8E-02	c**	2.5E-04	c*	1.1E-03	c*	4.0E-04	c*		6.2E-05	c*	
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9					6.0E-04	I					1	0.1		Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+04	n	3.6E+05	nm	6.3E-02	n	2.6E-01	n						
Polynuclear Aromatic Hydrocarbons (PAHs)															Polynuclear Aromatic Hydrocarbons (PAHs)															
~Acenaphthene	83-32-9					6.0E-02	I			V		1	0.1		~Acenaphthene	83-32-9	3.6E+02	n	4.5E+03	n					5.3E+01	n		5.5E-01	n	
~Anthracene	120-12-7					3.0E-01	I			V		1	0.1		~Anthracene	120-12-7	1.8E+03	n	2.3E+04	n					1.8E+02	n		5.8E+00	n	
~Benz[a]anthracene	56-55-3	7.3E-01	E	1.1E-04	C					V	M	1	0.1		~Benz[a]anthracene	56-55-3	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	1.2E-02	c		4.2E-03	c	
~Benzo(j)fluoranthene	205-82-3	1.2E+00	C	1.1E-04	C							1	0.1		~Benzo(j)fluoranthene	205-82-3	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	6.5E-02	c		7.8E-02	c	
~Benzo[a]pyrene	50-32-8	7.3E+00	I	1.1E-03	C						M	1	0.1		~Benzo[a]pyrene	50-32-8	1.6E-02	c	2.9E-01	c	9.2E-04	c	1.1E-02	c	3.4E-03	c	2.0E-01	4.0E-03	c	2.4E-01
~Benzo[b]fluoranthene	205-99-2	7.3E-01	E	1.1E-04	C						M	1	0.1		~Benzo[b]fluoranthene	205-99-2	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		4.1E-02	c	
~Benzo[k]fluoranthene	207-08-9	7.3E-02	E	1.1E-04	C						M	1	0.1		~Benzo[k]fluoranthene	207-08-9	1.6E+00	c	2.9E+01	c	9.2E-03	c	1.1E-01	c	3.4E-01	c		4.0E-01	c	
~Chloronaphthalene, Beta-	91-58-7					8.0E-02	I			V		1	0.1		~Chloronaphthalene, Beta-	91-58-7	4.8E+02	n	6.0E+03	n					7.5E+01	n		3.9E-01	n	
~Chrysene	218-01-9	7.3E-03	E	1.1E-05	C						M	1	0.1		~Chrysene	218-01-9	1.6E+01	c	2.9E+02	c	9.2E-02	c	1.1E+00	c	3.4E+00	c		1.2E+00	c	
~Dibenz[a,h]anthracene	53-70-3	7.3E+00	E	1.2E-03	C						M	1	0.1		~Dibenz[a,h]anthracene	53-70-3	1.6E-02	c	2.9E-01	c	8.4E-04	c	1.0E-02	c	3.4E-03	c		1.3E-02	c	
~Dibenzo(a,e)pyrene	192-65-4	1.2E+01	C	1.1E-03	C							1	0.1		~Dibenzo(a,e)pyrene	192-65-4	4.2E-02	c	1.8E-01	c	2.6E-03	c	1.1E-02	c	6.5E-03	c		8.4E-02	c	
~Dimethylbenz(a)anthracene, 7,12-	57-97-6	2.5E+02	C	7.1E-02	C						M	1	0.1		~Dimethylbenz(a)anthracene, 7,12-	57-97-6	4.6E-04	c	8.4E-03	c	1.4E-05	c	1.7E-04	c	1.0E-04	c		9.9E-05	c	
e	206-44-0					4.0E-02	I					1	0.1		e	206-44-0	2.4E+02	n	3.0E+03	n					8.0E+01	n		8.9E+00	n	
~Fluorene	86-73-7					4.0E-02	I			V		1	0.1		~Fluorene	86-73-7	2.4E+02	n	3.0E+03	n					2.9E+01	n		5.4E-01	n	
~Indeno[1,2,3-cd]pyrene	193-39-5	7.3E-01	E	1.1E-04	C						M	1	0.1		~Indeno[1,2,3-cd]pyrene	193-39-5	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		1.3E-01	c	
~Methylnaphthalene, 1-	90-12-0	2.9E-02	P			7.0E-02	A			V		1	0.1	3.9E+02	~Methylnaphthalene, 1-	90-12-0	1.8E+01	c*	7.3E+01	c*					1.1E+00	c*		6.0E-03	c*	
~Methylnaphthalene, 2-	91-57-6					4.0E-03	I			V		1	0.1		~Methylnaphthalene, 2-	91-57-6	2.4E+01	n	3.0E+02	n					3.6E+00	n		1.9E-02	n	
~Naphthalene	91-20-3			3.4E-05	C	2.0E-02	I	3.0E-03	I	V		1	0.1		~Naphthalene	91-20-3	3.8E+00	c**	1.7E+01	c**	8.3E-02	c**	3.6E-01	c**	1.7E-01	c**		5.4E-04	c**	
~Nitropyrene, 4-	57835-92-4	1.2E+00	C	1.1E-04	C							1	0.1		~Nitropyrene, 4-	57835-92-4	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	1.9E-02	c		3.3E-03	c	
~Pyrene	129-00-0					3.0E-02	I			V		1	0.1		~Pyrene	129-00-0	1.8E+02	n	2.3E+03	n					1.2E+01	n		1.3E+00	n	
Potassium Perfluorobutane Sulfonate	29420-49-3					2.0E-02	P					1	0.1		Potassium Perfluorobutane Sulfonate	29420-49-3	1.3E+02	n	1.6E+03	n					4.0E+01	n		2.2E-02	n	
Prochloraz	67747-09-5	1.5E-01	I			9.0E-03	I					1	0.1		Prochloraz	67747-09-5	3.6E+00	c*	1.5E+01	c*					3.8E-01	c*		1.9E-03	c*	
Profluralin	26399-36-0					6.0E-03	H			V		1			Profluralin	26399-36-0	4.7E+01	n	7.0E+02	n					2.6E+00	n		1.6E-01	n	
Prometon	1610-18-0					1.5E-02	I					1	0.1		Prometon	1610-18-0	9.5E+01	n	1.2E+03	n					2.5E+01	n		1.2E-02	n	
Prometryn	7287-19-6					4.0E-03	I					1	0.1		Prometryn	7287-19-6	2.5E+01	n	3.3E+02	n					6.0E+00	n		9.0E-03	n	
Propachlor	1918-16-7					1.3E-02	I					1	0.1		Propachlor	1918-16-7	8.2E+01	n	1.1E+03	n					2.5E+01	n		1.5E-02	n	
Propanil	709-98-8					5.0E-03	I					1	0.1		Propanil	709-98-8	3.2E+01	n	4.1E+02	n					8.2E+00	n		4.5E-03	n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Propargite	2312-35-8					2.0E-02	I					1	0.1		Propargite	2312-35-8	1.3E+02	n	1.6E+03	n					1.6E+01	n		1.2E+00	n	
Propargyl Alcohol	107-19-7					2.0E-03	I			V		1		1.1E+05	Propargyl Alcohol	107-19-7	1.6E+01	n	2.3E+02	n					4.0E+00	n		8.1E-04	n	
Propazine	139-40-2					2.0E-02	I					1	0.1		Propazine	139-40-2	1.3E+02	n	1.6E+03	n					3.4E+01	n		3.0E-02	n	
Propham	122-42-9					2.0E-02	I					1	0.1		Propham	122-42-9	1.3E+02	n	1.6E+03	n					3.5E+01	n		2.2E-02	n	
Propiconazole	60207-90-1					1.3E-02	I					1	0.1		Propiconazole	60207-90-1	8.2E+01	n	1.1E+03	n					2.1E+01	n		6.9E-02	n	
Propionaldehyde	123-38-6							8.0E-03	I	V		1		3.3E+04	Propionaldehyde	123-38-6	7.5E+00	n	3.1E+01	n	8.3E-01	n	3.5E+00	n	1.7E+00	n		3.4E-04	n	
Propyl benzene	103-65-1					1.0E-01	X	1.0E+00	X	V		1		2.6E+02	Propyl benzene	103-65-1	3.8E+02	ns	2.4E+03	ns	1.0E+02	n	4.4E+02	n	6.6E+01	n		1.2E-01	n	
Propylene	115-07-1							3.0E+00	C	V		1		3.5E+02	Propylene	115-07-1	2.2E+02	n	9.3E+02	ns	3.1E+02	n	1.3E+03	n	6.3E+02	n		6.0E-01	n	
Propylene Glycol	57-55-6					2.0E+01	P					1	0.1		Propylene Glycol	57-55-6	1.3E+05	nm	1.6E+06	nm					4.0E+04	n		8.1E+00	n	
Propylene Glycol Dinitrate	6423-43-4							2.7E-04	A			1	0.1		Propylene Glycol Dinitrate	6423-43-4	3.9E+04	n	1.6E+05	nm	2.8E-02	n	1.2E-01	n						
Propylene Glycol Monomethyl Ether	107-98-2					7.0E-01	H	2.0E+00	I	V		1		1.1E+05	Propylene Glycol Monomethyl Ether	107-98-2	4.1E+03	n	3.7E+04	n	2.1E+02	n	8.8E+02	n	3.2E+02	n		6.5E-02	n	
Propylene Oxide	75-56-9	2.4E-01	I	3.7E-06	I			3.0E-02	I	V		1		7.8E+04	Propylene Oxide	75-56-9	2.1E+00	c*	9.7E+00	c*	7.6E-01	c**	3.3E+00	c**	2.7E-01	c*		5.6E-05	c*	
Propyzamide	23950-58-5					7.5E-02	I					1	0.1		Propyzamide	23950-58-5	4.7E+02	n	6.2E+03	n					1.2E+02	n		1.2E-01	n	
Pyridine	110-86-1					1.0E-03	I			V		1		5.3E+05	Pyridine	110-86-1	7.8E+00	n	1.2E+02	n					2.0E+00	n		6.8E-04	n	
Quinalphos	13593-03-8					5.0E-04	I					1	0.1		Quinalphos	13593-03-8	3.2E+00	n	4.1E+01	n					5.1E-01	n		4.3E-03	n	
Quinoline	91-22-5	3.0E+00	I									1	0.1		Quinoline	91-22-5	1.8E-01	c	7.7E-01	c					2.4E-02	c		7.8E-05	c	
Quizalofop-ethyl	76578-14-8					9.0E-03	I					1	0.1		Quizalofop-ethyl	76578-14-8	5.7E+01	n	7.4E+02	n					1.2E+01	n		1.9E-01	n	
Refractory Ceramic Fibers	NA							3.0E-02	A			1			Refractory Ceramic Fibers	NA	4.3E+06	nm	1.8E+07	nm	3.1E+00	n	1.3E+01	n						
Resmethrin	10453-86-8					3.0E-02	I					1	0.1		Resmethrin	10453-86-8	1.9E+02	n	2.5E+03	n					6.7E+00	n		4.2E+00	n	
Ronnel	299-84-3					5.0E-02	H			V		1			Ronnel	299-84-3	3.9E+02	n	5.8E+03	n					4.1E+01	n		3.7E-01	n	
Rotenone	83-79-4					4.0E-03	I					1	0.1		Rotenone	83-79-4	2.5E+01	n	3.3E+02	n					6.1E+00	n		3.2E+00	n	
Safrole	94-59-7	2.2E-01	C	6.3E-05	C						M	1	0.1		Safrole	94-59-7	5.5E-01	c	1.0E+01	c	1.6E-02	c	1.9E-01	c	9.6E-02	c		5.9E-05	c	
Selenious Acid	7783-00-8					5.0E-03	I					1			Selenious Acid	7783-00-8	3.9E+01	n	5.8E+02	n					1.0E+01	n			n	
Selenium	7782-49-2					5.0E-03	I	2.0E-02	C			1			Selenium	7782-49-2	3.9E+01	n	5.8E+02	n	2.1E+00	n	8.8E+00	n	1.0E+01	n	5.0E+01	5.2E-02	n	2.6E-01
Selenium Sulfide	7446-34-6					5.0E-03	C	2.0E-02	C			1			Selenium Sulfide	7446-34-6	3.9E+01	n	5.8E+02	n	2.1E+00	n	8.8E+00	n	1.0E+01	n			n	
Sethoxydim	74051-80-2					9.0E-02	I					1	0.1		Sethoxydim	74051-80-2	5.7E+02	n	7.4E+03	n					1.0E+02	n		9.3E-01	n	
Silica (crystalline, respirable)	7631-86-9							3.0E-03	C			1			Silica (crystalline, respirable)	7631-86-9	4.3E+05	nm	1.8E+06	nm	3.1E-01	n	1.3E+00	n						
Silver	7440-22-4					5.0E-03	I					0			Silver	7440-22-4	3.9E+01	n	5.8E+02	n					9.4E+00	n		8.0E-02	n	
Simazine	122-34-9	1.2E-01	H			5.0E-03	I					1	0.1		Simazine	122-34-9	4.5E+00	c**	1.9E+01	c*					6.1E-01	c*	4.0E+00	3.0E-04	c*	2.0E-03
Sodium Acifluorfen	62476-59-9					1.3E-02	I					1	0.1		Sodium Acifluorfen	62476-59-9	8.2E+01	n	1.1E+03	n					2.6E+01	n		2.1E-01	n	
Sodium Azide	26628-22-8					4.0E-03	I					1			Sodium Azide	26628-22-8	3.1E+01	n	4.7E+02	n					8.0E+00	n			n	
Sodium Dichromate	10588-01-9	5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0			Sodium Dichromate	10588-01-9	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
Sodium Diethyldithiocarbamate	148-18-5	2.7E-01	H			3.0E-02	I					1	0.1		Sodium Diethyldithiocarbamate	148-18-5	2.0E+00	c*	8.5E+00	c					2.9E-01	c		1.8E-04	c	
Sodium Fluoride	7681-49-4					5.0E-02	A	1.3E-02	C			1			Sodium Fluoride	7681-49-4	3.9E+02	n	5.8E+03	n	1.4E+00	n	5.7E+00	n	1.0E+02	n			n	
Sodium Fluoroacetate	62-74-8					2.0E-05	I					1	0.1		Sodium Fluoroacetate	62-74-8	1.3E-01	n	1.6E+00	n					4.0E-02	n		8.1E-06	n	
Sodium Metavanadate	13718-26-8					1.0E-03	H					1			Sodium Metavanadate	13718-26-8	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
Sodium Tungstate	13472-45-2					8.0E-04	P					1			Sodium Tungstate	13472-45-2	6.3E+00	n	9.3E+01	n					1.6E+00	n			n	
Sodium Tungstate Dihydrate	10213-10-2					8.0E-04	P					1			Sodium Tungstate Dihydrate	10213-10-2	6.3E+00	n	9.3E+01	n					1.6E+00	n			n	
Stirofos (Tetrachlorovinphos)	961-11-5	2.4E-02	H			3.0E-02	I					1	0.1		Stirofos (Tetrachlorovinphos)	961-11-5	2.3E+01	c**	9.6E+01	c*					2.8E+00	c*		8.2E-03	c*	
Strontium Chromate	7789-06-2	5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0			Strontium Chromate	7789-06-2	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
Strontium, Stable	7440-24-6					6.0E-01	I					1			Strontium, Stable	7440-24-6	4.7E+03	n	7.0E+04	n					1.2E+03	n		4.2E+01	n	
Strychnine	57-24-9					3.0E-04	I					1	0.1		Strychnine	57-24-9	1.9E+00	n	2.5E+01	n					5.9E-01	n		6.5E-03	n	
Styrene	100-42-5					2.0E-01	I	1.0E+00	I	V		1		8.7E+02	Styrene	100-42-5	6.0E+02	n	3.5E+03	ns	1.0E+02	n	4.4E+02	n	1.2E+02	n	1.0E+02	1.3E-01	n	1.1E-01
Styrene-Acrylonitrile (SAN) Trimer	NA					3.0E-03	P					1	0.1		Styrene-Acrylonitrile (SAN) Trimer	NA	1.9E+01	n	2.5E+02	n					4.8E+00	n			n	
Sulfolane	126-33-0					1.0E-03	P	2.0E-03	X			1	0.1		Sulfolane	126-33-0	6.3E+00	n	8.2E+01	n	2.1E-01	n	8.8E-01	n	2.0E+00	n		4.4E-04	n	
Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9					8.0E-04	P					1	0.1		Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	5.1E+00	n	6.6E+01	n					1.1E+00	n		6.5E-03	n	
Trioxide	7446-11-9							1.0E-03	C	V		1			Trioxide	7446-11-9	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n	2.1E-01	n			n	
Sulfuric Acid	7664-93-9							1.0E-03	C			1			Sulfuric Acid	7664-93-9	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n						
Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl) phenoxy]-1-methylethyl ester	140-57-8	2.5E-02	I	7.1E-06	I	5.0E-02	H					1	0.1		Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl) phenoxy]-1-methylethyl ester	140-57-8	2.2E+01	c*	9.2E+01	c*	4.0E-01	c	1.7E+00	c	1.3E+00	c*		1.5E-02	c*	
TCMTB	21564-17-0					3.0E-02	H					1	0.1		TCMTB	21564-17-0	1.9E+02	n	2.5E+03	n					4.8E+01	n		3.3E-01	n	
Tebuthiuron	34014-18-1					7.0E-02	I					1	0.1		Tebuthiuron	34014-18-1	4.4E+02	n	5.7E+03	n					1.4E+02	n		3.9E-02	n	
Temephos	3383-96-8					2.0E-02	H					1	0.1		Temephos	3383-96-8	1.3E+02	n	1.6E+03	n					4.0E+01	n		7.6E+00	n	
Terbacil	5902-51-2					1.3E-02	I					1	0.1		Terbacil	5902-51-2	8.2E+01	n	1.1E+03	n					2.5E+01	n		7.5E-03	n	
Terbufos	13071-79-9					2.5E-05	H			V		1		3.1E+01	Terbufos	13071-79-9	2.0E-01	n	2.9E+00	n					2.4E-02	n		5.2E-05	n	
Terbutryn	886-50-0					1.0E-03	I					1	0.1		Terbutryn	886-50-0	6.3E+00	n	8.2E+01	n					1.3E+00	n		1.9E-03	n	
Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1					1.0E-04	I					1	0.1		Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	6.3E-01	n	8.2E+00	n					2.0E-01	n		5.3E-03	n	
Tetrachlorobenzene, 1,2,4,5-	95-94-3					3.0E-04	I			V		1			Tetrachlorobenzene, 1,2,4,5-	95-94-3	2.3E+00	n	3.5E+01	n					1.7E-01	n		7.9E-04	n	
Tetrachloroethane, 1,1,1,2-	630-20-6	2.6E-02	I	7.4E-06	I	3.0E-02	I			V		1		6.8E+02	Tetrachloroethane, 1,1,1,2-	630-20-6	2.0E+00	c	8.8E+00	c	3.8E-01	c	1.7E+00	c	5.7E-01	c*		2.2E-04	c*	
Tetrachloroethane, 1,1,2,2-	79-34-5	2.0E-01	I	5.8E-05	C	2.0E-02	I			V		1		1.9E+03	Tetrachloroethane, 1,1,2,2-	79-34-5	6.0E-01	c	2.7E+00	c	4.8E-02	c	2.1E-01	c	7.6E-02	c		3.0E-05	c	
Tetrachloroethylene	127-18-4	2.1E-03	I	2.6E-07	I	6.0E-03	I	4.0E-02	I	V		1		1.7E+02	Tetrachloroethylene	127-18-4	8.1E+00	n	3.9E+01	n	4.2E+00	n	1.8E+01	n	4.1E+00	n	5.0E+00	1.8E-03	n	2.3E-03
Tetrachlorophenol, 2,3,4,6-	58-90-2					3.0E-02	I					1	0.1		Tetrachlorophenol, 2,3,4,6-	58-90-2	1.9E+02	n	2.5E+03	n					2.4E+01	n		1.8E-02	n	
Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	2.0E+01	H							V		1			Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	3.5E-02	c	1.6E-01	c					1.3E-03	c		4.5E-06	c	
Tetraethyl Dithiopyrophosphate	3689-24-5					5.0E-04	I					1	0.1		Tetraethyl Dithiopyrophosphate	3689-24-5	3.2E+00	n	4.1E+01	n					7.1E-01	n		5.2E-04	n	
Tetrafluoroethane, 1,1,1,2-	811-97-2							8.0E+01	I	V		1		2.1E+03	Tetrafluoroethane, 1,1,1,2-	811-97-2	1.0E+04	ns	4.3E+04	ns	8.3E+03	n	3.5E+04	n	1.7E+04	n		9.3E+00	n	
Tetryl (Trinitrophenylmethylnitramine)	479-45-8					2.0E-03	P					1	0		Tetryl (Trinitrophenylmethylnitramine)	479-45-8	1.6E+01	n	2.3E+02	n					3.9E+00	n		3.7E-02	n	
Thallic Oxide	1314-32-5					2.0E-05	S					1			Thallic Oxide	1314-32-5	1.6E-01	n	2.3E+00	n					4.0E-02	n			n	
Thallium (I) Nitrate	10102-45-1					1.0E-05	X					1			Thallium (I) Nitrate	10102-45-1	7.8E-02	n	1.2E+00	n					2.0E-02	n			n	
(Soluble Salts)	7440-28-0					1.0E-05	X					1			(Soluble Salts)	7440-28-0	7.8E-02	n	1.2E+00	n					2.0E-02	n	2.0E+00	1.4E-03	n	1.4E-01
Thallium Acetate	563-68-8					1.0E-05	X			V		1			Thallium Acetate	563-68-8	7.8E-02	n	1.2E+00	n					2.0E-02	n		4.1E-06	n	
Thallium Carbonate	6533-73-9					2.0E-05	X			V		1			Thallium Carbonate	6533-73-9	1.6E-01	n	2.3E+00	n					4.0E-02	n		8.3E-06	n	
Thallium Chloride	7791-12-0					1.0E-05	X					1			Thallium Chloride	7791-12-0	7.8E-02	n	1.2E+00	n					2.0E-02	n			n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Thallium Selenite	12039-52-0					1.0E-05	S					1			Thallium Selenite	12039-52-0	7.8E-02	n	1.2E+00	n					2.0E-02	n			n	
Thallium Sulfate	7446-18-6					2.0E-05	X					1			Thallium Sulfate	7446-18-6	1.6E-01	n	2.3E+00	n					4.0E-02	n			n	
Thifensulfuron-methyl	79277-27-3					1.3E-02	I					1	0.1		Thifensulfuron-methyl	79277-27-3	8.2E+01	n	1.1E+03	n					2.6E+01	n		7.8E-03	n	
Thiobencarb	28249-77-6					1.0E-02	I					1	0.1		Thiobencarb	28249-77-6	6.3E+01	n	8.2E+02	n					1.6E+01	n		5.5E-02	n	
Thiodiglycol	111-48-8					7.0E-02	X					1	0		Thiodiglycol	111-48-8	5.4E+02	n	7.9E+03	n					1.4E+02	n		2.8E-02	n	
Thiofanox	39196-18-4					3.0E-04	H					1	0.1		Thiofanox	39196-18-4	1.9E+00	n	2.5E+01	n					5.3E-01	n		1.8E-04	n	
Thiophanate, Methyl	23564-05-8					8.0E-02	I					1	0.1		Thiophanate, Methyl	23564-05-8	5.1E+02	n	6.6E+03	n					1.6E+02	n		1.4E-01	n	
Thiram	137-26-8					5.0E-03	I					1	0.1		Thiram	137-26-8	3.2E+01	n	4.1E+02	n					9.8E+00	n		1.4E-02	n	
Tin	7440-31-5					6.0E-01	H					1			Tin	7440-31-5	4.7E+03	n	7.0E+04	n					1.2E+03	n		3.0E+02	n	
Titanium Tetrachloride	7550-45-0							1.0E-04	A	V		1			Titanium Tetrachloride	7550-45-0	1.4E+04	n	6.0E+04	n	1.0E-02	n	4.4E-02	n	2.1E-02	n			n	
Toluene	108-88-3					8.0E-02	I	5.0E+00	I	V		1		8.2E+02	Toluene	108-88-3	4.9E+02	n	4.7E+03	ns	5.2E+02	n	2.2E+03	n	1.1E+02	n	1.0E+03	7.6E-02	n	6.9E-01
Toluene-2,4-diisocyante	584-84-9			1.1E-05	C			8.0E-06	C	V		1			Toluene-2,4-diisocyante	584-84-9	6.4E-01	n	2.7E+00	n	8.3E-04	n	3.5E-03	n	1.7E-03	n		2.5E-05	n	
Toluene-2,5-diamine	95-70-5	1.8E-01	X			2.0E-04	X					1	0.1		Toluene-2,5-diamine	95-70-5	1.3E+00	n	1.3E+01	c**					4.0E-01	n		1.2E-04	n	
Toluene-2,6-diisocyante	91-08-7			1.1E-05	C			8.0E-06	C	V		1		1.7E+03	Toluene-2,6-diisocyante	91-08-7	5.3E-01	n	2.2E+00	n	8.3E-04	n	3.5E-03	n	1.7E-03	n		2.6E-05	n	
Toluidine, o-(Methylaniline, 2-)	95-53-4	1.6E-02	P	5.1E-05	C							1	0.1		Toluidine, o-(Methylaniline, 2-)	95-53-4	3.4E+01	c	1.4E+02	c	5.5E-02	c	2.4E-01	c	4.7E+00	c		2.0E-03	c	
Toluidine, p-	106-49-0	3.0E-02	P			4.0E-03	X					1	0.1		Toluidine, p-	106-49-0	1.8E+01	c**	7.7E+01	c**					2.5E+00	c**		1.1E-03	c**	
Total Petroleum Hydrocarbons (Aliphatic High)	NA					3.0E+00	P			V		1		3.4E-01	Total Petroleum Hydrocarbons (Aliphatic High)	NA	2.3E+04	ns	3.5E+05	nms					6.0E+03	n		2.4E+02	n	
Total Petroleum Hydrocarbons (Aliphatic Low)	NA							6.0E-01	P	V		1		1.4E+02	Total Petroleum Hydrocarbons (Aliphatic Low)	NA	5.2E+01	n	2.2E+02	ns	6.3E+01	n	2.6E+02	n	1.3E+02	n		8.8E-01	n	
Total Petroleum Hydrocarbons (Aliphatic Medium)	NA					1.0E-02	X	1.0E-01	P	V		1		6.9E+00	Total Petroleum Hydrocarbons (Aliphatic Medium)	NA	9.6E+00	ns	4.4E+01	ns	1.0E+01	n	4.4E+01	n	1.0E+01	n		1.5E-01	n	
Total Petroleum Hydrocarbons (Aromatic High)	NA					4.0E-02	P					1	0.1		Total Petroleum Hydrocarbons (Aromatic High)	NA	2.5E+02	n	3.3E+03	n					8.0E+01	n		8.9E+00	n	
Total Petroleum Hydrocarbons (Aromatic Low)	NA					4.0E-03	P	3.0E-02	P	V		1		1.8E+03	Total Petroleum Hydrocarbons (Aromatic Low)	NA	8.2E+00	n	4.2E+01	n	3.1E+00	n	1.3E+01	n	3.3E+00	n		1.7E-03	n	
Total Petroleum Hydrocarbons (Aromatic Medium)	NA					4.0E-03	P	3.0E-03	P	V		1			Total Petroleum Hydrocarbons (Aromatic Medium)	NA	1.1E+01	n	6.0E+01	n	3.1E-01	n	1.3E+00	n	5.5E-01	n		2.3E-03	n	
Toxaphene	8001-35-2	1.1E+00	I	3.2E-04	I							1	0.1		Toxaphene	8001-35-2	4.9E-01	c	2.1E+00	c	8.8E-03	c	3.8E-02	c	7.1E-02	c	3.0E+00	1.1E-02	c	4.6E-01
Tralomethrin	66841-25-6					7.5E-03	I					1	0.1		Tralomethrin	66841-25-6	4.7E+01	n	6.2E+02	n					1.5E+01	n		5.8E+00	n	
Tri-n-butyltin	688-73-3					3.0E-04	A			V		1			Tri-n-butyltin	688-73-3	2.3E+00	n	3.5E+01	n					3.7E-01	n		8.2E-03	n	
Triacetin	102-76-1					8.0E+01	X					1	0.1		Triacetin	102-76-1	5.1E+05	nm	6.6E+06	nm					1.6E+05	n		4.5E+01	n	
Triadimefon	43121-43-3					3.0E-02	I					1	0.1		Triadimefon	43121-43-3	1.9E+02	n	2.5E+03	n					5.5E+01	n		4.4E-02	n	
Triallate	2303-17-5					1.3E-02	I			V		1			Triallate	2303-17-5	1.0E+02	n	1.5E+03	n					1.2E+01	n		2.6E-02	n	
Triasulfuron	82097-50-5					1.0E-02	I					1	0.1		Triasulfuron	82097-50-5	6.3E+01	n	8.2E+02	n					2.0E+01	n		2.1E-02	n	
Tribenuron-methyl	101200-48-0					8.0E-03	I					1	0.1		Tribenuron-methyl	101200-48-0	5.1E+01	n	6.6E+02	n					1.6E+01	n		6.1E-03	n	
Tribromobenzene, 1,2,4-	615-54-3					5.0E-03	I			V		1			Tribromobenzene, 1,2,4-	615-54-3	3.9E+01	n	5.8E+02	n					4.5E+00	n		6.4E-03	n	
Tributyl Phosphate	126-73-8	9.0E-03	P			1.0E-02	P					1	0.1		Tributyl Phosphate	126-73-8	6.0E+01	c**	2.6E+02	c**					5.2E+00	c**		2.5E-02	c**	
Tributyltin Compounds	NA					3.0E-04	P					1	0.1		Tributyltin Compounds	NA	1.9E+00	n	2.5E+01	n					6.0E-01	n			n	
Tributyltin Oxide	56-35-9					3.0E-04	I					1	0.1		Tributyltin Oxide	56-35-9	1.9E+00	n	2.5E+01	n					5.7E-01	n		2.9E+01	n	
1,2,2-trifluoroethane, 1,1,2-	76-13-1					3.0E+01	I	3.0E+01	H	V		1		9.1E+02	1,2,2-trifluoroethane, 1,1,2-	76-13-1	4.0E+03	ns	1.7E+04	ns	3.1E+03	n	1.3E+04	n	5.5E+03	n		1.4E+01	n	
Trichloroacetic Acid	76-03-9	7.0E-02	I			2.0E-02	I					1	0.1		Trichloroacetic Acid	76-03-9	7.8E+00	c*	3.3E+01	c*					1.1E+00	c*	6.0E+01	2.2E-04	c*	1.2E-02
Trichloroaniline HCl, 2,4,6-	33663-50-2	2.9E-02	H									1	0.1		Trichloroaniline HCl, 2,4,6-	33663-50-2	1.9E+01	c	7.9E+01	c					2.7E+00	c		7.4E-03	c	
Trichloroaniline, 2,4,6-	634-93-5	7.0E-03	X			3.0E-05	X					1	0.1		Trichloroaniline, 2,4,6-	634-93-5	1.9E-01	n	2.5E+00	n					4.0E-02	n		3.6E-04	n	
Trichlorobenzene, 1,2,3-	87-61-6					8.0E-04	X			V		1			Trichlorobenzene, 1,2,3-	87-61-6	6.3E+00	n	9.3E+01	n					7.0E-01	n		2.1E-03	n	
Trichlorobenzene, 1,2,4-	120-82-1	2.9E-02	P			1.0E-02	I	2.0E-03	P	V		1		4.0E+02	Trichlorobenzene, 1,2,4-	120-82-1	5.8E+00	n	2.6E+01	n	2.1E-01	n	8.8E-01	n	4.0E-01	n	7.0E+01	1.2E-03	n	2.0E-01
Trichloroethane, 1,1,1-	71-55-6					2.0E+00	I	5.0E+00	I	V		1		6.4E+02	Trichloroethane, 1,1,1-	71-55-6	8.1E+02	ns	3.6E+03	ns	5.2E+02	n	2.2E+03	n	8.0E+02	n	2.0E+02	2.8E-01	n	7.0E-02
Trichloroethane, 1,1,2-	79-00-5	5.7E-02	I	1.6E-05	I	4.0E-03	I	2.0E-04	X	V		1		2.2E+03	Trichloroethane, 1,1,2-	79-00-5	1.5E-01	n	6.3E-01	n	2.1E-02	n	8.8E-02	n	4.1E-02	n	5.0E+00	1.3E-05	n	1.6E-03
Trichloroethylene	79-01-6	4.6E-02	I	4.1E-06	I	5.0E-04	I	2.0E-03	I	V	M	1		6.9E+02	Trichloroethylene	79-01-6	4.1E-01	n	1.9E+00	n	2.1E-01	n	8.8E-01	n	2.8E-01	n	5.0E+00	1.0E-04	n	1.8E-03
Trichlorofluoromethane	75-69-4					3.0E-01	I			V		1		1.2E+03	Trichlorofluoromethane	75-69-4	2.3E+03	ns	3.5E+04	ns					5.2E+02	n		3.3E-01	n	
Trichlorophenol, 2,4,5-	95-95-4					1.0E-01	I					1	0.1		Trichlorophenol, 2,4,5-	95-95-4	6.3E+02	n	8.2E+03	n					1.2E+02	n		4.0E-01	n	
Trichlorophenol, 2,4,6-	88-06-2	1.1E-02	I	3.1E-06	I	1.0E-03	P					1	0.1		Trichlorophenol, 2,4,6-	88-06-2	6.3E+00	n	8.2E+01	n	9.1E-01	c	4.0E+00	c	1.2E+00	n		1.2E-03	n	
Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5					1.0E-02	I					1	0.1		Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5	6.3E+01	n	8.2E+02	n					1.6E+01	n		6.8E-03	n	
Trichlorophenoxypropionic acid, -2,4,5	93-72-1					8.0E-03	I					1	0.1		Trichlorophenoxypropionic acid, -2,4,5	93-72-1	5.1E+01	n	6.6E+02	n					1.1E+01	n	5.0E+01	6.1E-03	n	2.8E-02
Trichloropropane, 1,1,2-	598-77-6					5.0E-03	I			V		1		1.3E+03	Trichloropropane, 1,1,2-	598-77-6	3.9E+01	n	5.8E+02	n					8.8E+00	n		3.5E-03	n	
Trichloropropane, 1,2,3-	96-18-4	3.0E+01	I			4.0E-03	I	3.0E-04	I	V	M	1		1.4E+03	Trichloropropane, 1,2,3-	96-18-4	5.1E-03	c*	1.1E-01	c*	3.1E-02	n	1.3E-01	n	7.5E-04	c*		3.2E-07	c*	
Trichloropropene, 1,2,3-	96-19-5					3.0E-03	X	3.0E-04	P	V		1		3.1E+02	Trichloropropene, 1,2,3-	96-19-5	7.3E-02	n	3.1E-01	n	3.1E-02	n	1.3E-01	n	6.2E-02	n		3.1E-05	n	
Tricresyl Phosphate (TCP)	1330-78-5					2.0E-02	A					1	0.1		Tricresyl Phosphate (TCP)	1330-78-5	1.3E+02	n	1.6E+03	n					1.6E+01	n		1.5E+00	n	
Tridiphane	58138-08-2					3.0E-03	I					1	0.1		Tridiphane	58138-08-2	1.9E+01	n	2.5E+02	n					1.8E+00	n		1.3E-02	n	
Triethylamine	121-44-8							7.0E-03	I	V		1		2.8E+04	Triethylamine	121-44-8	1.2E+01	n	4.8E+01	n	7.3E-01	n	3.1E+00	n	1.5E+00	n		4.4E-04	n	
Triethylene Glycol	112-27-6					2.0E+00	P					1	0.1		Triethylene Glycol	112-27-6	1.3E+04	n	1.6E+05	nm					4.0E+03	n		8.8E-01	n	
Trifluoroethane, 1,1,1-	420-46-2							2.0E+01	P	V		1		4.8E+03	Trifluoroethane, 1,1,1-	420-46-2	1.5E+03	n	6.2E+03	ns	2.1E+03	n	8.8E+03	n	4.2E+03	n		1.3E+01	n	
Trifluralin	1582-09-8	7.7E-03	I			7.5E-03	I			V		1			Trifluralin	1582-09-8	5.9E+01	n	4.2E+02	c**					2.6E+00	c**		8.4E-02	c**	
Trimethyl Phosphate	512-56-1	2.0E-02	P			1.0E-02	P					1	0.1		Trimethyl Phosphate	512-56-1	2.7E+01	c**	1.1E+02	c**					3.9E+00	c**		8.6E-04	c**	
Trimethylbenzene, 1,2,3-	526-73-8							5.0E-03	P	V		1		2.9E+02	Trimethylbenzene, 1,2,3-	526-73-8	4.9E+00	n	2.1E+01	n	5.2E-01	n	2.2E+00	n	1.0E+00	n		1.5E-03	n	
Trimethylbenzene, 1,2,4-	95-63-6							7.0E-03	P	V		1		2.2E+02	Trimethylbenzene, 1,2,4-	95-63-6	5.8E+00	n	2.4E+01	n	7.3E-01	n	3.1E+00	n	1.5E+00	n		2.1E-03	n	
Trimethylbenzene, 1,3,5-	108-67-8					1.0E-02	X			V		1		1.8E+02	Trimethylbenzene, 1,3,5-	108-67-8	7.8E+01	n	1.2E+03	ns					1.2E+01	n		1.7E-02	n	
Trimethylpentene, 2,4,4-	25167-70-8					1.0E-02	X			V		1		3.0E+01	Trimethylpentene, 2,4,4-	25167-70-8	7.8E+01	ns	1.2E+03	ns					6.5E+00	n		2.2E-02	n	
Trinitrobenzene, 1,3,5-	99-35-4					3.0E-02	I					1	0		Trinitrobenzene, 1,3,5-	99-35-4	2.2E+02	n	3.2E+03	n					5.9E+01	n		2.1E-01	n	
Trinitrotoluene, 2,4,6-	118-96-7	3.0E-02	I			5.0E-04	I					1	0		Trinitrotoluene, 2,4,6-	118-96-7	3.6E+00	n	5.1E+01	n					9.8E-01	n		5.7E-03	n	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Contaminant		Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
Analyte	CAS No.	SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
Triphenylphosphine Oxide	791-28-6					2.0E-02	P					1	0.1		Triphenylphosphine Oxide	791-28-6	1.3E+02	n	1.6E+03	n					3.6E+01	n		1.5E-01	n	
Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8					2.0E-02	A					1	0.1		Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8	1.3E+02	n	1.6E+03	n					3.6E+01	n		8.0E-01	n	
2-propyl)phosphate	13674-84-5					1.0E-02	X					1	0.1		2-propyl)phosphate	13674-84-5	6.3E+01	n	8.2E+02	n					1.9E+01	n		6.5E-02	n	
Tris(2,3-dibromopropyl)phosphate	126-72-7	2.3E+00	C	6.6E-04	C					V		1		4.7E+02	Tris(2,3-dibromopropyl)phosphate	126-72-7	2.8E-01	c	1.3E+00	c	4.3E-03	c	1.9E-02	c	6.8E-03	c		1.3E-04	c	
Tris(2-chloroethyl)phosphate	115-96-8	2.0E-02	P			7.0E-03	P					1	0.1		Tris(2-chloroethyl)phosphate	115-96-8	2.7E+01	c**	1.1E+02	c**					3.8E+00	c**		3.8E-03	c**	
Tris(2-ethylhexyl)phosphate	78-42-2	3.2E-03	P			1.0E-01	P					1	0.1		Tris(2-ethylhexyl)phosphate	78-42-2	1.7E+02	c**	7.2E+02	c*					2.4E+01	c**		1.2E+02	c**	
Tungsten (Soluble Salts)	7440-33-7					8.0E-04	P					1			Tungsten (Soluble Salts)	7440-33-7	6.3E+00	n	9.3E+01	n					1.6E+00	n		2.4E-01	n	
	NA					3.0E-03	I	4.0E-05	A			1				NA	2.3E+01	n	3.5E+02	n	4.2E-03	n	1.8E-02	n	6.0E+00	n	3.0E+01	2.7E+00	n	1.4E+01
Urethane	51-79-6	1.0E+00	C	2.9E-04	C						M	1	0.1		Urethane	51-79-6	1.2E-01	c	2.3E+00	c	3.5E-03	c	4.2E-02	c	2.5E-02	c		5.6E-06	c	
Vanadium Pentoxide and	1314-62-1			8.3E-03	P	9.0E-03	I	7.0E-06	P			0			Vanadium Pentoxide and	1314-62-1	6.6E+01	n	8.4E+02	n	3.4E-04	c**	1.5E-03	c**	1.5E+01	n			n	
Compounds	7440-62-2					5.0E-03	S	1.0E-04	A			0			Compounds	7440-62-2	3.9E+01	n	5.8E+02	n	1.0E-02	n	4.4E-02	n	8.6E+00	n		8.6E+00	n	
Vernolate	1929-77-7					1.0E-03	I			V		1			Vernolate	1929-77-7	7.8E+00	n	1.2E+02	n					1.1E+00	n		8.9E-04	n	
Vinclozolin	50471-44-8					2.5E-02	I					1	0.1		Vinclozolin	50471-44-8	1.6E+02	n	2.1E+03	n					4.4E+01	n		3.4E-02	n	
Vinyl Acetate	108-05-4					1.0E+00	H	2.0E-01	I	V		1		2.8E+03	Vinyl Acetate	108-05-4	9.1E+01	n	3.8E+02	n	2.1E+01	n	8.8E+01	n	4.1E+01	n		8.7E-03	n	
Vinyl Bromide	593-60-2			3.2E-05	H			3.0E-03	I	V		1		2.5E+03	Vinyl Bromide	593-60-2	1.2E-01	c**	5.2E-01	c**	8.8E-02	c**	3.8E-01	c**	1.8E-01	c**		5.1E-05	c**	
Vinyl Chloride	75-01-4	7.2E-01	I	4.4E-06	I	3.0E-03	I	1.0E-01	I	V	M	1		3.9E+03	Vinyl Chloride	75-01-4	5.9E-02	c	1.7E+00	c*	1.7E-01	c*	2.8E+00	c*	1.9E-02	c	2.0E+00	6.5E-06	c	6.9E-04
Warfarin	81-81-2					3.0E-04	I					1	0.1		Warfarin	81-81-2	1.9E+00	n	2.5E+01	n					5.6E-01	n		5.9E-04	n	
Xylene, P-	106-42-3					2.0E-01	S	1.0E-01	S	V		1		3.9E+02	Xylene, P-	106-42-3	5.6E+01	n	2.4E+02	n	1.0E+01	n	4.4E+01	n	1.9E+01	n		1.9E-02	n	
Xylene, m-	108-38-3					2.0E-01	S	1.0E-01	S	V		1		3.9E+02	Xylene, m-	108-38-3	5.5E+01	n	2.4E+02	n	1.0E+01	n	4.4E+01	n	1.9E+01	n		1.9E-02	n	
Xylene, o-	95-47-6					2.0E-01	S	1.0E-01	S	V		1		4.3E+02	Xylene, o-	95-47-6	6.5E+01	n	2.8E+02	n	1.0E+01	n	4.4E+01	n	1.9E+01	n		1.9E-02	n	
Xylenes	1330-20-7					2.0E-01	I	1.0E-01	I	V		1		2.6E+02	Xylenes	1330-20-7	5.8E+01	n	2.5E+02	n	1.0E+01	n	4.4E+01	n	1.9E+01	n	1.0E+04	1.9E-02	n	9.9E+00
Zinc Phosphide	1314-84-7					3.0E-04	I					1			Zinc Phosphide	1314-84-7	2.3E+00	n	3.5E+01	n					6.0E-01	n			n	
Zinc and Compounds	7440-66-6					3.0E-01	I					1			Zinc and Compounds	7440-66-6	2.3E+03	n	3.5E+04	n					6.0E+02	n		3.7E+01	n	
Zineb	12122-67-7					5.0E-02	I					1	0.1		Zineb	12122-67-7	3.2E+02	n	4.1E+03	n					9.9E+01	n		2.9E-01	n	
Zirconium	7440-67-7					8.0E-05	X					1			Zirconium	7440-67-7	6.3E-01	n	9.3E+00	n					1.6E-01	n		4.8E-01	n	

Regional Screening Level (RSL) Chemical-specific Parameters Supporting Table May 2016

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Acephate	30560-19-1	1.8E+02	PHYSPROP	2.0E-11	5.0E-13	EPI	1.7E-06	PHYSPROP	8.8E+01	PHYSPROP	1.4E+00	CRC89	3.7E-02	8.0E-06	WATER9			1.0E+01	EPI	-8.5E-01	PHYSPROP	8.2E+05	PHYSPROP	2.1E-04	1.1E+00	2.7E+00	4.0E-05	EPI
Acetaldehyde	75-07-0	4.4E+01	PHYSPROP	2.7E-03	6.7E-05	PHYSPROP	9.0E+02	PHYSPROP	-1.2E+02	PHYSPROP	7.8E-01	CRC89	1.3E-01	1.4E-05	WATER9			1.0E+00	EPI	-3.4E-01	PHYSPROP	1.0E+06	PHYSPROP	1.3E-03	1.9E-01	4.5E-01	5.3E-04	EPI
Acetochlor	34256-82-1	2.7E+02	PHYSPROP	9.1E-07	2.2E-08	PHYSPROP	2.8E-05	PHYSPROP	1.1E+01	PubChem	1.1E+00	PubChem	2.2E-02	5.6E-06	WATER9			3.0E+02	EPI	3.0E+00	PHYSPROP	2.2E+02	PHYSPROP	3.1E-02	3.4E+00	8.2E+00	5.0E-03	EPI
Acetone	67-64-1	5.8E+01	PHYSPROP	1.4E-03	3.5E-05	PHYSPROP	2.3E+02	PHYSPROP	-9.5E+01	PHYSPROP	7.8E-01	CRC89	1.1E-01	1.2E-05	WATER9			2.4E+00	EPI	-2.4E-01	PHYSPROP	1.0E+06	PHYSPROP	1.5E-03	2.2E-01	5.3E-01	5.1E-04	EPI
Acetone Cyanohydrin	75-86-5	8.5E+01	PHYSPROP	8.1E-08	2.0E-09	PHYSPROP	3.4E-01	PHYSPROP	-1.9E+01	PHYSPROP	9.3E-01	CRC89	8.6E-02	1.0E-05	WATER9			1.0E+00	EPI	-3.0E-02	PHYSPROP	1.0E+06	PHYSPROP	1.8E-03	3.2E-01	7.6E-01	5.0E-04	EPI
Acetonitrile	75-05-8	4.1E+01	PHYSPROP	1.4E-03	3.5E-05	PHYSPROP	8.9E+01	PHYSPROP	-4.4E+01	PHYSPROP	7.9E-01	CRC89	1.3E-01	1.4E-05	WATER9			4.7E+00	EPI	-3.4E-01	PHYSPROP	1.0E+06	PHYSPROP	1.4E-03	1.8E-01	4.3E-01	5.5E-04	EPI
Acetophenone	98-86-2	1.2E+02	PHYSPROP	4.3E-04	1.0E-05	PHYSPROP	4.0E-01	PHYSPROP	2.0E+01	PHYSPROP	1.0E+00	CRC89	6.5E-02	8.7E-06	WATER9			5.2E+01	EPI	1.6E+00	PHYSPROP	6.1E+03	PHYSPROP	1.6E-02	5.0E-01	1.2E+00	3.7E-03	EPI
Acetylaminofluorene, 2-	53-96-3	2.2E+02	PHYSPROP	7.8E-09	1.9E-10	PHYSPROP	9.4E-08	PHYSPROP	1.9E+02	PHYSPROP			5.2E-02	6.0E-06	WATER9			2.2E+03	EPI	3.1E+00	PHYSPROP	5.5E+00	PHYSPROP	7.2E-02	1.9E+00	4.5E+00	1.2E-02	RAGSE
Acrolein	107-02-8	5.6E+01	PHYSPROP	5.0E-03	1.2E-04	PHYSPROP	2.7E+02	PHYSPROP	-8.8E+01	PHYSPROP	8.4E-01	CRC89	1.1E-01	1.2E-05	WATER9			1.0E+00	EPI	-1.0E-02	PHYSPROP	2.1E+05	PHYSPROP	2.2E-03	2.2E-01	5.2E-01	7.5E-04	EPI
Acrylamide	79-06-1	7.1E+01	PHYSPROP	7.0E-08	1.7E-09	EPI	7.0E-03	PHYSPROP	8.5E+01	PHYSPROP	1.2E+00	LANGE	1.1E-01	1.3E-05	WATER9			5.7E+00	EPI	-6.7E-01	PHYSPROP	3.9E+05	PHYSPROP	7.3E-04	2.6E-01	6.3E-01	2.2E-04	EPI
Acrylic Acid	79-10-7	7.2E+01	PHYSPROP	1.5E-05	3.7E-07	EPI	4.0E+00	PHYSPROP	1.3E+01	PHYSPROP	1.1E+00	CRC89	1.0E-01	1.2E-05	WATER9			1.4E+00	EPI	3.5E-01	PHYSPROP	1.0E+06	PHYSPROP	3.4E-03	2.7E-01	6.4E-01	1.1E-03	EPI
Acrylonitrile	107-13-1	5.3E+01	PHYSPROP	5.6E-03	1.4E-04	PHYSPROP	1.1E+02	PHYSPROP	-8.4E+01	PHYSPROP	8.0E-01	CRC89	1.1E-01	1.2E-05	WATER9			8.5E+00	EPI	2.5E-01	PHYSPROP	7.5E+04	PHYSPROP	3.3E-03	2.1E-01	5.0E-01	1.2E-03	EPI
Adiponitrile	111-69-3	1.1E+02	PHYSPROP	4.9E-08	1.2E-09	EPI	6.8E-04	PHYSPROP	1.0E+00	PHYSPROP	9.7E-01	CRC89	7.1E-02	9.0E-06	WATER9			2.0E+01	EPI	-3.2E-01	PHYSPROP	8.0E+04	PHYSPROP	9.5E-04	4.2E-01	1.0E+00	2.4E-04	EPI
Alachlor	15972-60-8	2.7E+02	PHYSPROP	3.4E-07	8.3E-09	PHYSPROP	2.2E-05	PHYSPROP	4.0E+01	PHYSPROP	1.1E+00	CRC89	2.3E-02	5.7E-06	WATER9			3.1E+02	EPI	3.5E+00	PHYSPROP	2.4E+02	PHYSPROP	6.6E-02	3.4E+00	8.2E+00	1.1E-02	EPI
Aldicarb	116-06-3	1.9E+02	PHYSPROP	5.9E-08	1.4E-09	EPI	3.5E-05	PHYSPROP	9.9E+01	PHYSPROP	1.2E+00	CRC89	3.2E-02	7.2E-06	WATER9			2.5E+01	EPI	1.1E+00	PHYSPROP	6.0E+03	PHYSPROP	4.0E-03	1.2E+00	2.9E+00	7.6E-04	EPI
Aldicarb Sulfone	1646-88-4	2.2E+02	PHYSPROP	1.4E-07	3.4E-09	EPI	9.0E-05	PHYSPROP	1.4E+02	PHYSPROP			5.2E-02	6.1E-06	WATER9			1.0E+01	EPI	-5.7E-01	PHYSPROP	1.0E+04	PHYSPROP	2.1E-04	1.8E+00	4.4E+00	3.7E-05	EPI
Aldicarb sulfoxide	1646-87-3	2.1E+02	PHYSPROP	4.0E-08	9.7E-10	EPI	1.0E-04	PHYSPROP	7.8E+01	EPI			5.4E-02	6.4E-06	WATER9			1.0E+01	EPI	-7.8E-01	PHYSPROP	2.8E+04	PHYSPROP	1.8E-04	1.5E+00	3.6E+00	3.3E-05	EPI
Aldrin	309-00-2	3.6E+02	PHYSPROP	1.8E-03	4.4E-05	PHYSPROP	1.2E-04	PHYSPROP	1.0E+02	PHYSPROP	1.6E+00	PubChem	2.3E-02	5.8E-06	WATER9			8.2E+04	EPI	6.5E+00	PHYSPROP	1.7E-02	PHYSPROP	2.2E+00	1.2E+01	4.8E+01	2.9E-01	EPI
Allyl Alcohol	107-18-6	5.8E+01	PHYSPROP	2.0E-04	5.0E-06	PHYSPROP	2.6E+01	PHYSPROP	-1.3E+02	PHYSPROP	8.5E-01	CRC89	1.1E-01	1.2E-05	WATER9			1.9E+00	EPI	1.7E-01	PHYSPROP	1.0E+06	PHYSPROP	2.8E-03	2.2E-01	5.3E-01	9.6E-04	EPI
Allyl Chloride	107-05-1	7.7E+01	PHYSPROP	4.5E-01	1.1E-02	EPI	3.7E+02	PHYSPROP	-1.3E+02	PHYSPROP	9.4E-01	CRC89	9.4E-02	1.1E-05	WATER9			4.0E+01	EPI	1.9E+00	PHYSPROP	3.4E+03	PHYSPROP	3.8E-02	2.8E-01	6.8E-01	1.1E-02	EPI
Aluminum	7429-90-5	2.7E+01	CRC89				0.0E+00	NIOSH	6.6E+02	CRC89	2.7E+00	CRC89				1.5E+03	BAES							2.0E-03	1.5E-01	3.6E-01	1.0E-03	RAGSE
Aluminum Phosphide	20859-73-8	5.8E+01	PHYSPROP						2.6E+03	CRC89	2.4E+00	CRC89												2.9E-03	2.2E-01	5.3E-01	1.0E-03	RAGSE
Ametryn	834-12-8	2.3E+02	PHYSPROP	9.9E-08	2.4E-09	EPI	2.7E-06	PHYSPROP	8.8E+01	PHYSPROP			5.1E-02	6.0E-06	WATER9			4.3E+02	EPI	3.0E+00	PHYSPROP	2.1E+02	PHYSPROP	4.6E-02	2.0E+00	4.7E+00	7.9E-03	EPI
Aminobiphenyl, 4-	92-67-1	1.7E+02	PHYSPROP	6.0E-06	1.5E-07	PHYSPROP	1.2E-04	PHYSPROP	5.4E+01	PHYSPROP			6.2E-02	7.3E-06	WATER9			2.5E+03	EPI	2.9E+00	PHYSPROP	2.2E+02	PHYSPROP	7.0E-02	9.3E-01	2.2E+00	1.4E-02	EPI
Aminophenol, m-	591-27-5	1.1E+02	PHYSPROP	8.1E-09	2.0E-10	PHYSPROP	9.6E-03	PHYSPROP	1.2E+02	PHYSPROP			8.3E-02	9.7E-06	WATER9			9.0E+01	EPI	2.1E-01	PHYSPROP	2.7E+04	PHYSPROP	2.1E-03	4.3E-01	1.0E+00	5.3E-04	EPI
Aminophenol, p-	123-30-8	1.1E+02	PHYSPROP	1.5E-08	3.6E-10	EPI	4.0E-05	EPI	1.9E+02	PHYSPROP			8.3E-02	9.7E-06	WATER9			9.0E+01	EPI	4.0E-02	PHYSPROP	1.6E+04	PHYSPROP	1.6E-03	4.3E-01	1.0E+00	4.1E-04	EPI
Amitraz	33089-61-1	2.9E+02	PHYSPROP	4.0E-04	9.9E-06	PHYSPROP	2.0E-06	PHYSPROP	8.6E+01	PHYSPROP	1.1E+00	CRC89	2.2E-02	5.4E-06	WATER9			2.6E+05	EPI	5.5E+00	PHYSPROP	1.0E+00	PHYSPROP	1.1E+00	4.6E+00	1.8E+01	1.6E-01	EPI
Ammonia	7664-41-7	1.7E+01	PHYSPROP	6.6E-04	1.6E-05	PHYSPROP	7.5E+03	PHYSPROP	-7.8E+01	PHYSPROP	7.0E-01	CRC89	2.3E-01	2.2E-05	WATER9					2.3E-01	OTHER	4.8E+05	PHYSPROP	1.6E-03	1.3E-01	3.1E-01	1.0E-03	RAGSE
Ammonium Sulfamate	7773-06-0	1.1E+02	CRC89				0.0E+00	NIOSH	1.3E+02	CRC89	1.8E+00	PubChem										1.3E+06	PERRY	4.1E-03	4.6E-01	1.1E+00	1.0E-03	RAGSE
Amyl Alcohol, tert-	75-85-4	8.8E+01	PHYSPROP	5.6E-04	1.4E-05	PHYSPROP	1.7E+01	PHYSPROP	-9.1E+00	PHYSPROP	8.1E-01	CRC89	7.9E-02	9.1E-06	WATER9			4.1E+00	EPI	8.9E-01	PHYSPROP	1.1E+05	PHYSPROP	7.1E-03	3.3E-01	7.9E-01	2.0E-03	EPI
Aniline	62-53-3	9.3E+01	PHYSPROP	8.3E-05	2.0E-06	PHYSPROP	6.7E-01	PHYSPROP	-6.0E+00	PHYSPROP	1.0E+00	CRC89	8.3E-02	1.0E-05	WATER9			7.0E+01	EPI	9.0E-01	PHYSPROP	3.6E+04	PHYSPROP	6.9E-03	3.5E-01	8.4E-01	1.9E-03	EPI
Anthraquinone, 9,10-	84-65-1	2.1E+02	PHYSPROP	9.6E-07	2.4E-08	EPI	1.2E-07	PHYSPROP	2.9E+02	PHYSPROP			5.4E-02	6.3E-06	WATER9			5.0E+03	EPI	3.4E+00	PHYSPROP	1.4E+00	PHYSPROP	1.1E-01	1.5E+00	3.7E+00	1.9E-02	EPI
Antimony (metallic)	7440-36-0	1.2E+02	PHYSPROP				0.0E+00	NIOSH	6.3E+02	PHYSPROP	6.7E+00	CRC89				4.5E+01	SSL							4.3E-03	5.3E-01	1.3E+00	1.0E-03	RAGSE
Antimony Pentoxide	1314-60-9	3.2E+02	CRC89								3.8E+00	CRC89										3.0E+03	CRC89	6.9E-03	6.8E+00	1.6E+01	1.0E-03	RAGSE
Antimony Tetroxide	1332-81-6	3.1E+02	EPI								6.6E+00	CRC89												6.7E-03	5.5E+00	1.3E+01	1.0E-03	RAGSE
Antimony Trioxide	1309-64-4	2.9E+02	EPI						5.7E+02	CRC89	5.6E+00	CRC89												6.6E-03	4.5E+00	1.1E+01	1.0E-03	RAGSE
Arsenic, Inorganic	7440-38-2	7.8E+01	PHYSPROP						2.7E+02	CRC89	4.9E+00	CRC89				2.9E+01	SSL							3.4E-03	2.9E-01	6.9E-01	1.0E-03	RAGSE
Arsine	7784-42-1	7.8E+01	PHYSPROP						-1.2E+02	PHYSPROP	3.2E+00	CRC89										2.0E+05	PERRY	3.4E-03	2.9E-01	6.9E-01	1.0E-03	RAGSE
Asulam	3337-71-1	2.3E+02	PHYSPROP	7.0E-11	1.7E-12	PHYSPROP	1.4E-06	PHYSPROP	1.4E+02	PHYSPROP			5.1E-02	5.9E-06	WATER9			2.8E+01	EPI	-2.7E-01	PHYSPROP	5.0E+03	PHYSPROP	3.1E-04	2.0E+00	4.9E+00	5.3E-05	EPI
Atrazine	1912-24-9	2.2E+02	PHYSPROP	9.6E-08	2.4E-09	EPI	2.9E-07	PHYSPROP	1.7E+02	PHYSPROP	1.2E+00	PubChem	2.6E-02	6.8E-06	WATER9			2.2E+02	EPI	2.6E+00	PHYSPROP	3.5E+01	PHYSPROP	3.0E-02	1.7E+00	4.1E+00	5.2E-03	EPI
Auramine	492-80-8	2.7E+02	PHYSPROP	1.5E-07	3.6E-09	PHYSPROP	1.3E-06	PHYSPROP	1.4E+02	PHYSPROP			4.6E-02	5.3E-06	WATER9			4.5E+03	EPI	3.0E+00	PHYSPROP	5.4E+01	PHYSPROP	7.0E-02	3.3E+00	7.9E+00	1.1E-02	RAGSE
Avermectin B1	65195-55-3	8.8E+02	PHYSPROP	5.4E-26	1.3E-27	PHYSPROP	1.5E-30	PHYSPROP	3.5E+02	EPI			2.1E-02	2.4E-06	WATER9			8.8E+05	EPI	4.5E+00	PHYSPROP	3.5E-04	PHYSPROP	2.1E-04	8.4E+03	2.0E+04	1.8E-05	EPI
Azinphos-methyl	86-50-0	3.2E+02	PHYSPROP	9.8E-07	2.4E-08	EPI	1.6E-06	PHYSPROP	7.3E+01	PHYSPROP	1.4E+00	CRC89	2.3E-02	6.0E-06	WATER9			5.2E+01	EPI	2.8E+00	PHYSPROP	2.1E+01	PHYSPROP	1.2E-02	6.3E+00	1.5E+01	1.8E-03	EPI
Azobenzene	103-33-3	1.8E+02	PHYSPROP	5.5E-04	1.4E-05	EPI	3.6E-04	PHYSPROP	6.8E+01	PHYSPROP	1.2E+00	PERRY	3.6E-02	7.5E-06	WATER9			3.8E+03	EPI	3.8E+00	PHYSPROP	6.4E+00	PHYSPROP	2.7E-01	1.1E+00	2.6E+00	5.1E-02	EPI
Azodicarbonamide	123-77-3	1.2E+02	PHYSPROP	3.4E-11	8.2E-13	EPI	1.9E-10	PHYSPROP	2.1E+02	EPI	1.7E+00	GuideChem	8.3E-02	1.2E-05	WATER9			7.0E+01	EPI	-1.7E+00	PHYSPROP	3.5E+01	PHYSPROP	1.1E-04	4.7E-01	1.1E+00	2.6E-05	EPI
Barium	7440-39-3	1.4E+02	PHYSPROP						7.1E+02	PHYSPROP	3.6E+00	CRC89				4.1E+01	SSL							4.5E-03	6.3E-01	1.5E+00	1.0E-03	RAGSE
Barium Chromate	10294-40-3	2.5E+02	CRC89						1.4E+03	CRC89	4.5E+00	CRC89										2.6E+00	CRC89	6.1E-03	2.8E+00	6.6E+00	1.0E-03	RAGSE
Benfluralin	1861-40-1	3.4E+02	PHYSPROP	1.2E-02	2.9E-04	EPI	6.5E-05	PHYSPROP	6.6E+01	PHYSPROP	1.3E+00	ChemNet	2.2E-02	5.5E-06	WATER9			1.6E+04	EPI	5.3E+00	PHYSPROP	1.0E-01	PHYSPROP	4.8E-01	7.9E+00	1.9E+01	6.8E-02	EPI
Benomyl	17804-35-2	2.9E+02	PHYSPROP	2.0E-10	4.9E-12	PHYSPROP	3.7E-09	PHYSPROP	1.4E+02	EPI			4.3E-02	5.1E-06	WATER9			3.4E+02	EPI	2.1E+00	PHYSPROP	3.8E+00	PHYSPROP	6.2E-03	4.4E+00	1.1E+01	9.4E-04	EPI
Bensulfuron-methyl	83055-99-6	4.1E+02	PHYSPROP	1.5E-13	3.8E-15	EPI	2.1E-14	PHYSPROP	1.9E+02	PHYSPROP			3.4E-02	4.0E-06	WATER9			2.8E+01	EPI	2.2E+00	PHYSPROP	1.2E+02	PHYSPROP	1.7E-03	2.1E+01	5.0E+01	2.2E-04	EPI
Bentazon	25057-89-0	2.4E+02	PHYSPROP	8.9E-08	2.2E-09	EPI	3.5E-06	PHYSPROP	1.4E+02	PHYSPROP			4.9E-02	5.7E-06	WATER9			1.0E+01	EPI	2.3E+00	PHYSPROP	5.0E+02	PHYSPROP	1.5E-02	2.3E+00	5.6E+00	2.5E-03	EPI
Benzaldehyde	100-52-7	1.1E+02	PHYSPROP	1.1E-03	2.7E-05	PHYSPROP	1.3E+00	PHYSPROP	-2.6E+01	PHYSPROP	1.0E+00	CRC89	7.4E-02	9.5E-06	WATER9			1.1E+01	EPI	1.5E+00	PHYSPROP	7.0E+03	PHYSPROP	1.5E-02	4.1E-01	9.9E-01	3.8E-03	EPI
Benzene	71-43-2	7.8E+01	PHYSPROP	2.3E-01	5.6E-03	PHYSPROP	9.5E+01	PHYSPROP	5.5E+00	PHYSPROP	8.8E-01	CRC89	9.0E-02	1.0E-05	WATER9			1.5E+02	EPI	2.1E+00	PHYSPROP	1.8E+03	PHYSPROP	5.1E-02	2.9E-01	6.9E-01	1.5E-02	EPI
Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	2.2E+02	EPI	8.9E-22	2.2E-23	EPI	2.9E-14	EPI	2.4E+02	EPI			5.2E-02	6.1E-06	WATER9			3.8E+01	EPI	-3.7E+00	EPI	1.0E+06	EPI	1.7E-06	1.8E+00	4.3E+00	3.0E-07	EPI
Benzenethiol	108-98-5	1.1E+02	PHYSPROP	1.4E-02	3.4E-04	EPI	1.9E+00	PHYSPROP	-1.5E+01	PHYSPROP	1.1E+00	CRC89	7.3E-02	9.5E-06	WATER9			2.3E+02	EPI	2.5E+00	PHYSPROP	8.4E+02	PHYSPROP	7.2E-02	4.4E-01	1.0E+00	1.8E-02	EPI
Benzidine	92-87-5	1.8E+02	PHYSPROP	2.1E-09	5.2E-11	PHYSPROP	9.0E-07	PHYSPROP	1.2E+02	PHYSPROP	1.2E+00	Yaws 2008	3.5E-02	7.5E-06	WATER9			1.2E+03	EPI	1.3E+00	PHYSPROP	3.2E+02	PHYSPROP	5.9E-03	1.1E+00	2.7E+00	1.1E-03	EPI
Benzoic Acid	65-85-0	1.2E+02	PHYSPROP	1.6E-06	3.8E-08	EPI	7.0E-04	PHYSPROP	1.2E+02	PHYSPROP	1.3E+00	CRC89	7.0E-02	9.8E-06	WATER9			6.0E-01	SSL	1.9E+00	PHYSPROP	3.4E+03	PHYSPROP	2.4E-02	5.1E-01	1.2E+00	5.7E-03	EPI
Benzotrichloride	98-07-7	2.0E+02	PHYSPROP	1.1E-02	2.6E-04	PHYSPROP	4.1E-01	EPI	-5.0E+00	PHYSPROP	1.4E+00	CRC89	3.1E-02	7.7E-06	WATER9			1.0E+03	EPI	3.9E+00	PHYSPROP	5.3E+01	PHYSPROP	2.6E-01	1.3E+00	3.1E+00	4.9E-02	EPI
Benzyl Alcohol	100-51-6	1.1E+02	PHYSPROP	1.4E-05	3.4E-07	PHYSPROP	9.4E-02	PHYSPROP	-1.5E+01	PHYSPROP	1.0E+00	CRC89	7.3E-02	9.4E-06	WATER9			2.1E+01	EPI	1.1E+00	PHYSPROP	4.3E+04	PHYSPROP	8.4E-03	4.2E-01	1.0E+00	2.1E-03	EPI
Benzyl Chloride	100-44-7	1.3E+02	PHYSPROP	1.7E-02	4.1E-04	EPI	1.2E+00	PHYSPROP	-4.5E+01	PHYSPROP	1.1E+00	CRC89	6.3E-02	8.8E-06	WATER9			4.5E+02	EPI	2.3E+00	PHYSPROP	5.3E+02	PHYSPROP	4.5E-02	5.4E-01	1.3E+00	1.0E-02	EPI
Beryllium and compounds	7440-41-7	1.1E+01	PHYSPROP				0.0E+00	NIOSH	9.9E+02	PHYSPROP	1.9E+00	CRC89				7.9E+02	SSL							1.3E-03	1.2E-01	2.9E-01	1.0E-03	RAGSE
Bifenox	42576-02-3	3.4E+02	PHYSPROP	4.4E-06	1.1E-07	EPI	1.0E-07	PHYSPROP	8.5E+01	PHYSPROP	1.2E+00	PubChem	2.0E-02	5.0E-06	WATER9			3.7E+03	EPI	4.5E+00	PHYSPROP	4.0E-01	PHYSPROP	1.3E-01	8.7E+00	2.1E+01	1.8E-02	EPI
Biphenthrin	82657-04-3	4.2E+02	PHYSPROP	4.1E-05	1.0E-06	EPI	1.8E-07	PHYSPROP	6.9E+01	PHYSPROP	1.2E+00	CRC89	1.8E-02	4.5E-06	WATER9			2.3E+06	EPI	6.0E+00	PHYSPROP	1.0E-03	PHYSPROP	1.4E+01	2.5E+01	1.1E+02	1.7E+00	EPI
Biphenyl, 1,1'-	92-52-4	1.5E+02	PHYSPROP	1.3E-02	3.1E-04	PHYSPROP	8.9E-03	PHYSPROP	6.9E+01	PHYSPROP	1.0E+00	CRC89	4.7E-02	7.6E-06	WATER9			5.1E+03	EPI	4.0E+00	PHYSPROP	7.5E+00	PHYSPROP	4.5E-01	7.7E-01	1.8E+00	9.4E-02	EPI
Bis(2-chloro-1-methylethyl) ether	108-60-1	1.7E+02	PHYSPROP	3.0E-03	7.4E-05	EPI	5.6E-01	PHYSPROP	-9.7E+01	PHYSPROP	1.1E+00	CRC89	4.0E-02	7.4E-06	WATER9			8.3E+01	EPI	2.5E+00	PHYSPROP	1.7E+03	PHYSPROP	3.8E-02	9.5E-01	2.3E+00	7.6E-03	EPI
chloroethoxy)methane	111-91-1	1.7E+02	PHYSPROP	1.6E-04	3.9E-06	EPI	1.3E-01	EPI	-3.2E+01	PHYSPROP			6.1E-02	7.1E-06	WATER9			1.4E+01	EPI	1.3E+00	PHYSPROP	7.8E+03	PHYSPROP	6.2E-03	9.8E-01	2.4E+00	1.2E-03	EPI
Bis(2-chloroethyl)ether	111-44-4	1.4E+02	PHYSPROP	7.0E-04	1.7E-05	EPI	1.6E+00	PHYSPROP	-5.2E+01	PHYSPROP	1.2E+00	CRC89	5.7E-02	8.7E-06	WATER9			3.2E+01	EPI	1.3E+00	PHYSPROP	1.7E+04	PHYSPROP	8.2E-03	6.6E-01	1.6E+00	1.8E-03	EPI
Bis(chloromethyl)ether	542-88-1	1.1E+02	PHYSPROP	1.8E-01	4.4E-03	EPI	2.9E+01	PHYSPROP	-4.2E+01	PHYSPROP	1.3E+00	CRC89	7.6E-02	1.0E-05	WATER9			9.7E+00	EPI	5.7E-01	PHYSPROP	2.2E+04	PHYSPROP	3.5E-03	4.6E-01	1.1E+00	8.6E-04	EPI
Bisphenol A	80-05-7	2.3E+02	PHYSPROP	4.1E-10	1.0E-11	PHYSPROP	3.9E-07	PHYSPROP	1.5E+02	PHYSPROP	1.2E+00	PubChem	2.5E-02	6.5E-06	WATER9			3.8E+04	EPI	3.3E+00	PHYSPROP	1.2E+02	PHYSPROP	7.7E-02	2.0E+00	4.8E+00	1.3E-02	EPI
Boron And Borates Only	7440-42-8	1.4E+01	EPI						2.1E+03	CRC89	2.3E+00	CRC89				3.0E+00	BAES							1.4E-03	1.3E-01	3.0E-01	1.0E-03	RAGSE
Boron Trichloride	10294-34-5	1.2E+02	PHYSPROP	7.5E-01	1.8E-02		1.0E+00	PHYSPROP	-1.1E+02	PHYSPROP	4.8E+00	CRC89	1.2E-01	2.2E-05	WATER9					1.2E+00	OTHER			4.2E-03	4.8E-01	1.1E+00	1.0E-03	RAGSE
Boron Trifluoride	7637-07-2	6.8E+01	PHYSPROP				3.7E+04	PHYSPROP	-1.3E+02	PHYSPROP	2.8E+00	CRC89	1.6E-01	2.2E-05	WATER9					2.2E-01	OTHER	3.3E+06	PHYSPROP	3.2E-03	2.5E-01	6.1E-01	1.0E-03	RAGSE
Bromate	15541-45-4	8.0E+01	EPI													7.5E+00	BAES							3.4E-03	2.9E-01	7.1E-01	1.0E-03	RAGSE
Bromo-2-chloroethane, 1-	107-04-0	1.4E+02	PHYSPROP	3.7E-02	9.1E-04	PHYSPROP	3.3E+01	PHYSPROP	-1.7E+01	PHYSPROP	1.7E+00	CRC89	6.6E-02	1.1E-05	WATER9			4.0E+01	EPI	1.9E+00	PHYSPROP	6.9E+03	PHYSPROP	2.1E-02	6.7E-01	1.6E+00	4.6E-03	EPI
Bromobenzene	108-86-1	1.6E+02	PHYSPROP	1.0E-01	2.5E-03	PHYSPROP	4.2E+00	PHYSPROP	-3.1E+01	PHYSPROP	1.5E+00	CRC89	5.4E-02	9.3E-06	WATER9			2.3E+02	EPI	3.0E+00	PHYSPROP	4.5E+02	PHYSPROP	9.6E-02	8.0E-01	1.9E+00	2.0E-02	EPI
Bromochloromethane	74-97-5	1.3E+02	PHYSPROP	6.0E-02	1.5E-03	EPI	1.4E+02	PHYSPROP	-8.8E+01	PHYSPROP	1.9E+00	CRC89	7.9E-02	1.2E-05	WATER9			2.2E+01	EPI	1.4E+00	PHYSPROP	1.7E+04	PHYSPROP	1.1E-02	5.6E-01	1.3E+00	2.6E-03	EPI
Bromodichloromethane	75-27-4	1.6E+02	PHYSPROP	8.7E-02	2.1E-03	PHYSPROP	5.0E+01	PHYSPROP	-5.7E+01	PHYSPROP	2.0E+00	CRC89	5.6E-02	1.1E-05	WATER9			3.2E+01	EPI	2.0E+00	PHYSPROP	3.0E+03	PHYSPROP	2.0E-02	8.7E-01	2.1E+00	4.0E-03	EPI
Bromoform	75-25-2	2.5E+02	PHYSPROP	2.2E-02	5.4E-04	PHYSPROP	5.4E+00	EPI	8.0E+00	PHYSPROP	2.9E+00	CRC89	3.6E-02	1.0E-05	WATER9			3.2E+01	EPI	2.4E+00	PHYSPROP	3.1E+03	PHYSPROP	1.4E-02	2.7E+00	6.6E+00	2.4E-03	EPI
Bromomethane	74-83-9	9.5E+01	PHYSPROP	3.0E-01	7.3E-03	PHYSPROP	1.6E+03	PHYSPROP	-9.4E+01	PHYSPROP	1.7E+00	CRC89	1.0E-01	1.4E-05	WATER9			1.3E+01	EPI	1.2E+00	PHYSPROP	1.5E+04	PHYSPROP	1.1E-02	3.6E-01	8.6E-01	2.8E-03	EPI
Bromophos	2104-96-3	3.7E+02	PHYSPROP	8.4E-03	2.1E-04	EPI	1.3E-04	PHYSPROP	5.4E+01	PHYSPROP	1.7E+00	LookChem	2.3E-02	6.1E-06	WATER9			2.0E+03	EPI	5.2E+00	PHYSPROP	3.0E-01	PHYSPROP	3.0E-01	1.2E+01	2.8E+01	4.0E-02	EPI
Bromoxynil	1689-84-5	2.8E+02	PHYSPROP	5.4E-09	1.3E-10	EPI	4.7E-08	PHYSPROP	1.9E+02	PHYSPROP			4.5E-02	5.2E-06	WATER9			3.3E+02	EPI	2.8E+00	PHYSPROP	1.3E+02	PHYSPROP	5.0E-02	3.7E+00	9.0E+00	7.8E-03	EPI
Bromoxynil Octanoate	1689-99-2	4.0E+02	PHYSPROP	1.3E-03	3.2E-05	EPI	4.8E-06	PHYSPROP	4.6E+01	PHYSPROP	1.5E+00	LookChem	2.1E-02	5.4E-06	WATER9			4.3E+03	EPI	5.4E+00	PHYSPROP	8.0E-02	PHYSPROP	2.6E-01	1.9E+01	4.6E+01	3.3E-02	EPI
Butadiene, 1,3-	106-99-0	5.4E+01	PHYSPROP	3.0E+00	7.4E-02	EPI	2.1E+03	PHYSPROP	-1.1E+02	PHYSPROP	6.1E-01	CRC89	1.0E-01	1.0E-05	WATER9			4.0E+01	EPI	2.0E+00	PHYSPROP	7.4E+02	PHYSPROP	4.6E-02	2.1E-01	5.1E-01	1.6E-02	EPI
Butanol, N-	71-36-3	7.4E+01	PHYSPROP	3.6E-04	8.8E-06	PHYSPROP	6.7E+00	PHYSPROP	-9.0E+01	PHYSPROP	8.1E-01	CRC89	9.0E-02	1.0E-05	WATER9			3.5E+00	EPI	8.8E-01	PHYSPROP	6.3E+04	PHYSPROP	7.6E-03	2.7E-01	6.6E-01	2.3E-03	EPI
Butyl alcohol, sec-	78-92-2	7.4E+01	PHYSPROP	3.7E-04	9.1E-06	PHYSPROP	1.8E+01	PHYSPROP	-1.1E+02	PHYSPROP	8.1E-01	CRC89	9.0E-02	1.0E-05	WATER9			2.9E+00	EPI	6.1E-01	PHYSPROP	1.8E+05	PHYSPROP	5.1E-03	2.7E-01	6.6E-01	1.5E-03	EPI
Butylate	2008-41-5	2.2E+02	PHYSPROP	3.5E-03	8.5E-05	EPI	1.3E-02	PHYSPROP	6.0E+01	EPI	9.4E-01	CRC89	2.3E-02	5.8E-06	WATER9			3.9E+02	EPI	4.2E+00	PHYSPROP	4.5E+01	PHYSPROP	3.1E-01	1.7E+00	4.2E+00	5.4E-02	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Butylated hydroxyanisole	25013-16-5	3.6E+02	PHYSPROP	4.8E-05	1.2E-06	PHYSPROP	2.5E-03	PHYSPROP	5.1E+01	PHYSPROP			3.8E-02	4.4E-06	WATER9			8.4E+02	EPI	3.5E+00	PHYSPROP	2.1E+02	PHYSPROP	2.4E-01	1.1E+01	2.6E+01	3.3E-02	EPI
Butylated hydroxytoluene	128-37-0	2.2E+02	PHYSPROP	1.7E-04	4.1E-06	PHYSPROP	5.2E-03	EPI	7.1E+01	PHYSPROP	8.9E-01	CRC89	2.3E-02	5.6E-06	WATER9			1.5E+04	EPI	5.1E+00	PHYSPROP	6.0E-01	PHYSPROP	1.3E+00	1.8E+00	7.1E+00	2.2E-01	EPI
Butylbenzene, n-	104-51-8	1.3E+02	PHYSPROP	6.5E-01	1.6E-02	EPI	1.1E+00	PHYSPROP	-8.8E+01	PHYSPROP	8.6E-01	CRC89	5.3E-02	7.3E-06	WATER9			1.5E+03	EPI	4.4E+00	PHYSPROP	1.2E+01	PHYSPROP	1.0E+00	5.9E-01	2.3E+00	2.3E-01	EPI
Butylbenzene, sec-	135-98-8	1.3E+02	PHYSPROP	7.2E-01	1.8E-02	EPI	1.8E+00	PHYSPROP	-8.3E+01	PHYSPROP	8.6E-01	LANGE	5.3E-02	7.3E-06	WATER9			1.3E+03	EPI	4.6E+00	PHYSPROP	1.8E+01	PHYSPROP	1.3E+00	5.9E-01	2.3E+00	3.0E-01	EPI
Butylbenzene, tert-	98-06-6	1.3E+02	PHYSPROP	5.4E-01	1.3E-02	EPI	2.2E+00	PHYSPROP	-5.8E+01	PHYSPROP	8.7E-01	CRC89	5.3E-02	7.4E-06	WATER9			1.0E+03	EPI	4.1E+00	PHYSPROP	3.0E+01	PHYSPROP	6.6E-01	5.9E-01	2.3E+00	1.5E-01	EPI
Cacodylic Acid	75-60-5	1.4E+02	PHYSPROP	7.4E-13	1.8E-14	PHYSPROP	1.0E-07	PHYSPROP	2.0E+02	PHYSPROP			7.1E-02	8.3E-06	WATER9			4.4E+01	EPI	3.6E-01	PHYSPROP	2.0E+06	PHYSPROP	2.1E-03	6.2E-01	1.5E+00	4.6E-04	EPI
Cadmium (Diet)	7440-43-9	1.1E+02	PHYSPROP				0.0E+00	NIOSH	3.2E+02	PHYSPROP	8.7E+00	CRC89				7.5E+01	SSL							4.1E-03	4.5E-01	1.1E+00	1.0E-03	RAGSE
Cadmium (Water)	7440-43-9	1.1E+02	PHYSPROP				0.0E+00	NIOSH	3.2E+02	PHYSPROP	8.7E+00	CRC89				7.5E+01	SSL							4.1E-03	4.5E-01	1.1E+00	1.0E-03	RAGSE
Calcium Chromate	13765-19-0	1.6E+02	CRC89						1.0E+03	CRC89														4.8E-03	7.9E-01	1.9E+00	1.0E-03	RAGSE
Caprolactam	105-60-2	1.1E+02	PHYSPROP	1.0E-06	2.5E-08	PHYSPROP	1.6E-03	EPI	6.9E+01	PHYSPROP	1.0E+00	LANGE	6.9E-02	9.0E-06	WATER9			2.5E+01	EPI	-1.9E-01	YAWS	7.7E+05	PHYSPROP	4.1E-03	4.5E-01	1.1E+00	1.0E-03	EPI
Captafol	2425-06-1	3.5E+02	PHYSPROP	2.0E-07	4.9E-09	EPI	1.5E-08	EPI	1.6E+02	PHYSPROP			3.8E-02	4.5E-06	WATER9			7.8E+02	EPI	3.8E+00	PHYSPROP	1.4E+00	PHYSPROP	4.1E-02	9.5E+00	2.3E+01	5.8E-03	EPI
Captan	133-06-2	3.0E+02	PHYSPROP	2.9E-07	7.0E-09	EPI	9.0E-08	PHYSPROP	1.8E+02	PHYSPROP	1.7E+00	CRC89	2.6E-02	6.9E-06	WATER9			2.5E+02	EPI	2.8E+00	PHYSPROP	5.1E+00	PHYSPROP	1.6E-02	5.1E+00	1.2E+01	2.3E-03	EPI
Carbaryl	63-25-2	2.0E+02	PHYSPROP	1.3E-07	3.3E-09	EPI	1.4E-06	PHYSPROP	1.5E+02	PHYSPROP	1.2E+00	CRC89	2.7E-02	7.1E-06	WATER9			3.5E+02	EPI	2.4E+00	PHYSPROP	1.1E+02	PHYSPROP	2.4E-02	1.4E+00	3.4E+00	4.3E-03	EPI
Carbofuran	1563-66-2	2.2E+02	PHYSPROP	1.3E-07	3.1E-09	EPI	4.9E-06	PHYSPROP	1.5E+02	PHYSPROP	1.2E+00	CRC89	2.6E-02	6.6E-06	WATER9			9.5E+01	EPI	2.3E+00	PHYSPROP	3.2E+02	PHYSPROP	1.8E-02	1.8E+00	4.4E+00	3.1E-03	EPI
Carbon Disulfide	75-15-0	7.6E+01	PHYSPROP	5.9E-01	1.4E-02	PHYSPROP	3.6E+02	PHYSPROP	-1.1E+02	PHYSPROP	1.3E+00	CRC89	1.1E-01	1.3E-05	WATER9			2.2E+01	EPI	1.9E+00	PHYSPROP	2.2E+03	PHYSPROP	3.8E-02	2.8E-01	6.7E-01	1.1E-02	EPI
Carbon Tetrachloride	56-23-5	1.5E+02	PHYSPROP	1.1E+00	2.8E-02	PHYSPROP	1.2E+02	PHYSPROP	-2.3E+01	PHYSPROP	1.6E+00	CRC89	5.7E-02	9.8E-06	WATER9			4.4E+01	EPI	2.8E+00	PHYSPROP	7.9E+02	PHYSPROP	7.8E-02	7.6E-01	1.8E+00	1.6E-02	EPI
Carbonyl Sulfide	463-58-1	6.0E+01	PHYSPROP	2.5E+01	6.1E-01	EPI	9.4E+03	PHYSPROP	-1.4E+02	PHYSPROP	1.0E+00	CRC89	1.2E-01	1.3E-05	WATER9			1.0E+00	EPI	-1.3E+00	PHYSPROP	1.2E+03	PHYSPROP	2.8E-04	2.3E-01	5.5E-01	9.4E-05	EPI
Carbosulfan	55285-14-8	3.8E+02	PHYSPROP	2.1E-05	5.1E-07	EPI	3.1E-07	PHYSPROP	1.8E+02	EPI	1.1E+00	CRC89	1.8E-02	4.4E-06	WATER9			1.2E+04	EPI	5.6E+00	PHYSPROP	3.0E-01	PHYSPROP	4.3E-01	1.4E+01	3.4E+01	5.8E-02	EPI
Carboxin	5234-68-4	2.4E+02	PHYSPROP	1.3E-08	3.2E-10	EPI	1.5E-07	PHYSPROP	9.2E+01	PHYSPROP			5.0E-02	5.8E-06	WATER9			1.7E+02	EPI	2.1E+00	PHYSPROP	1.5E+02	PHYSPROP	1.2E-02	2.2E+00	5.2E+00	2.0E-03	EPI
Ceric oxide	1306-38-3	1.7E+02	CRC89						2.5E+03	CRC89	7.2E+00	CRC89												5.0E-03	9.7E-01	2.3E+00	1.0E-03	RAGSE
Chloral Hydrate	302-17-0	1.7E+02	PHYSPROP	2.3E-07	5.7E-09	PHYSPROP	1.5E+01	PHYSPROP	5.7E+01	PHYSPROP	1.9E+00	CRC89	5.4E-02	1.0E-05	WATER9			1.0E+00	EPI	9.9E-01	PHYSPROP	7.9E+05	PHYSPROP	4.2E-03	8.9E-01	2.1E+00	8.4E-04	EPI
Chloramben	133-90-4	2.1E+02	PHYSPROP	1.6E-09	3.9E-11	EPI	1.0E-07	PHYSPROP	2.0E+02	PHYSPROP			5.4E-02	6.4E-06	WATER9			2.1E+01	EPI	1.9E+00	PHYSPROP	7.0E+02	PHYSPROP	1.1E-02	1.5E+00	3.6E+00	2.0E-03	EPI
Chloranil	118-75-2	2.5E+02	PHYSPROP	1.3E-08	3.3E-10	PHYSPROP	2.3E-06	PHYSPROP	2.9E+02	PHYSPROP			4.8E-02	5.7E-06	WATER9			3.1E+02	EPI	2.2E+00	PHYSPROP	2.5E+02	PHYSPROP	1.2E-02	2.5E+00	6.0E+00	1.9E-03	EPI
Chlordane	12789-03-6	4.1E+02	PHYSPROP	2.0E-03	4.9E-05	EPI	1.0E-05	PHYSPROP	1.1E+02	EPI	1.6E+00	CRC89	2.1E-02	5.4E-06	WATER9			6.8E+04	EPI	6.2E+00	EPI	5.6E-02	EPI	8.3E-01	2.1E+01	8.0E+01	1.1E-01	EPI
Chlordecone (Kepone)	143-50-0	4.9E+02	PHYSPROP	2.2E-06	5.4E-08	EPI	2.3E-07	PHYSPROP	3.5E+02	EPI	1.6E+00	CRC89	2.0E-02	4.9E-06	WATER9			1.8E+04	EPI	5.4E+00	PHYSPROP	2.7E+00	PHYSPROP	9.3E-02	5.9E+01	1.4E+02	1.1E-02	EPI
Chlorfenvinphos	470-90-6	3.6E+02	PHYSPROP	1.2E-06	2.9E-08	EPI	7.5E-06	PHYSPROP	-2.0E+01	PHYSPROP			3.8E-02	4.4E-06	WATER9			1.3E+03	EPI	3.8E+00	PHYSPROP	1.2E+02	PHYSPROP	3.7E-02	1.1E+01	2.6E+01	5.1E-03	EPI
Chlorimuron, Ethyl-	90982-32-4	4.1E+02	PHYSPROP	7.4E-14	1.8E-15	EPI	4.0E-12	PHYSPROP	1.8E+02	PHYSPROP			3.4E-02	4.0E-06	WATER9			7.2E+01	EPI	2.5E+00	PHYSPROP	1.2E+03	PHYSPROP	2.6E-03	2.2E+01	5.3E+01	3.4E-04	EPI
Chlorine	7782-50-5	7.1E+01	PHYSPROP	4.8E-01	1.2E-02	PHYSPROP	5.9E+03	PHYSPROP	-1.0E+02	PHYSPROP	2.9E+00	CRC89	1.5E-01	2.2E-05	WATER9	2.5E-01	BAES			8.5E-01	OTHER	6.3E+03	PHYSPROP	3.2E-03	2.6E-01	6.3E-01	1.0E-03	RAGSE
Chlorine Dioxide	10049-04-4	6.7E+01	EPI	1.6E+00	4.0E-02	Toxnet HSDB	7.6E+02	Toxnet HSDB	-5.9E+01	CRC89	2.8E+00	CRC89	1.6E-01	2.2E-05	WATER9									3.2E-03	2.5E-01	6.0E-01	1.0E-03	RAGSE
Chlorite (Sodium Salt)	7758-19-2	9.0E+01	EPI						1.8E+02	CRC89												6.4E+05	CRC89	3.7E-03	3.4E-01	8.1E-01	1.0E-03	RAGSE
Chloro-1,1-difluoroethane, 1-	75-68-3	1.0E+02	PHYSPROP	2.4E+00	5.9E-02	PHYSPROP	2.5E+03	PHYSPROP	-1.3E+02	PHYSPROP	1.1E+00	CRC89	8.0E-02	1.0E-05	WATER9			4.4E+01	EPI	2.1E+00	PHYSPROP	1.4E+03	PHYSPROP	3.8E-02	3.8E-01	9.2E-01	9.9E-03	EPI
Chloro-1,3-butadiene, 2-	126-99-8	8.9E+01	PHYSPROP	2.3E+00	5.6E-02	PHYSPROP	2.2E+02	PHYSPROP	-1.3E+02	PHYSPROP	9.6E-01	CRC89	8.4E-02	1.0E-05	WATER9			6.1E+01	EPI	2.5E+00	PHYSPROP	8.7E+02	PHYSPROP	8.6E-02	3.3E-01	7.9E-01	2.4E-02	EPI
Chloro-2-methylaniline HCl, 4-	3165-93-3	1.8E+02	PHYSPROP	6.4E-05	1.6E-06	PHYSPROP	4.1E-02	PHYSPROP	1.6E+02	EPI			6.0E-02	7.0E-06	WATER9			3.5E+02	EPI	2.3E+00	PHYSPROP	9.5E+02	PHYSPROP	9.2E-05	1.0E+00	2.5E+00	1.8E-05	EPI
Chloro-2-methylaniline, 4-	95-69-2	1.4E+02	PHYSPROP	8.1E-05	2.0E-06	PHYSPROP	4.1E-02	PHYSPROP	3.0E+01	PHYSPROP			7.0E-02	8.2E-06	WATER9			1.8E+02	EPI	2.3E+00	PHYSPROP	9.5E+02	PHYSPROP	3.7E-02	6.5E-01	1.6E+00	8.1E-03	EPI
Chloroacetaldehyde, 2-	107-20-0	7.8E+01	PHYSPROP	9.8E-04	2.4E-05	PHYSPROP	6.4E+01	PHYSPROP	-1.6E+01	PHYSPROP	1.2E+00	CRC89	1.0E-01	1.2E-05	WATER9			1.0E+00	EPI	9.0E-02	PHYSPROP	1.1E+05	PHYSPROP	2.2E-03	2.9E-01	6.9E-01	6.5E-04	EPI
Chloroacetic Acid	79-11-8	9.4E+01	PHYSPROP	3.8E-07	9.3E-09	PHYSPROP	6.5E-02	PHYSPROP	6.3E+01	PHYSPROP	1.4E+00	CRC89	9.4E-02	1.2E-05	WATER9			1.4E+00	EPI	2.2E-01	PHYSPROP	8.6E+05	PHYSPROP	2.4E-03	3.6E-01	8.5E-01	6.5E-04	EPI
Chloroacetophenone, 2-	532-27-4	1.5E+02	PHYSPROP	1.4E-04	3.5E-06	PHYSPROP	5.4E-03	PHYSPROP	5.7E+01	PHYSPROP	1.3E+00	CRC89	5.2E-02	8.7E-06	WATER9			9.9E+01	EPI	1.9E+00	PHYSPROP	1.1E+03	PERRY	1.9E-02	7.7E-01	1.9E+00	4.1E-03	EPI
Chloroaniline, p-	106-47-8	1.3E+02	PHYSPROP	4.7E-05	1.2E-06	EPI	2.7E-02	PHYSPROP	7.3E+01	PHYSPROP	1.4E+00	CRC89	7.0E-02	1.0E-05	WATER9			1.1E+02	EPI	1.8E+00	PHYSPROP	3.9E+03	PHYSPROP	2.2E-02	5.4E-01	1.3E+00	5.0E-03	EPI
Chlorobenzene	108-90-7	1.1E+02	PHYSPROP	1.3E-01	3.1E-03	PHYSPROP	1.2E+01	PHYSPROP	-4.5E+01	PHYSPROP	1.1E+00	CRC89	7.2E-02	9.5E-06	WATER9			2.3E+02	EPI	2.8E+00	PHYSPROP	5.0E+02	PHYSPROP	1.2E-01	4.5E-01	1.1E+00	2.8E-02	EPI
Chlorobenzilate	510-15-6	3.3E+02	PHYSPROP	3.0E-06	7.2E-08	EPI	2.2E-06	PHYSPROP	3.7E+01	PHYSPROP	1.3E+00	CRC89	2.2E-02	5.5E-06	WATER9			1.5E+03	EPI	4.7E+00	PHYSPROP	1.3E+01	PHYSPROP	2.3E-01	7.0E+00	1.7E+01	3.3E-02	EPI
Chlorobenzoic Acid, p-	74-11-3	1.6E+02	PHYSPROP	3.3E-06	8.0E-08	PHYSPROP	2.3E-03	PHYSPROP	2.4E+02	PHYSPROP	1.5E+00	PERRY	5.5E-02	9.5E-06	WATER9			2.7E+01	EPI	2.7E+00	PHYSPROP	7.2E+01	PHYSPROP	5.8E-02	7.9E-01	1.9E+00	1.2E-02	EPI
Chlorobenzotrifluoride, 4-	98-56-6	1.8E+02	PHYSPROP	1.4E+00	3.5E-02	PHYSPROP	7.6E+00	PHYSPROP	-3.3E+01	PHYSPROP	1.3E+00	CRC89	3.8E-02	8.0E-06	WATER9			1.6E+03	EPI	3.6E+00	PHYSPROP	2.9E+01	PHYSPROP	1.9E-01	1.1E+00	2.6E+00	3.8E-02	EPI
Chlorobutane, 1-	109-69-3	9.3E+01	PHYSPROP	6.8E-01	1.7E-02	PHYSPROP	1.0E+02	PHYSPROP	-1.2E+02	PHYSPROP	8.9E-01	CRC89	7.8E-02	9.3E-06	WATER9			7.2E+01	EPI	2.6E+00	PHYSPROP	1.1E+03	PHYSPROP	1.0E-01	3.5E-01	8.3E-01	2.7E-02	EPI
Chlorodifluoromethane	75-45-6	8.6E+01	PHYSPROP	1.7E+00	4.1E-02	PHYSPROP	7.3E+03	PHYSPROP	-1.6E+02	PHYSPROP	1.5E+00	CRC89	1.0E-01	1.3E-05	WATER9			3.2E+01	EPI	1.1E+00	PHYSPROP	2.8E+03	PHYSPROP	9.6E-03	3.2E-01	7.7E-01	2.7E-03	EPI
Chloroethanol, 2-	107-07-3	8.1E+01	PHYSPROP	3.1E-05	7.6E-07	EPI	7.2E+00	PHYSPROP	-6.8E+01	PHYSPROP	1.2E+00	CRC89	1.0E-01	1.2E-05	WATER9			1.9E+00	EPI	3.0E-02	PHYSPROP	1.0E+06	PHYSPROP	2.0E-03	3.0E-01	7.1E-01	5.8E-04	EPI
Chloroform	67-66-3	1.2E+02	PHYSPROP	1.5E-01	3.7E-03	PHYSPROP	2.0E+02	PHYSPROP	-6.4E+01	PHYSPROP	1.5E+00	CRC89	7.7E-02	1.1E-05	WATER9			3.2E+01	EPI	2.0E+00	PHYSPROP	8.0E+03	PHYSPROP	2.9E-02	4.9E-01	1.2E+00	6.8E-03	EPI
Chloromethane	74-87-3	5.0E+01	PHYSPROP	3.6E-01	8.8E-03	PHYSPROP	4.3E+03	PHYSPROP	-9.8E+01	PHYSPROP	9.1E-01	CRC89	1.2E-01	1.4E-05	WATER9			1.3E+01	EPI	9.1E-01	PHYSPROP	5.3E+03	PHYSPROP	9.0E-03	2.0E-01	4.8E-01	3.3E-03	EPI
Chloromethyl Methyl Ether	107-30-2	8.1E+01	PHYSPROP	1.2E-02	3.0E-04	PHYSPROP	3.0E+01	PHYSPROP	-1.0E+02	PHYSPROP	1.1E+00	CRC89	9.5E-02	1.1E-05	WATER9			5.3E+00	EPI	3.2E-01	PHYSPROP	6.9E+04	PHYSPROP	3.1E-03	3.0E-01	7.1E-01	9.1E-04	EPI
Chloronitrobenzene, o-	88-73-3	1.6E+02	PHYSPROP	3.8E-04	9.3E-06	PHYSPROP	1.8E-02	EPI	3.3E+01	PHYSPROP	1.4E+00	CRC89	5.1E-02	8.8E-06	WATER9			3.7E+02	EPI	2.2E+00	PHYSPROP	4.4E+02	PHYSPROP	3.0E-02	8.0E-01	1.9E+00	6.3E-03	EPI
Chloronitrobenzene, p-	100-00-5	1.6E+02	PHYSPROP	2.0E-04	4.9E-06	PHYSPROP	2.2E-02	EPI	8.4E+01	PHYSPROP	1.3E+00	CRC89	5.0E-02	8.5E-06	WATER9			3.6E+02	EPI	2.4E+00	PHYSPROP	2.3E+02	PHYSPROP	3.8E-02	8.0E-01	1.9E+00	7.9E-03	EPI
Chlorophenol, 2-	95-57-8	1.3E+02	PHYSPROP	4.6E-04	1.1E-05	PHYSPROP	2.5E+00	PHYSPROP	9.8E+00	PHYSPROP	1.3E+00	CRC89	6.6E-02	9.5E-06	WATER9			3.9E+02	SSL	2.2E+00	PHYSPROP	1.1E+04	PHYSPROP	3.5E-02	5.5E-01	1.3E+00	8.0E-03	EPI
Chloropicrin	76-06-2	1.6E+02	PHYSPROP	8.4E-02	2.1E-03	PHYSPROP	2.4E+01	PHYSPROP	-6.4E+01	PHYSPROP	1.7E+00	CRC89	5.2E-02	9.6E-06	WATER9			4.4E+01	EPI	2.1E+00	PHYSPROP	1.6E+03	PHYSPROP	2.3E-02	8.8E-01	2.1E+00	4.6E-03	EPI
Chlorothalonil	1897-45-6	2.7E+02	PHYSPROP	8.2E-05	2.0E-06	PHYSPROP	5.7E-07	PHYSPROP	2.5E+02	PHYSPROP	1.7E+00	CRC89	2.8E-02	7.3E-06	WATER9			1.0E+03	EPI	3.1E+00	PHYSPROP	8.1E-01	PHYSPROP	3.4E-02	3.2E+00	7.8E+00	5.4E-03	EPI
Chlorotoluene, o-	95-49-8	1.3E+02	PHYSPROP	1.5E-01	3.6E-03	PHYSPROP	3.4E+00	PHYSPROP	-3.6E+01	PHYSPROP	1.1E+00	CRC89	6.3E-02	8.7E-06	WATER9			3.8E+02	EPI	3.4E+00	PHYSPROP	3.7E+02	PHYSPROP	2.5E-01	5.4E-01	1.3E+00	5.7E-02	EPI
Chlorotoluene, p-	106-43-4	1.3E+02	PHYSPROP	1.8E-01	4.4E-03	EPI	2.7E+00	PHYSPROP	7.5E+00	PHYSPROP	1.1E+00	CRC89	6.3E-02	8.7E-06	WATER9			3.8E+02	EPI	3.3E+00	PHYSPROP	1.1E+02	PHYSPROP	2.2E-01	5.4E-01	1.3E+00	5.0E-02	EPI
Chlorozotocin	54749-90-5	2.7E+02	PHYSPROP	1.5E-20	3.7E-22	PHYSPROP	4.0E-14	PHYSPROP	1.5E+02	EPI			4.6E-02	5.4E-06	WATER9			1.0E+01	EPI	-1.0E+00	PHYSPROP	1.8E+03	PHYSPROP	6.2E-05	3.2E+00	7.8E+00	9.9E-06	EPI
Chlorpropham	101-21-3	2.1E+02	PHYSPROP	2.3E-05	5.7E-07	EPI	1.8E-04	PHYSPROP	4.1E+01	PHYSPROP	1.2E+00	CRC89	2.6E-02	6.7E-06	WATER9			3.5E+02	EPI	3.5E+00	PHYSPROP	8.9E+01	PHYSPROP	1.2E-01	1.7E+00	4.0E+00	2.1E-02	EPI
Chlorpyrifos	2921-88-2	3.5E+02	PHYSPROP	1.2E-04	2.9E-06	PHYSPROP	2.0E-05	PHYSPROP	4.2E+01	PHYSPROP			3.8E-02	4.5E-06	WATER9			7.3E+03	EPI	5.0E+00	PHYSPROP	1.1E+00	PHYSPROP	2.4E-01	9.7E+00	2.3E+01	3.3E-02	EPI
Chlorpyrifos Methyl	5598-13-0	3.2E+02	PHYSPROP	1.5E-04	3.8E-06	EPI	4.2E-05	PHYSPROP	4.3E+01	PHYSPROP			4.0E-02	4.7E-06	WATER9			2.2E+03	EPI	4.3E+00	PHYSPROP	4.8E+00	PHYSPROP	1.2E-01	6.7E+00	1.6E+01	1.8E-02	EPI
Chlorsulfuron	64902-72-3	3.6E+02	PHYSPROP	1.4E-14	3.4E-16	EPI	2.3E-11	PHYSPROP	1.8E+02	PHYSPROP			3.8E-02	4.4E-06	WATER9			3.2E+02	EPI	2.0E+00	PHYSPROP	3.1E+04	PHYSPROP	2.4E-03	1.1E+01	2.5E+01	3.3E-04	EPI
Chlorthal-dimethyl	1861-32-1	3.3E+02	PHYSPROP	8.9E-05	2.2E-06	EPI	2.5E-06	PHYSPROP	1.6E+02	PHYSPROP			4.0E-02	4.6E-06	WATER9			5.1E+02	EPI	4.3E+00	PHYSPROP	5.0E-01	PHYSPROP	1.1E-01	7.6E+00	1.8E+01	1.5E-02	EPI
Chlorthiophos	60238-56-4	3.6E+02	PHYSPROP	4.9E-05	1.2E-06	PHYSPROP	4.0E-01	PHYSPROP	8.6E+01	EPI			3.7E-02	4.4E-06	WATER9			1.3E+04	EPI	5.8E+00	PHYSPROP	3.0E-01	PHYSPROP	7.7E-01	1.1E+01	4.3E+01	1.1E-01	EPI
Chromium(III), Insoluble Salts	16065-83-1	5.2E+01	EPI								5.2E+00	CRC89				1.8E+06	SSL							2.8E-03	2.1E-01	4.9E-01	1.0E-03	RAGSE
Chromium(VI)	18540-29-9	5.2E+01	EPI													1.9E+01	SSL					1.7E+06	CRC89	5.5E-03	2.1E-01	4.9E-01	2.0E-03	RAGSE
Chromium, Total	7440-47-3	5.2E+01	PHYSPROP						1.9E+03	PHYSPROP	7.2E+00	CRC89				1.8E+06	SSL							2.8E-03	2.1E-01	4.9E-01	1.0E-03	RAGSE
Clofentezine	74115-24-5	3.0E+02	PHYSPROP	1.6E-08	3.9E-10	EPI	9.8E-10	PHYSPROP	1.8E+02	PHYSPROP			4.2E-02	4.9E-06	WATER9			3.0E+04	EPI	3.1E+00	PHYSPROP	1.0E+00	PHYSPROP	2.4E-02	5.2E+00	1.3E+01	3.6E-03	EPI
Cobalt	7440-48-4	5.9E+01	EPI				0.0E+00	NIOSH	1.5E+03	CRC89	8.9E+00	CRC89				4.5E+01	BAES							1.2E-03	2.2E-01	5.4E-01	4.0E-04	RAGSE
Coke Oven Emissions	8007-45-2			4.5E-01	1.1E-02	Toxnet HSDB	9.5E+01	HSDB					1.0E-01	1.2E-05	WATER9			1.6E+04										
Copper	7440-50-8	6.4E+01	PHYSPROP				0.0E+00	NIOSH	1.1E+03	PHYSPROP	9.0E+00	CRC89				3.5E+01	BAES							3.1E-03	2.4E-01	5.7E-01	1.0E-03	RAGSE
Cresol, m-	108-39-4	1.1E+02	PHYSPROP	3.5E-05	8.6E-07	PHYSPROP	1.1E-01	PHYSPROP	1.2E+01	PHYSPROP	1.0E+00	CRC89	7.3E-02	9.3E-06	WATER9			3.0E+02	EPI	2.0E+00	PHYSPROP	2.3E+04	PHYSPROP	3.1E-02	4.2E-01	1.0E+00	7.8E-03	EPI
Cresol, o-	95-48-7	1.1E+02	PHYSPROP	4.9E-05	1.2E-06	PHYSPROP	3.0E-01	EPI	3.0E+01	PHYSPROP	1.0E+00	CRC89	7.3E-02	9.3E-06	WATER9			3.1E+02	EPI	2.0E+00	PHYSPROP	2.6E+04	PHYSPROP	3.1E-02	4.2E-01	1.0E+00	7.7E-03	EPI
Cresol, p-	106-44-5	1.1E+02	PHYSPROP	4.1E-05	1.0E-06	PHYSPROP	1.1E-01	PHYSPROP	3.6E+01	PHYSPROP	1.0E+00	CRC89	7.2E-02	9.2E-06	WATER9			3.0E+02	EPI	1.9E+00	PHYSPROP	2.2E+04	PHYSPROP	3.0E-02	4.2E-01	1.0E+00	7.5E-03	EPI
Cresol, p-chloro-m-	59-50-7	1.4E+02	PHYSPROP	1.0E-04	2.5E-06	EPI	5.0E-02	PHYSPROP	6.7E+01	PHYSPROP			7.0E-02	8.1E-06	WATER9			4.9E+02	EPI	3.1E+00	PHYSPROP	3.8E+03	PHYSPROP	1.3E-01	6.6E-01	1.6E+00	2.9E-02	EPI
Cresols	1319-77-3	3.2E+02	PHYSPROP	2.5E-05	6.2E-07	PHYSPROP	1.7E-01	PHYSPROP	3.0E+01	EPI			4.0E-02	4.7E-06	WATER9			3.1E+02	EPI	2.0E+00	PHYSPROP	9.1E+03	PHYSPROP	5.3E-02	6.9E+00	1.7E+01	7.7E-03	EPI
Crotonaldehyde, trans-	123-73-9	7.0E+01	PHYSPROP	7.9E-04	1.9E-05	PHYSPROP	3.0E+01	PHYSPROP	-7.6E+01	PHYSPROP	8.5E-01	CRC89	9.6E-02	1.1E-05	WATER9			1.8E+00	EPI	6.0E-01	PHYSPROP	1.5E+05	PHYSPROP	5.1E-03	2.6E-01	6.2E-01	1.6E-03	EPI
Cumene	98-82-8	1.2E+02	PHYSPROP	4.7E-01	1.2E-02	PHYSPROP	4.5E+00	PHYSPROP	-9.6E+01	PHYSPROP	8.6E-01	CRC89	6.0E-02	7.9E-06	WATER9			7.0E+02	EPI	3.7E+00	PHYSPROP	6.1E+01	PHYSPROP	3.8E-01	5.0E-01	1.2E+00	9.0E-02	EPI
Cupferron	135-20-6	1.6E+02	PHYSPROP	1.5E-07	3.6E-09	PHYSPROP	6.3E-05	PHYSPROP	1.6E+02	PHYSPROP			6.6E-02	7.7E-06	WATER9			7.6E+02	EPI	-1.7E+00	PHYSPROP	6.1E+05	PHYSPROP	8.0E-06	7.8E-01	1.9E+00	1.7E-06	EPI
Cyanazine	21725-46-2	2.4E+02	PHYSPROP	1.1E-10	2.6E-12	EPI	1.4E-07	PHYSPROP	1.7E+02	PHYSPROP			4.9E-02	5.7E-06	WATER9			1.3E+02	EPI	2.2E+00	PHYSPROP	1.7E+02	PHYSPROP	1.2E-02	2.3E+00	5.6E+00	2.1E-03	EPI
Cyanides																												
~Calcium Cyanide	592-01-8	9.2E+01	PHYSPROP																					3.7E-03	3.4E-01	8.3E-01	1.0E-03	RAGSE
~Copper Cyanide	544-92-3	9.0E+01	PHYSPROP						4.7E+02	PHYSPROP	2.9E+00	CRC89												3.6E-03	3.3E-01	8.0E-01	1.0E-03	RAGSE
~Cyanide (CN-)	57-12-5	2.6E+01	PHYSPROP	4.2E-03	1.0E-04	Ma et al 2010	3.1E+02	PHYSPROP			7.0E-01	CHEM GUIDE	2.1E-01	2.5E-05	WATER9	9.9E+00	SSL					9.5E+04	PHYSPROP	2.0E-03	1.5E-01	3.5E-01	1.0E-03	RAGSE
~Cyanogen	460-19-5	5.2E+01	PHYSPROP	2.2E-01	5.4E-03	EPI	4.3E+03	PHYSPROP	-2.8E+01	PHYSPROP	9.5E-01	CRC89	1.2E-01	1.4E-05	WATER9					7.0E-02	PHYSPROP	8.0E+03	CRC89	2.5E-03	2.1E-01	4.9E-01	8.9E-04	RAGSE
~Cyanogen Bromide	506-68-3	1.1E+02	PHYSPROP	1.0E+00	2.5E-02	EPI	1.2E+02	PHYSPROP	5.2E+01	PHYSPROP	2.0E+00	CRC89	9.8E-02	1.4E-05	WATER9									1.0E-03	4.1E-01	9.9E-01	2.6E-04	RAGSE
~Cyanogen Chloride	506-77-4	6.1E+01	PHYSPROP	7.9E-02	1.9E-03	YAWS	1.2E+03	PHYSPROP	-6.6E+00	PHYSPROP	1.2E+00	CRC89	1.2E-01	1.4E-05	WATER9							6.0E+04	PHYSPROP	1.2E-03	2.3E-01	5.6E-01	3.9E-04	RAGSE
~Hydrogen Cyanide	74-90-8	2.7E+01	PHYSPROP	5.4E-03	1.3E-04	PHYSPROP	7.4E+02	PHYSPROP	-1.3E+01	PHYSPROP	6.9E-01	CRC89	1.7E-01	1.7E-05	WATER9	9.9E+00	SSL			-2.5E-01	PHYSPROP	1.0E+06	PHYSPROP	2.0E-03	1.5E-01	3.6E-01	1.0E-03	RAGSE
~Potassium Cyanide	151-50-8	6.5E+01	PHYSPROP				0.0E+00	NIOSH	6.3E+02	PHYSPROP	1.6E+00	CRC89										7.2E+05	PHYSPROP	6.2E-03	2.4E-01	5.8E-01	2.0E-03	RAGSE

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
~Potassium Silver Cyanide	506-61-6	2.0E+02	PHYSPROP																					1.1E-02	1.4E+00	3.3E+00	2.0E-03	RAGSE
~Silver Cyanide	506-64-9	1.3E+02	PHYSPROP						3.2E+02	PHYSPROP	4.0E+00	CRC89										2.3E+01	PHYSPROP	4.5E-03	5.9E-01	1.4E+00	1.0E-03	RAGSE
~Sodium Cyanide	143-33-9	4.9E+01	PHYSPROP				0.0E+00	NIOSH	5.6E+02	PHYSPROP	1.6E+00	CRC89										5.8E+05	CRC89	2.7E-03	2.0E-01	4.7E-01	1.0E-03	RAGSE
~Thiocyanates	NA																										1.0E-03	RAGSE
~Thiocyanic Acid	463-56-9	5.9E+01	PHYSPROP				4.7E+00	PPRTV	5.0E+00	PPRTV	1.1E+00	PPRTV	1.2E-01	1.4E-05	WATER9					5.8E-01	OTHER			3.0E-03	2.3E-01	5.4E-01	1.0E-03	RAGSE
~Zinc Cyanide	557-21-1	1.2E+02	PHYSPROP						8.0E+01	PERRY	1.9E+00	CRC89										4.7E+00	CRC89	2.5E-03	4.8E-01	1.1E+00	6.0E-04	RAGSE
Cyclohexane	110-82-7	8.4E+01	PHYSPROP	6.1E+00	1.5E-01	PHYSPROP	9.7E+01	PHYSPROP	6.6E+00	PHYSPROP	7.7E-01	CRC89	8.0E-02	9.1E-06	WATER9			1.5E+02	EPI	3.4E+00	PHYSPROP	5.5E+01	PHYSPROP	3.6E-01	3.1E-01	7.5E-01	1.0E-01	EPI
1,2,3,4,5-pentabromo-6-chloro-	87-84-3	5.1E+02	PHYSPROP	3.9E-05	9.6E-07	PHYSPROP	3.5E-06	PHYSPROP	2.0E+02	CRC89			3.0E-02	3.5E-06	WATER9			2.8E+03	EPI	4.7E+00	PHYSPROP	5.5E-02	PHYSPROP	2.5E-02	7.9E+01	1.9E+02	2.8E-03	EPI
Cyclohexanone	108-94-1	9.8E+01	PHYSPROP	3.7E-04	9.0E-06	PHYSPROP	4.3E+00	PHYSPROP	-3.1E+01	PHYSPROP	9.5E-01	CRC89	7.7E-02	9.4E-06	WATER9			1.7E+01	EPI	8.1E-01	PHYSPROP	2.5E+04	PHYSPROP	5.8E-03	3.7E-01	8.9E-01	1.5E-03	EPI
Cyclohexene	110-83-8	8.2E+01	PHYSPROP	1.9E+00	4.6E-02	PHYSPROP	8.9E+01	PHYSPROP	-1.0E+02	PHYSPROP	8.1E-01	NIOSH	8.3E-02	9.5E-06	WATER9			1.5E+02	EPI	2.9E+00	PHYSPROP	2.1E+02	PHYSPROP	1.5E-01	3.0E-01	7.3E-01	4.3E-02	EPI
Cyclohexylamine	108-91-8	9.9E+01	PHYSPROP	1.7E-04	4.2E-06	PHYSPROP	1.0E+01	PHYSPROP	-1.8E+01	PHYSPROP	8.2E-01	CRC89	7.1E-02	8.5E-06	WATER9			3.2E+01	EPI	1.5E+00	PHYSPROP	1.0E+06	PHYSPROP	1.6E-02	3.8E-01	9.1E-01	4.3E-03	EPI
Cyfluthrin	68359-37-5	4.3E+02	PHYSPROP	1.2E-06	2.9E-08	EPI	1.5E-10	PHYSPROP	6.0E+01	PHYSPROP			3.3E-02	3.9E-06	WATER9			1.3E+05	EPI	6.0E+00	PHYSPROP	3.0E-03	PHYSPROP	4.1E-01	2.8E+01	6.8E+01	5.2E-02	EPI
Cyhalothrin	68085-85-8	4.5E+02	PHYSPROP	6.1E-05	1.5E-06	EPI	1.5E-09	PHYSPROP	4.9E+01	PHYSPROP			3.2E-02	3.8E-06	WATER9			3.4E+05	EPI	6.9E+00	PHYSPROP	5.0E-03	PHYSPROP	1.7E+00	3.5E+01	1.4E+02	2.1E-01	EPI
Cypermethrin	52315-07-8	4.2E+02	PHYSPROP	1.7E-05	4.2E-07	EPI	3.1E-09	PHYSPROP	8.1E+01	PHYSPROP	1.3E+00	CRC89	1.9E-02	4.7E-06	WATER9			8.0E+04	EPI	6.6E+00	PHYSPROP	4.0E-03	PHYSPROP	6.0E-01	2.3E+01	9.1E+01	7.7E-02	EPI
Cyromazine	66215-27-8	1.7E+02	PHYSPROP	2.3E-12	5.7E-14	EPI	3.4E-09	PHYSPROP	2.2E+02	PHYSPROP			6.3E-02	7.3E-06	WATER9			2.9E+01	EPI	-6.1E-02	PHYSPROP	1.3E+04	PHYSPROP	4.0E-03	9.0E-01	2.2E+00	8.0E-04	EPI
DDD	72-54-8	3.2E+02	PHYSPROP	2.7E-04	6.6E-06	PHYSPROP	1.4E-06	PHYSPROP	1.1E+02	PHYSPROP			4.1E-02	4.7E-06	WATER9			1.2E+05	EPI	6.0E+00	PHYSPROP	9.0E-02	PHYSPROP	1.7E+00	6.5E+00	2.6E+01	2.5E-01	EPI
DDE, p,p'-	72-55-9	3.2E+02	PHYSPROP	1.7E-03	4.2E-05	PHYSPROP	6.0E-06	EPI	8.9E+01	PHYSPROP	1.4E+00	LookChem	2.3E-02	5.9E-06	WATER9			1.2E+05	EPI	6.5E+00	PHYSPROP	4.0E-02	PHYSPROP	3.7E+00	6.4E+00	2.7E+01	5.5E-01	EPI
DDT	50-29-3	3.5E+02	PHYSPROP	3.4E-04	8.3E-06	PHYSPROP	1.6E-07	PHYSPROP	1.1E+02	PHYSPROP			3.8E-02	4.4E-06	WATER9			1.7E+05	EPI	6.9E+00	PHYSPROP	5.5E-03	PHYSPROP	4.5E+00	1.0E+01	4.4E+01	6.3E-01	EPI
Dalapon	75-99-0	1.4E+02	PHYSPROP	2.3E-06	5.7E-08	EPI	1.5E-01	EPI	-5.0E+00	PHYSPROP	1.4E+00	CRC89	6.0E-02	9.4E-06	WATER9			3.2E+00	EPI	7.8E-01	PHYSPROP	5.0E+05	PHYSPROP	3.7E-03	6.6E-01	1.6E+00	8.2E-04	EPI
Daminozide	1596-84-5	1.6E+02	PHYSPROP	1.7E-08	4.2E-10	EPI	2.0E-04	PHYSPROP	1.5E+02	PHYSPROP			6.4E-02	7.5E-06	WATER9			1.0E+01	EPI	-1.5E+00	PHYSPROP	1.0E+05	PHYSPROP	9.7E-05	8.3E-01	2.0E+00	2.0E-05	EPI
Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	9.6E+02	PHYSPROP	4.9E-07	1.2E-08	PHYSPROP	4.7E-12	PHYSPROP	3.1E+02	PHYSPROP	3.0E+00	IRIS Profile	1.9E-02	4.8E-06	WATER9			2.8E+05	EPI	1.2E+01	PHYSPROP	1.0E-04	PHYSPROP	8.6E+00	2.5E+04	1.1E+05	7.3E-01	EPI
Demeton	8065-48-3	5.2E+02	PHYSPROP	1.6E-04	3.8E-06	PHYSPROP	3.4E-04	PHYSPROP			1.1E+00	PubChem	1.6E-02	3.8E-06	WATER9					3.2E+00	PHYSPROP	6.7E+02	PHYSPROP	6.6E-02	8.2E+01	2.0E+02	7.6E-03	RAGSE
Di(2-ethylhexyl)adipate	103-23-1	3.7E+02	PHYSPROP	1.8E-05	4.3E-07	PHYSPROP	8.5E-07	PHYSPROP	-6.8E+01	PHYSPROP	9.2E-01	CRC89	1.7E-02	4.2E-06	WATER9			3.6E+04	EPI	6.1E+00	PHYSPROP	7.8E-01	PHYSPROP	2.4E+01	1.3E+01	5.8E+01	3.2E+00	EPI
Diallate	2303-16-4	2.7E+02	PHYSPROP	1.6E-04	3.8E-06	EPI	1.5E-04	PHYSPROP	2.5E+01	PHYSPROP			4.5E-02	5.3E-06	WATER9			6.4E+02	EPI	4.5E+00	PHYSPROP	1.4E+01	PHYSPROP	2.9E-01	3.4E+00	8.2E+00	4.6E-02	EPI
Diazinon	333-41-5	3.0E+02	PHYSPROP	4.6E-06	1.1E-07	PHYSPROP	9.0E-05	PHYSPROP	8.8E+01	EPI	1.1E+00	CRC89	2.1E-02	5.2E-06	WATER9			3.0E+03	EPI	3.8E+00	PHYSPROP	4.0E+01	PHYSPROP	7.0E-02	5.3E+00	1.3E+01	1.0E-02	EPI
Dibenzothiophene	132-65-0	1.8E+02	PHYSPROP	1.4E-03	3.4E-05	EPI	2.1E-04	EPI	9.7E+01	PHYSPROP	1.3E+00	ChemNet	3.6E-02	7.6E-06	WATER9			9.2E+03	EPI	4.4E+00	PHYSPROP	1.5E+00	PHYSPROP	6.2E-01	1.1E+00	4.5E+00	1.2E-01	EPI
Dibromo-3-chloropropane, 1,2-	96-12-8	2.4E+02	PHYSPROP	6.0E-03	1.5E-04	EPI	5.8E-01	PHYSPROP	6.0E+00	PHYSPROP	2.1E+00	CRC89	3.2E-02	8.9E-06	WATER9			1.2E+02	EPI	3.0E+00	PHYSPROP	1.2E+03	PHYSPROP	4.1E-02	2.2E+00	5.3E+00	6.9E-03	EPI
Dibromobenzene, 1,3-	108-36-1	2.4E+02	PHYSPROP	5.1E-02	1.2E-03	EPI	2.7E-01	PHYSPROP	-7.0E+00	PHYSPROP	2.0E+00	CRC89	3.1E-02	8.5E-06	WATER9			3.8E+02	EPI	3.8E+00	PHYSPROP	6.8E+01	PHYSPROP	1.4E-01	2.2E+00	5.3E+00	2.3E-02	EPI
Dibromobenzene, 1,4-	106-37-6	2.4E+02	PHYSPROP	3.7E-02	8.9E-04	EPI	5.8E-02	PHYSPROP	8.7E+01	PHYSPROP	2.3E+00	CRC89	3.3E-02	9.3E-06	WATER9			3.8E+02	EPI	3.8E+00	PHYSPROP	2.0E+01	PHYSPROP	1.4E-01	2.2E+00	5.3E+00	2.5E-02	EPI
Dibromochloromethane	124-48-1	2.1E+02	PHYSPROP	3.2E-02	7.8E-04	PHYSPROP	5.5E+00	PHYSPROP	-2.0E+01	PHYSPROP	2.5E+00	CRC89	3.7E-02	1.1E-05	WATER9			3.2E+01	EPI	2.2E+00	PHYSPROP	2.7E+03	PHYSPROP	1.6E-02	1.5E+00	3.7E+00	2.9E-03	EPI
Dibromoethane, 1,2-	106-93-4	1.9E+02	PHYSPROP	2.7E-02	6.5E-04	PHYSPROP	1.1E+01	PHYSPROP	9.9E+00	PHYSPROP	2.2E+00	CRC89	4.3E-02	1.0E-05	WATER9			4.0E+01	EPI	2.0E+00	PHYSPROP	3.9E+03	PHYSPROP	1.5E-02	1.2E+00	2.8E+00	2.8E-03	EPI
Dibromomethane (Methylene Bromide)	74-95-3	1.7E+02	PHYSPROP	3.4E-02	8.2E-04	PHYSPROP	4.4E+01	PHYSPROP	-5.3E+01	PHYSPROP	2.5E+00	CRC89	5.5E-02	1.2E-05	WATER9			2.2E+01	EPI	1.7E+00	PHYSPROP	1.2E+04	PHYSPROP	1.1E-02	9.9E-01	2.4E+00	2.2E-03	EPI
Dibutyltin Compounds	NA																											
Dicamba	1918-00-9	2.2E+02	PHYSPROP	8.9E-08	2.2E-09	EPI	1.3E-05	PHYSPROP	1.2E+02	PHYSPROP	1.6E+00	CRC89	2.9E-02	7.8E-06	WATER9			2.9E+01	EPI	2.2E+00	PHYSPROP	8.3E+03	PHYSPROP	1.5E-02	1.8E+00	4.4E+00	2.7E-03	EPI
Dichloro-2-butene, 1,4-	764-41-0	1.3E+02	PHYSPROP	3.5E-01	8.5E-03	PHYSPROP	3.0E+00	EPI	3.5E+00	PHYSPROP	1.2E+00	LANGE	6.7E-02	9.3E-06	WATER9			1.3E+02	EPI	2.6E+00	PHYSPROP	5.8E+02	PHYSPROP	7.1E-02	5.3E-01	1.3E+00	1.7E-02	EPI
Dichloro-2-butene, cis-1,4-	1476-11-5	1.3E+02	PHYSPROP	2.7E-02	6.6E-04	EPI	4.1E+00	PHYSPROP	-4.8E+01	PHYSPROP	1.2E+00	CRC89	6.7E-02	9.3E-06	WATER9			1.3E+02	EPI	2.6E+00	PHYSPROP	5.8E+02	PHYSPROP	7.1E-02	5.3E-01	1.3E+00	1.7E-02	EPI
Dichloro-2-butene, trans-1,4-	110-57-6	1.3E+02	PHYSPROP	2.7E-02	6.6E-04	EPI	3.4E+00	PHYSPROP	2.0E+00	PHYSPROP	1.2E+00	CRC89	6.6E-02	9.3E-06	WATER9			1.3E+02	EPI	2.6E+00	PHYSPROP	8.5E+02	PHYSPROP	7.1E-02	5.3E-01	1.3E+00	1.7E-02	EPI
Dichloroacetic Acid	79-43-6	1.3E+02	PHYSPROP	3.4E-07	8.4E-09	PHYSPROP	1.8E-01	PHYSPROP	1.4E+01	PHYSPROP	1.6E+00	CRC89	7.2E-02	1.1E-05	WATER9			2.3E+00	EPI	9.2E-01	PHYSPROP	1.0E+06	PHYSPROP	5.3E-03	5.5E-01	1.3E+00	1.2E-03	EPI
Dichlorobenzene, 1,2-	95-50-1	1.5E+02	PHYSPROP	7.8E-02	1.9E-03	PHYSPROP	1.4E+00	PHYSPROP	-1.7E+01	PHYSPROP	1.3E+00	CRC89	5.6E-02	8.9E-06	WATER9			3.8E+02	EPI	3.4E+00	PHYSPROP	1.6E+02	PHYSPROP	2.1E-01	7.0E-01	1.7E+00	4.5E-02	EPI
Dichlorobenzene, 1,4-	106-46-7	1.5E+02	PHYSPROP	9.9E-02	2.4E-03	PHYSPROP	1.7E+00	PHYSPROP	5.2E+01	PHYSPROP	1.2E+00	CRC89	5.5E-02	8.7E-06	WATER9			3.8E+02	EPI	3.4E+00	PHYSPROP	8.1E+01	PHYSPROP	2.1E-01	7.0E-01	1.7E+00	4.5E-02	EPI
Dichlorobenzidine, 3,3'-	91-94-1	2.5E+02	PHYSPROP	1.2E-09	2.8E-11	PHYSPROP	2.6E-07	PHYSPROP	1.3E+02	PHYSPROP			4.7E-02	5.5E-06	WATER9			3.2E+03	EPI	3.5E+00	PHYSPROP	3.1E+00	PHYSPROP	7.8E-02	2.8E+00	6.6E+00	1.3E-02	EPI
Dichlorobenzophenone, 4,4'-	90-98-2	2.5E+02	PHYSPROP	4.4E-05	1.1E-06	PHYSPROP	6.4E-06	PHYSPROP	1.5E+02	PHYSPROP	1.5E+00	CRC89	2.6E-02	6.9E-06	WATER9			2.9E+03	EPI	4.4E+00	PHYSPROP	8.3E-01	PHYSPROP	3.3E-01	2.7E+00	6.4E+00	5.4E-02	EPI
Dichlorodifluoromethane	75-71-8	1.2E+02	PHYSPROP	1.4E+01	3.4E-01	PHYSPROP	4.8E+03	PHYSPROP	-1.6E+02	PHYSPROP	1.5E+00	PERRY	7.6E-02	1.1E-05	WATER9			4.4E+01	EPI	2.2E+00	PHYSPROP	2.8E+02	PHYSPROP	3.8E-02	5.0E-01	1.2E+00	9.0E-03	EPI
Dichloroethane, 1,1-	75-34-3	9.9E+01	PHYSPROP	2.3E-01	5.6E-03	PHYSPROP	2.3E+02	PHYSPROP	-9.7E+01	PHYSPROP	1.2E+00	CRC89	8.4E-02	1.1E-05	WATER9			3.2E+01	EPI	1.8E+00	PHYSPROP	5.0E+03	PHYSPROP	2.6E-02	3.8E-01	9.0E-01	6.8E-03	EPI
Dichloroethane, 1,2-	107-06-2	9.9E+01	PHYSPROP	4.8E-02	1.2E-03	PHYSPROP	7.9E+01	PHYSPROP	-3.6E+01	PHYSPROP	1.2E+00	CRC89	8.6E-02	1.1E-05	WATER9			4.0E+01	EPI	1.5E+00	PHYSPROP	8.6E+03	PHYSPROP	1.6E-02	3.8E-01	9.0E-01	4.2E-03	EPI
Dichloroethylene, 1,1-	75-35-4	9.7E+01	PHYSPROP	1.1E+00	2.6E-02	PHYSPROP	6.0E+02	PHYSPROP	-1.2E+02	PHYSPROP	1.2E+00	CRC89	8.6E-02	1.1E-05	WATER9			3.2E+01	EPI	2.1E+00	PHYSPROP	2.4E+03	PHYSPROP	4.4E-02	3.7E-01	8.8E-01	1.2E-02	EPI
Dichloroethylene, 1,2-cis-	156-59-2	9.7E+01	PHYSPROP	1.7E-01	4.1E-03	PHYSPROP	2.0E+02	PHYSPROP	-8.0E+01	PHYSPROP	1.3E+00	CRC89	8.8E-02	1.1E-05	WATER9			4.0E+01	EPI	1.9E+00	PHYSPROP	6.4E+03	PHYSPROP	4.2E-02	3.7E-01	8.8E-01	1.1E-02	EPI
Dichloroethylene, 1,2-trans-	156-60-5	9.7E+01	PHYSPROP	3.8E-01	9.4E-03	PHYSPROP	3.3E+02	EPI	-5.0E+01	PHYSPROP	1.3E+00	CRC89	8.8E-02	1.1E-05	WATER9			4.0E+01	EPI	2.1E+00	PHYSPROP	4.5E+03	PHYSPROP	4.2E-02	3.7E-01	8.8E-01	1.1E-02	EPI
Dichlorophenol, 2,4-	120-83-2	1.6E+02	PHYSPROP	1.8E-04	4.3E-06	EPI	9.0E-02	PHYSPROP	4.5E+01	PHYSPROP	1.4E+00	PERRY	4.9E-02	8.7E-06	WATER9			1.5E+02	SSL	3.1E+00	PHYSPROP	5.6E+03	PHYSPROP	1.0E-01	8.6E-01	2.1E+00	2.1E-02	EPI
Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	2.2E+02	PHYSPROP	1.4E-06	3.5E-08	EPI	8.3E-05	PHYSPROP	1.4E+02	PHYSPROP	1.4E+00	PubChem	2.8E-02	7.3E-06	WATER9			3.0E+01	EPI	2.8E+00	PHYSPROP	6.8E+02	PHYSPROP	3.8E-02	1.8E+00	4.4E+00	6.6E-03	EPI
Dichlorophenoxy)butyric Acid, 4-(2,4-	94-82-6	2.5E+02	PHYSPROP	9.4E-08	2.3E-09	PHYSPROP	1.1E-05	PHYSPROP	1.2E+02	PHYSPROP	1.4E+00	ChemNet	2.6E-02	6.7E-06	WATER9			3.7E+02	PubChem	3.5E+00	PHYSPROP	4.6E+01	PHYSPROP	8.4E-02	2.6E+00	6.3E+00	1.4E-02	EPI
Dichloropropane, 1,2-	78-87-5	1.1E+02	PHYSPROP	1.2E-01	2.8E-03	PHYSPROP	5.3E+01	PHYSPROP	-1.0E+02	PHYSPROP	1.2E+00	PERRY	7.3E-02	9.7E-06	WATER9			6.1E+01	EPI	2.0E+00	PHYSPROP	2.8E+03	PHYSPROP	3.1E-02	4.5E-01	1.1E+00	7.5E-03	EPI
Dichloropropane, 1,3-	142-28-9	1.1E+02	PHYSPROP	4.0E-02	9.8E-04	PHYSPROP	1.8E+01	PHYSPROP	-1.0E+02	PHYSPROP	1.2E+00	CRC89	7.4E-02	9.8E-06	WATER9			7.2E+01	EPI	2.0E+00	PHYSPROP	2.8E+03	PHYSPROP	3.2E-02	4.5E-01	1.1E+00	7.8E-03	EPI
Dichloropropanol, 2,3-	616-23-9	1.3E+02	PHYSPROP	1.5E-07	3.6E-09	PHYSPROP	1.8E-01	PHYSPROP	-2.5E+01	EPI	1.4E+00	CRC89	6.8E-02	9.9E-06	WATER9			5.6E+00	EPI	7.8E-01	PHYSPROP	6.4E+04	PHYSPROP	4.3E-03	5.5E-01	1.3E+00	9.8E-04	EPI
Dichloropropene, 1,3-	542-75-6	1.1E+02	PHYSPROP	1.5E-01	3.6E-03	PHYSPROP	3.4E+01	PHYSPROP	-5.0E+01	PHYSPROP	1.2E+00	LANGE	7.6E-02	1.0E-05	WATER9			7.2E+01	EPI	2.0E+00	PHYSPROP	2.8E+03	PHYSPROP	3.4E-02	4.4E-01	1.1E+00	8.3E-03	EPI
Dichlorvos	62-73-7	2.2E+02	PHYSPROP	2.4E-05	5.7E-07	EPI	1.6E-02	PHYSPROP	-6.0E+01	PHYSPROP	1.4E+00	CRC89	2.8E-02	7.3E-06	WATER9			5.4E+01	EPI	1.4E+00	PHYSPROP	8.0E+03	PHYSPROP	4.6E-03	1.8E+00	4.4E+00	8.0E-04	EPI
Dicrotophos	141-66-2	2.4E+02	PHYSPROP	2.1E-09	5.0E-11	PHYSPROP	1.6E-04	PHYSPROP	7.9E+01	EPI	1.2E+00	CRC89	2.5E-02	6.4E-06	WATER9			1.7E+01	EPI	0.0E+00	PHYSPROP	1.0E+06	PHYSPROP	4.3E-04	2.2E+00	5.4E+00	7.3E-05	EPI
Dicyclopentadiene	77-73-6	1.3E+02	PHYSPROP	2.6E+00	6.3E-02	PHYSPROP	2.3E+00	EPI	-1.0E+00	PHYSPROP	9.3E-01	LANGE	5.6E-02	7.8E-06	WATER9			1.5E+03	EPI	3.2E+00	PHYSPROP	2.6E+01	PHYSPROP	1.6E-01	5.8E-01	1.4E+00	3.6E-02	EPI
Dieldrin	60-57-1	3.8E+02	PHYSPROP	4.1E-04	1.0E-05	PHYSPROP	5.9E-06	PHYSPROP	1.8E+02	PHYSPROP	1.8E+00	CRC89	2.3E-02	6.0E-06	WATER9			2.0E+04	EPI	5.4E+00	PHYSPROP	2.0E-01	PHYSPROP	2.4E-01	1.4E+01	3.4E+01	3.3E-02	EPI
Exhaust	NA																											
Diethanolamine	111-42-2	1.1E+02	PHYSPROP	1.6E-09	3.9E-11	EPI	2.8E-04	PHYSPROP	2.8E+01	PHYSPROP	1.1E+00	CRC89	7.7E-02	9.8E-06	WATER9			1.0E+00	EPI	-1.4E+00	PHYSPROP	1.0E+06	PHYSPROP	1.8E-04	4.1E-01	9.8E-01	4.5E-05	EPI
Diethylene Glycol Monobutyl Ether	112-34-5	1.6E+02	PHYSPROP	2.9E-07	7.2E-09	PHYSPROP	2.2E-02	PHYSPROP	-6.8E+01	PHYSPROP	9.6E-01	CRC89	4.1E-02	7.0E-06	WATER9			1.0E+01	EPI	5.6E-01	PHYSPROP	1.0E+06	PHYSPROP	2.2E-03	8.5E-01	2.0E+00	4.5E-04	EPI
Diethylene Glycol Monoethyl Ether	111-90-0	1.3E+02	PHYSPROP	9.1E-07	2.2E-08	EPI	1.3E-01	PHYSPROP	-7.6E+01	PHYSPROP	9.9E-01	CRC89	5.6E-02	8.0E-06	WATER9			1.0E+00	EPI	-5.4E-01	PHYSPROP	1.0E+06	PHYSPROP	5.4E-04	5.9E-01	1.4E+00	1.2E-04	EPI
Diethylformamide	617-84-5	1.0E+02	PHYSPROP	5.3E-06	1.3E-07	PHYSPROP	1.2E+00	EPI	-7.6E+00	EPI	9.1E-01	CRC89	7.3E-02	9.0E-06	WATER9			2.1E+00	EPI	5.0E-02	PHYSPROP	1.0E+06	PHYSPROP	1.8E-03	3.9E-01	9.3E-01	4.6E-04	EPI
Diethylstilbestrol	56-53-1	2.7E+02	PHYSPROP	2.4E-10	5.8E-12	PHYSPROP	1.4E-08	PHYSPROP	1.7E+02	PHYSPROP			4.6E-02	5.3E-06	WATER9			2.7E+05	EPI	5.1E+00	PHYSPROP	1.2E+01	PHYSPROP	7.2E-01	3.3E+00	1.3E+01	1.1E-01	EPI
Difenzoquat	43222-48-6	3.6E+02	PHYSPROP				4.1E-12	PHYSPROP	1.6E+02	PHYSPROP			3.8E-02	4.4E-06	WATER9			7.8E+04	EPI	6.5E-01	PHYSPROP	8.2E+05	PHYSPROP	2.9E-04	1.1E+01	2.6E+01	4.0E-05	EPI
Diflubenzuron	35367-38-5	3.1E+02	PHYSPROP	1.9E-07	4.6E-09	EPI	9.0E-10	PHYSPROP	2.4E+02	PHYSPROP			4.1E-02	4.8E-06	WATER9			4.6E+02	EPI	3.9E+00	PHYSPROP	8.0E-02	PHYSPROP	7.3E-02	5.8E+00	1.4E+01	1.1E-02	EPI
Difluoroethane, 1,1-	75-37-6	6.6E+01	PHYSPROP	8.3E-01	2.0E-02	PHYSPROP	4.6E+03	PHYSPROP	-1.2E+02	PHYSPROP	9.0E-01	CRC89	1.0E-01	1.2E-05	WATER9			3.2E+01	EPI	7.5E-01	PHYSPROP	3.2E+03	PHYSPROP	6.6E-03	2.5E-01	5.9E-01	2.1E-03	EPI
Dihydrosafrole	94-58-6	1.6E+02	PHYSPROP	5.0E-04	1.2E-05	PHYSPROP	5.6E-02	PHYSPROP	4.4E+01	EPI	1.1E+00	PubChem	4.3E-02	7.4E-06	WATER9			2.1E+02	EPI	3.6E+00	PHYSPROP	5.7E+01	PHYSPROP	2.2E-01	8.7E-01	2.1E+00	4.5E-02	EPI
Diisopropyl Ether	108-20-3	1.0E+02	PHYSPROP	1.0E-01	2.6E-03	PHYSPROP	1.5E+02	PHYSPROP	-8.7E+01	PHYSPROP	7.2E-01	CRC89	6.5E-02	7.8E-06	WATER9			2.3E+01	EPI	1.5E+00	PHYSPROP	8.8E+03	PHYSPROP	1.7E-02	3.9E-01	9.4E-01	4.3E-03	EPI
Diisopropyl Methylphosphonate	1445-75-6	1.8E+02	PHYSPROP	1.8E-03	4.4E-05	EPI	2.3E-01	PHYSPROP	-2.4E+01	EPI	9.8E-01	ATSDR Profile	3.4E-02	6.6E-06	WATER9			4.2E+01	EPI	1.0E+00	PHYSPROP	1.5E+03	PHYSPROP	3.8E-03	1.1E+00	2.6E+00	7.4E-04	EPI
Dimethipin	55290-64-7	2.1E+02	PHYSPROP	9.4E-10	2.3E-11	EPI	3.8E-07	PHYSPROP	1.7E+02	PHYSPROP			5.4E-02	6.3E-06	WATER9			1.0E+01	EPI	-1.7E-01	PHYSPROP	4.6E+03	PHYSPROP	4.5E-04	1.6E+00	3.8E+00	8.0E-05	EPI
Dimethoate	60-51-5	2.3E+02	PHYSPROP	9.9E-09	2.4E-10	EPI	1.9E-05	PHYSPROP	5.2E+01	PHYSPROP	1.3E+00	CRC89	2.6E-02	6.7E-06	WATER9			1.3E+01	EPI	7.8E-01	PHYSPROP	2.3E+04	PHYSPROP	1.6E-03	2.0E+00	4.9E+00	2.7E-04	EPI
Dimethoxybenzidine, 3,3'-	119-90-4	2.4E+02	PHYSPROP	1.9E-09	4.7E-11	PHYSPROP	1.3E-07	PHYSPROP	1.4E+02	PHYSPROP			4.9E-02	5.7E-06	WATER9			5.1E+02	EPI	1.8E+00	PHYSPROP	6.0E+01	PHYSPROP	6.4E-03	2.5E+00	5.9E+00	1.1E-03	EPI
Dimethyl methylphosphonate	756-79-6	1.2E+02	PHYSPROP	5.6E-06	1.4E-07	PHYSPROP	8.3E-01	PHYSPROP	-4.8E+01	EPI	1.2E+00	CRC89	6.7E-02	9.2E-06	WATER9			5.4E+00	EPI	-6.1E-01	PHYSPROP	1.0E+06	PHYSPROP	5.3E-04	5.2E-01	1.2E+00	1.2E-04	EPI
Dimethylamino azobenzene [p-]	60-11-7	2.3E+02	PHYSPROP	1.6E-08	4.0E-10	PHYSPROP	7.0E-08	EPI	1.2E+02	PHYSPROP			5.1E-02	6.0E-06	WATER9			2.0E+03	EPI	4.6E+00	PHYSPROP	2.3E-01	PHYSPROP	5.4E-01	1.9E+00	4.6E+00	9.4E-02	EPI
Dimethylaniline HCl, 2,4-	21436-96-4	1.2E+02	PHYSPROP	9.5E-05	2.3E-06	PHYSPROP	1.8E-01	PHYSPROP	1.6E+02	EPI			7.8E-02	9.1E-06	WATER9			3.5E+02	EPI	2.2E+00	PHYSPROP	3.7E+03	PHYSPROP	8.6E-05	5.0E-01	1.2E+00	2.0E-05	EPI
Dimethylaniline, 2,4-	95-68-1	1.2E+02	PHYSPROP	1.0E-04	2.5E-06	PHYSPROP	1.3E-01	PHYSPROP	-1.4E+01	PHYSPROP	9.7E-01	CRC89	6.3E-02	8.4E-06	WATER9			1.8E+02	EPI	1.7E+00	PHYSPROP	6.1E+03	PHYSPROP	1.8E-02	5.0E-01	1.2E+00	4.3E-03	EPI
Dimethylaniline, N,N-	121-69-7	1.2E+02	PHYSPROP	2.3E-03	5.7E-05	EPI	7.0E-01	PHYSPROP	2.5E+00	PHYSPROP	9.6E-01	CRC89	6.3E-02	8.3E-06	WATER9			7.9E+01	EPI	2.3E+00	PHYSPROP	1.5E+03	PHYSPROP	4.7E-02	5.0E-01	1.2E+00	1.1E-02	EPI
Dimethylbenzidine, 3,3'-	119-93-7	2.1E+02	PHYSPROP	2.6E-09	6.3E-11	PHYSPROP	6.9E-07	PHYSPROP	1.3E+02	PHYSPROP			5.3E-02	6.2E-06	WATER9			3.2E+03	EPI	2.3E+00	PHYSPROP	1.3E+03	PHYSPROP	2.0E-02	1.6E+00	3.9E+00	3.6E-03	EPI
Dimethylformamide	68-12-2	7.3E+01	PHYSPROP	3.0E-06	7.4E-08	PHYSPROP	3.9E+00	PHYSPROP	-6.0E+01	PHYSPROP	9.4E-01	CRC89	9.7E-02	1.1E-05	WATER9			1.0E+00	EPI	-1.0E+00	PHYSPROP	1.0E+06	PHYSPROP	4.3E-04	2.7E-01	6.5E-01	1.3E-04	EPI
Dimethylhydrazine, 1,1-	57-14-7	6.0E+01	PHYSPROP	5.3E-04	1.3E-05	PHYSPROP	1.6E+02	PHYSPROP	-5.8E+01	PHYSPROP	7.9E-01	CRC89	1.0E-01	1.1E-05	WATER9			1.2E+01	EPI	-1.2E+00	PHYSPROP	1.0E+06	PHYSPROP	2.2E-04	2.3E-01	5.5E-01	7.3E-05	RAGSE
Dimethylhydrazine, 1,2-	540-73-8	6.0E+01	PHYSPROP	2.8E-06	7.0E-08	PHYSPROP	7.0E+01	PHYSPROP	-9.0E+00	PHYSPROP	8.3E-01	CRC89	1.1E-01	1.2E-05	WATER9			1.5E+01	EPI	-5.4E-01	PHYSPROP	1.0E+06	PHYSPROP	9.5E-04	2.3E-01	5.5E-01	3.2E-04	EPI
Dimethylphenol, 2,4-	105-67-9	1.2E+02	PHYSPROP	3.9E-05	9.5E-07	PHYSPROP	1.0E-01	PHYSPROP	2.5E+01	PHYSPROP	9.7E-01	CRC89	6.2E-02	8.3E-06	WATER9			4.9E+02	EPI	2.3E+00	PHYSPROP	7.9E+03	PHYSPROP	4.6E-02	5.1E-01	1.2E+00	1.1E-02	EPI
Dimethylphenol, 2,6-	576-26-1	1.2E+02	PHYSPROP	2.7E-04	6.7E-06	PHYSPROP	1.7E-01	EPI	4.6E+01	PHYSPROP			7.7E-02	9.0E-06	WATER9			5.0E+02	EPI	2.4E+00	PHYSPROP	6.1E+03	PHYSPROP	5.1E-02	5.1E-01	1.2E+00	1.2E-02	EPI
Dimethylphenol, 3,4-	95-65-8	1.2E+02	PHYSPROP	1.7E-05	4.2E-07	PHYSPROP	3.6E-02	EPI	6.1E+01	PHYSPROP	9.8E-01	CRC89	6.3E-02	8.4E-06	WATER9			4.9E+02	EPI	2.2E+00	PHYSPROP	4.8E+03	PHYSPROP	4.2E-02	5.1E-01	1.2E+00	9.8E-03	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Dimethylvinylchloride	513-37-1	9.1E+01	PHYSPROP	4.8E-02	1.2E-03	CRC89	2.1E+02	PHYSPROP	-1.0E+02	EPI	9.2E-01	CRC89	8.1E-02	9.7E-06	WATER9			6.1E+01	EPI	2.6E+00	PHYSPROP	1.0E+03	PHYSPROP	9.3E-02	3.4E-01	8.1E-01	2.5E-02	EPI
Dinitro-o-cresol, 4,6-	534-52-1	2.0E+02	PHYSPROP	5.7E-05	1.4E-06	PHYSPROP	1.2E-04	PHYSPROP	8.7E+01	PHYSPROP			5.6E-02	6.5E-06	WATER9			7.5E+02	EPI	2.1E+00	PHYSPROP	2.0E+02	PHYSPROP	1.7E-02	1.4E+00	3.2E+00	3.2E-03	EPI
Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	2.7E+02	PHYSPROP	2.3E-06	5.5E-08	PHYSPROP	4.2E-08	PHYSPROP	1.1E+02	PHYSPROP			4.6E-02	5.4E-06	WATER9			1.7E+04	EPI	4.1E+00	PHYSPROP	1.5E+01	PHYSPROP	1.7E-01	3.3E+00	7.8E+00	2.8E-02	EPI
Dinitrobenzene, 1,2-	528-29-0	1.7E+02	PHYSPROP	2.2E-06	5.3E-08	EPI	4.6E-05	EPI	1.2E+02	PHYSPROP	1.3E+00	CRC89	4.5E-02	8.3E-06	WATER9			3.6E+02	EPI	1.7E+00	PHYSPROP	1.3E+02	PHYSPROP	1.2E-02	9.2E-01	2.2E+00	2.4E-03	EPI
Dinitrobenzene, 1,3-	99-65-0	1.7E+02	PHYSPROP	2.0E-06	4.9E-08	PHYSPROP	9.0E-04	EPI	9.0E+01	PHYSPROP	1.6E+00	CRC89	4.8E-02	9.2E-06	WATER9			3.5E+02	EPI	1.5E+00	PHYSPROP	5.3E+02	PHYSPROP	8.7E-03	9.2E-01	2.2E+00	1.7E-03	EPI
Dinitrobenzene, 1,4-	100-25-4	1.7E+02	PHYSPROP	3.4E-06	8.4E-08	PHYSPROP	2.6E-05	PHYSPROP	1.7E+02	PHYSPROP	1.6E+00	CRC89	4.9E-02	9.4E-06	WATER9			3.5E+02	EPI	1.5E+00	PHYSPROP	6.9E+01	PHYSPROP	8.3E-03	9.2E-01	2.2E+00	1.7E-03	EPI
Dinitrophenol, 2,4-	51-28-5	1.8E+02	PHYSPROP	3.5E-06	8.6E-08	PHYSPROP	3.9E-04	PHYSPROP	1.1E+02	PHYSPROP	1.7E+00	CRC89	4.1E-02	9.1E-06	WATER9			4.6E+02	EPI	1.7E+00	PHYSPROP	2.8E+03	PHYSPROP	9.8E-03	1.1E+00	2.7E+00	1.9E-03	EPI
Dinitrotoluene Mixture, 2,4/2,6-	NA	1.8E+02	EPI	1.6E-05	4.0E-07	EPI	2.2E-03	EPI	6.0E+01	EPI			5.9E-02	6.9E-06	WATER9			5.9E+02	EPI	2.2E+00	EPI	2.7E+02	EPI	2.2E-02	1.1E+00	2.6E+00	4.2E-03	EPI
Dinitrotoluene, 2,4-	121-14-2	1.8E+02	PHYSPROP	2.2E-06	5.4E-08	PHYSPROP	1.5E-04	PHYSPROP	7.1E+01	PHYSPROP	1.3E+00	CRC89	3.8E-02	7.9E-06	WATER9			5.8E+02	EPI	2.0E+00	PHYSPROP	2.0E+02	PHYSPROP	1.6E-02	1.1E+00	2.6E+00	3.1E-03	EPI
Dinitrotoluene, 2,6-	606-20-2	1.8E+02	PHYSPROP	3.1E-05	7.5E-07	EPI	5.7E-04	PHYSPROP	6.6E+01	PHYSPROP	1.3E+00	CRC89	3.7E-02	7.8E-06	WATER9			5.9E+02	EPI	2.1E+00	PHYSPROP	1.8E+02	PHYSPROP	1.9E-02	1.1E+00	2.6E+00	3.7E-03	EPI
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	2.0E+02	PHYSPROP	1.3E-09	3.3E-11	PHYSPROP	1.1E-05	PHYSPROP	1.7E+02	PHYSPROP			5.6E-02	6.6E-06	WATER9			2.8E+02	EPI	1.8E+00	PHYSPROP	1.2E+03	PHYSPROP	1.1E-02	1.3E+00	3.2E+00	2.0E-03	EPI
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	2.0E+02	PHYSPROP	1.3E-09	3.3E-11	PHYSPROP	1.1E-05	PHYSPROP	1.7E+02	PHYSPROP			5.6E-02	6.6E-06	WATER9			2.8E+02	EPI	1.8E+00	PHYSPROP	1.2E+03	PHYSPROP	1.1E-02	1.3E+00	3.2E+00	2.0E-03	EPI
Dinitrotoluene, Technical grade	25321-14-6	5.5E+02	PHYSPROP	3.8E-06	9.3E-08	PHYSPROP	4.0E-04	PHYSPROP	6.0E+01	EPI			2.8E-02	3.3E-06	WATER9			5.9E+02	EPI	2.2E+00	PHYSPROP	2.7E+02	PHYSPROP	3.7E-02	1.2E+02	2.9E+02	4.2E-03	EPI
Dinoseb	88-85-7	2.4E+02	PHYSPROP	1.9E-05	4.6E-07	EPI	7.5E-05	PHYSPROP	4.0E+01	PHYSPROP	1.3E+00	CRC89	2.5E-02	6.5E-06	WATER9			4.3E+03	EPI	3.6E+00	PHYSPROP	5.2E+01	PHYSPROP	9.7E-02	2.3E+00	5.6E+00	1.6E-02	EPI
Dioxane, 1,4-	123-91-1	8.8E+01	PHYSPROP	2.0E-04	4.8E-06	PHYSPROP	3.8E+01	PHYSPROP	1.2E+01	PHYSPROP	1.0E+00	CRC89	8.7E-02	1.1E-05	WATER9			2.6E+00	EPI	-2.7E-01	PHYSPROP	1.0E+06	PHYSPROP	1.2E-03	3.3E-01	7.9E-01	3.3E-04	EPI
Dioxins																												
~Hexachlorodibenzo-p-dioxin, Mixture	NA	3.9E+02	EPI	2.3E-04	5.7E-06	EPI	4.4E-11	EPI	2.5E+02	EPI			4.3E-02	4.2E-06	WATER9			7.0E+05	EPI	8.2E+00	EPI	4.0E-06	EPI	2.2E+01	1.6E+01	7.5E+01	2.9E+00	EPI
~TCDD, 2,3,7,8-	1746-01-6	3.2E+02	PHYSPROP	2.0E-03	5.0E-05	EPI	1.5E-09	PHYSPROP	3.1E+02	PHYSPROP	1.8E+00	PubChem	4.7E-02	6.8E-06	WATER9			2.5E+05	EPI	6.8E+00	PHYSPROP	2.0E-04	PHYSPROP	5.6E+00	6.7E+00	2.9E+01	8.1E-01	EPI
Diphenamid	957-51-7	2.4E+02	PHYSPROP	1.5E-09	3.6E-11	EPI	3.0E-08	PHYSPROP	1.4E+02	PHYSPROP	1.2E+00	CRC89	2.4E-02	6.2E-06	WATER9			4.8E+03	EPI	2.2E+00	PHYSPROP	2.6E+02	PHYSPROP	3.3E-02	2.3E+00	5.5E+00	5.6E-03	EPI
Diphenyl Sulfone	127-63-9	2.2E+02	PHYSPROP	1.0E-05	2.5E-07	PHYSPROP	1.5E-05	PHYSPROP	1.3E+02	PHYSPROP	1.3E+00	CRC89	2.7E-02	6.9E-06	WATER9			1.1E+03	EPI	2.4E+00	PHYSPROP	3.1E+02	PHYSPROP	2.1E-02	1.8E+00	4.2E+00	3.7E-03	EPI
Diphenylamine	122-39-4	1.7E+02	PHYSPROP	1.1E-04	2.7E-06	EPI	6.7E-04	PHYSPROP	5.3E+01	PHYSPROP	1.2E+00	CRC89	4.2E-02	7.6E-06	WATER9			8.3E+02	EPI	3.5E+00	PHYSPROP	5.3E+01	PHYSPROP	1.9E-01	9.3E-01	2.2E+00	3.7E-02	EPI
Diphenylhydrazine, 1,2-	122-66-7	1.8E+02	PHYSPROP	2.0E-05	4.8E-07	EPI	4.4E-04	EPI	1.3E+02	PHYSPROP	1.2E+00	CRC89	3.4E-02	7.2E-06	WATER9			1.5E+03	EPI	2.9E+00	PHYSPROP	2.2E+02	PHYSPROP	6.8E-02	1.1E+00	2.7E+00	1.3E-02	EPI
Diquat	85-00-7	3.4E+02	PHYSPROP	5.8E-12	1.4E-13	PHYSPROP	1.8E-06	PHYSPROP	3.4E+02	PHYSPROP	1.2E+00	CRC89	2.1E-02	5.2E-06	WATER9			9.3E+03	EPI	-4.6E+00	PHYSPROP	7.1E+05	PHYSPROP	1.7E-06	8.9E+00	2.1E+01	2.4E-07	EPI
Direct Black 38	1937-37-7	7.8E+02	PHYSPROP	3.4E-38	8.2E-40	PHYSPROP	1.5E-36	PHYSPROP	3.5E+02	EPI			2.2E-02	2.6E-06	WATER9			2.4E+08	EPI	4.9E+00	PHYSPROP	3.0E+03	PHYSPROP	2.2E-03	2.4E+03	5.9E+03	2.1E-04	EPI
Direct Blue 6	2602-46-2	9.3E+02	PHYSPROP	3.7E-42	9.1E-44	PHYSPROP	9.5E-39	PHYSPROP	3.5E+02	EPI			2.0E-02	2.3E-06	WATER9			7.9E+08	EPI	2.6E+00	PHYSPROP	1.4E-04	PHYSPROP	2.0E-08	1.8E+04	4.2E+04	1.7E-09	EPI
Direct Brown 95	16071-86-6	7.6E+02	PHYSPROP				1.4E-41	PHYSPROP	3.5E+02	EPI			2.3E-02	2.7E-06	WATER9			7.0E+06	EPI	-6.5E+00	PHYSPROP	1.0E+06	PHYSPROP	4.1E-11	1.9E+03	4.6E+03	3.9E-12	EPI
Disulfoton	298-04-4	2.7E+02	PHYSPROP	8.8E-05	2.2E-06	EPI	9.8E-05	PHYSPROP	-2.5E+01	PHYSPROP	1.1E+00	CRC89	2.3E-02	5.7E-06	WATER9			8.4E+02	EPI	4.0E+00	PHYSPROP	1.6E+01	PHYSPROP	1.4E-01	3.6E+00	8.7E+00	2.1E-02	EPI
Dithiane, 1,4-	505-29-3	1.2E+02	PHYSPROP	1.7E-03	4.2E-05	EPI	8.0E-02	PHYSPROP	1.1E+02	PHYSPROP	1.1E+00	ChemNet	6.8E-02	9.3E-06	WATER9			1.5E+02	EPI	7.7E-01	PHYSPROP	3.0E+03	PHYSPROP	4.6E-03	5.0E-01	1.2E+00	1.1E-03	EPI
Diuron	330-54-1	2.3E+02	PHYSPROP	2.1E-08	5.0E-10	EPI	6.9E-08	PHYSPROP	1.6E+02	PHYSPROP			5.0E-02	5.9E-06	WATER9			1.1E+02	EPI	2.7E+00	PHYSPROP	4.2E+01	PHYSPROP	2.7E-02	2.1E+00	5.1E+00	4.7E-03	EPI
Dodine	2439-10-3	2.9E+02	PHYSPROP	3.7E-09	9.0E-11	EPI	1.5E-07	PHYSPROP	1.4E+02	PHYSPROP			4.4E-02	5.1E-06	WATER9			2.5E+03	EPI	1.2E+00	PHYSPROP	6.3E+02	PHYSPROP	1.4E-03	4.3E+00	1.0E+01	2.2E-04	EPI
EPTC	759-94-4	1.9E+02	PHYSPROP	6.5E-04	1.6E-05	EPI	2.4E-02	PHYSPROP	6.1E+01	EPI	9.5E-01	CRC89	2.9E-02	6.4E-06	WATER9			1.6E+02	EPI	3.2E+00	PHYSPROP	3.8E+02	PHYSPROP	9.7E-02	1.2E+00	2.9E+00	1.8E-02	EPI
Endosulfan	115-29-7	4.1E+02	PHYSPROP	2.7E-03	6.5E-05	PHYSPROP	1.7E-07	PHYSPROP	1.1E+02	PHYSPROP	1.7E+00	CRC89	2.2E-02	5.8E-06	WATER9			6.8E+03	EPI	3.8E+00	PHYSPROP	3.3E-01	PHYSPROP	2.2E-02	2.0E+01	4.8E+01	2.9E-03	EPI
Endothall	145-73-3	1.9E+02	PHYSPROP	1.6E-14	3.9E-16	EPI	1.6E-10	PHYSPROP	1.4E+02	PHYSPROP	1.4E+00	CRC89	3.7E-02	8.2E-06	WATER9			1.9E+01	EPI	1.9E+00	PHYSPROP	1.0E+05	PHYSPROP	1.4E-02	1.2E+00	2.8E+00	2.6E-03	EPI
Endrin	72-20-8	3.8E+02	PHYSPROP	2.6E-04	6.4E-06	PHYSPROP	3.0E-06	PHYSPROP	2.3E+02	PHYSPROP			3.6E-02	4.2E-06	WATER9			2.0E+04	EPI	5.2E+00	PHYSPROP	2.5E-01	PHYSPROP	2.4E-01	1.4E+01	3.4E+01	3.3E-02	EPI
Epichlorohydrin	106-89-8	9.3E+01	PHYSPROP	1.2E-03	3.0E-05	EPI	1.6E+01	PHYSPROP	-5.7E+01	PHYSPROP	1.2E+00	PERRY	8.9E-02	1.1E-05	WATER9			9.9E+00	EPI	4.5E-01	PHYSPROP	6.6E+04	PHYSPROP	3.5E-03	3.5E-01	8.3E-01	9.4E-04	EPI
Epoxybutane, 1,2-	106-88-7	7.2E+01	PHYSPROP	7.4E-03	1.8E-04	EPI	1.8E+02	PHYSPROP	-1.5E+02	PHYSPROP	8.3E-01	CRC89	9.3E-02	1.0E-05	WATER9			9.9E+00	EPI	8.6E-01	PHYSPROP	9.5E+04	PHYSPROP	7.5E-03	2.7E-01	6.4E-01	2.3E-03	EPI
Ethanol, 2-(2-methoxyethoxy)-	111-77-3	1.2E+02	PHYSPROP	6.7E-10	1.7E-11	PHYSPROP	2.5E-01	PHYSPROP	-1.5E+01	EPI			7.8E-02	9.1E-06	WATER9			1.0E+00	EPI	-1.2E+00	PHYSPROP	1.0E+06	PHYSPROP	7.4E-04	5.0E-01	1.2E+00	1.7E-04	RAGSE
Ethephon	16672-87-0	1.4E+02	PHYSPROP	2.3E-10	5.7E-12	PHYSPROP	9.8E-08	PHYSPROP	7.4E+01	PHYSPROP	1.2E+00	CRC89	5.5E-02	8.6E-06	WATER9			5.0E+00	EPI	-2.2E-01	PHYSPROP	1.0E+06	PHYSPROP	8.0E-04	6.8E-01	1.6E+00	1.7E-04	EPI
Ethion	563-12-2	3.8E+02	PHYSPROP	1.6E-05	3.8E-07	EPI	1.5E-06	PHYSPROP	-1.3E+01	PHYSPROP	1.2E+00	CRC89	1.9E-02	4.8E-06	WATER9			8.8E+02	EPI	5.1E+00	PHYSPROP	2.0E+00	PHYSPROP	1.9E-01	1.5E+01	3.6E+01	2.6E-02	EPI
Ethoxyethanol Acetate, 2-	111-15-9	1.3E+02	PHYSPROP	1.3E-04	3.2E-06	PHYSPROP	2.0E+00	PHYSPROP	-6.2E+01	PHYSPROP	9.7E-01	CRC89	5.7E-02	8.0E-06	WATER9			4.5E+00	EPI	5.9E-01	PHYSPROP	1.9E+05	PHYSPROP	3.1E-03	5.8E-01	1.4E+00	7.0E-04	EPI
Ethoxyethanol, 2-	110-80-5	9.0E+01	PHYSPROP	1.9E-05	4.7E-07	PHYSPROP	5.3E+00	PHYSPROP	-7.0E+01	PHYSPROP	9.3E-01	CRC89	8.2E-02	9.7E-06	WATER9			1.0E+00	EPI	-3.2E-01	PHYSPROP	1.0E+06	PHYSPROP	1.1E-03	3.4E-01	8.1E-01	3.0E-04	EPI
Ethyl Acetate	141-78-6	8.8E+01	PHYSPROP	5.5E-03	1.3E-04	PHYSPROP	9.3E+01	PHYSPROP	-8.4E+01	PHYSPROP	9.0E-01	CRC89	8.2E-02	9.7E-06	WATER9			5.6E+00	EPI	7.3E-01	PHYSPROP	8.0E+04	PHYSPROP	5.5E-03	3.3E-01	7.9E-01	1.5E-03	EPI
Ethyl Acrylate	140-88-5	1.0E+02	PHYSPROP	1.4E-02	3.4E-04	EPI	3.9E+01	PHYSPROP	-7.1E+01	PHYSPROP	9.2E-01	CRC89	7.5E-02	9.1E-06	WATER9			1.1E+01	EPI	1.3E+00	PHYSPROP	1.5E+04	PHYSPROP	1.2E-02	3.8E-01	9.2E-01	3.2E-03	EPI
Ethyl Chloride (Chloroethane)	75-00-3	6.5E+01	PHYSPROP	4.5E-01	1.1E-02	PHYSPROP	1.0E+03	PHYSPROP	-1.4E+02	PHYSPROP	8.9E-01	CRC89	1.0E-01	1.2E-05	WATER9			2.2E+01	EPI	1.4E+00	PHYSPROP	6.7E+03	PHYSPROP	1.9E-02	2.4E-01	5.8E-01	6.1E-03	EPI
Ethyl Ether	60-29-7	7.4E+01	PHYSPROP	5.0E-02	1.2E-03	PHYSPROP	5.4E+02	PHYSPROP	-1.2E+02	PHYSPROP	7.1E-01	CRC89	8.5E-02	9.4E-06	WATER9			9.7E+00	EPI	8.9E-01	PHYSPROP	6.0E+04	PHYSPROP	7.8E-03	2.7E-01	6.6E-01	2.4E-03	EPI
Ethyl Methacrylate	97-63-2	1.1E+02	PHYSPROP	2.3E-02	5.7E-04	EPI	2.1E+01	PHYSPROP	-7.5E+01	PHYSPROP	9.1E-01	CRC89	6.5E-02	8.4E-06	WATER9			1.7E+01	EPI	1.9E+00	PHYSPROP	5.4E+03	PHYSPROP	2.9E-02	4.6E-01	1.1E+00	7.0E-03	EPI
Ethyl-p-nitrophenyl Phosphonate	2104-64-5	3.2E+02	PHYSPROP	1.8E-05	4.4E-07	EPI	9.5E-07	PHYSPROP	3.6E+01	PHYSPROP	1.3E+00	CRC89	2.2E-02	5.5E-06	WATER9			1.5E+04	EPI	4.8E+00	PHYSPROP	3.1E+00	PHYSPROP	2.5E-01	6.8E+00	1.6E+01	3.6E-02	EPI
Ethylbenzene	100-41-4	1.1E+02	PHYSPROP	3.2E-01	7.9E-03	PHYSPROP	9.6E+00	PHYSPROP	-9.5E+01	PHYSPROP	8.6E-01	CRC89	6.8E-02	8.5E-06	WATER9			4.5E+02	EPI	3.2E+00	PHYSPROP	1.7E+02	PHYSPROP	2.0E-01	4.1E-01	9.9E-01	4.9E-02	EPI
Ethylene Cyanohydrin	109-78-4	7.1E+01	PHYSPROP	3.1E-07	7.5E-09	EPI	8.0E-02	PHYSPROP	-4.6E+01	PHYSPROP	1.0E+00	CRC89	1.0E-01	1.2E-05	WATER9			1.0E+00	EPI	-9.4E-01	PHYSPROP	1.0E+06	PHYSPROP	4.8E-04	2.6E-01	6.3E-01	1.5E-04	EPI
Ethylene Diamine	107-15-3	6.0E+01	PHYSPROP	7.1E-08	1.7E-09	PHYSPROP	1.2E+01	PHYSPROP	1.1E+01	PHYSPROP	9.0E-01	CRC89	1.1E-01	1.2E-05	WATER9			1.5E+01	EPI	-2.0E+00	PHYSPROP	1.0E+06	PHYSPROP	9.5E-05	2.3E-01	5.5E-01	3.2E-05	EPI
Ethylene Glycol	107-21-1	6.2E+01	PHYSPROP	2.5E-06	6.0E-08	PHYSPROP	9.2E-02	PHYSPROP	-1.3E+01	PHYSPROP	1.1E+00	CRC89	1.2E-01	1.4E-05	WATER9			1.0E+00	EPI	-1.4E+00	PHYSPROP	1.0E+06	PHYSPROP	2.7E-04	2.3E-01	5.6E-01	8.8E-05	EPI
Ethylene Glycol Monobutyl Ether	111-76-2	1.2E+02	PHYSPROP	6.5E-05	1.6E-06	PHYSPROP	8.8E-01	PHYSPROP	-7.5E+01	PHYSPROP	9.0E-01	CRC89	6.3E-02	8.1E-06	WATER9			2.8E+00	EPI	8.3E-01	PHYSPROP	1.0E+06	PHYSPROP	5.1E-03	4.8E-01	1.2E+00	1.2E-03	EPI
Ethylene Oxide	75-21-8	4.4E+01	PHYSPROP	6.1E-03	1.5E-04	PHYSPROP	1.3E+03	PHYSPROP	-1.1E+02	PHYSPROP	8.8E-01	CRC89	1.3E-01	1.5E-05	WATER9			3.2E+00	EPI	-3.0E-01	PHYSPROP	1.0E+06	PHYSPROP	1.4E-03	1.9E-01	4.5E-01	5.6E-04	EPI
Ethylene Thiourea	96-45-7	1.0E+02	PHYSPROP	5.6E-10	1.4E-11	PHYSPROP	2.0E-06	PHYSPROP	2.0E+02	PHYSPROP			8.7E-02	1.0E-05	WATER9			1.3E+01	EPI	-6.6E-01	PHYSPROP	2.0E+04	PHYSPROP	5.9E-04	3.9E-01	9.4E-01	1.5E-04	EPI
Ethyleneimine	151-56-4	4.3E+01	PHYSPROP	4.9E-04	1.2E-05	EPI	2.1E+02	PHYSPROP	-7.8E+01	PHYSPROP	8.3E-01	CRC89	1.3E-01	1.4E-05	WATER9			9.0E+00	EPI	-2.8E-01	PHYSPROP	1.0E+06	PHYSPROP	1.5E-03	1.8E-01	4.4E-01	5.8E-04	EPI
Ethylphthalyl Ethyl Glycolate	84-72-0	2.8E+02	PHYSPROP	2.7E-07	6.6E-09	PHYSPROP	2.2E-04	PHYSPROP	2.3E+01	EPI			4.4E-02	5.2E-06	WATER9			1.0E+03	EPI	2.2E+00	PHYSPROP	2.2E+02	PHYSPROP	7.7E-03	3.9E+00	9.4E+00	1.2E-03	EPI
Fenamiphos	22224-92-6	3.0E+02	PHYSPROP	4.9E-08	1.2E-09	EPI	1.0E-06	PHYSPROP	4.9E+01	PHYSPROP	1.2E+00	CRC89	2.1E-02	5.4E-06	WATER9			4.0E+02	EPI	3.2E+00	PHYSPROP	3.3E+02	PHYSPROP	2.9E-02	5.3E+00	1.3E+01	4.4E-03	EPI
Fenpropathrin	39515-41-8	3.5E+02	PHYSPROP	3.1E-04	7.6E-06	EPI	5.5E-06	PHYSPROP	4.7E+01	PHYSPROP			3.8E-02	4.5E-06	WATER9			2.2E+04	EPI	5.7E+00	PHYSPROP	3.3E-01	PHYSPROP	1.2E+00	9.5E+00	3.7E+01	1.7E-01	EPI
Fenvalerate	51630-58-1	4.2E+02	PHYSPROP	1.4E-06	3.5E-08	EPI	1.5E-09	PHYSPROP	4.0E+01	PHYSPROP	1.2E+00	CRC89	1.8E-02	4.4E-06	WATER9			3.2E+05	EPI	6.2E+00	PHYSPROP	2.4E-02	PHYSPROP	7.4E-01	2.4E+01	9.1E+01	9.4E-02	EPI
Fluometuron	2164-17-2	2.3E+02	PHYSPROP	1.1E-07	2.6E-09	EPI	9.4E-07	PHYSPROP	1.6E+02	PHYSPROP			5.0E-02	5.9E-06	WATER9			2.9E+02	EPI	2.4E+00	PHYSPROP	1.1E+02	PHYSPROP	1.9E-02	2.1E+00	5.0E+00	3.2E-03	EPI
Fluoride	16984-48-8	3.8E+01	EPI						-2.2E+02	EPI						1.5E+02	BAES					1.7E+00	EPI	2.4E-03	1.7E-01	4.1E-01	1.0E-03	RAGSE
Fluorine (Soluble Fluoride)	7782-41-4	3.8E+01	PHYSPROP						-2.2E+02	PHYSPROP	1.6E+00	CRC89				1.5E+02	BAES					1.7E+00	PHYSPROP	2.4E-03	1.7E-01	4.1E-01	1.0E-03	RAGSE
Fluridone	59756-60-4	3.3E+02	PHYSPROP	3.3E-07	8.1E-09	EPI	9.8E-08	PHYSPROP	1.5E+02	PHYSPROP			4.0E-02	4.7E-06	WATER9			5.7E+04	EPI	3.2E+00	PHYSPROP	1.2E+01	PHYSPROP	2.0E-02	7.3E+00	1.8E+01	2.8E-03	EPI
Flurprimidol	56425-91-3	3.1E+02	PHYSPROP	5.4E-08	1.3E-09	EPI	3.6E-07	PHYSPROP	9.5E+01	PHYSPROP			4.1E-02	4.8E-06	WATER9			2.2E+03	EPI	3.3E+00	PHYSPROP	1.1E+02	PHYSPROP	3.1E-02	5.9E+00	1.4E+01	4.6E-03	EPI
Flusilazole	85509-19-9	3.2E+02	PHYSPROP	9.2E-08	2.3E-09	PHYSPROP	2.9E-07	PHYSPROP	5.4E+01	PHYSPROP			4.1E-02	4.8E-06	WATER9			8.1E+04	EPI	3.7E+00	PHYSPROP	5.4E+01	PHYSPROP	5.2E-02	6.1E+00	1.5E+01	7.7E-03	EPI
Flutolanil	66332-96-5	3.2E+02	PHYSPROP	1.3E-07	3.2E-09	EPI	4.9E-08	PHYSPROP	1.0E+02	PHYSPROP			4.0E-02	4.7E-06	WATER9			2.6E+03	EPI	3.7E+00	PHYSPROP	6.5E+00	PHYSPROP	4.8E-02	6.8E+00	1.6E+01	6.9E-03	EPI
Fluvalinate	69409-94-5	5.0E+02	PHYSPROP	5.9E-07	1.5E-08	PHYSPROP	1.0E-07	PHYSPROP	1.6E+02	EPI			3.0E-02	3.5E-06	WATER9			7.3E+05	EPI	6.8E+00	PHYSPROP	5.0E-03	PHYSPROP	6.8E-01	6.9E+01	2.7E+02	7.9E-02	EPI
Folpet	133-07-3	3.0E+02	PHYSPROP	3.1E-06	7.7E-08	EPI	1.6E-07	PHYSPROP	1.8E+02	EPI			4.3E-02	5.0E-06	WATER9			1.8E+01	EPI	2.9E+00	PHYSPROP	8.0E-01	PHYSPROP	1.8E-02	4.8E+00	1.2E+01	2.7E-03	EPI
Fomesafen	72178-02-0	4.4E+02	PHYSPROP	3.1E-11	7.5E-13	PHYSPROP	7.5E-07	EPI	2.2E+02	PHYSPROP	1.3E+00	CRC89	1.9E-02	4.6E-06	WATER9			1.5E+03	EPI	2.9E+00	PHYSPROP	5.0E+01	PHYSPROP	3.7E-03	3.0E+01	7.2E+01	4.6E-04	EPI
Fonofos	944-22-9	2.5E+02	PHYSPROP	2.9E-04	7.0E-06	EPI	3.4E-04	PHYSPROP	6.6E-01	EPI	1.2E+00	CRC89	2.4E-02	6.1E-06	WATER9			8.6E+02	EPI	3.9E+00	PHYSPROP	1.6E+01	PHYSPROP	1.6E-01	2.5E+00	6.0E+00	2.7E-02	EPI
Formaldehyde	50-00-0	3.0E+01	PHYSPROP	1.4E-05	3.4E-07	PHYSPROP	3.9E+03	EPI	-9.2E+01	PHYSPROP	8.2E-01	CRC89	1.7E-01	1.7E-05	WATER9			1.0E+00	EPI	3.5E-01	PHYSPROP	4.0E+05	PHYSPROP	3.8E-03	1.5E-01	3.7E-01	1.8E-03	EPI
Formic Acid	64-18-6	4.6E+01	PHYSPROP	6.8E-06	1.7E-07	PHYSPROP	4.3E+01	PHYSPROP	8.3E+00	PHYSPROP	1.2E+00	CRC89	1.5E-01	1.7E-05	WATER9			1.0E+00	EPI	-5.4E-01	PHYSPROP	1.0E+06	PHYSPROP	9.9E-04	1.9E-01	4.6E-01	3.8E-04	EPI
Fosetyl-AL	39148-24-8	3.5E+02	PHYSPROP	1.3E-12	3.2E-14	PHYSPROP	7.5E-11	PHYSPROP	2.2E+02	PHYSPROP			3.8E-02	4.4E-06	WATER9			6.5E+03	EPI	-2.4E+00	PHYSPROP	1.1E+05	PHYSPROP	3.0E-06	1.0E+01	2.4E+01	4.1E-07	EPI
Furans																												
~Dibenzofuran	132-64-9	1.7E+02	PHYSPROP	8.7E-03	2.1E-04	EPI	2.5E-03	PHYSPROP	8.7E+01	PHYSPROP	1.1E+00	CRC89	6.5E-02	7.4E-06	WATER9			9.2E+03	EPI	4.1E+00	PHYSPROP	3.1E+00	PHYSPROP	4.9E-01	9.2E-01	2.2E+00	9.8E-02	EPI
~Furan	110-00-9	6.8E+01	PHYSPROP	2.2E-01	5.4E-03	EPI	6.0E+02	PHYSPROP	-8.6E+01	PHYSPROP	9.5E-01	CRC89	1.0E-01	1.2E-05	WATER9			8.0E+01	EPI	1.3E+00	PHYSPROP	1.0E+04	PHYSPROP	1.6E-02	2.5E-01	6.1E-01	5.1E-03	EPI
~Tetrahydrofuran	109-99-9	7.2E+01	PHYSPROP	2.9E-03	7.1E-05	PHYSPROP	1.6E+02	PHYSPROP	-1.1E+02	PHYSPROP	8.8E-01	CRC89	9.9E-02	1.1E-05	WATER9			1.1E+01	EPI	4.6E-01	PHYSPROP	1.0E+06	PHYSPROP	4.1E-03	2.7E-01	6.4E-01	1.3E-03	EPI
Furazolidone	67-45-8	2.3E+02	PHYSPROP	1.3E-09	3.3E-11	PHYSPROP	2.6E-06	PHYSPROP	2.6E+02	PHYSPROP			5.1E-02	6.0E-06	WATER9			8.6E+02	EPI	-4.0E-02	PHYSPROP	4.0E+01	PHYSPROP	4.6E-04	1.9E+00	4.6E+00	8.0E-05	EPI
Furfural	98-01-1	9.6E+01	PHYSPROP	1.5E-04	3.8E-06	EPI	2.2E+00	PHYSPROP	-3.8E+01	PHYSPROP	1.2E+00	CRC89	8.5E-02	1.1E-05	WATER9			6.1E+00	EPI	4.1E-01	PHYSPROP	7.4E+04	PHYSPROP	3.2E-03	3.6E-01	8.7E-01	8.5E-04	EPI
Furium	531-82-8	2.5E+02	EPI	5.4E-14	1.3E-15	EPI	8.8E-09	EPI	1.9E+02	EPI			4.7E-02	5.5E-06	WATER9			5.8E+02	EPI	1.8E+00	EPI	4.2E+03	EPI	5.7E-03	2.8E+00	6.6E+00	9.4E-04	EPI
Furmecyclox	60568-05-0	2.5E+02	PHYSPROP	2.8E-07	6.9E-09	PHYSPROP	8.4E-05	PHYSPROP	3.3E+01	PHYSPROP			4.8E-02	5.6E-06	WATER9			4.3E+02	EPI	4.4E+00	PHYSPROP	3.0E-01	PHYSPROP	3.0E-01	2.7E+00	6.4E+00	5.0E-02	EPI
Glufosinate, Ammonium	77182-82-2	2.0E+02	PHYSPROP	1.8E-12	4.4E-14	PHYSPROP	9.1E-12	PHYSPROP	2.2E+02	PHYSPROP			5.6E-02	6.5E-06	WATER9			1.0E+01	EPI	-4.8E+00	PHYSPROP	1.4E+06	PHYSPROP	1.9E-07	1.4E+00	3.2E+00	3.4E-08	EPI
Glutaraldehyde	111-30-8	1.0E+02	PHYSPROP	1.3E-06	3.3E-08	PHYSPROP	6.0E-01	PHYSPROP	-3.0E+01	EPI			8.8E-02	1.0E-05	WATER9			1.0E+00	EPI	-3.3E-01	PHYSPROP	2.2E+05	PHYSPROP	1.3E-03	3.8E-01	9.2E-01	3.3E-04	EPI
Glycidyl	765-34-4	7.2E+01	PHYSPROP	2.1E-05	5.1E-07	PHYSPROP	4.5E+01	PHYSPROP	-6.2E+01	PHYSPROP	1.1E+00	CRC89	1.1E-01	1.3E-05	WATER9			1.0E+00	EPI	-1.2E-01	PHYSPROP	1.0E+06	PHYSPROP	1.7E-03	2.7E-01	6.4E-01	5.2E-04	EPI
Glyphosate	1071-83-6	1.7E+02	PHYSPROP	8.6E-11	2.1E-12	EPI	9.8E-08	PHYSPROP	1.9E+02	PHYSPROP			6.2E-02	7.3E-06	WATER9			2.1E+03	USDA ARS	-3.4E+00	PHYSPROP	1.1E+04	PHYSPROP	2.3E-07	9.3E-01	2.2E+00	4.5E-08	EPI
Guanidine	113-00-8	5.9E+01	PHYSPROP	9.6E-10	2.3E-11	PHYSPROP	2.2E+00	PHYSPROP	5.0E+01	PHYSPROP	1.6E+00	GuideChem	1.4E-01	1.7E-05	WATER9			1.2E+01	EPI	-1.6E+00	PHYSPROP	1.8E+03	PHYSPROP	1.8E-04	2.3E-01	5.4E-01	6.0E-05	EPI
Guanidine Chloride	50-01-1	9.6E+01	PHYSPROP	8.9E-17	2.2E-18	PHYSPROP	1.8E-06	PHYSPROP	1.8E+02	PHYSPROP	1.4E+00	CRC89	9.2E-02	1.2E-05	WATER9					-3.6E+00	PHYSPROP	1.0E+06	PHYSPROP	1.5E-07	3.6E-01	8.7E-01	3.9E-08	EPI
Haloxyfop, Methyl	69806-40-2	3.8E+02	PHYSPROP	1.3E-05	3.2E-07	EPI	6.0E-06	PHYSPROP	5.6E+01	PHYSPROP			3.6E-02	4.3E-06	WATER9			5.5E+03	EPI	4.1E+00	PHYSPROP	9.3E+00	PHYSPROP	4.5E-02	1.3E+01	3.2E+01	6.0E-03	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Heptachlor	76-44-8	3.7E+02	PHYSPROP	1.2E-02	2.9E-04	PHYSPROP	4.0E-04	PHYSPROP	9.6E+01	PHYSPROP	1.6E+00	CRC89	2.2E-02	5.7E-06	WATER9			4.1E+04	EPI	6.1E+00	PHYSPROP	1.8E-01	PHYSPROP	1.1E+00	1.3E+01	5.0E+01	1.4E-01	EPI
Heptachlor Epoxide	1024-57-3	3.9E+02	PHYSPROP	8.6E-04	2.1E-05	PHYSPROP	2.0E-05	PHYSPROP	1.6E+02	PHYSPROP	1.9E+00	LookChem	2.4E-02	6.2E-06	WATER9			1.0E+04	EPI	5.0E+00	PHYSPROP	2.0E-01	PHYSPROP	1.6E-01	1.6E+01	3.8E+01	2.1E-02	EPI
Hexabromobenzene	87-82-1	5.5E+02	PHYSPROP	1.1E-03	2.8E-05	PHYSPROP	1.6E-08	PHYSPROP	3.3E+02	PHYSPROP	3.0E+00	LookChem	2.5E-02	6.6E-06	WATER9			2.8E+03	EPI	6.1E+00	PHYSPROP	1.6E-04	PHYSPROP	1.2E-01	1.3E+02	3.1E+02	1.4E-02	EPI
Hexabromodiphenyl ether, 2,2',4,4',5,5'-(BDE-153)	68631-49-2	6.4E+02	OTHER				5.8E-06	IRIS Profile					2.5E-02	3.0E-06	WATER9							9.0E-04	IRIS Profile		4.2E+02	1.0E+03		
Hexachlorobenzene	118-74-1	2.8E+02	PHYSPROP	7.0E-02	1.7E-03	PHYSPROP	1.8E-05	PHYSPROP	2.3E+02	PHYSPROP	2.0E+00	CRC89	2.9E-02	7.8E-06	WATER9			6.2E+03	EPI	5.7E+00	PHYSPROP	6.2E-03	PHYSPROP	1.6E+00	4.1E+00	1.7E+01	2.5E-01	EPI
Hexachlorobutadiene	87-68-3	2.6E+02	PHYSPROP	4.2E-01	1.0E-02	PHYSPROP	2.2E-01	PHYSPROP	-2.1E+01	PHYSPROP	1.6E+00	CRC89	2.7E-02	7.0E-06	WATER9			8.5E+02	EPI	4.8E+00	PHYSPROP	3.2E+00	PHYSPROP	5.0E-01	3.0E+00	7.3E+00	8.1E-02	EPI
Hexachlorocyclohexane, Alpha-	319-84-6	2.9E+02	PHYSPROP	2.7E-04	6.7E-06	PHYSPROP	3.5E-05	EPI	1.6E+02	PHYSPROP			4.3E-02	5.1E-06	WATER9			2.8E+03	EPI	3.8E+00	PHYSPROP	2.0E+00	PHYSPROP	1.4E-01	4.5E+00	1.1E+01	2.1E-02	EPI
Hexachlorocyclohexane, Beta-	319-85-7	2.9E+02	PHYSPROP	1.8E-05	4.4E-07	PHYSPROP	3.6E-07	PHYSPROP	3.1E+02	PHYSPROP	1.9E+00	CRC89	2.8E-02	7.4E-06	WATER9			2.8E+03	EPI	3.8E+00	PHYSPROP	2.4E-01	PHYSPROP	1.4E-01	4.5E+00	1.1E+01	2.1E-02	EPI
ne, Gamma-(Lindane)	58-89-9	2.9E+02	PHYSPROP	2.1E-04	5.1E-06	PHYSPROP	4.2E-05	PHYSPROP	1.1E+02	PHYSPROP			4.3E-02	5.1E-06	WATER9			2.8E+03	EPI	3.7E+00	PHYSPROP	7.3E+00	PHYSPROP	1.4E-01	4.5E+00	1.1E+01	2.1E-02	EPI
Hexachlorocyclohexane, Technical	608-73-1	2.9E+02	PHYSPROP	2.1E-04	5.1E-06	EPI	3.5E-05	EPI	1.1E+02	EPI			4.3E-02	5.1E-06	WATER9			2.8E+03	EPI	4.1E+00	EPI	8.0E+00	PHYSPROP	1.4E-01	4.5E+00	1.1E+01	2.1E-02	EPI
Hexachlorocyclopentadiene	77-47-4	2.7E+02	PHYSPROP	1.1E+00	2.7E-02	PHYSPROP	6.0E-02	PHYSPROP	-9.0E+00	PHYSPROP	1.7E+00	CRC89	2.7E-02	7.2E-06	WATER9			1.4E+03	EPI	5.0E+00	PHYSPROP	1.8E+00	PHYSPROP	6.5E-01	3.5E+00	1.4E+01	1.0E-01	EPI
Hexachloroethane	67-72-1	2.4E+02	PHYSPROP	1.6E-01	3.9E-03	PHYSPROP	2.1E-01	PHYSPROP	1.9E+02	PHYSPROP	2.1E+00	CRC89	3.2E-02	8.9E-06	WATER9			2.0E+02	EPI	4.1E+00	PHYSPROP	5.0E+01	PHYSPROP	2.5E-01	2.2E+00	5.3E+00	4.2E-02	EPI
Hexachlorophene	70-30-4	4.1E+02	PHYSPROP	2.2E-11	5.5E-13	PHYSPROP	1.0E-10	PHYSPROP	1.7E+02	PHYSPROP			3.5E-02	4.0E-06	WATER9			6.7E+05	EPI	7.5E+00	PHYSPROP	1.4E+02	PHYSPROP	6.5E+00	2.0E+01	8.9E+01	8.4E-01	EPI
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	2.2E+02	PHYSPROP	8.2E-10	2.0E-11	EPI	4.1E-09	EPI	2.1E+02	PHYSPROP	1.8E+00	CRC89	3.1E-02	8.5E-06	WATER9			8.9E+01	EPI	8.7E-01	PHYSPROP	6.0E+01	PHYSPROP	1.9E-03	1.8E+00	4.4E+00	3.4E-04	EPI
Hexamethylene Diisocyanate, 1,6-	822-06-0	1.7E+02	PHYSPROP	2.0E-03	4.8E-05	PHYSPROP	3.0E-02	PHYSPROP	-6.7E+01	PHYSPROP	1.1E+00	CRC89	4.0E-02	7.2E-06	WATER9			4.8E+03	EPI	3.2E+00	PHYSPROP	1.2E+02	PHYSPROP	1.2E-01	9.2E-01	2.2E+00	2.4E-02	EPI
Hexamethylphosphoramide	680-31-9	1.8E+02	PHYSPROP	8.2E-07	2.0E-08	PHYSPROP	4.6E-02	PHYSPROP	7.2E+00	PHYSPROP	1.0E+00	CRC89	3.5E-02	6.9E-06	WATER9			1.0E+01	EPI	2.8E-01	PHYSPROP	1.0E+06	PHYSPROP	1.2E-03	1.1E+00	2.5E+00	2.4E-04	EPI
Hexane, N-	110-54-3	8.6E+01	PHYSPROP	7.4E+01	1.8E+00	EPI	1.5E+02	PHYSPROP	-9.5E+01	PHYSPROP	6.6E-01	CRC89	7.3E-02	8.2E-06	WATER9			1.3E+02	EPI	3.9E+00	PHYSPROP	9.5E+00	PHYSPROP	7.2E-01	3.2E-01	1.2E+00	2.0E-01	EPI
Hexanedioic Acid	124-04-9	1.5E+02	PHYSPROP	1.9E-10	4.7E-12	EPI	3.2E-07	EPI	1.5E+02	PHYSPROP	1.4E+00	CRC89	5.8E-02	9.2E-06	WATER9			2.4E+01	EPI	8.0E-02	PHYSPROP	3.1E+04	PHYSPROP	1.2E-03	6.9E-01	1.7E+00	2.7E-04	EPI
Hexanone, 2-	591-78-6	1.0E+02	PHYSPROP	3.8E-03	9.3E-05	EPI	1.2E+01	PHYSPROP	-5.6E+01	PHYSPROP	8.1E-01	CRC89	7.0E-02	8.4E-06	WATER9			1.5E+01	EPI	1.4E+00	PHYSPROP	1.7E+04	PHYSPROP	1.4E-02	3.8E-01	9.2E-01	3.6E-03	EPI
Hexazinone	51235-04-2	2.5E+02	PHYSPROP	9.2E-11	2.3E-12	EPI	2.3E-07	EPI	1.2E+02	PHYSPROP	1.3E+00	CRC89	2.5E-02	6.3E-06	WATER9			1.3E+02	EPI	1.9E+00	PHYSPROP	3.3E+04	PHYSPROP	6.2E-03	2.7E+00	6.5E+00	1.0E-03	EPI
Hexythiazox	78587-05-0	3.5E+02	PHYSPROP	9.7E-07	2.4E-08	EPI	2.6E-08	PHYSPROP	1.1E+02	PHYSPROP			3.8E-02	4.4E-06	WATER9			2.1E+03	EPI	5.6E+00	PHYSPROP	5.0E-01	PHYSPROP	6.0E-01	1.0E+01	2.4E+01	8.3E-02	EPI
Hydramethylnon	67485-29-4	4.9E+02	PHYSPROP	9.0E-05	2.2E-06	EPI	2.0E-08	PHYSPROP	1.9E+02	PHYSPROP			3.0E-02	3.6E-06	WATER9			1.8E+08	EPI	2.3E+00	PHYSPROP	6.0E-03	PHYSPROP	7.7E-04	6.2E+01	1.5E+02	9.0E-05	EPI
Hydrazine	302-01-2	3.2E+01	PHYSPROP	2.5E-05	6.1E-07	PubChem	1.4E+01	PHYSPROP	2.0E+00	PHYSPROP	1.0E+00	CRC89	1.7E-01	1.9E-05	WATER9					-2.1E+00	PHYSPROP	1.0E+06	PHYSPROP	9.5E-05	1.6E-01	3.8E-01	4.4E-05	RAGSE
Hydrazine Sulfate	10034-93-2	1.3E+02	EPI						2.5E+02	CRC89	1.4E+00	CRC89										3.1E+04	PERRY	4.4E-03	5.5E-01	1.3E+00	1.0E-03	RAGSE
Hydrogen Chloride	7647-01-0	3.5E+01	EPI	8.3E+07	2.0E+06	Toxnet HSDB	3.5E+04	PubChem	-1.1E+02	CRC89	1.5E+00	CRC89	1.9E-01	2.3E-05	WATER9							6.7E+05	Toxnet HSDB	2.3E-03	1.7E-01	4.0E-01	1.0E-03	RAGSE
Hydrogen Fluoride	7664-39-3	2.0E+01	PHYSPROP	4.3E-03	1.0E-04	PHYSPROP	9.2E+02	PHYSPROP	-8.4E+01	PHYSPROP	8.2E-01	CRC89	2.2E-01	2.2E-05	WATER9					2.3E-01	OTHER	1.0E+06	PHYSPROP	1.7E-03	1.4E-01	3.3E-01	1.0E-03	RAGSE
Hydrogen Sulfide	7783-06-4	3.4E+01	PHYSPROP	3.5E-01	8.6E-03	PhysProp	1.6E+04	PHYSPROP	-8.5E+01	PHYSPROP	1.4E+00	CRC89	1.9E-01	2.2E-05	WATER9					2.3E-01	OTHER	3.7E+03	PHYSPROP	2.2E-03	1.6E-01	3.9E-01	1.0E-03	RAGSE
Hydroquinone	123-31-9	1.1E+02	PHYSPROP	1.9E-09	4.7E-11	EPI	2.4E-05	EPI	1.7E+02	PHYSPROP	1.3E+00	CRC89	8.0E-02	1.1E-05	WATER9			2.4E+02	EPI	5.9E-01	PHYSPROP	7.2E+04	PHYSPROP	3.8E-03	4.3E-01	1.0E+00	9.3E-04	EPI
Imazalil	35554-44-0	3.0E+02	PHYSPROP	1.1E-07	2.6E-09	EPI	1.2E-06	PHYSPROP	5.3E+01	PHYSPROP	1.2E+00	CRC89	2.2E-02	5.7E-06	WATER9			8.5E+03	EPI	3.8E+00	PHYSPROP	1.8E+02	PHYSPROP	7.7E-02	4.9E+00	1.2E+01	1.2E-02	EPI
Imazaquin	81335-37-7	3.1E+02	PHYSPROP	2.8E-16	6.9E-18	PHYSPROP	1.0E-13	PHYSPROP	2.2E+02	PHYSPROP			4.1E-02	4.8E-06	WATER9			2.4E+03	EPI	1.9E+00	PHYSPROP	9.0E+01	PHYSPROP	3.3E-03	5.8E+00	1.4E+01	4.8E-04	EPI
Imazethapyr	81335-77-5	2.9E+02	PHYSPROP	4.3E-15	1.0E-16	PHYSPROP	2.2E-11	PHYSPROP	1.7E+02	PHYSPROP			4.3E-02	5.1E-06	WATER9			3.4E+02	EPI	1.5E+00	PHYSPROP	1.4E+03	PHYSPROP	1.3E-02	4.4E+00	1.1E+01	2.0E-03	EPI
Iodine	7553-56-2	2.5E+02	PHYSPROP				2.3E-01	PHYSPROP	1.1E+02	PHYSPROP	4.9E+00	CRC89				6.0E+01	BAES			2.5E+00	PHYSPROP	3.3E+02	PHYSPROP	6.1E-03	2.8E+00	6.7E+00	1.0E-03	RAGSE
Iprodione	36734-19-7	3.3E+02	PHYSPROP	1.3E-07	3.1E-09	PHYSPROP	3.8E-09	PHYSPROP	1.4E+02	PHYSPROP			4.0E-02	4.6E-06	WATER9			5.3E+01	EPI	3.0E+00	PHYSPROP	1.4E+01	PHYSPROP	1.5E-02	7.4E+00	1.8E+01	2.2E-03	EPI
Iron	7439-89-6	5.6E+01	PHYSPROP				0.0E+00	NIOSH	1.5E+03	CRC89	7.9E+00	CRC89				2.5E+01	BAES							2.9E-03	2.2E-01	5.2E-01	1.0E-03	RAGSE
Isobutyl Alcohol	78-83-1	7.4E+01	PHYSPROP	4.0E-04	9.8E-06	PHYSPROP	1.0E+01	PHYSPROP	-1.1E+02	PHYSPROP	8.0E-01	CRC89	9.0E-02	1.0E-05	WATER9			2.9E+00	EPI	7.6E-01	PHYSPROP	8.5E+04	PHYSPROP	6.4E-03	2.7E-01	6.6E-01	1.9E-03	EPI
Isophorone	78-59-1	1.4E+02	PHYSPROP	2.7E-04	6.6E-06	EPI	4.4E-01	PHYSPROP	-8.1E+00	PHYSPROP	9.3E-01	CRC89	5.3E-02	7.5E-06	WATER9			6.5E+01	EPI	1.7E+00	PHYSPROP	1.2E+04	PHYSPROP	1.6E-02	6.2E-01	1.5E+00	3.5E-03	EPI
Isopropalin	33820-53-0	3.1E+02	PHYSPROP	4.5E-03	1.1E-04	EPI	3.0E-05	PHYSPROP	1.5E+02	EPI	1.2E+00	ChemNet	2.1E-02	5.3E-06	WATER9			1.1E+04	EPI	5.8E+00	PHYSPROP	1.1E-01	PHYSPROP	1.4E+00	5.7E+00	2.2E+01	2.1E-01	EPI
Isopropanol	67-63-0	6.0E+01	PHYSPROP	3.3E-04	8.1E-06	PHYSPROP	4.5E+01	PHYSPROP	-9.0E+01	PHYSPROP	7.8E-01	CRC89	1.0E-01	1.1E-05	WATER9			1.5E+00	EPI	5.0E-02	PHYSPROP	1.0E+06	PHYSPROP	2.3E-03	2.3E-01	5.5E-01	7.8E-04	EPI
Isopropyl Methyl Phosphonic Acid	1832-54-8	1.4E+02	PHYSPROP	2.8E-07	6.9E-09	PHYSPROP	1.2E-02	PHYSPROP	-8.1E+00	EPI			7.1E-02	8.3E-06	WATER9			7.7E+00	EPI	2.7E-01	PHYSPROP	5.0E+04	PHYSPROP	1.8E-03	6.2E-01	1.5E+00	4.0E-04	EPI
Isoxaben	82558-50-7	3.3E+02	PHYSPROP	5.2E-08	1.3E-09	EPI	4.1E-09	PHYSPROP	1.8E+02	PHYSPROP			4.0E-02	4.6E-06	WATER9			1.3E+03	EPI	3.9E+00	PHYSPROP	1.4E+00	PHYSPROP	6.2E-02	7.6E+00	1.8E+01	8.9E-03	EPI
JP-7	NA			4.1E-01	1.0E-02	EPA HCD	1.1E+01	EPA HCD	-5.5E+01	EPA HCD	7.8E-01	ATSDR Profile								8.0E+00	OTHER	1.0E+01	EPA HCD					
Lactofen	77501-63-4	4.6E+02	PHYSPROP	1.9E-05	4.7E-07	EPI	7.0E-08	PHYSPROP	4.5E+01	PHYSPROP			3.2E-02	3.7E-06	WATER9			2.3E+04	EPI	4.8E+00	PHYSPROP	1.0E-01	PHYSPROP	5.2E-02	4.1E+01	9.7E+01	6.3E-03	EPI
Lead Compounds																												
~Lead Chromate	7758-97-6	3.2E+02	CRC89						8.4E+02	CRC89	6.1E+00	CRC89										1.7E-01	CRC89	6.9E-03	6.8E+00	1.6E+01	1.0E-03	RAGSE
~Lead Phosphate	7446-27-7	8.1E+02	PHYSPROP						1.0E+03	PHYSPROP	7.0E+00	CRC89										0.0E+00	CRC89	1.1E-02	3.7E+03	8.8E+03	1.0E-03	RAGSE
~Lead acetate	301-04-2	3.3E+02	PHYSPROP				7.2E-04	PHYSPROP	3.3E+02	PHYSPROP	3.3E+00	CRC89	3.3E-02	9.5E-06	WATER9			1.0E+00	EPI	-8.0E-02	PHYSPROP	1.6E+03	PHYSPROP	1.4E-04	7.2E+00	1.7E+01	2.1E-05	EPI
~Lead and Compounds	7439-92-1	2.1E+02	EPI				0.0E+00	NIOSH	3.3E+02	EPI	1.1E+01	CRC89				9.0E+02	BAES							5.5E-04	1.5E+00	3.7E+00	1.0E-04	RAGSE
~Lead subacetate	1335-32-6	8.1E+02	PHYSPROP				3.0E-10	PHYSPROP	1.6E+02	EPI			2.2E-02	2.6E-06	WATER9			1.0E+01	EPI	-4.0E+00	PHYSPROP	6.3E+04	PHYSPROP	1.1E-09	3.4E+03	8.2E+03	1.0E-10	EPI
~Tetraethyl Lead	78-00-2	3.2E+02	PHYSPROP	2.3E+01	5.7E-01	PHYSPROP	2.6E-01	PHYSPROP	-1.3E+02	PHYSPROP	1.7E+00	CRC89	2.5E-02	6.4E-06	WATER9			6.5E+02	EPI	4.2E+00	PHYSPROP	2.9E-01	PHYSPROP	9.5E-02	6.8E+00	1.6E+01	1.4E-02	EPI
Lewisite	541-25-3	2.1E+02	PHYSPROP	8.9E-03	2.2E-04	EPI	5.8E-01	PHYSPROP	1.0E-01	PHYSPROP	1.9E+00	CRC89	3.3E-02	9.1E-06	WATER9			1.1E+02	EPI	2.6E+00	PHYSPROP	5.0E+02	PHYSPROP	3.0E-02	1.5E+00	3.7E+00	5.4E-03	EPI
Linuron	330-55-2	2.5E+02	PHYSPROP	2.6E-07	6.3E-09	EPI	1.4E-06	PHYSPROP	9.3E+01	PHYSPROP			4.8E-02	5.6E-06	WATER9			3.4E+02	EPI	3.2E+00	PHYSPROP	7.5E+01	PHYSPROP	5.1E-02	2.6E+00	6.3E+00	8.4E-03	EPI
Lithium	7439-93-2	6.9E+00	EPI						1.8E+02	CRC89	5.3E-01	CRC89				3.0E+02	BAES							1.0E-03	1.2E-01	2.8E-01	1.0E-03	RAGSE
MCPA	94-74-6	2.0E+02	PHYSPROP	5.4E-08	1.3E-09	EPI	5.9E-06	PHYSPROP	1.2E+02	PHYSPROP	1.6E+00	PubChem	3.1E-02	8.2E-06	WATER9			3.0E+01	EPI	3.3E+00	PHYSPROP	6.3E+02	PHYSPROP	9.2E-02	1.4E+00	3.4E+00	1.7E-02	EPI
MCPB	94-81-5	2.3E+02	PHYSPROP	1.1E-07	2.7E-09	EPI	4.3E-07	PHYSPROP	1.0E+02	PHYSPROP			5.1E-02	5.9E-06	WATER9			9.8E+01	EPI	2.8E+00	PHYSPROP	4.8E+01	PHYSPROP	1.0E-01	2.0E+00	4.8E+00	1.7E-02	EPI
MCPP	93-65-2	2.1E+02	PHYSPROP	7.4E-07	1.8E-08	PHYSPROP	7.5E-07	PHYSPROP	9.5E+01	PHYSPROP	1.3E+00	PubChem	2.7E-02	7.0E-06	WATER9			4.9E+01	EPI	3.1E+00	PHYSPROP	6.2E+02	PHYSPROP	7.4E-02	1.7E+00	4.0E+00	1.3E-02	EPI
Malathion	121-75-5	3.3E+02	PHYSPROP	2.0E-07	4.9E-09	PHYSPROP	3.4E-06	PHYSPROP	2.8E+00	PHYSPROP	1.2E+00	CRC89	2.1E-02	5.2E-06	WATER9			3.1E+01	EPI	2.4E+00	PHYSPROP	1.4E+02	PHYSPROP	5.7E-03	7.4E+00	1.8E+01	8.1E-04	EPI
Maleic Anhydride	108-31-6	9.8E+01	PHYSPROP	1.6E-04	3.9E-06	PHYSPROP	2.5E-01	EPI	5.3E+01	PHYSPROP	1.3E+00	CRC89	8.8E-02	1.1E-05	WATER9			1.0E+00	EPI	1.6E+00	PHYSPROP	1.6E+05	PERRY	2.0E-02	3.7E-01	8.9E-01	5.3E-03	EPI
Maleic Hydrazide	123-33-1	1.1E+02	PHYSPROP	1.1E-09	2.7E-11	PHYSPROP	2.8E-06	PHYSPROP	3.1E+02	PHYSPROP			8.2E-02	9.5E-06	WATER9			3.3E+00	EPI	-8.4E-01	PHYSPROP	4.5E+03	PHYSPROP	4.2E-04	4.5E-01	1.1E+00	1.0E-04	EPI
Malononitrile	109-77-3	6.6E+01	PHYSPROP	5.4E-06	1.3E-07	EPI	2.0E-01	EPI	3.2E+01	PHYSPROP	1.2E+00	CRC89	1.2E-01	1.4E-05	WATER9			3.3E+00	EPI	-6.0E-01	PHYSPROP	1.3E+05	PHYSPROP	8.3E-04	2.5E-01	5.9E-01	2.7E-04	EPI
Mancozeb	8018-01-7	5.4E+02	PHYSPROP	6.2E-10	1.5E-11	PHYSPROP	1.3E-10	PHYSPROP	1.7E+02	PhysProp	1.9E+00	PubChem	2.0E-02	5.1E-06	WATER9			6.1E+02	EPI	1.3E+00	PHYSPROP	6.2E+00	PHYSPROP	6.9E-03	1.1E+02	2.7E+02	7.7E-04	EPI
Maneb	12427-38-2	3.0E+02	PHYSPROP	2.0E-07	4.9E-09	PHYSPROP	7.5E-08	PHYSPROP	2.0E+02	EPI			4.3E-02	5.0E-06	WATER9			6.1E+02	EPI	6.2E-01	PHYSPROP	6.0E+00	PHYSPROP	5.1E-03	4.7E+00	1.1E+01	7.7E-04	EPI
Manganese (Diet)	7439-96-5	5.5E+01	PHYSPROP				0.0E+00	NIOSH	1.2E+03	PHYSPROP	7.3E+00	CRC89				6.5E+01	BAES							2.9E-03	2.1E-01	5.1E-01	1.0E-03	RAGSE
Manganese (Non-diet)	7439-96-5	5.5E+01	PHYSPROP				0.0E+00	NIOSH	1.2E+03	PHYSPROP	7.3E+00	CRC89				6.5E+01	BAES							2.9E-03	2.1E-01	5.1E-01	1.0E-03	RAGSE
Mephosfolan	950-10-7	2.7E+02	PHYSPROP	4.9E-09	1.2E-10	PHYSPROP	3.2E-05	PHYSPROP	8.4E+01	EPI			4.6E-02	5.3E-06	WATER9			6.4E+02	EPI	1.0E+00	PHYSPROP	5.7E+01	PHYSPROP	1.5E-03	3.4E+00	8.1E+00	2.4E-04	EPI
Mepiquat Chloride	24307-26-4	1.5E+02	PHYSPROP	1.8E-10	4.3E-12	PHYSPROP	3.7E-07	PHYSPROP	2.2E+02	PHYSPROP			6.7E-02	7.9E-06	WATER9			6.6E+01	EPI	-2.8E+00	PHYSPROP	5.0E+05	PHYSPROP	1.4E-05	7.2E-01	1.7E+00	3.0E-06	EPI
Mercury Compounds																												
~Mercuric Chloride (and other Mercury salts)	7487-94-7	2.7E+02	PHYSPROP						2.8E+02	PHYSPROP	5.6E+00	CRC89								-2.2E-01	PHYSPROP	6.9E+04	PHYSPROP	6.3E-03	3.5E+00	8.4E+00	1.0E-03	RAGSE
~Mercury (elemental)	7439-97-6	2.0E+02	PHYSPROP	3.5E-01	8.6E-03	PHYSPROP VP/S	2.0E-03	PHYSPROP	-3.9E+01	PHYSPROP	1.4E+01	CRC89	3.1E-02	6.3E-06	WATER9	5.2E+01	SSL			6.2E-01	PHYSPROP	6.0E-02	PHYSPROP	5.4E-03	1.4E+00	3.4E+00	1.0E-03	RAGSE
~Methyl Mercury	22967-92-6	2.2E+02	OTHER																					5.7E-03	1.7E+00	4.1E+00	1.0E-03	RAGSE
~Phenylmercuric Acetate	62-38-4	3.4E+02	PHYSPROP	2.3E-08	5.7E-10	EPI	6.0E-06	PHYSPROP	1.5E+02	PHYSPROP			3.9E-02	4.6E-06	WATER9			5.6E+01	EPI	7.1E-01	PHYSPROP	4.4E+03	PHYSPROP	4.2E-04	8.1E+00	1.9E+01	6.0E-05	EPI
Merphos	150-50-5	3.0E+02	PHYSPROP	9.3E-04	2.3E-05	PHYSPROP	2.0E-05	PHYSPROP	1.0E+02	PHYSPROP	1.0E+00	CRC89	2.0E-02	5.0E-06	WATER9			4.9E+04	EPI	7.7E+00	PHYSPROP	3.5E-03	PHYSPROP	2.8E+01	4.9E+00	2.3E+01	4.2E+00	EPI
Merphos Oxide	78-48-8	3.1E+02	PHYSPROP	1.2E-05	2.9E-07	PHYSPROP	5.3E-06	PHYSPROP	-2.5E+01	CRC89	1.1E+00	CRC89	2.0E-02	5.0E-06	WATER9			2.4E+03	EPI	5.7E+00	PHYSPROP	2.3E+00	PHYSPROP	1.1E+00	6.1E+00	2.4E+01	1.7E-01	EPI
Metalaxyl	57837-19-1	2.8E+02	PHYSPROP	1.2E-07	3.0E-09	EPI	5.6E-06	PHYSPROP	7.1E+01	PHYSPROP			4.4E-02	5.2E-06	WATER9			3.9E+01	EPI	1.7E+00	PHYSPROP	8.4E+03	PHYSPROP	3.7E-03	3.9E+00	9.3E+00	5.8E-04	EPI
Methacrylonitrile	126-98-7	6.7E+01	PHYSPROP	1.0E-02	2.5E-04	EPI	7.1E+01	PHYSPROP	-3.6E+01	PHYSPROP	8.0E-01	CRC89	9.6E-02	1.1E-05	WATER9			1.3E+01	EPI	6.8E-01	PHYSPROP	2.5E+04	PHYSPROP	5.9E-03	2.5E-01	6.0E-01	1.9E-03	EPI
Methamidophos	10265-92-6	1.4E+02	PHYSPROP	3.5E-08	8.7E-10	PHYSPROP	3.5E-05	PHYSPROP	4.6E+01	PHYSPROP	1.3E+00	CRC89	6.0E-02	9.2E-06	WATER9			5.4E+00	EPI	-8.0E-01	PHYSPROP	1.0E+06	PHYSPROP	3.4E-04	6.5E-01	1.6E+00	7.4E-05	EPI
Methanol	67-56-1	3.2E+01	PHYSPROP	1.9E-04	4.6E-06	PHYSPROP	1.3E+02	PHYSPROP	-9.8E+01	PHYSPROP	7.9E-01	CRC89	1.6E-01	1.7E-05	WATER9			1.0E+00	EPI	-7.7E-01	PHYSPROP	1.0E+06	PHYSPROP	6.9E-04	1.6E-01	3.8E-01	3.2E-04	EPI
Methidathion	950-37-8	3.0E+02	PHYSPROP	2.9E-07	7.2E-09	EPI	3.4E-06	PHYSPROP	3.9E+01	PHYSPROP			4.2E-02	4.9E-06	WATER9			2.1E+01	EPI	2.2E+00	PHYSPROP	1.9E+02	PHYSPROP	6.1E-03	5.2E+00	1.2E+01	9.1E-04	EPI
Methomyl	16752-77-5	1.6E+02	PHYSPROP	8.1E-10	2.0E-11	EPI	5.4E-06	PHYSPROP	7.8E+01	PHYSPROP	1.3E+00	CRC89	4.8E-02	8.4E-06	WATER9			1.0E+01	EPI	6.0E-01	PHYSPROP	5.8E+04	PHYSPROP	2.4E-03	8.5E-01	2.0E+00	4.8E-04	EPI
Methoxy-5-nitroaniline, 2-	99-59-2	1.7E+02	PHYSPROP	5.1E-07	1.3E-08	PHYSPROP	3.2E-04	PHYSPROP	1.2E+02	PHYSPROP	1.2E+00	CRC89	4.3E-02	7.8E-06	WATER9			7.1E+01	EPI	1.5E+00	PHYSPROP	1.2E+02	PHYSPROP	8.4E-03	9.2E-01	2.2E+00	1.7E-03	EPI
Methoxychlor	72-43-5	3.5E+02	PHYSPROP	8.3E-06	2.0E-07	PHYSPROP	2.6E-06	PHYSPROP	8.7E+01	PHYSPROP	1.4E+00	CRC89	2.2E-02	5.6E-06	WATER9			2.7E+04	EPI	5.1E+00	PHYSPROP	1.0E-01	PHYSPROP	3.1E-01	9.1E+00	2.2E+01	4.3E-02	EPI
Methoxyethanol Acetate, 2-	110-49-6	1.2E+02	PHYSPROP	1.3E-05	3.1E-07	EPI	7.0E+00	PHYSPROP	-6.5E+01	PHYSPROP	1.0E+00	CRC89	6.6E-02	8.7E-06	WATER9			2.5E+00	EPI	1.0E-01	PHYSPROP	1.0E+06	PHYSPROP	1.7E-03	4.8E-01	1.2E+00	4.0E-04	EPI
Methoxyethanol, 2-	109-86-4	7.6E+01	PHYSPROP	1.4E-05	3.3E-07	PHYSPROP	9.5E+00	PHYSPROP	-8.5E+01	PHYSPROP	9.6E-01	CRC89	9.5E-02	1.1E-05	WATER9			1.0E+00	EPI	-7.7E-01	PHYSPROP	1.0E+06	PHYSPROP	6.0E-04	2.8E-01	6.7E-01	1.8E-04	EPI
Methyl Acetate	79-20-9	7.4E+01	PHYSPROP	4.7E-03	1.2E-04	PHYSPROP	2.2E+02	PHYSPROP	-9.8E+01	PHYSPROP	9.3E-01	CRC89	9.6E-02	1.1E-05	WATER9			3.1E+00	EPI	1.8E-01	PHYSPROP	2.4E+05	PHYSPROP	2.6E-03	2.7E-01	6.6E-01	7.9E-04	EPI
Methyl Acrylate	96-33-3	8.6E+01	PHYSPROP	8.1E-03	2.0E-04	EPI	8.7E+01	PHYSPROP	-7.7E+01	PHYSPROP	9.5E-01	CRC89	8.6E-02	1.0E-05	WATER9			5.8E+00	EPI	8.0E-01	PHYSPROP	4.9E+04	PHYSPROP	6.2E-03	3.2E-01	7.7E-01	1.8E-03	EPI
Methyl Ethyl Ketone (2-Butanone)	78-93-3	7.2E+01	PHYSPROP	2.3E-03	5.7E-05	PHYSPROP	9.1E+01	PHYSPROP	-8.7E+01	PHYSPROP	8.0E-01	CRC89	9.1E-02	1.0E-05	WATER9			4.5E+00	EPI	2.9E-01	PHYSPROP	2.2E+05	PHYSPROP	3.1E-03	2.7E-01	6.4E-01	9.6E-04	EPI
Methyl Hydrazine	60-34-4	4.6E+01	PHYSPROP	1.2E-04	3.0E-06	PHYSPROP	5.0E+01	PHYSPROP	-5.2E+01	PHYSPROP	8.7E-01	LANGE	1.3E-01	1.4E-05	WATER9			1.3E+01	EPI	-1.1E+00	PHYSPROP	1.0E+06	PHYSPROP	4.5E-04	1.9E-01	4.6E-01	1.7E-04	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	1.0E+02	PHYSPROP	5.6E-03	1.4E-04	EPI	2.0E+01	PHYSPROP	-8.4E+01	PHYSPROP	8.0E-01	CRC89	7.0E-02	8.3E-06	WATER9			1.3E+01	EPI	1.3E+00	PHYSPROP	1.9E+04	PHYSPROP	1.2E-02	3.8E-01	9.2E-01	3.2E-03	EPI
Methyl Isocyanate	624-83-9	5.7E+01	PHYSPROP	3.8E-02	9.3E-04	PHYSPROP	3.5E+02	PHYSPROP	-4.5E+01	PHYSPROP	9.6E-01	CRC89	1.2E-01	1.3E-05	WATER9			4.0E+01	EPI	7.9E-01	PHYSPROP	2.9E+04	PHYSPROP	7.3E-03	2.2E-01	5.3E-01	2.5E-03	EPI
Methyl Methacrylate	80-62-6	1.0E+02	PHYSPROP	1.3E-02	3.2E-04	EPI	3.9E+01	PHYSPROP	-4.8E+01	PHYSPROP	9.4E-01	CRC89	7.5E-02	9.2E-06	WATER9			9.1E+00	EPI	1.4E+00	PHYSPROP	1.5E+04	PHYSPROP	1.4E-02	3.8E-01	9.2E-01	3.6E-03	EPI
Methyl Parathion	298-00-0	2.6E+02	PHYSPROP	4.1E-06	1.0E-07	PHYSPROP	3.5E-06	PHYSPROP	3.6E+01	PHYSPROP	1.4E+00	CRC89	2.5E-02	6.4E-06	WATER9			7.3E+02	EPI	2.9E+00	PHYSPROP	3.8E+01	PHYSPROP	2.6E-02	3.1E+00	7.5E+00	4.2E-03	EPI
Methyl Phosphonic Acid	993-13-5	9.6E+01	PHYSPROP	5.0E-10	1.2E-11	PHYSPROP	3.3E-04	EPI	1.1E+02	PHYSPROP			9.1E-02	1.1E-05	WATER9			1.4E+00	EPI	-7.0E-01	PHYSPROP	2.0E+04	PHYSPROP	3.7E-04	3.6E-01	8.7E-01	9.8E-05	EPI
Methyl Styrene (Mixed Isomers)	25013-15-4	3.5E+02	PHYSPROP	1.1E-01	2.6E-03	PHYSPROP	1.5E+00	PHYSPROP	-8.6E+01	EPI	8.9E-01	HSDB	1.7E-02	4.2E-06	WATER9			7.2E+02	EPI	3.4E+00	PHYSPROP	8.9E+01	PHYSPROP	4.8E-01	1.0E+01	2.4E+01	6.6E-02	EPI
Methyl methanesulfonate	66-27-3	1.1E+02	PHYSPROP	1.6E-04	4.0E-06	PHYSPROP	3.1E-01	PHYSPROP	2.0E+01	PHYSPROP	1.3E+00	CRC89	7.9E-02	1.1E-05	WATER9			4.3E+00	EPI	-6.6E-01	PHYSPROP	2.0E+05	LANGE	5.6E-04	4.4E-01	1.0E+00	1.4E-04	EPI
Methyl tert-Butyl Ether (MTBE)	1634-04-4	8.8E+01	PHYSPROP	2.4E-02	5.9E-04	PHYSPROP	2.5E+02	PHYSPROP	-1.1E+02	PHYSPROP	7.4E-01	CRC89	7.5E-02	8.6E-06	WATER9			1.2E+01	EPI	9.4E-01	PHYSPROP	5.1E+04	PHYSPROP	7.6E-03	3.3E-01	7.9E-01	2.1E-03	EPI
Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2	2.0E+02	PHYSPROP	2.6E-16	6.4E-18	PHYSPROP	4.1E-12	PHYSPROP	2.4E+02	EPI			5.6E-02	6.6E-06	WATER9			2.0E+02	EPI	-2.1E+00	PHYSPROP	1.0E+06	PHYSPROP	2.9E-05	1.3E+00	3.1E+00	5.4E-06	EPI
Methyl-5-Nitroaniline, 2-	99-55-8	1.5E+02	PHYSPROP	3.4E-07	8.3E-09	PHYSPROP	9.8E-04	PHYSPROP	1.1E+02	PHYSPROP			6.7E-02	7.8E-06	WATER9			1.8E+02	EPI	1.9E+00	PHYSPROP	1.0E+04	PHYSPROP	1.8E-02	7.5E-01	1.8E+00	3.8E-03	EPI
Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	1.5E+02	PHYSPROP	5.0E-11	1.2E-12	PHYSPROP	1.2E-04	PHYSPROP	1.2E+02	EPI			6.8E-02	8.0E-06	WATER9			7.2E+01	EPI	-9.2E-01	PHYSPROP	2.7E+05	PHYSPROP	2.7E-04	7.0E-01	1.7E+00	5.7E-05	EPI
Methylaniline Hydrochloride, 2-	636-21-5	1.4E+02	PHYSPROP	8.6E-05	2.1E-06	PHYSPROP	2.9E-01	PHYSPROP	2.2E+02	PHYSPROP			6.9E-02	8.1E-06	WATER9			1.2E+02	EPI	1.6E+00	PHYSPROP	8.3E+03	PHYSPROP	4.8E-05	6.7E-01	1.6E+00	1.1E-05	EPI
Methylarsonic acid	124-58-3	1.4E+02	PHYSPROP				1.6E-03	PHYSPROP	1.6E+02	PHYSPROP			7.0E-02	8.2E-06	WATER9			4.4E+01	EPI	-1.2E+00	PHYSPROP	2.6E+05	PHYSPROP	1.9E-04	6.4E-01	1.5E+00	4.2E-05	EPI
Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7	1.6E+02	OTHER										6.5E-02	7.6E-06	WATER9										8.1E-01	2.0E+00		
Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	2.2E+02	OTHER										5.2E-02	6.1E-06	WATER9										1.8E+00	4.3E+00		
Methylcholanthrene, 3-	56-49-5	2.7E+02	PHYSPROP	2.1E-04	5.2E-06	EPI	4.3E-08	EPI	1.8E+02	PHYSPROP	1.3E+00	CRC89	2.4E-02	6.1E-06	WATER9			9.6E+05	EPI	6.4E+00	PHYSPROP	2.9E-03	PHYSPROP	5.7E+00	3.3E+00	1.5E+01	9.0E-01	EPI
Methylene Chloride	75-09-2	8.5E+01	PHYSPROP	1.3E-01	3.3E-03	PHYSPROP	4.4E+02	PHYSPROP	-9.5E+01	PHYSPROP	1.3E+00	CRC89	1.0E-01	1.3E-05	WATER9			2.2E+01	EPI	1.3E+00	PHYSPROP	1.3E+04	PHYSPROP	1.3E-02	3.1E-01	7.5E-01	3.5E-03	EPI
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	2.7E+02	PHYSPROP	1.7E-09	4.1E-11	PHYSPROP	2.9E-07	PHYSPROP	1.1E+02	PHYSPROP			4.6E-02	5.4E-06	WATER9			5.7E+03	EPI	3.9E+00	PHYSPROP	1.4E+01	PHYSPROP	1.2E-01	3.3E+00	7.9E+00	2.0E-02	EPI
Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	2.5E+02	PHYSPROP	4.4E-08	1.1E-09	PHYSPROP	1.8E-05	PHYSPROP	9.2E+01	PHYSPROP			4.7E-02	5.5E-06	WATER9			2.7E+03	EPI	4.4E+00	PHYSPROP	4.1E+00	PHYSPROP	5.2E-01	2.8E+00	6.7E+00	8.4E-02	RAGSE
Methylenebisbenzenamine, 4,4'-	101-77-9	2.0E+02	PHYSPROP	2.2E-09	5.3E-11	PHYSPROP	2.0E-07	PHYSPROP	9.3E+01	PHYSPROP			5.6E-02	6.5E-06	WATER9			2.1E+03	EPI	1.6E+00	PHYSPROP	1.0E+03	PHYSPROP	7.5E-03	1.4E+00	3.3E+00	1.4E-03	EPI
Methylenediphenyl Diisocyanate	101-68-8	2.5E+02	PHYSPROP	3.7E-05	9.0E-07	PHYSPROP	5.0E-06	PHYSPROP	3.8E+01	PHYSPROP	1.2E+00	CRC89	2.4E-02	6.2E-06	WATER9			2.8E+05	EPI	5.2E+00	PHYSPROP	8.3E-01	PHYSPROP	1.1E+00	2.7E+00	1.0E+01	1.8E-01	EPI
Methylstyrene, Alpha-	98-83-9	1.2E+02	PHYSPROP	1.0E-01	2.6E-03	EPI	1.9E+00	EPI	-2.3E+01	PHYSPROP	9.1E-01	CRC89	6.3E-02	8.2E-06	WATER9			7.0E+02	EPI	3.5E+00	PHYSPROP	1.2E+02	PHYSPROP	2.9E-01	4.8E-01	1.2E+00	7.0E-02	EPI
Metolachlor	51218-45-2	2.8E+02	PHYSPROP	3.7E-07	9.0E-09	PHYSPROP	3.1E-05	PHYSPROP	-6.2E+01	PHYSPROP	1.1E+00	CRC89	2.2E-02	5.5E-06	WATER9			4.9E+02	EPI	3.1E+00	PHYSPROP	5.3E+02	PHYSPROP	2.2E-02	4.1E+00	9.8E+00	3.4E-03	EPI
Metribuzin	21087-64-9	2.1E+02	PHYSPROP	4.8E-09	1.2E-10	EPI	4.4E-07	PHYSPROP	1.3E+02	PHYSPROP	1.3E+00	CRC89	2.7E-02	7.1E-06	WATER9			5.3E+01	EPI	1.7E+00	PHYSPROP	1.1E+03	PHYSPROP	7.4E-03	1.7E+00	4.0E+00	1.3E-03	EPI
Metsulfuron-methyl	74223-64-6	3.8E+02	PHYSPROP	5.4E-15	1.3E-16	EPI	2.5E-12	PHYSPROP	1.6E+02	PHYSPROP			3.6E-02	4.2E-06	WATER9			9.3E+01	EPI	2.2E+00	PHYSPROP	9.5E+03	PHYSPROP	2.5E-03	1.4E+01	3.4E+01	3.3E-04	EPI
Mineral oils	8012-95-1	1.7E+02	EPI	3.3E+02	8.2E+00	EPI	1.4E-01	EPI	-9.6E+00	EPI	8.8E-01	ChemNet	3.6E-02	6.4E-06	WATER9			4.8E+03	EPI	6.1E+00	EPI	3.7E-03	EPI	9.8E+00	9.5E-01	4.3E+00	2.0E+00	EPI
Mirex	2385-85-5	5.5E+02	PHYSPROP	3.3E-02	8.1E-04	PHYSPROP	8.0E-07	PHYSPROP	4.9E+02	CRC89	2.3E+00	ChemNet	2.2E-02	5.6E-06	WATER9			3.6E+05	EPI	6.9E+00	PHYSPROP	8.5E-02	PHYSPROP	4.6E-01	1.2E+02	2.9E+02	5.2E-02	EPI
Molinate	2212-67-1	1.9E+02	PHYSPROP	1.7E-04	4.1E-06	PHYSPROP	5.6E-03	PHYSPROP	7.0E+01	EPI	1.1E+00	CRC89	3.2E-02	6.8E-06	WATER9			1.8E+02	EPI	3.2E+00	PHYSPROP	9.7E+02	PHYSPROP	9.9E-02	1.2E+00	2.8E+00	1.9E-02	EPI
Molybdenum	7439-98-7	9.6E+01	PHYSPROP				0.0E+00	NIOSH	2.6E+03	PHYSPROP	1.0E+01	CRC89				2.0E+01	BAES							3.8E-03	3.6E-01	8.7E-01	1.0E-03	RAGSE
Monochloramine	10599-90-3	5.1E+01	EPI						-6.6E+01	CRC89														2.8E-03	2.0E-01	4.9E-01	1.0E-03	RAGSE
Monomethylaniline	100-61-8	1.1E+02	PHYSPROP	3.6E-04	8.9E-06	PHYSPROP	4.5E-01	PHYSPROP	-5.7E+01	PHYSPROP	9.9E-01	CRC89	7.2E-02	9.1E-06	WATER9			8.2E+01	EPI	1.7E+00	PHYSPROP	5.6E+03	PHYSPROP	2.0E-02	4.2E-01	1.0E+00	5.0E-03	EPI
Myclobutanil	88671-89-0	2.7E+02	PHYSPROP	1.7E-07	4.3E-09	EPI	1.6E-06	PHYSPROP	6.6E+01	PHYSPROP			4.5E-02	5.3E-06	WATER9			6.1E+03	EPI	2.9E+00	PHYSPROP	1.4E+02	PHYSPROP	2.1E-02	3.6E+00	8.7E+00	3.4E-03	EPI
N,N'-Diphenyl-1,4-benzenediamine	74-31-7	2.6E+02	PHYSPROP	8.4E-09	2.1E-10	PHYSPROP	6.4E-09	EPI	1.4E+02	PHYSPROP			4.7E-02	5.4E-06	WATER9			5.2E+04	EPI	4.0E+00	PHYSPROP	7.4E+00	PHYSPROP	1.6E-01	3.0E+00	7.2E+00	2.6E-02	EPI
Naled	300-76-5	3.8E+02	PHYSPROP	2.7E-03	6.5E-05	EPI	2.0E-04	PHYSPROP	2.7E+01	PHYSPROP	2.0E+00	CRC89	2.5E-02	6.4E-06	WATER9			1.3E+02	EPI	1.4E+00	PHYSPROP	1.5E+00	PHYSPROP	7.1E-04	1.4E+01	3.4E+01	9.4E-05	EPI
Naphtha, High Flash Aromatic (HFAN)	64742-95-6			1.8E-02	4.4E-04	EPI	8.5E-02	EPI														3.1E+01	EPI					
Naphthylamine, 2-	91-59-8	1.4E+02	PHYSPROP	3.3E-06	8.1E-08	PHYSPROP	2.6E-04	PHYSPROP	1.1E+02	PHYSPROP	1.6E+00	CRC89	6.4E-02	1.0E-05	WATER9			2.5E+03	EPI	2.3E+00	PHYSPROP	1.9E+02	PHYSPROP	3.7E-02	6.7E-01	1.6E+00	8.1E-03	EPI
Napropamide	15299-99-7	2.7E+02	PHYSPROP	3.4E-08	8.4E-10	EPI	1.7E-07	PHYSPROP	7.5E+01	PHYSPROP			4.5E-02	5.3E-06	WATER9			3.2E+03	EPI	3.4E+00	PHYSPROP	7.3E+01	PHYSPROP	5.1E-02	3.5E+00	8.3E+00	8.0E-03	EPI
Nickel Acetate	373-02-4	1.8E+02	PHYSPROP				1.8E-05	PHYSPROP			1.8E+00	PERRY	4.6E-02	9.7E-06	WATER9			1.0E+00	EPI	-1.4E+00	PHYSPROP	1.7E+05	PHYSPROP	9.9E-05	1.0E+00	2.5E+00	1.9E-05	EPI
Nickel Carbonate	3333-67-3	1.2E+02	PHYSPROP				3.6E-06	PHYSPROP					7.9E-02	9.2E-06	WATER9					-2.1E+00	PHYSPROP	9.3E+01	PERRY	5.5E-05	4.9E-01	1.2E+00	1.3E-05	EPI
Nickel Carbonyl	13463-39-3	1.7E+02	CRC89	2.0E+01	5.0E-01	MSDS	3.2E+02	NIOSH	-1.9E+01	CRC89	1.3E+00	CRC89	4.3E-02	8.2E-06	WATER9							1.8E+02	PERRY		9.5E-01	2.3E+00		
Nickel Hydroxide	12054-48-7	9.3E+01	OTHER																					3.7E-03	3.5E-01	8.3E-01	1.0E-03	RAGSE
Nickel Oxide	1313-99-1	7.5E+01	EPI						2.0E+03	CRC89	6.7E+00	CRC89												3.3E-03	2.8E-01	6.6E-01	1.0E-03	RAGSE
Nickel Refinery Dust	NA															1.5E+02	BAES										2.0E-04	RAGSE
Nickel Soluble Salts	7440-02-0	5.9E+01	PHYSPROP				0.0E+00	NIOSH	1.5E+03	CRC89	8.9E+00	CRC89				6.5E+01	SSL							5.9E-04	2.2E-01	5.4E-01	2.0E-04	RAGSE
Nickel Subsulfide	12035-72-2	2.4E+02	CRC89						7.9E+02	CRC89	5.9E+00	CRC89												1.2E-03	2.3E+00	5.6E+00	2.0E-04	RAGSE
Nickelocene	1271-28-9	1.9E+02	CRC89						1.7E+02	CRC89			5.8E-02	6.7E-06	WATER9										1.2E+00	2.9E+00		
Nitrate	14797-55-8	6.2E+01	EPI																					3.0E-03	2.3E-01	5.6E-01	1.0E-03	RAGSE
Nitrate + Nitrite (as N)	NA																										1.0E-03	RAGSE
Nitrite	14797-65-0	4.7E+01	EPI																					2.6E-03	1.9E-01	4.6E-01	1.0E-03	RAGSE
Nitroaniline, 2-	88-74-4	1.4E+02	PHYSPROP	2.4E-06	5.9E-08	PHYSPROP	2.8E-03	PHYSPROP	7.1E+01	PHYSPROP	9.0E-01	CRC89	5.2E-02	7.4E-06	WATER9			1.1E+02	EPI	1.9E+00	PHYSPROP	1.5E+03	PHYSPROP	2.0E-02	6.2E-01	1.5E+00	4.5E-03	EPI
Nitroaniline, 4-	100-01-6	1.4E+02	PHYSPROP	5.2E-08	1.3E-09	PHYSPROP	3.2E-06	EPI	1.5E+02	PHYSPROP	1.4E+00	CRC89	6.4E-02	9.8E-06	WATER9			1.1E+02	EPI	1.4E+00	PHYSPROP	7.3E+02	PHYSPROP	1.0E-02	6.2E-01	1.5E+00	2.2E-03	EPI
Nitrobenzene	98-95-3	1.2E+02	PHYSPROP	9.8E-04	2.4E-05	PHYSPROP	2.5E-01	PHYSPROP	5.7E+00	PHYSPROP	1.2E+00	CRC89	6.8E-02	9.4E-06	WATER9			2.3E+02	EPI	1.9E+00	PHYSPROP	2.1E+03	PHYSPROP	2.3E-02	5.1E-01	1.2E+00	5.4E-03	EPI
Nitrocellulose	9004-70-0	3.9E+02	PHYSPROP	1.3E-21	3.3E-23	PHYSPROP	1.4E-17	PHYSPROP	2.6E+02	EPI			3.6E-02	4.2E-06	WATER9			1.0E+01	EPI	-4.6E+00	PHYSPROP	1.0E+06	PHYSPROP	7.5E-08	1.6E+01	3.7E+01	9.9E-09	EPI
Nitrofurantoin	67-20-9	2.4E+02	PHYSPROP	5.4E-11	1.3E-12	PHYSPROP	2.8E-10	PHYSPROP	2.6E+02	PHYSPROP			4.9E-02	5.8E-06	WATER9			1.2E+02	EPI	-4.7E-01	PHYSPROP	8.0E+01	PHYSPROP	2.1E-04	2.3E+00	5.4E+00	3.5E-05	EPI
Nitrofurazone	59-87-0	2.0E+02	PHYSPROP	1.3E-11	3.1E-13	PHYSPROP	4.3E-06	PHYSPROP	2.4E+02	EPI			5.6E-02	6.5E-06	WATER9			3.5E+02	EPI	2.3E-01	PHYSPROP	2.1E+02	PHYSPROP	9.3E-04	1.4E+00	3.2E+00	1.7E-04	EPI
Nitroglycerin	55-63-0	2.3E+02	PHYSPROP	3.5E-06	8.7E-08	EPI	4.0E-04	EPI	1.4E+01	PHYSPROP	1.6E+00	CRC89	2.9E-02	7.7E-06	WATER9			1.2E+02	EPI	1.6E+00	PHYSPROP	1.4E+03	PHYSPROP	5.8E-03	2.0E+00	4.7E+00	9.9E-04	EPI
Nitroguanidine	556-88-7	1.0E+02	PHYSPROP	1.8E-14	4.5E-16	PHYSPROP	1.4E-11	PHYSPROP	2.4E+02	EPI	2.0E+00	ChemNet	1.0E-01	1.4E-05	WATER9			2.1E+01	EPI	-8.9E-01	PHYSPROP	4.4E+03	PHYSPROP	4.1E-04	4.0E-01	9.7E-01	1.1E-04	EPI
Nitromethane	75-52-5	6.1E+01	PHYSPROP	1.2E-03	2.9E-05	PHYSPROP	3.6E+01	PHYSPROP	-2.9E+01	PHYSPROP	1.1E+00	CRC89	1.2E-01	1.4E-05	WATER9			1.0E+01	EPI	-3.5E-01	PHYSPROP	1.1E+05	PHYSPROP	1.3E-03	2.3E-01	5.5E-01	4.2E-04	EPI
Nitropropane, 2-	79-46-9	8.9E+01	PHYSPROP	4.9E-03	1.2E-04	EPI	1.7E+01	PHYSPROP	-9.1E+01	PHYSPROP	9.8E-01	CRC89	8.5E-02	1.0E-05	WATER9			3.1E+01	EPI	9.3E-01	PHYSPROP	1.7E+04	PHYSPROP	7.5E-03	3.3E-01	8.0E-01	2.1E-03	EPI
Nitroso-N-ethylurea, N-	759-73-9	1.2E+02	PHYSPROP	5.4E-09	1.3E-10	PHYSPROP	1.8E-02	PHYSPROP	9.9E+01	EPI			7.9E-02	9.3E-06	WATER9			2.1E+01	EPI	2.3E-01	PHYSPROP	1.3E+04	PHYSPROP	2.0E-03	4.8E-01	1.1E+00	4.9E-04	EPI
Nitroso-N-methylurea, N-	684-93-5	1.0E+02	PHYSPROP	4.1E-09	9.9E-11	PHYSPROP	2.9E-02	PHYSPROP	1.2E+02	EPI			8.6E-02	1.0E-05	WATER9			1.1E+01	EPI	-3.0E-02	PHYSPROP	1.4E+04	PHYSPROP	1.5E-03	4.0E-01	9.5E-01	4.0E-04	EPI
Nitroso-di-N-butylamine, N-	924-16-3	1.6E+02	PHYSPROP	5.4E-04	1.3E-05	PHYSPROP	4.7E-02	EPI	2.8E+01	EPI	9.0E-01	PubChem	4.2E-02	6.8E-06	WATER9			9.1E+02	EPI	2.6E+00	PHYSPROP	1.3E+03	PHYSPROP	5.5E-02	8.1E-01	1.9E+00	1.1E-02	EPI
Nitroso-di-N-propylamine, N-	621-64-7	1.3E+02	PHYSPROP	2.2E-04	5.4E-06	PHYSPROP	8.6E-02	PHYSPROP	6.8E+00	EPI	9.2E-01	CRC89	5.6E-02	7.8E-06	WATER9			2.8E+02	EPI	1.4E+00	PHYSPROP	1.3E+04	PHYSPROP	1.0E-02	5.6E-01	1.4E+00	2.3E-03	EPI
Nitrosodiethanolamine, N-	1116-54-7	1.3E+02	PHYSPROP	2.0E-10	4.9E-12	PHYSPROP	5.0E-04	PHYSPROP	8.2E+01	EPI			7.3E-02	8.5E-06	WATER9			1.0E+00	EPI	-1.3E+00	PHYSPROP	1.0E+06	PHYSPROP	1.1E-04	5.9E-01	1.4E+00	2.5E-05	RAGSE
Nitrosodiethylamine, N-	55-18-5	1.0E+02	PHYSPROP	1.5E-04	3.6E-06	PHYSPROP	8.6E-01	PHYSPROP	-1.6E+01	EPI	9.4E-01	CRC89	7.4E-02	9.1E-06	WATER9			8.3E+01	EPI	4.8E-01	PHYSPROP	1.1E+05	PHYSPROP	3.4E-03	3.9E-01	9.4E-01	8.7E-04	EPI
Nitrosodimethylamine, N-	62-75-9	7.4E+01	PHYSPROP	7.4E-05	1.8E-06	PHYSPROP	2.7E+00	PHYSPROP	-3.9E+01	EPI	1.0E+00	CRC89	9.9E-02	1.2E-05	WATER9			2.3E+01	EPI	-5.7E-01	PHYSPROP	1.0E+06	PHYSPROP	8.3E-04	2.7E-01	6.6E-01	2.5E-04	EPI
Nitrosodiphenylamine, N-	86-30-6	2.0E+02	PHYSPROP	5.0E-05	1.2E-06	PHYSPROP	1.0E-01	PHYSPROP	6.7E+01	PHYSPROP			5.6E-02	6.5E-06	WATER9			2.6E+03	EPI	3.1E+00	PHYSPROP	3.5E+01	PHYSPROP	7.9E-02	1.4E+00	3.3E+00	1.5E-02	EPI
Nitrosomethylethylamine, N-	10595-95-6	8.8E+01	PHYSPROP	5.9E-05	1.4E-06	PHYSPROP	1.1E+00	PHYSPROP	-2.7E+01	EPI	9.4E-01	PubChem	8.4E-02	1.0E-05	WATER9			4.3E+01	EPI	4.0E-02	PHYSPROP	3.0E+05	PHYSPROP	1.9E-03	3.3E-01	7.9E-01	5.3E-04	EPI
Nitrosomorpholine [N-]	59-89-2	1.2E+02	PHYSPROP	1.0E-06	2.5E-08	PHYSPROP	3.6E-02	PHYSPROP	2.9E+01	PHYSPROP			8.0E-02	9.3E-06	WATER9			2.3E+01	EPI	-4.4E-01	PHYSPROP	1.0E+06	PHYSPROP	7.4E-04	4.7E-01	1.1E+00	1.8E-04	EPI
Nitrosopiperidine [N-]	100-75-4	1.1E+02	PHYSPROP	3.5E-05	8.4E-07	PHYSPROP	9.2E-02	PHYSPROP	6.8E+00	EPI	1.1E+00	CRC89	7.0E-02	9.2E-06	WATER9			1.7E+02	EPI	3.6E-01	PHYSPROP	7.7E+04	PHYSPROP	2.6E-03	4.6E-01	1.1E+00	6.2E-04	EPI
Nitrosopyrrolidine, N-	930-55-2	1.0E+02	PHYSPROP	2.0E-06	4.9E-08	PHYSPROP	6.0E-02	PHYSPROP	-3.1E+00	EPI	1.1E+00	CRC89	8.0E-02	1.0E-05	WATER9			9.2E+01	EPI	-1.9E-01	PHYSPROP	1.0E+06	PHYSPROP	1.2E-03	3.8E-01	9.2E-01	3.2E-04	EPI
Nitrotoluene, m-	99-08-1	1.4E+02	PHYSPROP	3.8E-04	9.3E-06	PHYSPROP	2.1E-01	EPI	1.6E+01	PHYSPROP	1.2E+00	CRC89	5.9E-02	8.7E-06	WATER9			3.6E+02	EPI	2.5E+00	PHYSPROP	5.0E+02	PHYSPROP	5.1E-02	6.2E-01	1.5E+00	1.1E-02	EPI
Nitrotoluene, o-	88-72-2	1.4E+02	PHYSPROP	5.1E-04	1.3E-05	PHYSPROP	1.9E-01	EPI	-1.0E+01	PHYSPROP	1.2E+00	CRC89	5.9E-02	8.7E-06	WATER9			3.7E+02	EPI	2.3E+00	PHYSPROP	6.5E+02	PHYSPROP	4.0E-02	6.2E-01	1.5E+00	9.0E-03	EPI
Nitrotoluene, p-	99-99-0	1.4E+02	PHYSPROP	2.3E-04	5.6E-06	PHYSPROP	1.6E-02	EPI	5.2E+01	PHYSPROP	1.1E+00	CRC89	5.7E-02	8.4E-06	WATER9			3.6E+02	EPI	2.4E+00	PHYSPROP	4.4E+02	PHYSPROP	4.5E-02	6.2E-01	1.5E+00	1.0E-02	EPI
Nonane, n-	111-84-2	1.3E+02	PHYSPROP	1.4E+02	3.4E+00	EPI	4.5E+00	PHYSPROP	-5.4E+01	PHYSPROP	7.2E-01	CRC89	5.1E-02	6.8E-06	WATER9			8.0E+02	EPI	5.7E+00	PHYSPROP	2.2E-01	PHYSPROP	7.4E+00	5.5E-01	2.5E+00	1.7E+00	EPI
Norflurazon	27314-13-2	3.0E+02	PHYSPROP	1.4E-08	3.4E-10	EPI	2.9E-08	PHYSPROP	1.8E+02	PHYSPROP			4.2E-02	4.9E-06	WATER9			3.1E+03	EPI	2.3E+00	PHYSPROP	3.4E+01	PHYSPROP	7.0E-03	5.3E+00	1.3E+01	1.1E-03	EPI
Octabromodiphenyl Ether	32536-52-0	8.0E+02	PHYSPROP	3.1E-06	7.5E-08	PHYSPROP	1.3E-02	EPI	2.0E+02	PHYSPROP			2.2E-02	2.6E-06	WATER9			9.9E+04	EPI	8.7E+00	PHYSPROP	1.1E-08	PHYSPROP	3.3E-01	3.2E+03	7.8E+03	3.1E-02	EPI
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	3.0E+02	PHYSPROP	3.5E-08	8.7E-10	PHYSPROP	3.3E-14	PHYSPROP	2.9E+02	CRC89			4.3E-02	5.0E-06	WATER9			5.3E+02	EPI	1.6E-01	PHYSPROP	5.0E+00	PHYSPROP	2.9E-04	4.8E+00	1.1E+01	4.4E-05	EPI
Octamethylpyrophosphoramide	152-16-9	2.9E+02	PHYSPROP	1.5E-08	3.8E-10	PHYSPROP	1.0E-03	PHYSPROP	1.7E+01	PHYSPROP	1.1E+00	CRC89	2.2E-02	5.4E-06	WATER9			2.0E+01	EPI	-1.0E+00	PHYSPROP	1.0E+06	PHYSPROP	5.4E-05	4.2E+00	1.0E+01	8.3E-06	EPI
Oryzalin	19044-88-3	3.5E+02	PHYSPROP	7.8E-08	1.9E-09	PHYSPROP	9.8E-09	PHYSPROP	1.4E+02	PHYSPROP			3.9E-02	4.5E-06	WATER9			8.3E+02	EPI	3.7E+00	PHYSPROP	2.5E+00	PHYSPROP	3.8E-02	9.2E+00	2.2E+01	5.4E-03	EPI
Oxadiazon	19666-30-9	3.5E+02	PHYSPROP	3.0E-06	7.3E-08	EPI	1.1E-07	PHYSPROP	9.0E+01	PHYSPROP			3.9E-02	4.5E-06	WATER9			5.0E+03	EPI	4.8E+00	PHYSPROP	7.0E-01	PHYSPROP	2.0E-01	9.0E+00	2.2E+01	2.8E-02	EPI
Oxamyl	23135-22-0	2.2E+02	PHYSPROP	9.7E-09	2.4E-10	EPI	2.3E-04	PHYSPROP	1.0E+02	PHYSPROP	9.7E-01	CRC89	2.3E-02	5.9E-06	WATER9			1.0E+01	EPI	-4.7E-01	PHYSPROP	2.8E+05	PHYSPROP	2.6E-04	1.8E+00	4.3E+00	4.5E-05	EPI
Oxyfluorfen	42874-03-3	3.6E+02	PHYSPROP	3.4E-05	8.2E-07	EPI	2.0E-07	PHYSPROP	8.4E+01	PHYSPROP	1.4E+00	CRC89	2.1E-02	5.3E-06	WATER9			4.0E+04	EPI	4.7E+00	PHYSPROP	1.2E-01	PHYSPROP	1.5E-01	1.1E+01	2.7E+01	2.0E-02	EPI
Paclobutrazol	76738-62-0	2.9E+02	PHYSPROP	3.4E-09	8.3E-11	EPI	7.5E-09	PHYSPROP	1.7E+02	PHYSPROP	1.2E+00	CRC89	2.2E-02	5.7E-06	WATER9			9.2E+02	EPI	3.2E+00	PHYSPROP	2.6E+01	PHYSPROP	3.1E-02	4.6E+00	1.1E+01	4.7E-03	EPI
Paraquat Dichloride	1910-42-5	2.6E+02	PHYSPROP	1.3E-11	3.2E-13	PHYSPROP	7.5E-08	PHYSPROP	3.0E+02	EPI			4.7E-02	5.5E-06	WATER9			6.8E+03	EPI	-4.5E+00	PHYSPROP	6.2E+05	PHYSPROP	3.6E-07	2.9E+00	7.0E+00	5.8E-08	EPI
Parathion	56-38-2	2.9E+02	PHYSPROP	1.2E-05	3.0E-07	PHYSPROP	6.7E-06	PHYSPROP	6.1E+00	PHYSPROP	1.3E+00	CRC89	2.3E-02	5.8E-06	WATER9			2.4E+03	EPI	3.8E+00	PHYSPROP	1.1E+01	PHYSPROP	8.4E-02	4.5E+00	1.1E+01	1.3E-02	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	T_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Pebulate	1114-71-2	2.0E+02	PHYSPROP	9.7E-03	2.4E-04	EPI	8.9E-02	PHYSPROP	7.1E+01	EPI	9.5E-01	CRC89	2.4E-02	6.1E-06	WATER9			3.0E+02	EPI	3.8E+00	PHYSPROP	1.0E+02	PHYSPROP	2.2E-01	1.4E+00	3.5E+00	4.0E-02	EPI
Pendimethalin	40487-42-1	2.8E+02	PHYSPROP	3.5E-05	8.6E-07	EPI	1.5E-05	PHYSPROP	5.6E+01	PHYSPROP	1.2E+00	CRC89	2.3E-02	5.7E-06	WATER9			5.6E+03	EPI	5.2E+00	PHYSPROP	3.3E-01	PHYSPROP	7.4E-01	4.0E+00	1.5E+01	1.2E-01	EPI
Pentabromodiphenyl Ether	32534-81-9	5.6E+02	PHYSPROP	4.4E-03	1.1E-04	PHYSPROP	3.1E-08	EPI	-5.0E+00	PHYSPROP			2.8E-02	3.2E-06	WATER9			2.2E+04	EPI	6.8E+00	PHYSPROP	2.4E-03	PHYSPROP	3.4E-01	1.5E+02	3.7E+02	3.7E-02	EPI
Pentabromodiphenyl ether, 2,2',4,4',5-(BDE-99)	60348-60-9	5.6E+02	PHYSPROP	4.8E-05	1.2E-06	PHYSPROP	3.1E-08	EPI	-5.0E+00	EPI	2.3E+00	IRIS Profile	2.2E-02	5.6E-06	WATER9			2.2E+04	EPI	7.7E+00	PHYSPROP	7.9E-05	PHYSPROP	3.4E-01	1.5E+02	3.7E+02	3.7E-02	EPI
Pentachlorobenzene	608-93-5	2.5E+02	PHYSPROP	2.9E-02	7.0E-04	PHYSPROP	1.0E-03	EPI	8.6E+01	PHYSPROP	1.8E+00	CRC89	2.9E-02	7.9E-06	WATER9			3.7E+03	EPI	5.2E+00	PHYSPROP	8.3E-01	PHYSPROP	1.0E+00	2.7E+00	1.0E+01	1.7E-01	EPI
Pentachloroethane	76-01-7	2.0E+02	PHYSPROP	7.9E-02	1.9E-03	EPI	3.5E+00	PHYSPROP	-2.9E+01	PHYSPROP	1.7E+00	CRC89	3.2E-02	8.6E-06	WATER9			1.4E+02	EPI	3.2E+00	PHYSPROP	4.9E+02	PHYSPROP	8.6E-02	1.4E+00	3.4E+00	1.6E-02	EPI
Pentachloronitrobenzene	82-68-8	3.0E+02	PHYSPROP	1.8E-03	4.4E-05	EPI	5.0E-05	PHYSPROP	1.4E+02	PHYSPROP	1.7E+00	CRC89	2.6E-02	6.9E-06	WATER9			6.0E+03	EPI	4.6E+00	PHYSPROP	4.4E-01	PHYSPROP	2.8E-01	4.7E+00	1.1E+01	4.2E-02	EPI
Pentachlorophenol	87-86-5	2.7E+02	PHYSPROP	1.0E-06	2.5E-08	PHYSPROP	1.1E-04	PHYSPROP	1.7E+02	PHYSPROP	2.0E+00	CRC89	3.0E-02	8.0E-06	WATER9			5.9E+02	SSL	5.1E+00	PHYSPROP	1.4E+01	PHYSPROP	8.0E-01	3.3E+00	1.3E+01	1.3E-01	EPI
Pentaerythritol tetranitrate (PETN)	78-11-5	3.2E+02	PHYSPROP	5.4E-08	1.3E-09	PHYSPROP	5.5E-09	EPI	1.4E+02	PHYSPROP	1.8E+00	CRC89	2.6E-02	6.8E-06	WATER9			6.5E+02	EPI	2.4E+00	PHYSPROP	4.3E+01	PHYSPROP	6.9E-03	6.2E+00	1.5E+01	1.0E-03	EPI
Pentane, n-	109-66-0	7.2E+01	PHYSPROP	5.1E+01	1.3E+00	PHYSPROP	5.1E+02	PHYSPROP	-1.3E+02	PHYSPROP	6.3E-01	CRC89	8.2E-02	8.8E-06	WATER9			7.2E+01	EPI	3.4E+00	PHYSPROP	3.8E+01	PHYSPROP	3.6E-01	2.7E-01	6.4E-01	1.1E-01	EPI
Perchlorates																												
~Ammonium Perchlorate	7790-98-9	1.2E+02	PHYSPROP								2.0E+00	CRC89										2.5E+05	PHYSPROP	4.2E-03	4.8E-01	1.1E+00	1.0E-03	RAGSE
~Lithium Perchlorate	7791-03-9	1.1E+02	CRC89						2.4E+02	CRC89	2.4E+00	CRC89										5.9E+05	CRC89	4.0E-03	4.1E-01	1.0E+00	1.0E-03	RAGSE
~Perchlorate and Perchlorate Salts	14797-73-0	1.2E+02	CRC89																			2.5E+05	CRC89	4.2E-03	4.8E-01	1.1E+00	1.0E-03	RAGSE
~Potassium Perchlorate	7778-74-7	1.4E+02	PHYSPROP						5.3E+02	PHYSPROP	2.5E+00	CRC89										1.5E+04	PHYSPROP	9.1E-03	6.3E-01	1.5E+00	2.0E-03	RAGSE
~Sodium Perchlorate	7601-89-0	1.2E+02	PHYSPROP						4.8E+02	EPI	2.5E+00	CRC89										2.1E+06	PHYSPROP	4.3E-03	5.1E-01	1.2E+00	1.0E-03	RAGSE
Perfluorobutane Sulfonate	375-73-5	3.0E+02	PHYSPROP	5.9E-04	1.4E-05	PHYSPROP	5.2E-02	PHYSPROP	3.7E+01	EPI	1.8E+00	LookChem	2.7E-02	7.2E-06	WATER9			1.8E+02	EPI	2.4E+00	PHYSPROP	1.1E+02	PHYSPROP	8.7E-03	5.0E+00	1.2E+01	1.3E-03	EPI
Permethrin	52645-53-1	3.9E+02	PHYSPROP	7.7E-05	1.9E-06	EPI	2.2E-08	PHYSPROP	3.4E+01	PHYSPROP	1.2E+00	CRC89	1.9E-02	4.8E-06	WATER9			1.2E+05	EPI	6.5E+00	PHYSPROP	6.0E-03	PHYSPROP	1.6E+00	1.6E+01	6.5E+01	2.1E-01	EPI
Phenacetin	62-44-2	1.8E+02	PHYSPROP	8.7E-09	2.1E-10	EPI	6.9E-07	PHYSPROP	1.4E+02	PHYSPROP			6.0E-02	7.0E-06	WATER9			4.1E+01	EPI	1.6E+00	PHYSPROP	7.7E+02	PHYSPROP	8.9E-03	1.1E+00	2.5E+00	1.7E-03	EPI
Phenmedipham	13684-63-4	3.0E+02	PHYSPROP	3.4E-11	8.4E-13	EPI	1.0E-11	PHYSPROP	1.4E+02	PHYSPROP			4.2E-02	5.0E-06	WATER9			2.6E+03	EPI	3.6E+00	PHYSPROP	4.7E+00	PHYSPROP	5.2E-02	5.1E+00	1.2E+01	7.9E-03	EPI
Phenol	108-95-2	9.4E+01	PHYSPROP	1.4E-05	3.3E-07	PHYSPROP	3.5E-01	PHYSPROP	4.1E+01	PHYSPROP	1.1E+00	CRC89	8.3E-02	1.0E-05	WATER9			1.9E+02	EPI	1.5E+00	PHYSPROP	8.3E+04	PHYSPROP	1.6E-02	3.5E-01	8.5E-01	4.3E-03	EPI
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	2.1E+02	PHYSPROP	5.8E-08	1.4E-09	EPI	2.1E-05	PHYSPROP	9.0E+01	PHYSPROP	1.1E+00	CRC89	2.6E-02	6.6E-06	WATER9			6.0E+01	EPI	1.5E+00	PHYSPROP	1.9E+03	PHYSPROP	6.0E-03	1.6E+00	3.7E+00	1.1E-03	EPI
Phenothiazine	92-84-2	2.0E+02	PHYSPROP	1.1E-06	2.8E-08	PHYSPROP	8.9E-07	PHYSPROP	1.9E+02	PHYSPROP	1.3E+00	PubChem	2.9E-02	7.5E-06	WATER9			1.5E+03	EPI	4.2E+00	PHYSPROP	1.6E+00	PHYSPROP	3.7E-01	1.4E+00	3.3E+00	6.8E-02	EPI
Phenylenediamine, m-	108-45-2	1.1E+02	PHYSPROP	5.1E-08	1.3E-09	EPI	2.1E-03	EPI	6.4E+01	PHYSPROP	1.0E+00	CRC89	7.2E-02	9.2E-06	WATER9			3.4E+01	EPI	-3.3E-01	PHYSPROP	2.4E+05	PHYSPROP	9.4E-04	4.2E-01	1.0E+00	2.3E-04	EPI
Phenylenediamine, o-	95-54-5	1.1E+02	PHYSPROP	2.9E-07	7.2E-09	EPI	2.1E-03	EPI	1.0E+02	PHYSPROP			8.4E-02	9.8E-06	WATER9			3.5E+01	EPI	1.5E-01	PHYSPROP	4.0E+04	PHYSPROP	1.9E-03	4.2E-01	1.0E+00	4.9E-04	EPI
Phenylenediamine, p-	106-50-3	1.1E+02	PHYSPROP	2.8E-08	6.7E-10	PHYSPROP	5.0E-03	PHYSPROP	1.5E+02	PHYSPROP			8.4E-02	9.8E-06	WATER9			3.4E+01	EPI	-3.0E-01	PHYSPROP	3.7E+04	PHYSPROP	9.8E-04	4.2E-01	1.0E+00	2.5E-04	EPI
Phenylphenol, 2-	90-43-7	1.7E+02	PHYSPROP	4.3E-05	1.1E-06	EPI	2.0E-03	EPI	5.9E+01	PHYSPROP	1.2E+00	CRC89	4.2E-02	7.8E-06	WATER9			6.7E+03	EPI	3.1E+00	PHYSPROP	7.0E+02	PHYSPROP	9.8E-02	9.4E-01	2.3E+00	2.0E-02	EPI
Phorate	298-02-2	2.6E+02	PHYSPROP	1.8E-04	4.4E-06	EPI	6.4E-04	PHYSPROP	-1.5E+01	CRC89	1.2E+00	CRC89	2.3E-02	5.9E-06	WATER9			4.6E+02	EPI	3.6E+00	PHYSPROP	5.0E+01	PHYSPROP	7.8E-02	3.0E+00	7.2E+00	1.3E-02	EPI
Phosgene	75-44-5	9.9E+01	PHYSPROP	6.8E-01	1.7E-02	PHYSPROP	1.4E+03	PHYSPROP	-1.2E+02	PHYSPROP	1.4E+00	CRC89	8.9E-02	1.2E-05	WATER9			1.0E+00	EPI	-7.1E-01	PHYSPROP	6.8E+03	YAWS	5.6E-04	3.8E-01	9.0E-01	1.5E-04	EPI
Phosmet	732-11-6	3.2E+02	PHYSPROP	3.4E-07	8.4E-09	EPI	4.9E-07	PHYSPROP	7.2E+01	PHYSPROP			4.1E-02	4.8E-06	WATER9			1.0E+01	EPI	2.8E+00	PHYSPROP	2.4E+01	PHYSPROP	1.3E-02	6.3E+00	1.5E+01	1.8E-03	EPI
Inorganic ~Aluminum metaphosphate	13776-88-0	2.6E+02	CRC89								2.8E+00	CRC89												6.2E-03	3.2E+00	7.6E+00	1.0E-03	RAGSE
~Ammonium polyphosphate	68333-79-9																										1.0E-03	RAGSE
~Calcium pyrophosphate	7790-76-3	2.5E+02	CRC89						1.2E+03	CRC89	3.1E+00	CRC89												6.1E-03	2.8E+00	6.7E+00	1.0E-03	RAGSE
~Diammonium phosphate	7783-28-0	1.3E+02	EPI																					4.4E-03	5.8E-01	1.4E+00	1.0E-03	RAGSE
~Dicalcium phosphate	7757-93-9	1.4E+02	EPI																					4.5E-03	6.1E-01	1.5E+00	1.0E-03	RAGSE
~Dimagnesium phosphate	7782-75-4	1.7E+02	CRC89								2.1E+00	CRC89												5.1E-03	1.0E+00	2.4E+00	1.0E-03	RAGSE
~Dipotassium phosphate	7758-11-4	1.7E+02	EPI																					5.1E-03	9.9E-01	2.4E+00	1.0E-03	RAGSE
~Disodium phosphate	7558-79-4	1.4E+02	EPI																					4.6E-03	6.6E-01	1.6E+00	1.0E-03	RAGSE
~Monoaluminum phosphate	13530-50-2	3.2E+02	CRC89																					6.9E-03	6.3E+00	1.5E+01	1.0E-03	RAGSE
~Monoammonium phosphate	7722-76-1	1.2E+02	EPI																					4.1E-03	4.6E-01	1.1E+00	1.0E-03	RAGSE
~Monocalcium phosphate	7758-23-8	2.3E+02	EPI																					5.9E-03	2.2E+00	5.2E+00	1.0E-03	RAGSE
~Monomagnesium phosphate	7757-86-0	1.2E+02	CRC89																					4.2E-03	5.0E-01	1.2E+00	1.0E-03	RAGSE
~Monopotassium phosphate	7778-77-0	1.4E+02	EPI																					4.5E-03	6.1E-01	1.5E+00	1.0E-03	RAGSE
~Monosodium phosphate	7558-80-7	1.2E+02	PHYSPROP						6.0E+01	PHYSPROP												4.9E+05	PHYSPROP	4.2E-03	4.9E-01	1.2E+00	1.0E-03	RAGSE
~Polyphosphoric acid	8017-16-1	2.6E+02	EPI																					6.2E-03	2.9E+00	7.0E+00	1.0E-03	RAGSE
~Potassium tripolyphosphate	13845-36-8	4.5E+02	OTHER																					8.1E-03	3.4E+01	8.2E+01	1.0E-03	RAGSE
~Sodium acid pyrophosphate	7758-16-9	2.2E+02	EPI																					5.7E-03	1.8E+00	4.4E+00	1.0E-03	RAGSE
~Sodium aluminum phosphate (acidic)	7785-88-8	1.4E+02	OTHER																					4.6E-03	6.8E-01	1.6E+00	1.0E-03	RAGSE
~Sodium aluminum phosphate (anhydrous)	10279-59-1																										1.0E-03	RAGSE
~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	9.5E+02	OTHER																					1.2E-02	2.2E+04	5.3E+04	1.0E-03	RAGSE
~Sodium hexametaphosphate	10124-56-8	6.1E+02	CRC89																					9.5E-03	2.8E+02	6.7E+02	1.0E-03	RAGSE
~Sodium polyphosphate	68915-31-1	3.6E+02	EPI																					7.3E-03	1.1E+01	2.6E+01	1.0E-03	RAGSE
~Sodium trimetaphosphate	7785-84-4	3.1E+02	EPI																					6.7E-03	5.4E+00	1.3E+01	1.0E-03	RAGSE
~Sodium tripolyphosphate	7758-29-4	3.7E+02	EPI																					7.4E-03	1.2E+01	2.9E+01	1.0E-03	RAGSE
~Tetrapotassium phosphate	7320-34-5	3.3E+02	PHYSPROP																					7.0E-03	7.4E+00	1.8E+01	1.0E-03	RAGSE
~Tetrasodium pyrophosphate	7722-88-5	2.7E+02	PHYSPROP						8.0E+01	PHYSPROP												8.1E+04	PHYSPROP	6.3E-03	3.2E+00	7.8E+00	1.0E-03	RAGSE
~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5	8.9E+02	OTHER																					1.1E-02	9.9E+03	2.4E+04	1.0E-03	RAGSE
~Tricalcium phosphate	7758-87-4	3.1E+02	CRC89						1.7E+03	CRC89	3.1E+00	CRC89												6.8E-03	5.7E+00	1.4E+01	1.0E-03	RAGSE
~Trimagnesium phosphate	7757-87-1	2.6E+02	CRC89						1.2E+03	CRC89														6.2E-03	3.1E+00	7.5E+00	1.0E-03	RAGSE
~Tripotassium phosphate	7778-53-2	2.1E+02	EPI																					5.6E-03	1.6E+00	3.9E+00	1.0E-03	RAGSE
~Trisodium phosphate	7601-54-9	1.6E+02	PHYSPROP						7.5E+01	PHYSPROP														4.9E-03	8.7E-01	2.1E+00	1.0E-03	RAGSE
Phosphine	7803-51-2	3.4E+01	PHYSPROP	1.0E+00	2.4E-02	PHYSPROP	2.9E+04	PHYSPROP	-1.3E+02	PHYSPROP	1.4E+00	CRC89	1.9E-01	2.2E-05	WATER9					-2.7E-01	OTHER	2.6E+05	PERRY	2.2E-03	1.6E-01	3.9E-01	1.0E-03	RAGSE
Phosphoric Acid	7664-38-2	9.8E+01	PHYSPROP				3.0E-02	NIOSH	4.2E+01	PHYSPROP	1.8E+00	PERRY										5.5E+06	CRC89	3.8E-03	3.7E-01	8.9E-01	1.0E-03	RAGSE
Phosphorus, White	7723-14-0	1.2E+02	OTHER	8.6E-02	2.1E-03	ATSDR Profile	2.5E-02	ATSDR Profile	4.4E+01	ATSDR Profile	1.8E+00	ATSDR Profile	2.2E-01	2.8E-05	WATER9	3.5E+00	BAES	1.1E+03	ATSDR Profile	3.1E+00	OTHER	3.0E+00	ATSDR Profile	4.3E-03	5.2E-01	1.2E+00	1.0E-03	RAGSE
Phthalates																												
~Bis(2-ethylhexyl)phthalate	117-81-7	3.9E+02	PHYSPROP	1.1E-05	2.7E-07	EPI	1.4E-07	PHYSPROP	-5.5E+01	PHYSPROP	9.8E-01	CRC89	1.7E-02	4.2E-06	WATER9			1.2E+05	EPI	7.6E+00	PHYSPROP	2.7E-01	PHYSPROP	8.6E+00	1.6E+01	7.3E+01	1.1E+00	EPI
~Butyl Benzyl Phthalate	85-68-7	3.1E+02	PHYSPROP	5.2E-05	1.3E-06	EPI	8.3E-06	PHYSPROP	-3.5E+01	PubChem	1.1E+00	CRC89	2.1E-02	5.2E-06	WATER9			7.2E+03	EPI	4.7E+00	PHYSPROP	2.7E+00	PHYSPROP	2.6E-01	5.9E+00	1.4E+01	3.9E-02	EPI
~Butylphthalyl Butylglycolate	85-70-1	3.4E+02	PHYSPROP	8.4E-07	2.1E-08	PHYSPROP	7.1E-06	PHYSPROP	-3.5E+01	PHYSPROP	1.1E+00	LANGE	2.0E-02	4.9E-06	WATER9			1.1E+04	EPI	4.2E+00	PHYSPROP	8.8E+00	PHYSPROP	8.2E-02	8.0E+00	1.9E+01	1.2E-02	EPI
~Dibutyl Phthalate	84-74-2	2.8E+02	PHYSPROP	7.4E-05	1.8E-06	PHYSPROP	2.0E-05	PHYSPROP	-3.5E+01	PHYSPROP	1.0E+00	CRC89	2.1E-02	5.3E-06	WATER9			1.2E+03	EPI	4.5E+00	PHYSPROP	1.1E+01	PHYSPROP	2.7E-01	3.8E+00	9.1E+00	4.2E-02	EPI
~Diethyl Phthalate	84-66-2	2.2E+02	PHYSPROP	2.5E-05	6.1E-07	EPI	2.1E-03	PHYSPROP	-4.1E+01	PHYSPROP	1.2E+00	CRC89	2.6E-02	6.7E-06	WATER9			1.0E+02	EPI	2.4E+00	PHYSPROP	1.1E+03	PHYSPROP	2.1E-02	1.8E+00	4.4E+00	3.6E-03	EPI
~Dimethylterephthalate	120-61-6	1.9E+02	PHYSPROP	5.5E-03	1.3E-04	EPI	1.0E-02	PHYSPROP	1.4E+02	PHYSPROP	1.1E+00	CRC89	2.9E-02	6.7E-06	WATER9			3.1E+01	EPI	2.3E+00	PHYSPROP	1.9E+01	PHYSPROP	2.1E-02	1.3E+00	3.1E+00	4.0E-03	EPI
~Octyl Phthalate, di-N-	117-84-0	3.9E+02	PHYSPROP	1.1E-04	2.6E-06	EPI	1.0E-07	PHYSPROP	2.5E+01	PHYSPROP			3.6E-02	4.2E-06	WATER9			1.4E+05	EPI	8.1E+00	PHYSPROP	2.2E-02	PHYSPROP	1.8E+01	1.6E+01	7.5E+01	2.4E+00	EPI
~Phthalic Acid, P-	100-21-0	1.7E+02	PHYSPROP	1.6E-11	3.9E-13	PHYSPROP	9.2E-06	EPI	4.0E+02	LANGE	1.5E+00	PERRY	4.9E-02	9.0E-06	WATER9			7.9E+01	EPI	2.0E+00	PHYSPROP	1.5E+01	PHYSPROP	1.9E-02	9.0E-01	2.1E+00	3.9E-03	EPI
~Phthalic Anhydride	85-44-9	1.5E+02	PHYSPROP	6.7E-07	1.6E-08	EPI	5.2E-04	EPI	1.3E+02	PHYSPROP	1.5E+00	CRC89	5.9E-02	9.8E-06	WATER9			1.0E+01	EPI	1.6E+00	PHYSPROP	6.2E+03	PHYSPROP	1.2E-02	7.1E-01	1.7E+00	2.7E-03	EPI
Picloram	1918-02-1	2.4E+02	PHYSPROP	2.2E-12	5.3E-14	EPI	7.2E-11	PHYSPROP	2.2E+02	PHYSPROP			4.9E-02	5.7E-06	WATER9			3.9E+01	EPI	1.9E+00	PHYSPROP	4.3E+02	PHYSPROP	7.6E-03	2.4E+00	5.7E+00	1.3E-03	EPI
Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3	2.0E+02	PHYSPROP	4.0E-10	9.8E-12	PHYSPROP	4.2E-07	PHYSPROP	1.7E+02	PHYSPROP			5.6E-02	6.5E-06	WATER9			2.3E+02	EPI	9.3E-01	PHYSPROP	1.4E+03	PHYSPROP	2.7E-03	1.4E+00	3.3E+00	5.0E-04	EPI
Picric Acid (2,4,6-Trinitrophenol)	88-89-1	2.3E+02	PHYSPROP	7.0E-10	1.7E-11	EPI	7.5E-07	PHYSPROP	1.2E+02	PHYSPROP	1.8E+00	PERRY	3.0E-02	8.2E-06	WATER9			2.3E+03	EPI	1.4E+00	PHYSPROP	1.3E+04	PHYSPROP	3.6E-03	2.0E+00	4.8E+00	6.2E-04	EPI
Pirimiphos, Methyl	29232-93-7	3.1E+02	PHYSPROP	2.9E-05	7.0E-07	EPI	1.5E-05	PHYSPROP	1.5E+01	PHYSPROP	1.2E+00	CRC89	2.2E-02	5.4E-06	WATER9			3.7E+02	EPI	4.2E+00	PHYSPROP	8.6E+00	PHYSPROP	1.3E-01	5.4E+00	1.3E+01	1.9E-02	EPI
Polybrominated Biphenyls	59536-65-1																											
Polychlorinated Biphenyls (PCBs)																												
~Aroclor 1016	12674-11-2	5.5E+02	PHYSPROP	8.2E-03	2.0E-04	EPI	4.0E-04	PHYSPROP	1.0E+02	EPI	1.4E+00	ATSDR Profile	1.7E-02	4.2E-06	WATER9			4.8E+04	EPI	5.7E+00	PHYSPROP	4.2E-01	PHYSPROP	2.7E+00	1.3E+02	5.3E+02	3.1E-01	EPI
~Aroclor 1221	11104-28-2	1.9E+02	PHYSPROP	9.3E-03	2.3E-04	PHYSPROP	6.7E-03	PHYSPROP	3.4E+01	EPI	1.2E+00	ATSDR Profile	3.2E-02	7.2E-06	WATER9			8.4E+03	EPI	4.7E+00	PHYSPROP	1.5E+01	PHYSPROP	8.9E-01	1.2E+00	4.6E+00	1.7E-01	EPI
~Aroclor 1232	11141-16-5	1.9E+02	PHYSPROP	3.0E-02	7.4E-04	EPI	4.1E-03	PHYSPROP	3.4E+01	EPI	1.3E+00	ATSDR Profile	3.3E-02	7.5E-06	WATER9			8.4E+03	EPI	4.4E+00	PHYSPROP	1.5E+00	PHYSPROP	8.9E-01	1.2E+00	4.6E+00	1.7E-01	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
~Aroclor 1242	53469-21-9	2.9E+02	PHYSPROP	1.4E-02	3.4E-04	PHYSPROP	8.6E-05	EPI	1.2E+02	EPI	1.4E+00	ATSDR Profile	2.4E-02	6.1E-06	WATER9			7.8E+04	EPI	6.3E+00	PHYSPROP	2.8E-01	PHYSPROP	3.6E+00	4.5E+00	1.9E+01	5.5E-01	EPI
~Aroclor 1248	12672-29-6	6.2E+02	PHYSPROP	1.8E-02	4.4E-04	PHYSPROP	4.9E-04	PHYSPROP	1.2E+02	EPI	1.4E+00	HSDB	1.6E-02	3.9E-06	WATER9			7.7E+04	EPI	6.2E+00	PHYSPROP	1.0E-01	PHYSPROP	4.5E+00	3.1E+02	1.3E+03	4.8E-01	EPI
~Aroclor 1254	11097-69-1	3.3E+02	PHYSPROP	1.2E-02	2.8E-04	PHYSPROP	7.7E-05	PHYSPROP	1.3E+02	EPI	1.5E+00	ATSDR Profile	2.4E-02	6.1E-06	WATER9			1.3E+05	EPI	6.5E+00	PHYSPROP	4.3E-02	PHYSPROP	5.2E+00	7.1E+00	3.1E+01	7.5E-01	EPI
~Aroclor 1260	11096-82-5	4.0E+02	PHYSPROP	1.4E-02	3.4E-04	PHYSPROP	4.1E-05	PHYSPROP	1.6E+02	EPI	1.6E+00	ATSDR Profile	2.2E-02	5.6E-06	WATER9			3.5E+05	EPI	7.6E+00	PHYSPROP	1.4E-02	PHYSPROP	7.5E+00	1.7E+01	7.7E+01	9.9E-01	EPI
~Aroclor 5460	11126-42-4	2.9E+02	PHYSPROP	5.1E-03	1.3E-04	PHYSPROP	8.5E-06	PHYSPROP	1.2E+02	EPI	1.6E+00	LookChem	2.6E-02	6.8E-06	WATER9			8.1E+04	EPI	6.3E+00	PHYSPROP	5.3E-02	PHYSPROP	3.8E+00	4.5E+00	2.0E+01	5.8E-01	EPI
~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	4.0E+02	PHYSPROP	2.1E-03	5.1E-05	PHYSPROP	1.3E-07	PHYSPROP	1.6E+02	EPI	1.7E+00	LookChem	4.2E-02	5.7E-06	WATER9			3.5E+05	EPI	8.3E+00	PHYSPROP	7.5E-04	PHYSPROP	2.3E+01	1.7E+01	8.0E+01	3.0E+00	EPI
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	3.6E+02	PHYSPROP	2.8E-03	6.9E-05	PHYSPROP	5.8E-07	PHYSPROP	1.5E+02	EPI	1.6E+00	LookChem	4.4E-02	5.9E-06	WATER9			2.1E+05	EPI	7.5E+00	PHYSPROP	2.2E-03	PHYSPROP	1.0E+01	1.1E+01	5.0E+01	1.4E+00	EPI
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	3.6E+02	PHYSPROP	6.6E-03	1.6E-04	EPI	5.8E-07	EPI	1.5E+02	EPI	1.6E+00	l	4.4E-02	5.9E-06	WATER9			2.1E+05	EPI	7.6E+00	PHYSPROP	1.6E-03	EPI	1.2E+01	1.1E+01	5.0E+01	1.7E+00	EPI
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	3.6E+02	PHYSPROP	5.8E-03	1.4E-04	EPI	1.6E-06	PHYSPROP	1.5E+02	EPI	1.6E+00	LookChem	4.4E-02	5.9E-06	WATER9			2.1E+05	EPI	7.6E+00	PHYSPROP	5.3E-03	PHYSPROP	1.2E+01	1.1E+01	5.0E+01	1.7E+00	EPI
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	3.6E+02	PHYSPROP	2.8E-03	6.9E-05	PHYSPROP	5.8E-07	PHYSPROP	1.5E+02	EPI	1.6E+00	LookChem	4.4E-02	5.9E-06	WATER9			2.1E+05	EPI	7.4E+00	PHYSPROP	5.1E-04	PHYSPROP	9.1E+00	1.1E+01	5.0E+01	1.2E+00	EPI
, 2',3,4,4',5- (PCB 123)	65510-44-3	3.3E+02	EPI	7.8E-03	1.9E-04	EPI	5.5E-06	EPI	9.8E+01	EPI	1.5E+00	LookChem	4.7E-02	6.1E-06	WATER9			1.3E+05	EPI	7.0E+00	EPI	1.6E-02	EPI	6.9E+00	7.1E+00	3.2E+01	1.0E+00	EPI
, 2,3',4,4',5- (PCB 118)	31508-00-6	3.3E+02	PHYSPROP	1.2E-02	2.9E-04	EPI	9.0E-06	PHYSPROP	1.3E+02	EPI	1.5E+00	LookChem	4.7E-02	6.1E-06	WATER9			1.3E+05	EPI	7.1E+00	PHYSPROP	1.3E-02	PHYSPROP	8.6E+00	7.1E+00	3.2E+01	1.2E+00	EPI
, 2,3,3',4,4'- (PCB 105)	32598-14-4	3.3E+02	PHYSPROP	1.2E-02	2.8E-04	EPI	6.5E-06	PHYSPROP	1.3E+02	EPI	1.5E+00	LookChem	4.7E-02	6.1E-06	WATER9			1.3E+05	EPI	6.8E+00	PHYSPROP	3.4E-03	PHYSPROP	5.2E+00	7.1E+00	3.1E+01	7.5E-01	EPI
, 2,3,4,4',5- (PCB 114)	74472-37-0	3.3E+02	PHYSPROP	3.8E-03	9.2E-05	PHYSPROP	5.5E-06	PHYSPROP	9.8E+01	PHYSPROP	1.5E+00	LookChem	4.7E-02	6.1E-06	WATER9			1.3E+05	EPI	7.0E+00	PHYSPROP	1.6E-02	PHYSPROP	6.9E+00	7.1E+00	3.2E+01	1.0E+00	EPI
, 3,3',4,4',5- (PCB 126)	57465-28-8	3.3E+02	EPI	7.8E-03	1.9E-04	EPI	2.2E-06	EPI	1.3E+02	EPI	1.5E+00	LookChem	4.7E-02	6.1E-06	WATER9			1.3E+05	EPI	7.0E+00	EPI	7.3E-03	EPI	6.9E+00	7.1E+00	3.2E+01	1.0E+00	EPI
~Polychlorinated Biphenyls (high risk)	1336-36-3	2.9E+02	PHYSPROP	1.7E-02	4.2E-04	PHYSPROP	4.9E-04	PHYSPROP	1.2E+02	EPI	1.4E+00	HSDB	2.4E-02	6.3E-06	WATER9			7.8E+04	EPI	7.1E+00	PHYSPROP	7.0E-01	PHYSPROP	3.6E+00	4.5E+00	1.9E+01	5.5E-01	EPI
~Polychlorinated Biphenyls (low risk)	1336-36-3	2.9E+02	PHYSPROP	1.7E-02	4.2E-04	PHYSPROP	4.9E-04	PHYSPROP	1.2E+02	EPI	1.4E+00	HSDB	2.4E-02	6.3E-06	WATER9			7.8E+04	EPI	7.1E+00	PHYSPROP	7.0E-01	PHYSPROP	3.6E+00	4.5E+00	1.9E+01	5.5E-01	EPI
Biphenyls (lowest risk)	1336-36-3	2.9E+02	PHYSPROP	1.7E-02	4.2E-04	PHYSPROP	4.9E-04	PHYSPROP	1.2E+02	EPI	1.4E+00	HSDB	2.4E-02	6.3E-06	WATER9			7.8E+04	EPI	7.1E+00	PHYSPROP	7.0E-01	PHYSPROP	3.6E+00	4.5E+00	1.9E+01	5.5E-01	EPI
~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	2.9E+02	PHYSPROP	3.8E-04	9.4E-06	PHYSPROP	1.6E-05	PHYSPROP	1.8E+02	CRC89			4.9E-02	5.0E-06	WATER9			7.8E+04	EPI	6.6E+00	PHYSPROP	5.7E-04	PHYSPROP	6.0E+00	4.5E+00	2.0E+01	9.2E-01	EPI
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	2.9E+02	EPI	9.1E-03	2.2E-04	EPI	8.5E-06	EPI	1.2E+02	EPI	1.4E+00	LookChem	4.9E-02	6.3E-06	WATER9			7.8E+04	EPI	6.3E+00	EPI	3.2E-02	EPI	3.8E+00	4.5E+00	2.0E+01	5.8E-01	EPI
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	5.1E+02	EPI	5.4E-10	1.3E-11	EPI	5.4E-13	EPI	2.5E+02	EPI			3.0E-02	3.5E-06	WATER9			1.0E+10	EPI	1.0E+01	EPI	1.8E-06	EPI	1.6E+02	7.8E+01	3.7E+02	1.9E+01	EPI
Polynuclear Aromatic Hydrocarbons (PAHs)																												
~Acenaphthene	83-32-9	1.5E+02	PHYSPROP	7.5E-03	1.8E-04	PHYSPROP	2.2E-03	PHYSPROP	9.3E+01	PHYSPROP	1.2E+00	CRC89	5.1E-02	8.3E-06	WATER9			5.0E+03	EPI	3.9E+00	PHYSPROP	3.9E+00	PHYSPROP	4.1E-01	7.7E-01	1.8E+00	8.6E-02	EPI
~Anthracene	120-12-7	1.8E+02	PHYSPROP	2.3E-03	5.6E-05	PHYSPROP	6.5E-06	EPI	2.2E+02	PHYSPROP	1.3E+00	CRC89	3.9E-02	7.9E-06	WATER9			1.6E+04	EPI	4.5E+00	PHYSPROP	4.3E-02	PHYSPROP	7.3E-01	1.0E+00	4.1E+00	1.4E-01	EPI
~Benz[a]anthracene	56-55-3	2.3E+02	PHYSPROP	4.9E-04	1.2E-05	PHYSPROP	2.1E-07	PHYSPROP	8.4E+01	PHYSPROP	1.3E+00	PubChem	2.6E-02	6.7E-06	WATER9			1.8E+05	EPI	5.8E+00	PHYSPROP	9.4E-03	PHYSPROP	3.2E+00	2.0E+00	8.5E+00	5.5E-01	EPI
~Benzo(j)fluoranthene	205-82-3	2.5E+02	PHYSPROP	8.3E-06	2.0E-07	PHYSPROP	2.6E-08	PHYSPROP	1.7E+02	PHYSPROP			4.8E-02	5.6E-06	WATER9			6.0E+05	EPI	6.1E+00	PHYSPROP	2.5E-03	PHYSPROP	4.2E+00	2.7E+00	1.2E+01	6.9E-01	EPI
~Benzo[a]pyrene	50-32-8	2.5E+02	PHYSPROP	1.9E-05	4.6E-07	PHYSPROP	5.5E-09	EPI	1.8E+02	PHYSPROP			4.8E-02	5.6E-06	WATER9			5.9E+05	EPI	6.1E+00	PHYSPROP	1.6E-03	PHYSPROP	4.4E+00	2.7E+00	1.2E+01	7.1E-01	EPI
~Benzo[b]fluoranthene	205-99-2	2.5E+02	PHYSPROP	2.7E-05	6.6E-07	PHYSPROP	5.0E-07	PHYSPROP	1.7E+02	PHYSPROP			4.8E-02	5.6E-06	WATER9			6.0E+05	EPI	5.8E+00	PHYSPROP	1.5E-03	PHYSPROP	2.5E+00	2.7E+00	1.1E+01	4.2E-01	EPI
~Benzo[k]fluoranthene	207-08-9	2.5E+02	PHYSPROP	2.4E-05	5.8E-07	PHYSPROP	9.7E-10	EPI	2.2E+02	PHYSPROP			4.8E-02	5.6E-06	WATER9			5.9E+05	EPI	6.1E+00	PHYSPROP	8.0E-04	PHYSPROP	4.2E+00	2.7E+00	1.2E+01	6.9E-01	EPI
~Chloronaphthalene, Beta-	91-58-7	1.6E+02	PHYSPROP	1.3E-02	3.2E-04	PHYSPROP	1.2E-02	EPI	6.1E+01	PHYSPROP	1.1E+00	CRC89	4.5E-02	7.7E-06	WATER9			2.5E+03	EPI	3.9E+00	PHYSPROP	1.2E+01	PHYSPROP	3.7E-01	8.6E-01	2.1E+00	7.5E-02	EPI
~Chrysene	218-01-9	2.3E+02	PHYSPROP	2.1E-04	5.2E-06	PHYSPROP	6.2E-09	PHYSPROP	2.6E+02	PHYSPROP	1.3E+00	CRC89	2.6E-02	6.7E-06	WATER9			1.8E+05	EPI	5.8E+00	PHYSPROP	2.0E-03	PHYSPROP	3.5E+00	2.0E+00	8.5E+00	6.0E-01	EPI
~Dibenz[a,h]anthracene	53-70-3	2.8E+02	PHYSPROP	5.8E-06	1.4E-07	EPI	9.6E-10	EPI	2.7E+02	PHYSPROP			4.5E-02	5.2E-06	WATER9			1.9E+06	EPI	6.8E+00	PHYSPROP	2.5E-03	PHYSPROP	6.1E+00	3.8E+00	1.7E+01	9.5E-01	EPI
~Dibenzo(a,e)pyrene	192-65-4	3.0E+02	PHYSPROP	5.8E-07	1.4E-08	PHYSPROP	7.0E-11	PHYSPROP	2.3E+02	PHYSPROP			4.2E-02	4.9E-06	WATER9			6.5E+06	EPI	7.7E+00	EPI	8.0E-05	PHYSPROP	2.8E+01	5.2E+00	2.4E+01	4.2E+00	EPI
~Dimethylbenz(a)anthracene, 7,12-	57-97-6	2.6E+02	PHYSPROP	1.5E-04	3.8E-06	EPI	6.8E-07	PHYSPROP	1.2E+02	PHYSPROP			4.7E-02	5.5E-06	WATER9			4.9E+05	EPI	5.8E+00	PHYSPROP	6.1E-02	PHYSPROP	2.5E+00	2.9E+00	1.2E+01	4.1E-01	EPI
~Fluoranthene	206-44-0	2.0E+02	PHYSPROP	3.6E-04	8.9E-06	PHYSPROP	9.2E-06	PHYSPROP	1.1E+02	PHYSPROP	1.3E+00	CRC89	2.8E-02	7.2E-06	WATER9			5.5E+04	EPI	5.2E+00	PHYSPROP	2.6E-01	PHYSPROP	1.7E+00	1.4E+00	5.7E+00	3.1E-01	EPI
~Fluorene	86-73-7	1.7E+02	PHYSPROP	3.9E-03	9.6E-05	PHYSPROP	6.0E-04	PHYSPROP	1.1E+02	PHYSPROP	1.2E+00	CRC89	4.4E-02	7.9E-06	WATER9			9.2E+03	EPI	4.2E+00	PHYSPROP	1.7E+00	PHYSPROP	5.5E-01	9.0E-01	2.2E+00	1.1E-01	EPI
~Indeno[1,2,3-cd]pyrene	193-39-5	2.8E+02	PHYSPROP	1.4E-05	3.5E-07	PHYSPROP	1.3E-10	PHYSPROP	1.6E+02	PHYSPROP			4.5E-02	5.2E-06	WATER9			2.0E+06	EPI	6.7E+00	PHYSPROP	1.9E-04	PHYSPROP	7.9E+00	3.7E+00	1.7E+01	1.2E+00	EPI
~Methylnaphthalene, 1-	90-12-0	1.4E+02	PHYSPROP	2.1E-02	5.1E-04	PHYSPROP	6.7E-02	PHYSPROP	-3.0E+01	PHYSPROP	1.0E+00	CRC89	5.3E-02	7.8E-06	WATER9			2.5E+03	EPI	3.9E+00	PHYSPROP	2.6E+01	PHYSPROP	4.3E-01	6.6E-01	1.6E+00	9.3E-02	EPI
~Methylnaphthalene, 2-	91-57-6	1.4E+02	PHYSPROP	2.1E-02	5.2E-04	PHYSPROP	5.5E-02	PHYSPROP	3.4E+01	PHYSPROP	1.0E+00	CRC89	5.2E-02	7.8E-06	WATER9			2.5E+03	EPI	3.9E+00	PHYSPROP	2.5E+01	PHYSPROP	4.2E-01	6.6E-01	1.6E+00	9.2E-02	EPI
~Naphthalene	91-20-3	1.3E+02	PHYSPROP	1.8E-02	4.4E-04	PHYSPROP	8.5E-02	PHYSPROP	8.0E+01	PHYSPROP	1.0E+00	CRC89	6.0E-02	8.4E-06	WATER9			1.5E+03	EPI	3.3E+00	PHYSPROP	3.1E+01	PHYSPROP	2.0E-01	5.5E-01	1.3E+00	4.7E-02	EPI
~Nitropyrene, 4-	57835-92-4	2.5E+02	PHYSPROP	1.0E-06	2.5E-08	PHYSPROP	5.5E-08	PHYSPROP	1.9E+02	PHYSPROP			4.8E-02	5.6E-06	WATER9			8.6E+04	EPI	4.8E+00	PHYSPROP	6.8E-02	PHYSPROP	5.6E-01	2.6E+00	6.3E+00	9.2E-02	EPI
~Pyrene	129-00-0	2.0E+02	PHYSPROP	4.9E-04	1.2E-05	PHYSPROP	4.5E-06	PHYSPROP	1.5E+02	PHYSPROP	1.3E+00	CRC89	2.8E-02	7.2E-06	WATER9			5.4E+04	EPI	4.9E+00	PHYSPROP	1.4E-01	PHYSPROP	1.1E+00	1.4E+00	5.5E+00	2.0E-01	EPI
Potassium Perfluorobutane Sulfonate	29420-49-3	3.4E+02	EPI				1.1E-08	EPI	1.9E+02	EPI			3.9E-02	4.6E-06	WATER9			1.8E+02	EPI	-3.3E-01	EPI	1.4E+00	EPI	2.1E-04	8.2E+00	2.0E+01	3.0E-05	EPI
Prochloraz	67747-09-5	3.8E+02	PHYSPROP	6.7E-07	1.6E-08	EPI	1.1E-06	PHYSPROP	4.8E+01	PHYSPROP			3.6E-02	4.3E-06	WATER9			2.4E+03	EPI	4.1E+00	PHYSPROP	3.4E+01	PHYSPROP	4.8E-02	1.4E+01	3.2E+01	6.4E-03	EPI
Profluralin	26399-36-0	3.5E+02	PHYSPROP	1.2E-02	2.9E-04	EPI	6.3E-05	PHYSPROP	3.2E+01	PHYSPROP	1.4E+00	HSDB	2.2E-02	5.5E-06	WATER9			3.1E+04	EPI	5.6E+00	PHYSPROP	1.0E-01	PHYSPROP	6.5E-01	9.3E+00	3.7E+01	9.0E-02	EPI
Prometon	1610-18-0	2.3E+02	PHYSPROP	3.7E-08	9.1E-10	EPI	2.3E-06	PHYSPROP	9.1E+01	PHYSPROP			5.1E-02	6.0E-06	WATER9			1.4E+02	EPI	3.0E+00	PHYSPROP	7.5E+02	PHYSPROP	4.8E-02	1.9E+00	4.6E+00	8.3E-03	EPI
Prometryn	7287-19-6	2.4E+02	PHYSPROP	4.9E-07	1.2E-08	EPI	1.2E-06	PHYSPROP	1.2E+02	PHYSPROP	1.2E+00	CRC89	2.4E-02	6.2E-06	WATER9			6.6E+02	EPI	3.5E+00	PHYSPROP	3.3E+01	PHYSPROP	8.9E-02	2.4E+00	5.7E+00	1.5E-02	EPI
Propachlor	1918-16-7	2.1E+02	PHYSPROP	1.5E-05	3.6E-07	EPI	2.3E-04	PHYSPROP	7.7E+01	PHYSPROP	1.2E+00	CRC89	2.7E-02	7.0E-06	WATER9			2.0E+02	EPI	2.2E+00	PHYSPROP	5.8E+02	PHYSPROP	1.6E-02	1.6E+00	3.9E+00	2.9E-03	EPI
Propanil	709-98-8	2.2E+02	PHYSPROP	7.0E-08	1.7E-09	EPI	9.1E-07	PHYSPROP	9.2E+01	PHYSPROP	1.3E+00	CRC89	2.7E-02	6.9E-06	WATER9			1.8E+02	EPI	3.1E+00	PHYSPROP	1.5E+02	PHYSPROP	5.9E-02	1.8E+00	4.2E+00	1.0E-02	EPI
Propargite	2312-35-8	3.5E+02	PHYSPROP	2.6E-05	6.4E-07	EPI	3.0E-07	PHYSPROP	1.7E+02	EPI	1.1E+00	CRC89	1.9E-02	4.8E-06	WATER9			3.7E+04	EPI	5.0E+00	PHYSPROP	2.2E-01	PHYSPROP	2.6E-01	9.7E+00	2.3E+01	3.6E-02	EPI
Propargyl Alcohol	107-19-7	5.6E+01	PHYSPROP	4.7E-05	1.2E-06	EPI	1.6E+01	PHYSPROP	-5.0E+01	PHYSPROP	9.5E-01	CRC89	1.2E-01	1.3E-05	WATER9			1.9E+00	EPI	-3.8E-01	PHYSPROP	1.0E+06	PHYSPROP	1.2E-03	2.2E-01	5.2E-01	4.2E-04	EPI
Propazine	139-40-2	2.3E+02	PHYSPROP	1.9E-07	4.6E-09	EPI	1.3E-07	PHYSPROP	2.1E+02	PHYSPROP	1.2E+00	CRC89	2.5E-02	6.4E-06	WATER9			3.4E+02	EPI	2.9E+00	PHYSPROP	8.6E+00	PHYSPROP	4.2E-02	2.0E+00	4.9E+00	7.1E-03	EPI
Propham	122-42-9	1.8E+02	PHYSPROP	7.5E-06	1.8E-07	EPI	1.4E-04	PHYSPROP	8.7E+01	PHYSPROP	1.1E+00	CRC89	3.6E-02	7.1E-06	WATER9			2.2E+02	EPI	2.6E+00	PHYSPROP	1.8E+02	PHYSPROP	4.3E-02	1.1E+00	2.5E+00	8.3E-03	EPI
Propiconazole	60207-90-1	3.4E+02	PHYSPROP	7.0E-08	1.7E-09	EPI	4.2E-07	PHYSPROP	1.7E+02	EPI	1.3E+00	CRC89	2.1E-02	5.3E-06	WATER9			1.6E+03	EPI	3.7E+00	PHYSPROP	1.1E+02	PHYSPROP	4.0E-02	8.7E+00	2.1E+01	5.6E-03	EPI
Propionaldehyde	123-38-6	5.8E+01	PHYSPROP	3.0E-03	7.3E-05	PHYSPROP	3.2E+02	PHYSPROP	-8.0E+01	PHYSPROP	8.7E-01	CRC89	1.1E-01	1.2E-05	WATER9			1.0E+00	EPI	5.9E-01	PHYSPROP	3.1E+05	PHYSPROP	5.3E-03	2.2E-01	5.3E-01	1.8E-03	EPI
Propyl benzene	103-65-1	1.2E+02	PHYSPROP	4.3E-01	1.1E-02	PHYSPROP	3.4E+00	PHYSPROP	-1.0E+02	PHYSPROP	8.6E-01	CRC89	6.0E-02	7.8E-06	WATER9			8.1E+02	EPI	3.7E+00	PHYSPROP	5.2E+01	PHYSPROP	4.0E-01	5.0E-01	1.2E+00	9.4E-02	EPI
Propylene	115-07-1	4.2E+01	PHYSPROP	8.0E+00	2.0E-01	PHYSPROP	8.7E+03	PHYSPROP	-1.9E+02	PHYSPROP	5.1E-01	CRC89	1.1E-01	1.1E-05	WATER9			2.2E+01	EPI	1.8E+00	PHYSPROP	2.0E+02	PHYSPROP	3.4E-02	1.8E-01	4.3E-01	1.4E-02	EPI
Propylene Glycol	57-55-6	7.6E+01	PHYSPROP	5.3E-07	1.3E-08	EPI	1.3E-01	PHYSPROP	-6.0E+01	PHYSPROP	1.0E+00	CRC89	9.8E-02	1.2E-05	WATER9			1.0E+00	EPI	-9.2E-01	PHYSPROP	1.0E+06	PHYSPROP	4.8E-04	2.8E-01	6.7E-01	1.4E-04	EPI
Propylene Glycol Dinitrate	6423-43-4	1.7E+02	PHYSPROP	3.9E-05	9.4E-07	PHYSPROP	3.8E-01	PHYSPROP	-9.6E+00	EPI			6.3E-02	7.3E-06	WATER9			6.1E+01	EPI	1.8E+00	PHYSPROP	3.3E+03	EPI	1.0E-02	9.0E-01	2.1E+00	2.1E-03	EPI
Propylene Glycol Monomethyl Ether	107-98-2	9.0E+01	PHYSPROP	3.8E-05	9.2E-07	PHYSPROP	1.3E+01	PHYSPROP	-9.5E+01	PHYSPROP	9.6E-01	CRC89	8.3E-02	1.0E-05	WATER9			1.0E+00	EPI	-4.9E-01	PHYSPROP	1.0E+06	PHYSPROP	1.4E-03	3.4E-01	8.1E-01	3.7E-04	RAGSE
Propylene Oxide	75-56-9	5.8E+01	PHYSPROP	2.8E-03	7.0E-05	EPI	5.4E+02	PHYSPROP	-1.1E+02	PHYSPROP	8.3E-01	PERRY	1.1E-01	1.2E-05	WATER9			5.2E+00	EPI	3.0E-02	PHYSPROP	5.9E+05	PHYSPROP	2.3E-03	2.2E-01	5.3E-01	7.7E-04	EPI
Propyzamide	23950-58-5	2.6E+02	PHYSPROP	4.0E-07	9.8E-09	EPI	4.4E-07	PHYSPROP	1.6E+02	PHYSPROP			4.7E-02	5.5E-06	WATER9			4.0E+02	EPI	3.4E+00	PHYSPROP	1.5E+01	PHYSPROP	6.7E-02	2.9E+00	6.9E+00	1.1E-02	EPI
Pyridine	110-86-1	7.9E+01	PHYSPROP	4.5E-04	1.1E-05	PHYSPROP	2.1E+01	PHYSPROP	-4.2E+01	PHYSPROP	9.8E-01	CRC89	9.3E-02	1.1E-05	WATER9			7.2E+01	EPI	6.5E-01	PHYSPROP	1.0E+06	PHYSPROP	5.2E-03	2.9E-01	7.0E-01	1.5E-03	EPI
Quinalphos	13593-03-8	3.0E+02	PHYSPROP	1.9E-06	4.6E-08	EPI	2.6E-06	PHYSPROP	3.2E+01	PHYSPROP			4.3E-02	5.0E-06	WATER9			4.2E+03	EPI	4.4E+00	PHYSPROP	2.2E+01	PHYSPROP	2.0E-01	4.9E+00	1.2E+01	3.0E-02	EPI
Quinoline	91-22-5	1.3E+02	PHYSPROP	6.8E-05	1.7E-06	EPI	6.0E-02	PHYSPROP	-1.5E+01	PHYSPROP	1.1E+00	CRC89	6.2E-02	8.7E-06	WATER9			1.5E+03	EPI	2.0E+00	PHYSPROP	6.1E+03	PHYSPROP	2.9E-02	5.6E-01	1.3E+00	6.6E-03	EPI
Quizalofop-ethyl	76578-14-8	3.7E+02	PHYSPROP	4.3E-07	1.1E-08	EPI	6.5E-09	PHYSPROP	9.2E+01	PHYSPROP			3.7E-02	4.3E-06	WATER9			7.7E+03	EPI	4.3E+00	PHYSPROP	3.0E-01	PHYSPROP	6.6E-02	1.3E+01	3.1E+01	8.9E-03	EPI
Refractory Ceramic Fibers	NA																										1.0E-03	RAGSE
Resmethrin	10453-86-8	3.4E+02	PHYSPROP	5.4E-06	1.3E-07	EPI	1.1E-08	PHYSPROP	5.7E+01	PHYSPROP			3.9E-02	4.6E-06	WATER9			3.1E+05	EPI	6.1E+00	PHYSPROP	3.8E-02	PHYSPROP	1.7E+00	8.3E+00	3.3E+01	2.4E-01	EPI
Ronnel	299-84-3	3.2E+02	PHYSPROP	1.3E-03	3.2E-05	EPI	7.5E-05	PHYSPROP	4.1E+01	PHYSPROP	1.4E+00	CRC89	2.3E-02	5.9E-06	WATER9			4.5E+03	EPI	4.9E+00	PHYSPROP	1.0E+00	PHYSPROP	3.0E-01	6.6E+00	1.6E+01	4.3E-02	EPI
Rotenone	83-79-4	3.9E+02	PHYSPROP	4.6E-12	1.1E-13	PHYSPROP	6.9E-10	PHYSPROP	1.8E+02	PHYSPROP			3.5E-02	4.1E-06	WATER9			2.6E+05	EPI	4.1E+00	PHYSPROP	2.0E-01	PHYSPROP	3.9E-02	1.7E+01	4.1E+01	5.1E-03	EPI
Safrole	94-59-7	1.6E+02	PHYSPROP	3.7E-04	9.1E-06	PHYSPROP	6.2E-02	PHYSPROP	1.1E+01	PHYSPROP	1.1E+00	CRC89	4.4E-02	7.6E-06	WATER9			2.1E+02	EPI	3.5E+00	PHYSPROP	1.2E+02	PHYSPROP	5.5E-02	8.5E-01	2.0E+00	1.1E-02	RAGSE
Selenious Acid	7783-00-8	1.3E+02	PHYSPROP						7.0E+01	EPI	3.0E+00	CRC89										9.0E+05	PERRY	4.4E-03	5.5E-01	1.3E+00	1.0E-03	RAGSE
Selenium	7782-49-2	7.9E+01	PHYSPROP				1.4E-10	EPI	2.2E+02	PHYSPROP	4.8E+00	CRC89				5.0E+00	SSL							3.4E-03	2.9E-01	7.0E-01	1.0E-03	RAGSE
Selenium Sulfide	7446-34-6	1.1E+02	EPI																					4.1E-03	4.4E-01	1.1E+00	1.0E-03	RAGSE
Sethoxydim	74051-80-2	3.3E+02	PHYSPROP	8.8E-10	2.2E-11	PHYSPROP	1.6E-07	PHYSPROP	1.6E+02	EPI	1.0E+00	CRC89	2.0E-02	4.8E-06	WATER9			4.4E+03	EPI	4.4E+00	PHYSPROP	2.5E+01	PHYSPROP	1.3E-01	7.2E+00	1.7E+01	1.9E-02	EPI
Silica (crystalline, respirable)	7631-86-9	6.0E+01	EPI						1.7E+03	PERRY	2.3E+00	PERRY												3.0E-03	2.3E-01	5.5E-01	1.0E-03	RAGSE
Silver	7440-22-4	1.1E+02	PHYSPROP				0.0E+00	NIOSH	9.6E+02	PHYSPROP	1.1E+01	CRC89				8.3E+00	SSL							2.4E-03	4.2E-01	1.0E+00	6.0E-04	RAGSE
Simazine	122-34-9	2.0E+02	PHYSPROP	3.9E-08	9.4E-10	EPI	2.2E-08	PHYSPROP	2.3E+02	PHYSPROP	1.3E+00	CRC89	2.8E-02	7.4E-06	WATER9			1.5E+02	EPI	2.2E+00	PHYSPROP	6.2E+00	PHYSPROP	1.8E-02	1.4E+00	3.4E+00	3.3E-03	EPI
Sodium Acifluorfen	62476-59-9	3.8E+02	PHYSPROP	2.5E-09	6.1E-11	PHYSPROP	9.8E-09	EPI	2.8E+02	EPI			3.6E-02	4.2E-06	WATER9			3.9E+03	EPI	3.7E-01	PHYSPROP	2.5E+05	PHYSPROP	1.5E-04	1.5E+01	3.6E+01	2.0E-05	EPI
Sodium Azide	26628-22-8	6.5E+01	EPI						3.0E+02	CRC89	1.8E+00	CRC89										4.1E+05	CRC89	3.1E-03	2.4E-01	5.8E-01	1.0E-03	RAGSE
Sodium Dichromate	10588-01-9	2.6E+02	CRC89						3.6E+02	CRC89												1.9E+06	CRC89	6.2E-03	3.1E+00	7.4E+00	1.0E-03	RAGSE
Sodium Diethyldithiocarbamate	148-18-5	1.7E+02	PHYSPROP				8.2E-10	PHYSPROP	9.4E+01	PHYSPROP			6.1E-02	7.2E-06	WATER9			2.0E+02	EPI	-1.4E+00	PHYSPROP	3.6E+05	PHYSPROP	9.7E-05	9.7E-01	2.3E+00	1.9E-05	EPI
Sodium Fluoride	7681-49-4	4.2E+01	PHYSPROP				0.0E+00	NIOSH	9.9E+02	PHYSPROP	2.8E+00	CRC89										4.2E+04	PHYSPROP	2.5E-03	1.8E-01	4.3E-01	1.0E-03	RAGSE

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	τ_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Sodium Fluoroacetate	62-74-8	1.0E+02	PHYSPROP	4.5E-05	1.1E-06	PHYSPROP	6.5E-07	PHYSPROP	2.0E+02	PHYSPROP			8.8E-02	1.0E-05	WATER9			1.4E+00	EPI	-3.8E+00	PHYSPROP	1.1E+06	PHYSPROP	5.1E-06	3.8E-01	9.2E-01	1.3E-06	EPI
Sodium Metavanadate	13718-26-8	1.2E+02	CRC89						6.3E+02	CRC89												2.1E+05	CRC89	4.2E-03	5.1E-01	1.2E+00	1.0E-03	RAGSE
Sodium Tungstate	13472-45-2	2.9E+02	CRC89						7.0E+02	CRC89	4.2E+00	CRC89										7.4E+05	CRC89	6.6E-03	4.6E+00	1.1E+01	1.0E-03	RAGSE
Sodium Tungstate Dihydrate	10213-10-2	3.3E+02	CRC89						1.0E+02	CRC89	3.3E+00	CRC89										7.4E+05	CRC89	7.0E-03	7.4E+00	1.8E+01	1.0E-03	RAGSE
Stirofos (Tetrachlorovinphos)	961-11-5	3.7E+02	PHYSPROP	7.5E-08	1.8E-09	EPI	4.2E-08	PHYSPROP	9.8E+01	PHYSPROP			3.7E-02	4.3E-06	WATER9			1.4E+03	EPI	3.5E+00	PHYSPROP	1.1E+01	PHYSPROP	2.3E-02	1.2E+01	2.8E+01	3.1E-03	EPI
Strontium Chromate	7789-06-2	2.0E+02	CRC89								3.9E+00	CRC89										1.1E+03	CRC89	5.5E-03	1.5E+00	3.5E+00	1.0E-03	RAGSE
Strontium, Stable	7440-24-6	8.8E+01	PHYSPROP						7.8E+02	PHYSPROP	2.6E+00	CRC89				3.5E+01	BAES							3.6E-03	3.3E-01	7.8E-01	1.0E-03	RAGSE
Strychnine	57-24-9	3.3E+02	PHYSPROP	3.1E-12	7.6E-14	PHYSPROP	2.9E-09	PHYSPROP	2.9E+02	PHYSPROP	1.4E+00	CRC89	2.2E-02	5.6E-06	WATER9			5.4E+03	EPI	1.9E+00	PHYSPROP	1.6E+02	PHYSPROP	2.8E-03	7.8E+00	1.9E+01	4.0E-04	EPI
Styrene	100-42-5	1.0E+02	PHYSPROP	1.1E-01	2.8E-03	PHYSPROP	6.4E+00	PHYSPROP	-3.1E+01	PHYSPROP	9.0E-01	CRC89	7.1E-02	8.8E-06	WATER9			4.5E+02	EPI	3.0E+00	PHYSPROP	3.1E+02	PHYSPROP	1.5E-01	4.0E-01	9.7E-01	3.7E-02	EPI
Styrene-Acrylonitrile (SAN) Trimer	NA	2.1E+02	OTHER								1.1E+00	PPRTV	2.6E-02	6.5E-06	WATER9					3.1E+00	OTHER	8.5E+01	PPRTV	6.6E-02	1.6E+00	3.8E+00	1.2E-02	RAGSE
Sulfolane	126-33-0	1.2E+02	PHYSPROP	2.0E-04	4.9E-06	PHYSPROP	4.1E-03	EPI	2.8E+01	PHYSPROP	1.3E+00	CRC89	7.2E-02	9.9E-06	WATER9			9.1E+00	EPI	-7.7E-01	PHYSPROP	1.0E+06	PHYSPROP	4.3E-04	5.0E-01	1.2E+00	1.0E-04	EPI
Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	2.9E+02	PHYSPROP	5.6E-06	1.4E-07	PHYSPROP	8.1E-07	PHYSPROP	1.5E+02	PHYSPROP			4.4E-02	5.1E-06	WATER9			2.9E+03	EPI	3.9E+00	PHYSPROP	2.4E+00	PHYSPROP	9.7E-02	4.3E+00	1.0E+01	1.5E-02	EPI
Sulfur Trioxide	7446-11-9	8.0E+01	PHYSPROP				2.6E+02	PHYSPROP	1.7E+01	PHYSPROP	1.9E+00	CRC89	1.2E-01	1.6E-05	WATER9									3.4E-03	3.0E-01	7.1E-01	1.0E-03	RAGSE
Sulfuric Acid	7664-93-9	9.8E+01	PHYSPROP				5.9E-05	PHYSPROP	1.0E+01	PHYSPROP	1.8E+00	CRC89										1.0E+06	PHYSPROP	3.8E-03	3.7E-01	8.9E-01	1.0E-03	RAGSE
Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	3.3E+02	PHYSPROP	7.8E-06	1.9E-07	PHYSPROP	2.2E-07	PHYSPROP	-3.2E+01	PHYSPROP	1.1E+00	CRC89	2.0E-02	5.0E-06	WATER9			5.6E+03	EPI	4.8E+00	PHYSPROP	5.9E-01	PHYSPROP	2.3E-01	7.9E+00	1.9E+01	3.3E-02	EPI
TCMTB	21564-17-0	2.4E+02	PHYSPROP	2.7E-10	6.5E-12	PHYSPROP	3.1E-07	PHYSPROP	1.5E+02	EPI			4.9E-02	5.8E-06	WATER9			3.4E+03	EPI	3.3E+00	PHYSPROP	1.3E+02	PHYSPROP	6.7E-02	2.3E+00	5.5E+00	1.1E-02	EPI
Tebuthiuron	34014-18-1	2.3E+02	PHYSPROP	4.9E-09	1.2E-10	PHYSPROP	3.0E-07	PHYSPROP	1.6E+02	PHYSPROP			5.1E-02	5.9E-06	WATER9			4.2E+01	EPI	1.8E+00	PHYSPROP	2.5E+03	PHYSPROP	7.4E-03	2.0E+00	4.8E+00	1.3E-03	EPI
Temephos	3383-96-8	4.7E+02	PHYSPROP	8.0E-08	2.0E-09	PHYSPROP	7.9E-08	PHYSPROP	3.0E+01	PHYSPROP	1.3E+00	CRC89	1.8E-02	4.5E-06	WATER9			9.5E+04	EPI	6.0E+00	PHYSPROP	2.7E-01	PHYSPROP	2.9E-01	4.3E+01	1.0E+02	3.5E-02	EPI
Terbacil	5902-51-2	2.2E+02	PHYSPROP	4.9E-09	1.2E-10	EPI	4.7E-07	PHYSPROP	1.8E+02	PHYSPROP	1.3E+00	CRC89	2.7E-02	7.2E-06	WATER9			5.0E+01	EPI	1.9E+00	PHYSPROP	7.1E+02	PHYSPROP	9.7E-03	1.7E+00	4.1E+00	1.7E-03	EPI
Terbufos	13071-79-9	2.9E+02	PHYSPROP	9.8E-04	2.4E-05	EPI	3.2E-04	PHYSPROP	-2.9E+01	PHYSPROP	1.1E+00	CRC89	2.2E-02	5.4E-06	WATER9			1.0E+03	EPI	4.5E+00	PHYSPROP	5.1E+00	PHYSPROP	2.3E-01	4.3E+00	1.0E+01	3.6E-02	EPI
Terbutryn	886-50-0	2.4E+02	PHYSPROP	8.8E-07	2.2E-08	EPI	1.7E-06	PHYSPROP	1.0E+02	PHYSPROP	1.1E+00	CRC89	2.4E-02	6.0E-06	WATER9			6.1E+02	EPI	3.7E+00	PHYSPROP	2.5E+01	PHYSPROP	1.3E-01	2.4E+00	5.7E+00	2.1E-02	EPI
Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	4.9E+02	PHYSPROP	1.2E-04	3.0E-06	PHYSPROP	7.0E-08	EPI	1.6E+02	EPI			3.1E-02	3.6E-06	WATER9			1.3E+04	EPI	6.8E+00	PHYSPROP	1.5E-03	PHYSPROP	7.9E-01	5.5E+01	2.1E+02	9.3E-02	EPI
Tetrachlorobenzene, 1,2,4,5-	95-94-3	2.2E+02	PHYSPROP	4.1E-02	1.0E-03	PHYSPROP	5.4E-03	EPI	1.4E+02	PHYSPROP	1.9E+00	CRC89	3.2E-02	8.8E-06	WATER9			2.2E+03	EPI	4.6E+00	PHYSPROP	6.0E-01	PHYSPROP	6.6E-01	1.7E+00	6.7E+00	1.2E-01	EPI
Tetrachloroethane, 1,1,1,2-	630-20-6	1.7E+02	PHYSPROP	1.0E-01	2.5E-03	PHYSPROP	1.2E+01	PHYSPROP	-7.0E+01	PHYSPROP	1.5E+00	CRC89	4.8E-02	9.1E-06	WATER9			8.6E+01	EPI	2.9E+00	PHYSPROP	1.1E+03	PHYSPROP	7.9E-02	9.2E-01	2.2E+00	1.6E-02	EPI
Tetrachloroethane, 1,1,2,2-	79-34-5	1.7E+02	PHYSPROP	1.5E-02	3.7E-04	PHYSPROP	4.6E+00	PHYSPROP	-4.4E+01	PHYSPROP	1.6E+00	CRC89	4.9E-02	9.3E-06	WATER9			9.5E+01	EPI	2.4E+00	PHYSPROP	2.8E+03	PHYSPROP	3.5E-02	9.2E-01	2.2E+00	6.9E-03	EPI
Tetrachloroethylene	127-18-4	1.7E+02	PHYSPROP	7.2E-01	1.8E-02	PHYSPROP	1.9E+01	PHYSPROP	-2.2E+01	PHYSPROP	1.6E+00	CRC89	5.0E-02	9.5E-06	WATER9			9.5E+01	EPI	3.4E+00	PHYSPROP	2.1E+02	PHYSPROP	1.7E-01	8.9E-01	2.1E+00	3.3E-02	EPI
Tetrachlorophenol, 2,3,4,6-	58-90-2	2.3E+02	PHYSPROP	3.6E-04	8.8E-06	EPI	6.7E-04	EPI	7.0E+01	PHYSPROP			5.0E-02	5.9E-06	WATER9			2.8E+02	SSL	4.5E+00	PHYSPROP	2.3E+01	PHYSPROP	4.2E-01	2.1E+00	5.0E+00	7.1E-02	EPI
Tetrachlorotoluene, p-alpha, alpha, alpha-	5216-25-1	2.3E+02	PHYSPROP	7.9E-03	1.9E-04	PHYSPROP	3.8E-02	PHYSPROP	4.0E+01	EPI	1.4E+00	CRC89	2.8E-02	7.3E-06	WATER9			1.6E+03	EPI	4.5E+00	PHYSPROP	4.0E+00	PHYSPROP	4.9E-01	2.0E+00	4.9E+00	8.4E-02	EPI
Tetraethyl Dithiopyrophosphate	3689-24-5	3.2E+02	PHYSPROP	1.8E-04	4.5E-06	EPI	1.1E-04	PHYSPROP	-3.2E+01	EPI	1.2E+00	CRC89	2.1E-02	5.3E-06	WATER9			2.7E+02	EPI	4.0E+00	PHYSPROP	3.0E+01	PHYSPROP	7.5E-02	6.7E+00	1.6E+01	1.1E-02	EPI
Tetrafluoroethane, 1,1,1,2-	811-97-2	1.0E+02	PHYSPROP	2.0E+00	5.0E-02	PHYSPROP	5.0E+03	PHYSPROP	-1.0E+02	PHYSPROP	1.2E+00	CRC89	8.2E-02	1.1E-05	WATER9			8.6E+01	EPI	1.7E+00	PHYSPROP	2.0E+03	PHYSPROP	2.1E-02	3.9E-01	9.4E-01	5.5E-03	EPI
Tetryl (Trinitrophenylmethyl nitramine)	479-45-8	2.9E+02	PHYSPROP	1.1E-07	2.7E-09	PHYSPROP	5.7E-08	PHYSPROP	1.3E+02	PHYSPROP	1.6E+00	CRC89	2.6E-02	6.7E-06	WATER9			4.6E+03	EPI	1.6E+00	PHYSPROP	7.4E+01	PHYSPROP	3.1E-03	4.3E+00	1.0E+01	4.7E-04	EPI
Thallic Oxide	1314-32-5	4.6E+02	CRC89						8.3E+02	CRC89	1.0E+01	CRC89												8.2E-03	3.8E+01	9.1E+01	1.0E-03	RAGSE
Thallium (I) Nitrate	10102-45-1	2.7E+02	PHYSPROP						2.1E+02	PHYSPROP	5.6E+00	CRC89										9.6E+04	PHYSPROP	6.3E-03	3.3E+00	7.9E+00	1.0E-03	RAGSE
Thallium (Soluble Salts)	7440-28-0	2.1E+02	PHYSPROP						3.0E+02	PHYSPROP	1.2E+01	CRC89				7.1E+01	SSL							5.5E-03	1.5E+00	3.6E+00	1.0E-03	RAGSE
Thallium Acetate	563-68-8	2.6E+02	PHYSPROP				1.5E+01	PHYSPROP	1.3E+02	CRC89	3.7E+00	CRC89	3.9E-02	1.2E-05	WATER9			1.5E+00	EPI	-1.7E-01	PHYSPROP	2.8E+04	PHYSPROP	2.5E-04	3.1E+00	7.5E+00	4.0E-05	EPI
Thallium Carbonate	6533-73-9	4.7E+02	PHYSPROP				5.8E+00	PHYSPROP	2.7E+02	PHYSPROP	7.1E+00	CRC89	3.9E-02	1.2E-05	WATER9			2.9E+00	EPI	-8.6E-01	PHYSPROP	5.2E+04	PHYSPROP	8.2E-06	4.4E+01	1.1E+02	9.8E-07	EPI
Thallium Chloride	7791-12-0	2.4E+02	PHYSPROP						4.3E+02	PHYSPROP	7.0E+00	CRC89	5.2E-02	1.8E-05	WATER9							2.9E+03	PHYSPROP	6.0E-03	2.3E+00	5.6E+00	1.0E-03	RAGSE
Thallium Selenite	12039-52-0	2.8E+02	EPI						3.3E+02	CRC89														6.5E-03	4.1E+00	9.7E+00	1.0E-03	RAGSE
Thallium Sulfate	7446-18-6	5.0E+02	PHYSPROP						6.3E+02	PHYSPROP	6.8E+00	CRC89										5.5E+04	CRC89	8.6E-03	7.1E+01	1.7E+02	1.0E-03	RAGSE
Thifensulfuron-methyl	79277-27-3	3.9E+02	PHYSPROP	1.7E-12	4.1E-14	PHYSPROP	1.3E-10	PHYSPROP	1.8E+02	PHYSPROP			3.6E-02	4.2E-06	WATER9			5.1E+01	EPI	1.6E+00	PHYSPROP	2.2E+03	PHYSPROP	8.6E-04	1.6E+01	3.7E+01	1.1E-04	EPI
Thiobencarb	28249-77-6	2.6E+02	PHYSPROP	1.1E-05	2.7E-07	EPI	2.2E-05	PHYSPROP	3.3E+00	PHYSPROP	1.2E+00	CRC89	2.3E-02	5.9E-06	WATER9			1.6E+03	EPI	3.4E+00	PHYSPROP	2.8E+01	PHYSPROP	6.3E-02	2.9E+00	7.0E+00	1.0E-02	EPI
Thiodiglycol	111-48-8	1.2E+02	PHYSPROP	7.6E-08	1.9E-09	PHYSPROP	3.2E-03	PHYSPROP	-1.0E+01	PHYSPROP	1.2E+00	CRC89	6.8E-02	9.4E-06	WATER9			1.0E+00	EPI	-6.3E-01	PHYSPROP	1.0E+06	PHYSPROP	5.2E-04	5.1E-01	1.2E+00	1.2E-04	EPI
Thiofanox	39196-18-4	2.2E+02	PHYSPROP	3.8E-07	9.4E-09	EPI	1.7E-04	PHYSPROP	5.7E+01	PHYSPROP			5.2E-02	6.1E-06	WATER9			7.2E+01	EPI	2.2E+00	PHYSPROP	5.2E+03	PHYSPROP	3.6E-02	1.8E+00	4.2E+00	6.3E-03	EPI
Thiophanate, Methyl	23564-05-8	3.4E+02	PHYSPROP	4.9E-08	1.2E-09	EPI	7.1E-08	PHYSPROP	1.7E+02	EPI			3.9E-02	4.5E-06	WATER9			3.3E+02	EPI	1.4E+00	PHYSPROP	2.7E+01	PHYSPROP	1.1E-03	8.7E+00	2.1E+01	1.6E-04	EPI
Thiram	137-26-8	2.4E+02	PHYSPROP	7.4E-06	1.8E-07	EPI	1.7E-05	PHYSPROP	1.6E+02	PHYSPROP	1.3E+00	PERRY	2.6E-02	6.6E-06	WATER9			6.1E+02	EPI	1.7E+00	PHYSPROP	3.0E+01	PHYSPROP	5.9E-03	2.3E+00	5.6E+00	9.9E-04	EPI
Tin	7440-31-5	1.2E+02	CRC89				0.0E+00	NIOSH	1.3E+01	CRC89	7.3E+00	CRC89				2.5E+02	BAES							4.2E-03	4.9E-01	1.2E+00	1.0E-03	RAGSE
Titanium Tetrachloride	7550-45-0	1.9E+02	CRC89				1.0E+01	ATSDR Profile	-2.4E+01	CRC89	1.7E+00	CRC89	3.8E-02	9.1E-06	WATER9									5.3E-03	1.2E+00	2.9E+00	1.0E-03	RAGSE
Toluene	108-88-3	9.2E+01	PHYSPROP	2.7E-01	6.6E-03	PHYSPROP	2.8E+01	PHYSPROP	-9.5E+01	PHYSPROP	8.6E-01	CRC89	7.8E-02	9.2E-06	WATER9			2.3E+02	EPI	2.7E+00	PHYSPROP	5.3E+02	PHYSPROP	1.1E-01	3.5E-01	8.3E-01	3.1E-02	EPI
Toluene-2,4-diisocyante	584-84-9	1.7E+02	EPI	4.5E-04	1.1E-05	EPI	8.0E-03	EPI	2.1E+01	EPI	1.2E+00	CRC89	4.0E-02	7.8E-06	WATER9			7.4E+03	EPI	3.7E+00	EPI	3.8E+01	EPI	2.6E+00	9.9E-01	4.1E+00	5.1E-01	EPI
Toluene-2,5-diamine	95-70-5	1.2E+02	PHYSPROP	3.0E-07	7.4E-09	PHYSPROP	3.4E-03	PHYSPROP	6.4E+01	PHYSPROP			7.7E-02	9.0E-06	WATER9			5.5E+01	EPI	1.6E-01	PHYSPROP	7.7E+04	PHYSPROP	1.7E-03	5.1E-01	1.2E+00	4.1E-04	EPI
Toluene-2,6-diisocyante	91-08-7	1.7E+02	EPI	4.5E-04	1.1E-05	EPI	2.1E-02	EPI	1.8E+01	EPI			6.1E-02	7.1E-06	WATER9			7.6E+03	EPI	3.7E+00	EPI	3.8E+01	EPI	2.6E-01	9.9E-01	2.4E+00	5.1E-02	EPI
Toluidine, o- (Methylaniline, 2-)	95-53-4	1.1E+02	PHYSPROP	8.1E-05	2.0E-06	PHYSPROP	2.6E-01	PHYSPROP	-1.4E+01	PHYSPROP	1.0E+00	CRC89	7.2E-02	9.2E-06	WATER9			1.2E+02	EPI	1.3E+00	PHYSPROP	1.7E+04	PHYSPROP	1.2E-02	4.2E-01	1.0E+00	3.0E-03	EPI
Toluidine, p-	106-49-0	1.1E+02	PHYSPROP	8.3E-05	2.0E-06	PHYSPROP	2.9E-01	PHYSPROP	4.4E+01	PHYSPROP	9.6E-01	CRC89	7.1E-02	9.0E-06	WATER9			1.1E+02	EPI	1.4E+00	PHYSPROP	6.5E+03	PHYSPROP	1.3E-02	4.2E-01	1.0E+00	3.3E-03	EPI
Total Petroleum Hydrocarbons (Aliphatic High)	NA	1.7E+02	EPI	3.3E+02	8.2E+00	EPI	1.4E-01	EPI	-9.6E+00	EPI			6.2E-02	7.2E-06	WATER9			4.8E+03	EPI	6.1E+00	EPI	3.7E-03	EPI	9.8E+00	9.5E-01	4.3E+00	2.0E+00	EPI
Total Petroleum Hydrocarbons (Aliphatic Low)	NA	8.6E+01	EPI	7.4E+01	1.8E+00	EPI	1.5E+02	EPI	-9.5E+01	EPI	6.6E-01	CRC89	7.3E-02	8.2E-06	WATER9			1.3E+02	EPI	3.9E+00	EPI	9.5E+00	EPI	7.2E-01	3.2E-01	1.2E+00	2.0E-01	EPI
Total Petroleum Hydrocarbons (Aliphatic Medium)	NA	1.3E+02	EPI	1.4E+02	3.4E+00	EPI	4.5E+00	EPI	-5.4E+01	EPI	7.2E-01	CRC89	5.1E-02	6.8E-06	WATER9			8.0E+02	EPI	5.7E+00	EPI	2.2E-01	EPI	7.4E+00	5.5E-01	2.5E+00	1.7E+00	EPI
Total Petroleum Hydrocarbons (Aromatic High)	NA	2.0E+02	EPI	3.6E-04	8.9E-06	EPI	9.2E-06	EPI	1.1E+02	EPI	1.3E+00	CRC89	2.8E-02	7.2E-06	WATER9			5.5E+04	EPI	5.2E+00	EPI	2.6E-01	EPI	1.7E+00	1.4E+00	5.7E+00	3.1E-01	EPI
Total Petroleum Hydrocarbons (Aromatic Low)	NA	7.8E+01	EPI	2.3E-01	5.6E-03	EPI	9.5E+01	EPI	5.5E+00	EPI	8.8E-01	CRC89	9.0E-02	1.0E-05	WATER9			1.5E+02	EPI	2.1E+00	EPI	1.8E+03	EPI	5.1E-02	2.9E-01	6.9E-01	1.5E-02	EPI
Total Petroleum Hydrocarbons (Aromatic Medium)	NA	1.4E+02	EPI	2.0E-02	4.8E-04	EPI	7.0E-02	EPI	5.7E+01	EPI	1.0E+00	CRC89	5.6E-02	8.1E-06	WATER9			2.0E+03	EPI	3.6E+00	EPI	2.8E+01	EPI	3.1E-01	6.0E-01	1.4E+00	6.9E-02	EPI
Toxaphene	8001-35-2	4.5E+02	PHYSPROP	2.5E-04	6.0E-06	PHYSPROP	6.7E-06	PHYSPROP	7.7E+01	PHYSPROP			3.2E-02	3.8E-06	WATER9			7.7E+04	EPI	5.9E+00	PHYSPROP	5.5E-01	PHYSPROP	4.2E-01	3.4E+01	8.2E+01	5.2E-02	EPI
Tralomethrin	66841-25-6	6.7E+02	PHYSPROP	1.6E-08	3.9E-10	EPI	3.6E-11	PHYSPROP	1.4E+02	PHYSPROP			2.5E-02	2.9E-06	WATER9			1.9E+05	EPI	7.6E+00	PHYSPROP	8.0E-02	PHYSPROP	3.0E-01	5.6E+02	1.3E+03	3.1E-02	EPI
Tri-n-butyltin	688-73-3	2.9E+02	PHYSPROP	6.2E+01	1.5E+00	PHYSPROP	4.0E-02	PHYSPROP	2.9E+01	EPI	1.1E+00	CRC89	2.1E-02	5.4E-06	WATER9			8.1E+03	EPI	4.1E+00	PHYSPROP	7.3E-03	PHYSPROP	1.3E-01	4.5E+00	1.1E+01	1.9E-02	EPI
Triacetin	102-76-1	2.2E+02	PHYSPROP	5.0E-07	1.2E-08	EPI	2.5E-03	PHYSPROP	7.8E+01	PHYSPROP	1.2E+00	CRC89	2.6E-02	6.6E-06	WATER9			4.1E+01	EPI	2.5E-01	PHYSPROP	5.8E+04	PHYSPROP	7.8E-04	1.8E+00	4.2E+00	1.4E-04	EPI
Triadimefon	43121-43-3	2.9E+02	PHYSPROP	3.3E-09	8.1E-11	EPI	1.5E-08	PHYSPROP	8.2E+01	PHYSPROP	1.2E+00	CRC89	2.2E-02	5.7E-06	WATER9			3.0E+02	EPI	2.8E+00	PHYSPROP	7.2E+01	PHYSPROP	1.6E-02	4.6E+00	1.1E+01	2.4E-03	EPI
Triallate	2303-17-5	3.0E+02	PHYSPROP	4.9E-04	1.2E-05	EPI	1.2E-04	PHYSPROP	2.9E+01	PHYSPROP	1.3E+00	CRC89	2.2E-02	5.7E-06	WATER9			1.0E+03	EPI	4.6E+00	PHYSPROP	4.0E+00	PHYSPROP	2.3E-01	5.3E+00	1.3E+01	3.5E-02	EPI
Triasulfuron	82097-50-5	4.0E+02	PHYSPROP	1.3E-11	3.2E-13	PHYSPROP	5.5E-12	PHYSPROP	1.9E+02	PHYSPROP			3.5E-02	4.1E-06	WATER9			4.3E+02	EPI	1.1E+00	PHYSPROP	3.2E+01	PHYSPROP	3.6E-04	1.9E+01	4.5E+01	4.7E-05	EPI
Tribenuron-methyl	101200-48-0	4.0E+02	PHYSPROP	4.2E-12	1.0E-13	PHYSPROP	3.9E-10	PHYSPROP	1.4E+02	PHYSPROP			3.5E-02	4.1E-06	WATER9			9.5E+01	EPI	7.8E-01	PHYSPROP	5.0E+01	PHYSPROP	3.6E-03	1.7E+01	4.1E+01	4.7E-04	EPI
Tribromobenzene, 1,2,4-	615-54-3	3.1E+02	PHYSPROP	1.4E-02	3.4E-04	PHYSPROP	5.5E-03	PHYSPROP	4.5E+01	PHYSPROP	2.3E+00	ChemNet	2.9E-02	7.9E-06	WATER9			6.1E+02	EPI	4.7E+00	PHYSPROP	4.9E+00	PHYSPROP	2.3E-01	6.1E+00	1.5E+01	3.4E-02	EPI
Tributyl Phosphate	126-73-8	2.7E+02	PHYSPROP	5.8E-05	1.4E-06	EPI	1.1E-03	PHYSPROP	-7.9E+01	PHYSPROP	9.7E-01	CRC89	2.1E-02	5.2E-06	WATER9			2.4E+03	EPI	4.0E+00	PHYSPROP	2.8E+02	PHYSPROP	1.4E-01	3.3E+00	7.8E+00	2.3E-02	EPI
Compounds	NA																											
Tributyltin Oxide	56-35-9	6.0E+02	PHYSPROP	1.2E-05	3.0E-07	EPI	7.5E-06	PHYSPROP	-4.5E+01	PHYSPROP	1.2E+00	CRC89	1.5E-02	3.6E-06	WATER9			2.6E+07	EPI	4.1E+00	PHYSPROP	2.0E+01	PHYSPROP	2.4E-03	2.3E+02	5.5E+02	2.5E-04	EPI
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	1.9E+02	PHYSPROP	2.2E+01	5.3E-01	EPI	3.6E+02	PHYSPROP	-3.5E+01	PHYSPROP	1.6E+00	CRC89	3.8E-02	8.6E-06	WATER9			2.0E+02	EPI	3.2E+00	PHYSPROP	1.7E+02	PHYSPROP	9.2E-02	1.2E+00	2.8E+00	1.8E-02	EPI
Trichloroacetic Acid	76-03-9	1.6E+02	PHYSPROP	5.5E-07	1.4E-08	PHYSPROP	6.0E-02	EPI	5.8E+01	PHYSPROP	1.6E+00	CRC89	5.2E-02	9.5E-06	WATER9			3.2E+00	EPI	1.3E+00	PHYSPROP	5.5E+04	PHYSPROP	7.1E-03	8.6E-01	2.1E+00	1.5E-03	EPI
Trichloroaniline HCl, 2,4,6-	33663-50-2	2.3E+02	EPI	2.9E-12	7.2E-14	EPI	6.1E-08	EPI	1.8E+02	EPI			5.0E-02	5.9E-06	WATER9			1.3E+03	EPI	-6.7E-01	EPI	2.1E+01	EPI	1.6E-04	2.1E+00	5.1E+00	2.8E-05	EPI
Trichloroaniline, 2,4,6-	634-93-5	2.0E+02	PHYSPROP	5.5E-05	1.3E-06	PHYSPROP	4.4E-03	PHYSPROP	7.9E+01	PHYSPROP			5.6E-02	6.6E-06	WATER9			4.4E+03	EPI	3.5E+00	PHYSPROP	4.0E+01	PHYSPROP	1.5E-01	1.3E+00	3.2E+00	2.7E-02	EPI
Trichlorobenzene, 1,2,3-	87-61-6	1.8E+02	PHYSPROP	5.1E-02	1.3E-03	PHYSPROP	2.1E-01	PHYSPROP	5.4E+01	PHYSPROP	1.5E+00	CRC89	4.0E-02	8.4E-06	WATER9			1.4E+03	EPI	4.1E+00	PHYSPROP	1.8E+01	PHYSPROP	3.8E-01	1.1E+00	2.6E+00	7.4E-02	EPI
Trichlorobenzene, 1,2,4-	120-82-1	1.8E+02	PHYSPROP	5.8E-02	1.4E-03	PHYSPROP	4.6E-01	PHYSPROP	1.7E+01	PHYSPROP	1.5E+00	CRC89	4.0E-02	8.4E-06	WATER9			1.4E+03	EPI	4.0E+00	PHYSPROP	4.9E+01	PHYSPROP	3.7E-01	1.1E+00	2.6E+00	7.1E-02	EPI
Trichloroethane, 1,1,1-	71-55-6	1.3E+02	PHYSPROP	7.0E-01	1.7E-02	PHYSPROP	1.2E+02	PHYSPROP	-3.0E+01	PHYSPROP	1.3E+00	CRC89	6.5E-02	9.6E-06	WATER9			4.4E+01	EPI	2.5E+00	PHYSPROP	1.3E+03	PHYSPROP	5.6E-02	5.9E-01	1.4E+00	1.3E-02	EPI
Trichloroethane, 1,1,2-	79-00-5	1.3E+02	PHYSPROP	3.4E-02	8.2E-04	PHYSPROP	2.3E+01	PHYSPROP	-3.7E+01	PHYSPROP	1.4E+00	CRC89	6.7E-02	1.0E-05	WATER9			6.1E+01	EPI	1.9E+00	PHYSPROP	4.6E+03	PHYSPROP	2.2E-02	5.9E-01	1.4E+00	5.0E-03	EPI
Trichloroethylene	79-01-6	1.3E+02	PHYSPROP	4.0E-01	9.9E-03	PHYSPROP	6.9E+01	PHYSPROP	-8.5E+01	PHYSPROP	1.5E+00	CRC89	6.9E-02	1.0E-05	WATER9			6.1E+01	EPI	2.4E+00	PHYSPROP	1.3E+03	PHYSPROP	5.1E-02	5.7E-01	1.4E+00	1.2E-02	EPI
Trichlorofluoromethane	75-69-4	1.4E+02	PHYSPROP	4.0E+00	9.7E-02	PHYSPROP	8.0E+02	PHYSPROP	-1.1E+02	PHYSPROP	1.5E+00	CRC89	6.5E-02	1.0E-05	WATER9			4.4E+01	EPI	2.5E+00	PHYSPROP	1.1E+03	PHYSPROP	5.7E-02	6.2E-01	1.5E+00	1.3E-02	EPI
Trichlorophenol, 2,4,5-	95-95-4	2.0E+02	PHYSPROP	6.6E-05	1.6E-06	EPI	7.5E-03	EPI	6.9E+01	PHYSPROP	1.5E+00	PERRY	3.1E-02	8.1E-06	WATER9			1.6E+03	SSL	3.7E+00	PHYSPROP	1.2E+03	PHYSPROP	2.0E-01	1.3E+00	3.2E+00	3.6E-02	EPI

Contaminant		Molecular Weight		Volatility Parameters					Melting Point		Density		Diffusivity in Air and Water			Partition Coefficients						Water Solubility		Tapwater Dermal Parameters				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Analyte	CAS No.	MW	MW Ref	H` (unitless)	HLC (atm-m^3/mole)	H` and HLC Ref	VP	VP Ref	MP	MP Ref	Density (g/cm^3)	Density Ref	Dia (cm^2/s)	Diw (cm^2/s)	D_{ia} and D_{iw} Ref	K_d (L/kg)	K_d Ref	K_{oc} (L/kg)	K_{oc} Ref	log K_{ow} (unitless)	log K_{ow} Ref	S (mg/L)	S Ref	B (unitless)	T_{event} (hr/event)	t* (hr)	K_p (cm/hr)	K Ref
Trichlorophenol, 2,4,6-	88-06-2	2.0E+02	PHYSPROP	1.1E-04	2.6E-06	EPI	8.0E-03	EPI	6.9E+01	PHYSPROP	1.5E+00	CRC89	3.1E-02	8.1E-06	WATER9			3.8E+02	SSL	3.7E+00	PHYSPROP	8.0E+02	PHYSPROP	1.9E-01	1.3E+00	3.2E+00	3.5E-02	EPI
Trichlorophenoxyaceti c Acid, 2,4,5-	93-76-5	2.6E+02	PHYSPROP	3.5E-07	8.7E-09	PHYSPROP	3.8E-05	EPI	1.5E+02	PHYSPROP	1.8E+00	PubChem	2.9E-02	7.8E-06	WATER9			1.1E+02	EPI	3.3E+00	PHYSPROP	2.8E+02	PHYSPROP	5.6E-02	2.8E+00	6.8E+00	9.1E-03	EPI
Trichlorophenoxyprop ionic acid, -2,4,5	93-72-1	2.7E+02	PHYSPROP	3.7E-07	9.1E-09	PHYSPROP	1.0E-05	PHYSPROP	1.8E+02	PHYSPROP	1.2E+00	PubChem	2.3E-02	5.9E-06	WATER9			1.8E+02	EPI	3.8E+00	PHYSPROP	7.1E+01	PHYSPROP	1.0E-01	3.4E+00	8.2E+00	1.6E-02	EPI
Trichloropropane, 1,1,2-	598-77-6	1.5E+02	PHYSPROP	1.3E-02	3.2E-04	EPI	3.1E+00	PHYSPROP	-6.5E+01	EPI	1.4E+00	CRC89	5.7E-02	9.2E-06	WATER9			9.5E+01	EPI	2.4E+00	PHYSPROP	1.9E+03	PHYSPROP	4.5E-02	7.0E-01	1.7E+00	9.6E-03	EPI
Trichloropropane, 1,2,3-	96-18-4	1.5E+02	PHYSPROP	1.4E-02	3.4E-04	PHYSPROP	3.7E+00	PHYSPROP	-1.5E+01	PHYSPROP	1.4E+00	CRC89	5.7E-02	9.2E-06	WATER9			1.2E+02	EPI	2.3E+00	PHYSPROP	1.8E+03	PHYSPROP	3.5E-02	7.0E-01	1.7E+00	7.5E-03	EPI
Trichloropropene, 1,2,3-	96-19-5	1.5E+02	PHYSPROP	7.2E-01	1.8E-02	PHYSPROP	4.4E+00	PHYSPROP	-5.6E+01	EPI	1.4E+00	CRC89	5.9E-02	9.4E-06	WATER9			1.2E+02	EPI	2.8E+00	PHYSPROP	3.3E+02	PHYSPROP	7.8E-02	6.9E-01	1.6E+00	1.7E-02	EPI
Tricresyl Phosphate (TCP)	1330-78-5	3.7E+02	PHYSPROP	3.3E-05	8.1E-07	EPI	6.0E-07	EPI	-3.3E+01	PHYSPROP	1.2E+00	Yaws	1.9E-02	4.8E-06	WATER9			4.7E+04	EPI	5.1E+00	PHYSPROP	3.6E-01	PHYSPROP	2.5E-01	1.2E+01	2.9E+01	3.3E-02	EPI
Tridiphane	58138-08-2	3.2E+02	PHYSPROP	1.7E-05	4.1E-07	PHYSPROP	3.9E-04	PHYSPROP	4.3E+01	PHYSPROP			4.1E-02	4.7E-06	WATER9			3.4E+03	EPI	5.2E+00	PHYSPROP	1.1E+00	PHYSPROP	4.7E-01	6.6E+00	1.6E+01	6.9E-02	EPI
Triethylamine	121-44-8	1.0E+02	PHYSPROP	6.1E-03	1.5E-04	PHYSPROP	5.7E+01	PHYSPROP	-1.1E+02	PHYSPROP	7.3E-01	CRC89	6.6E-02	7.9E-06	WATER9			5.1E+01	EPI	1.5E+00	PHYSPROP	6.9E+04	PHYSPROP	1.5E-02	3.9E-01	9.3E-01	3.9E-03	EPI
Triethylene Glycol	112-27-6	1.5E+02	PHYSPROP	1.3E-09	3.2E-11	PHYSPROP	1.3E-03	PHYSPROP	-7.0E+00	PHYSPROP	1.1E+00	CRC89	5.1E-02	8.1E-06	WATER9			1.0E+01	EPI	-1.8E+00	PHYSPROP	1.0E+06	PHYSPROP	7.3E-05	7.3E-01	1.8E+00	1.6E-05	EPI
Trifluoroethane, 1,1,1-	420-46-2	8.4E+01	PHYSPROP	3.1E+01	7.7E-01	PHYSPROP	9.5E+03	PHYSPROP	-1.1E+02	PHYSPROP			9.9E-02	1.2E-05	WATER9			4.4E+01	EPI	1.7E+00	PHYSPROP	7.6E+02	PHYSPROP	2.7E-02	3.1E-01	7.5E-01	7.6E-03	EPI
Trifluralin	1582-09-8	3.4E+02	PHYSPROP	4.2E-03	1.0E-04	PHYSPROP	4.6E-05	PHYSPROP	4.9E+01	PHYSPROP	1.4E+00	PubChem	2.2E-02	5.6E-06	WATER9			1.6E+04	EPI	5.3E+00	PHYSPROP	1.8E-01	PHYSPROP	5.1E-01	7.9E+00	1.9E+01	7.3E-02	EPI
Trimethyl Phosphate	512-56-1	1.4E+02	PHYSPROP	2.9E-07	7.2E-09	PHYSPROP	8.5E-01	EPI	-4.6E+01	PHYSPROP	1.2E+00	CRC89	5.8E-02	8.8E-06	WATER9			1.1E+01	EPI	-6.5E-01	PHYSPROP	5.0E+05	PHYSPROP	4.3E-04	6.4E-01	1.5E+00	9.5E-05	EPI
Trimethylbenzene, 1,2,3-	526-73-8	1.2E+02	PHYSPROP	1.8E-01	4.4E-03	PHYSPROP	1.7E+00	PHYSPROP	-2.5E+01	PHYSPROP	8.9E-01	CRC89	6.1E-02	8.0E-06	WATER9			6.3E+02	EPI	3.7E+00	PHYSPROP	7.5E+01	PHYSPROP	3.8E-01	5.0E-01	1.2E+00	9.0E-02	EPI
Trimethylbenzene, 1,2,4-	95-63-6	1.2E+02	PHYSPROP	2.5E-01	6.2E-03	PHYSPROP	2.1E+00	PHYSPROP	-4.4E+01	PHYSPROP	8.8E-01	CRC89	6.1E-02	7.9E-06	WATER9			6.1E+02	EPI	3.6E+00	PHYSPROP	5.7E+01	PHYSPROP	3.6E-01	5.0E-01	1.2E+00	8.6E-02	EPI
Trimethylbenzene, 1,3,5-	108-67-8	1.2E+02	PHYSPROP	3.6E-01	8.8E-03	PHYSPROP	2.5E+00	PHYSPROP	-4.5E+01	PHYSPROP	8.6E-01	CRC89	6.0E-02	7.8E-06	WATER9			6.0E+02	EPI	3.4E+00	PHYSPROP	4.8E+01	PHYSPROP	2.6E-01	5.0E-01	1.2E+00	6.2E-02	EPI
Trimethylpentene, 2,4,4-	25167-70-8	1.1E+02	PHYSPROP	3.0E+01	7.5E-01	PHYSPROP	7.1E+01	PHYSPROP	-8.4E+01	EPI	7.2E-01	PubChem	6.0E-02	7.3E-06	WATER9			2.4E+02	EPI	4.1E+00	PHYSPROP	4.0E+00	PHYSPROP	7.7E-01	4.5E-01	1.7E+00	1.9E-01	RAGSE
Trinitrobenzene, 1,3,5-	99-35-4	2.1E+02	PHYSPROP	2.7E-07	6.5E-09	EPI	6.4E-06	EPI	1.2E+02	PHYSPROP	1.5E+00	CRC89	2.9E-02	7.7E-06	WATER9			1.7E+03	EPI	1.2E+00	PHYSPROP	2.8E+02	PHYSPROP	3.4E-03	1.6E+00	3.9E+00	6.1E-04	EPI
Trinitrotoluene, 2,4,6-	118-96-7	2.3E+02	PHYSPROP	8.5E-07	2.1E-08	EPI	8.0E-06	PHYSPROP	8.0E+01	PHYSPROP	1.7E+00	CRC89	3.0E-02	7.9E-06	WATER9			2.8E+03	EPI	1.6E+00	PHYSPROP	1.2E+02	PHYSPROP	5.6E-03	2.0E+00	4.7E+00	9.6E-04	EPI
Triphenylphosphine Oxide	791-28-6	2.8E+02	PHYSPROP	2.2E-08	5.3E-10	PHYSPROP	2.6E-09	EPI	1.6E+02	PHYSPROP	1.2E+00	CRC89	2.3E-02	5.8E-06	WATER9			2.0E+03	EPI	2.8E+00	PHYSPROP	6.3E+01	PHYSPROP	2.1E-02	3.8E+00	9.1E+00	3.3E-03	EPI
Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8	4.3E+02	PHYSPROP	1.1E-07	2.6E-09	PHYSPROP	7.4E-08	PHYSPROP	2.7E+01	PHYSPROP			3.3E-02	3.9E-06	WATER9			1.1E+04	EPI	3.7E+00	PHYSPROP	7.0E+00	PHYSPROP	1.3E-02	2.7E+01	6.5E+01	1.6E-03	EPI
Tris(1-chloro-2-propyl)phosphate	13674-84-5	3.3E+02	PHYSPROP	2.4E-06	6.0E-08	PHYSPROP	2.0E-05	PHYSPROP	-4.0E+01	PHYSPROP			4.0E-02	4.7E-06	WATER9			1.6E+03	EPI	2.6E+00	PHYSPROP	1.2E+03	PHYSPROP	8.4E-03	7.2E+00	1.7E+01	1.2E-03	EPI
Tris(2,3-dibromopropyl)phosphate	126-72-7	7.0E+02	PHYSPROP	8.9E-04	2.2E-05	EPI	1.9E-04	PHYSPROP	5.5E+00	PHYSPROP	2.3E+00	PubChem	1.9E-02	4.9E-06	WATER9			9.7E+03	EPI	4.3E+00	PHYSPROP	8.0E+00	PHYSPROP	1.4E-03	8.5E+02	2.0E+03	1.4E-04	EPI
chloroethyl)phosphate	115-96-8	2.9E+02	PHYSPROP	1.3E-04	3.3E-06	EPI	6.1E-02	PHYSPROP	-5.5E+01	PHYSPROP	1.4E+00	CRC89	2.4E-02	6.2E-06	WATER9			3.9E+02	EPI	1.4E+00	PHYSPROP	7.0E+03	PHYSPROP	2.3E-03	4.2E+00	1.0E+01	3.6E-04	EPI
Tris(2-ethylhexyl)phosphate	78-42-2	4.3E+02	PHYSPROP	3.2E-06	7.9E-08	EPI	8.3E-08	PHYSPROP	-7.4E+01	PHYSPROP	9.9E-01	CRC89	1.6E-02	3.9E-06	WATER9			2.5E+06	EPI	9.5E+00	PHYSPROP	6.0E-01	PHYSPROP	9.3E+01	2.9E+01	1.3E+02	1.2E+01	EPI
Tungsten	7440-33-7	1.8E+02	PHYSPROP				0.0E+00	NIOSH	3.4E+03	PHYSPROP	1.9E+01	CRC89				1.5E+02	BAES							5.2E-03	1.1E+00	2.7E+00	1.0E-03	RAGSE
Uranium (Soluble Salts)	NA	2.4E+02	CRC89				0.0E+00	NIOSH	1.1E+03	CRC89	1.9E+01	CRC89				4.5E+02	BAES							5.9E-03	2.3E+00	5.4E+00	1.0E-03	RAGSE
Urethane	51-79-6	8.9E+01	PHYSPROP	2.6E-06	6.4E-08	EPI	2.6E-01	EPI	4.9E+01	PHYSPROP	9.9E-01	CRC89	8.5E-02	1.0E-05	WATER9			1.2E+01	EPI	-1.5E-01	PHYSPROP	4.8E+05	PHYSPROP	1.4E-03	3.3E-01	8.0E-01	3.9E-04	EPI
Vanadium Pentoxide	1314-62-1	1.8E+02	EPI				0.0E+00	NIOSH	6.8E+02	CRC89	3.4E+00	CRC89										7.0E+02	CRC89	5.2E-03	1.1E+00	2.6E+00	1.0E-03	RAGSE
Vanadium and Compounds	7440-62-2	5.1E+01	EPI						1.9E+03	CRC89	6.0E+00	CRC89				1.0E+03	SSL							2.7E-03	2.0E-01	4.9E-01	1.0E-03	RAGSE
Vernolate	1929-77-7	2.0E+02	PHYSPROP	1.3E-03	3.1E-05	EPI	1.0E-02	PHYSPROP	7.1E+01	EPI	9.5E-01	CRC89	2.4E-02	6.1E-06	WATER9			3.0E+02	EPI	3.8E+00	PHYSPROP	9.0E+01	PHYSPROP	2.2E-01	1.4E+00	3.5E+00	4.0E-02	EPI
Vinclozolin	50471-44-8	2.9E+02	PHYSPROP	7.1E-07	1.7E-08	EPI	1.2E-07	PHYSPROP	1.1E+02	PHYSPROP	1.5E+00	CRC89	2.5E-02	6.5E-06	WATER9			2.8E+02	EPI	3.1E+00	PHYSPROP	2.6E+00	PHYSPROP	2.9E-02	4.2E+00	1.0E+01	4.5E-03	EPI
Vinyl Acetate	108-05-4	8.6E+01	PHYSPROP	2.1E-02	5.1E-04	EPI	9.0E+01	PHYSPROP	-9.3E+01	PHYSPROP	9.3E-01	CRC89	8.5E-02	1.0E-05	WATER9			5.6E+00	EPI	7.3E-01	PHYSPROP	2.0E+04	PHYSPROP	5.6E-03	3.2E-01	7.7E-01	1.6E-03	EPI
Vinyl Bromide	593-60-2	1.1E+02	PHYSPROP	5.0E-01	1.2E-02	PHYSPROP	1.0E+03	PHYSPROP	-1.4E+02	PHYSPROP	1.5E+00	CRC89	8.6E-02	1.2E-05	WATER9			2.2E+01	EPI	1.6E+00	PHYSPROP	7.6E+03	PHYSPROP	1.7E-02	4.2E-01	1.0E+00	4.4E-03	EPI
Vinyl Chloride	75-01-4	6.2E+01	PHYSPROP	1.1E+00	2.8E-02	PHYSPROP	3.0E+03	EPI	-1.5E+02	PHYSPROP	9.1E-01	CRC89	1.1E-01	1.2E-05	WATER9			2.2E+01	EPI	1.4E+00	CRC89	8.8E+03	PHYSPROP	2.5E-02	2.4E-01	5.7E-01	8.4E-03	EPI
Warfarin	81-81-2	3.1E+02	PHYSPROP	1.1E-07	2.8E-09	EPI	1.2E-07	PHYSPROP	1.6E+02	PHYSPROP			4.2E-02	4.9E-06	WATER9			4.3E+02	EPI	2.7E+00	PHYSPROP	1.7E+01	PHYSPROP	1.2E-02	5.6E+00	1.3E+01	1.8E-03	EPI
Xylene, P-	106-42-3	1.1E+02	PHYSPROP	2.8E-01	6.9E-03	PHYSPROP	8.8E+00	PHYSPROP	1.3E+01	PHYSPROP	8.6E-01	CRC89	6.8E-02	8.4E-06	WATER9			3.8E+02	EPI	3.2E+00	PHYSPROP	1.6E+02	PHYSPROP	2.0E-01	4.1E-01	9.9E-01	4.9E-02	EPI
Xylene, m-	108-38-3	1.1E+02	PHYSPROP	2.9E-01	7.2E-03	PHYSPROP	8.3E+00	PHYSPROP	-4.8E+01	PHYSPROP	8.6E-01	CRC89	6.8E-02	8.4E-06	WATER9			3.8E+02	EPI	3.2E+00	PHYSPROP	1.6E+02	PHYSPROP	2.1E-01	4.1E-01	9.9E-01	5.3E-02	EPI
Xylene, o-	95-47-6	1.1E+02	PHYSPROP	2.1E-01	5.2E-03	PHYSPROP	6.6E+00	PHYSPROP	-2.5E+01	PHYSPROP	8.8E-01	CRC89	6.9E-02	8.5E-06	WATER9			3.8E+02	EPI	3.1E+00	PHYSPROP	1.8E+02	PHYSPROP	1.9E-01	4.1E-01	9.9E-01	4.7E-02	EPI
Xylenes	1330-20-7	1.1E+02	PHYSPROP	2.7E-01	6.6E-03	PHYSPROP	8.0E+00	PHYSPROP	-2.5E+01	EPI	8.6E-01	ATSDR Profile	6.9E-02	8.5E-06	WATER9			3.8E+02	EPI	3.2E+00	PHYSPROP	1.1E+02	PHYSPROP	2.0E-01	4.1E-01	9.9E-01	5.0E-02	EPI
Zinc Phosphide	1314-84-7	2.6E+02	CRC89						1.2E+03	CRC89	4.6E+00	CRC89												3.7E-03	2.9E+00	7.0E+00	6.0E-04	RAGSE
Zinc and Compounds	7440-66-6	6.5E+01	PHYSPROP						4.2E+02	PHYSPROP	7.1E+00	CRC89				6.2E+01	SSL							1.9E-03	2.4E-01	5.9E-01	6.0E-04	RAGSE
Zineb	12122-67-7	2.8E+02	PHYSPROP	1.1E-07	2.7E-09	PHYSPROP	7.5E-08	PHYSPROP	1.6E+02	EPI			4.5E-02	5.2E-06	WATER9			1.3E+03	EPI	1.3E+00	PHYSPROP	1.0E+01	PHYSPROP	2.1E-03	3.7E+00	8.8E+00	3.3E-04	EPI
Zirconium	7440-67-7	9.1E+01	EPI				0.0E+00	NIOSH	1.9E+03	CRC89	6.5E+00	CRC89				3.0E+03	BAES							3.7E-03	3.4E-01	8.2E-01	1.0E-03	RAGSE

Appendix III	
Table 2 - Type 1 Soil Criteria	
	Analyte
Regulated	**Concentration**
Substance	**(mg/kg)**
Antimony	4
Arsenic	20
Barium	1000
Beryllium	2
Cadmium	2
Chromium	100
Cobalt	20
Copper	100
Lead	75
Mercury	0.5
Selenium	2
Thallium	2
Zinc	100

Table 1. Prioritized Chronic Dose-Response Values (5/9/2014).
Revisions since 05/07/2012 are shown in red.
CAS NO. = Chemical Abstracts Services number for the compound. **HAP NO.** = Position of the compound on the HAP list in the Clean Air Act (112[b][2]). "999" denotes substances under consideration for listing.
Sources: IRIS = Integrated Risk Information System; ATSDR = US Agency for Toxic Substances and Disease Registry; D-ATSDR = draft ATSDR; CA = California EPA; P-CAL = Proposed CAL; HEAST = EPA Health Effects Assessment Tables

IARC WOE = weight-of-evidence for carcinogenicity in humans (1 - carcinogenic; 2A - probably carcinogenic; 2B - possibly carcinogenic; 3 - not classifiable; 4 - probably not carcinogenic).

EPA WOE (2005 Guidelines) = weight of evidence for carcinogenicity under 2005 EPA cancer guidelines: CH - carcinogenic to humans; LH - likely to be carcinogenic; SE - suggestive evidence of carcinogenic potential; InI - inadequate information to assess carcinogenic potential; NH - not likely to be carcinogenic).
EPA MOA (2005 Guidelines) = mode of action for carcinogenicity: M* - mutagenic and early life data lacking; age-dependent adjustment factors should be applied when assessing risk for ages younger than 16 years per 2005 Supplemental Guidance. *[See Table1 notes]*

EPA WOE (1986 Guidelines) = weight-of-evidence for carcinogenicity under the 1986 EPA cancer guidelines: A - human carcinogen; B1 - probable carcinogen, limited human evidence; B2 - probable carcinogen, sufficient evidence in animals; C - possible human carcinogen; D - not classifiable E - evidence of noncarcinogenicity.

Table 1. Prioritized Chronic Dose-Response Values for Screening Risk Assessments (5/9/2014)

				CHRONIC INHALATION						CHRONIC ORAL					
				NONCANCER		CANCER				NONCANCER		CANCER			
CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Acetaldehyde	75-07-0	1	2B	0.009	IRIS	B2	2.2E-06		IRIS						
Acetamide	60-35-5	2	2B				0.00002		CAL						
Acetonitrile	75-05-8	3		0.06	IRIS	InI									
Acetophenone	98-86-2	4				D									
Acrolein	107-02-8	6	3	0.00002	IRIS	InI									
Acrylamide	79-06-1	7	2A	0.006	IRIS	LH	0.0001	M*	IRIS						
Acrylic acid	79-10-7	8	3	0.001	IRIS										
Acrylonitrile	107-13-1	9	2B	0.002	IRIS	B1	0.000068		IRIS						
Allyl chloride	107-05-1	10	3	0.001	IRIS	C	0.000006		CAL						
Aniline	62-53-3	12	3	0.001	IRIS	B2	1.6E-06		CAL						
Antimony compounds	7440-36-0	173													
Antimony pentoxide	1314-60-9	173													
Antimony potassium tartrate	304-61-0	173													
Antimony tetroxide	1332-81-6	173													
Antimony trioxide	1309-64-4	173	2B	0.0002	IRIS										
Arsenic compounds	7440-38-2	174	1	0.000015	CAL	A	0.0043		IRIS						
Arsenic pentoxide	1303-28-2	174													
Arsine	7784-42-1	174		0.00005	IRIS										
Benzene	71-43-2	15	1	0.03	IRIS	CH	7.8E-06		IRIS						
Benzidine	92-87-5	16	1	0.01	P-CAL	A	0.067	M*	IRIS						
Benzotrichloride	98-07-7	17	2B			B2									
Benzyl chloride	100-44-7	18	2B			B2	0.000049		CAL						
Beryllium compounds	7440-41-7	175	1	0.00002	IRIS	LH	0.0024		IRIS						
Beryllium oxide	1304-56-9	175													
Biphenyl	92-52-4	19				D									
Bis(2-ethylhexyl)phthalate	117-81-7	20	2B	0.01	P-CAL	B2	2.4E-06		CAL						
Bis(chloromethyl)ether	542-88-1	21	1			A	0.062		IRIS						
Bromoform	75-25-2	22	3			B2	1.1E-06		IRIS						

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				CHRONIC INHALATION						CHRONIC ORAL					
				NONCANCER		CANCER				NONCANCER		CANCER			
CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
1,3-Butadiene	106-99-0	23	1	0.002	IRIS	CH	0.00003		IRIS						
Cadmium compounds	7440-43-9	176	1	0.00001	ATSDR	B1	0.0018		IRIS	0.0005	IRIS	B1			
Captan	133-06-2	26	3			B2									
Carbaryl	63-25-2	27													
Carbon disulfide	75-15-0	28		0.7	IRIS										
Carbon tetrachloride	56-23-5	29	2B	0.1	IRIS	LH	0.000006		IRIS						
Chloramben	133-90-4	32													
Chlordane	57-74-9	33	2B	0.0007	IRIS	LH	0.0001		IRIS	0.0005	IRIS	LH	0.35		IRIS
Chlorine	7782-50-5	34		0.00015	ATSDR										
Chloroacetic acid	79-11-8	35													
2-Chloroacetophenone	532-27-4	36		0.00003	IRIS										
Chlorobenzene	108-90-7	37		1	CAL	D									
Chlorobenzilate	510-15-6	38	3			B2	0.000078		HEAST						
Chloroform	67-66-3	39	2B	0.098	ATSDR	LH									
Chloroprene	126-99-8	41	2B	0.02	IRIS	LH	0.0003	M*	IRIS						
Chromium (III) compounds	16065-83-1	177	3			InI									
Chromium (VI) compounds	18540-29-9	177	1	0.0001	IRIS	CH	0.012		IRIS						
Chromium (VI) trioxide, chromic acid mist	11115-74-5	177	1	0.000008	IRIS										
Cobalt compounds	7440-48-4	178	2B	0.0001	ATSDR										
Coke Oven Emissions	8007-45-2	179				A	0.00062	M*	IRIS						
m-Cresol	108-39-4	44				C									
o-Cresol	95-48-7	43				C									
p-Cresol	106-44-5	45				C									
Cresols (mixed)	1319-77-3	42		0.6	CAL	C									
Cumene	98-82-8	46	2B	0.4	IRIS	InI									
Cyanazine	21725-46-2	180				C									
Cyanide compounds	57-12-5	180				D									
Acetone cyanohydrin	75-86-5	180		0.01	HEAST										

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CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Calcium cyanide	592-01-8	180													
Copper cyanide	544-92-3	180													
Cyanogen	460-19-5	180		0.0008	IRIS										
Cyanogen bromide	506-68-3	180													
Cyanogen chloride	506-77-4	180													
Ethylene cyanohydrin	109-78-4	180													
Hydrogen cyanide	74-90-8	180		0.0008	IRIS										
Potassium cyanide	151-50-8	180		0.0008	IRIS										
Potassium silver cyanide	506-61-6	180		0.0008	IRIS										
Silver cyanide	506-64-9	180													
Sodium cyanide	143-33-9	180		0.0008	IRIS										
est	21564-17-0	180													
Zinc cyanide	557-21-1	180													
2,4-D, salts and esters	94-75-7	47													
DDE	72-55-9	48				B2						B2	0.34		IRIS
1,2-Dibromo-3-chloropropane	96-12-8	51	2B	0.0002	IRIS	B2	0.002		CAL						
Dibutylphthalate	84-74-2	52				D									
p-Dichlorobenzene	106-46-7	53	2B	0.8	IRIS	C	0.000011		CAL						
3,3'-Dichlorobenzidine	91-94-1	54	2B			B2	0.00034		CAL						
Dichloroethyl ether	111-44-4	55	3			B2	0.00033		IRIS						
1,3-Dichloropropene	542-75-6	56	2B	0.02	IRIS	LH	0.000004		IRIS						
Dichlorvos	62-73-7	57	2B	0.0005	IRIS	B2									
Diesel engine emissions	DIESEL EMIS.	999		0.005	IRIS	LH									
Diethanolamine	111-42-2	58		0.003	CAL										
3,3'-Dimethoxybenzidine	119-90-4	61	2B			B2									
p-Dimethylaminoazobenzene	60-11-7	62	2B				0.0013		CAL						
3,3'-Dimethylbenzidine	119-93-7	63				B2									
Dimethyl formamide	68-12-2	65	3	0.03	IRIS										

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CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
N,N-dimethylaniline	121-69-7	59	3												
1,1-Dimethylhydrazine	57-14-7	66	2B			B2									
2,4-dinitrophenol	51-28-5	70													
2,4-Dinitrotoluene	121-14-2	71	2B	0.007	P-CAL	B2	0.000089		CAL						
2,4/2,6-Dinitrotoluene (mixture)	25321-14-6	71	2B			B2									
1,4-Dioxane	123-91-1	72	2B	0.03	IRIS	LH	0.000005		IRIS						
1,2-Diphenylhydrazine	122-66-7	73				B2	0.00022		IRIS						
Epichlorohydrin	106-89-8	74	2A	0.001	IRIS	B2	1.2E-06		IRIS						
1,2-Epoxybutane	106-88-7	75		0.02	IRIS										
Ethyl acrylate	140-88-5	76	2B			B2									
Ethyl benzene	100-41-4	77	2B	1	IRIS	D	2.5E-06		CAL						
Ethyl carbamate	51-79-6	78	2A				0.00029	M*	CAL						
Ethyl chloride	75-00-3	79	3	10	IRIS										
Ethylene dibromide	106-93-4	80	2A	0.009	IRIS	LH	0.0006		IRIS						
Ethylene dichloride	107-06-2	81	2B	2.4	ATSDR	B2	0.000026		IRIS						
Ethylene glycol	107-21-1	82		0.4	CAL										
Ethylene oxide	75-21-8	84	1	0.03	CAL	B1	0.000088		CAL						
Ethylene thiourea	96-45-7	85	3	0.003	P-CAL	B2	0.000013		CAL						
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3	86		0.5	HEAST	C	1.6E-06		CAL						
Formaldehyde	50-00-0	87	1	0.0098	ATSDR	B1	0.000013		IRIS						
Diethylene glycol monobutyl ether	112-34-5	181		0.02	HEAST										
Diethylene glycol monoethyl ether	111-90-0	181													
Ethylene glycol ethyl ether	110-80-5	181		0.2	IRIS										
Ethylene glycol ethyl ether acetate	111-15-9	181		0.3	CAL										
Ethylene glycol methyl ether	109-86-4	181		0.02	IRIS										
Ethylene glycol methyl ether acetate	110-49-6	181		0.09	CAL										
Heptachlor	76-44-8	88	2B			B2	0.0013		IRIS	0.0005	IRIS	B2	4.5		IRIS
Hexachlorobenzene	118-74-1	89	2B	0.003	P-CAL	B2	0.00046		IRIS	0.0008	IRIS	B2	1.6		IRIS

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CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Hexachlorobutadiene	87-68-3	90	3	0.09	P-CAL	C	0.000022		IRIS						
Hexachlorocyclopentadiene	77-47-4	91		0.0002	IRIS	NH									
Hexachlorodibenzo-p-dioxin, mixture	19408-74-3	187				B2	1.3		IRIS			B2	6200		IRIS
Hexachloroethane	67-72-1	92	2B	0.03	IRIS	LH									
Hexamethylene-1,6-diisocyanate	822-06-0	93		0.00001	IRIS										
n-Hexane	110-54-3	95		0.7	IRIS	InI									
Hydrazine	302-01-2	96	2B	0.0002	CAL	B2	0.0049		IRIS						
Hydrochloric acid	7647-01-0	97	3	0.02	IRIS										
Hydrofluoric acid	7664-39-3	98		0.014	CAL										
Hydrogen sulfide	7783-06-4	999		0.002	IRIS	InI									
Hydroquinone	123-31-9	99													
Isophorone	78-59-1	100		2	CAL	C									
Lead compounds	7439-92-1	182	2B	0.00015	OAQPS	B2						B2			
Tetraethyl lead	78-00-2	182								0.0000001	IRIS				
Lindane (gamma-HCH)	58-89-9	101	2B	0.0003	P-CAL	B2-C	0.00031		CAL	0.0003	IRIS	B2-C	1.1		CAL
alpha-Hexachlorocyclohexane (a-HCH)	319-84-6	101	2B	0.02	P-CAL	B2	0.0018		IRIS	0.008	ATSDR	B2	6.3		IRIS
beta-Hexachlorocyclohexane (b-HCH)	319-85-7	101	2B	0.002	P-CAL	C	0.00053		IRIS			C	1.8		IRIS
technical Hexachlorocyclohexane (HCH)	608-73-1	101	2B			B2	0.00051		IRIS			B2	1.8		IRIS
Maleic anhydride	108-31-6	102		0.0007	CAL										
Manganese compounds	7439-96-5	183		0.0003	ATSDR	D									
Mercuric chloride	7487-94-7	184				C				0.0003	IRIS	C			
Mercury (elemental)	7439-97-6	184	3	0.0003	IRIS	D						D			
Methyl mercury	22967-92-6	184				C				0.0001	IRIS	C			
Phenylmercuric acetate	62-38-4	184								0.00008	IRIS				
Methanol	67-56-1	103		20	IRIS										
Methoxychlor	72-43-5	104	3			D				0.005	IRIS	D			
Methyl bromide	74-83-9	105		0.005	IRIS	D									
Methyl chloride	74-87-3	106	3	0.09	IRIS	InI									

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CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Methyl chloroform (1,1,1-Trichloroethane)	71-55-6	107		5	IRIS	InI									
Methyl isobutyl ketone	108-10-1	111	2B	3	IRIS	InI									
Methyl isocyanate	624-83-9	112		0.001	CAL										
Methyl methacrylate	80-62-6	113		0.7	IRIS	E									
Methyl tert-butyl ether	1634-04-4	114	3	3	IRIS		2.6E-07		CAL						
4,4'-Methylene bis(2-chloroaniline)	101-14-4	115	1			B2	0.00043		CAL						
Methylene chloride	75-09-2	116	2B	0.6	IRIS	LH	1E-08	M*	IRIS						
Methylene diphenyl diisocyanate	101-68-8	117		0.0006	IRIS	InI									
4,4'-Methylenedianiline	101-77-9	118	2B	0.02	CAL		0.00046		CAL						
Naphthalene	91-20-3	119		0.003	IRIS	C	0.000034		CAL						
Nickel compounds	7440-02-0	186	1	0.00009	ATSDR	A									
Nickel oxide	1313-99-1	186													
Nickel refinery dust	NI_DUST	186				A	0.00024		IRIS						
Nickel subsulfide	12035-72-2	186				A	0.00048		IRIS						
Nitrobenzene	98-95-3	120	2B	0.009	IRIS	LH	0.00004		IRIS						
2-Nitropropane	79-46-9	123	2B	0.02	IRIS	B2	5.6E-06		OAQPS						
Nitrosodimethylamine	62-75-9	125	2A			B2	0.014	M*	IRIS						
N-Nitrosomorpholine	59-89-2	126	2B				0.0019		CAL						
Parathion	56-38-2	127	3			C									
Polychlorinated biphenyls	1336-36-3	136	2A			B2	0.0001		IRIS			B2	2		IRIS
Aroclor 1016	12674-11-2	136								0.00007	IRIS				
Aroclor 1254	11097-69-1	136								0.00002	IRIS				
Pentachloronitrobenzene	82-68-8	128	3			C									
Pentachlorophenol	87-86-5	129	2B	0.1	P-CAL	B2	5.1E-06		CAL						
Phenol	108-95-2	130	3	0.2	CAL	InI									
p-Phenylenediamine	106-50-3	131													
Phosgene	75-44-5	132		0.0003	IRIS	InI									
Phosphine	7803-51-2	133		0.0003	IRIS	InI									

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CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Phosphorus, white	7723-14-0	134		0.00007	P-CAL	D									
Phthalic anhydride	85-44-9	135		0.02	CAL										
Polybrominated biphenyls	59536-65-1	187	2B			B2				0.000007	HEAST	B2	8.9		HEAST
Acenaphthene	83-32-9	187	3			D				0.06	IRIS	D			
Acenaphthylene	206-96-8	187				D						D			
2-Aminoanthraquinone	117-79-3	187	3				9.4E-06		CAL				0.033		CAL
Anthracene	120-12-7	187	3			D				0.3	IRIS	D			
Benz(a)anthracene	56-55-3	187	2B			B2	0.00011		CAL			B2	1.2		CAL
Benzo(b)fluoranthene	205-99-2	187	2B			B2	0.00011		CAL			B2	1.2		CAL
Benzo[j]fluoranthene	205-82-3	187	2B				0.00011		CAL				1.2		CAL
Benzo(k)fluoranthene	207-08-9	187	2B			B2	0.00011		CAL			B2	1.2		CAL
Benzo(g,h,i)perylene	191-24-2	187	3			D						D			
Benzo(a)pyrene	50-32-8	187	1			B2	0.0011	M*	CAL			B2	7.3	M*	IRIS
Benzo(e)pyrene	192-97-2	187	3												
Carbazole	86-74-8	187	2B			B2						B2	0.02		HEAST
beta-Chloronaphthalene	91-58-7	187								0.08	IRIS				
Chrysene	218-01-9	187	2B			B2	0.000011		CAL			B2	0.12		CAL
Dibenz[a,h]acridine	226-36-8	187	2B				0.00011		CAL				1.2		CAL
Dibenz[a,j]acridine	224-42-0	187	2A				0.00011		CAL				1.2		CAL
Dibenz(a,h)anthracene	53-70-3	187	2A			B2	0.0012	M*	CAL			B2	4.1	M*	CAL
7H-Dibenzo[c,g]carbazole	194-59-2	187	2B				0.0011		CAL				12		CAL
Dibenzo[a,e]pyrene	192-65-4	187	3				0.0011		CAL				12		CAL
Dibenzo[a,h]pyrene	189-64-0	187	2B				0.011		CAL				120		CAL
Dibenzo[a,i]pyrene	189-55-9	187	2B				0.011		CAL				120		CAL
Dibenzo[a,l]pyrene	191-30-0	187	2A				0.011		CAL				120		CAL
7,12-Dimethylbenz(a)anthracene	57-97-6	187					0.071	M*	CAL				250	M*	CAL
1,6-Dinitropyrene	42397-64-8	187	2B				0.011		CAL				120		CAL
1,8-Dinitropyrene	42397-65-9	187	2B				0.0011		CAL				12		CAL

Table 1. Prioritized Chronic Dose-Response Values (5/9/2014).
Revisions since 05/07/2012 are shown in red.
CAS NO. = Chemical Abstracts Services number for the compound. **HAP NO.** = Position of the compound on the HAP list in the Clean Air Act (112[b][2]). "999" denotes substances under consideration for listing.
Sources: IRIS = Integrated Risk Information System; ATSDR = US Agency for Toxic Substances and Disease Registry; D-ATSDR = draft ATSDR; CA = California EPA; P-CAL = Proposed CAL; HEAST = EPA Health Effects Assessment Tables

IARC WOE = weight-of-evidence for carcinogenicity in humans (1 - carcinogenic; 2A - probably carcinogenic; 2B - possibly carcinogenic; 3 - not classifiable; 4 - probably not carcinogenic).

EPA WOE (2005 Guidelines) = weight of evidence for carcinogenicity under 2005 EPA cancer guidelines: CH - carcinogenic to humans; LH - likely to be carcinogenic; SE - suggestive evidence of carcinogenic potential; InI - inadequate information to assess carcinogenic potential; NH - not likely to be carcinogenic).
EPA MOA (2005 Guidelines) = mode of action for carcinogenicity: M* - mutagenic and early life data lacking; age-dependent adjustment factors should be applied when assessing risk for ages younger than 16 years per 2005 Supplemental Guidance. *[See Table1 notes]*

EPA WOE (1986 Guidelines) = weight-of-evidence for carcinogenicity under the 1986 EPA cancer guidelines: A - human carcinogen; B1 - probable carcinogen, limited human evidence; B2 - probable carcinogen, sufficient evidence in animals; C - possible human carcinogen; D - not classifiable E - evidence of noncarcinogenicity.

Table 1. Prioritized Chronic Dose-Response Values for Screening Risk Assessments (5/9/2014)

				CHRONIC INHALATION						CHRONIC ORAL					
				NONCANCER		CANCER				NONCANCER		CANCER			
CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Fluoranthene	206-44-0	187	3			D				0.04	IRIS	D			
Fluorene	86-73-7	187	3			D				0.04	IRIS	D			
Indeno(1,2,3-cd)pyrene	193-39-5	187	2B			B2	0.00011		CAL			B2	1.2		CAL
3-Methylcholanthrene	56-49-5	187					0.0063	M*	CAL				22	M*	CAL
5-Methylchrysene	3697-24-3	187	2B				0.0011		CAL				12		CAL
1-Methylnaphthalene	90-12-0	187								0.07	ATSDR				
2-Methylnaphthalene	91-57-6	187				InI				0.04	ATSDR	InI			
5-Nitroacenaphthene	602-87-9	187	2B				0.000037		CAL				0.13		CAL
6-Nitrochrysene	7496-02-8	187	2B				0.011		CAL				120		CAL
2-Nitrofluorene	607-57-8	187	2B				0.000011		CAL				0.12		CAL
1-Nitropyrene	5522-43-0	187	2B				0.00011		CAL				1.2		CAL
4-Nitropyrene	57835-92-4	187	2B				0.00011		CAL				1.2		CAL
Octabromodiphenyl ether	32536-52-0	187				D				0.003	IRIS	D			
Phenanthrene	85-01-8	187	3			D						D			
Pyrene	129-00-0	187	3			D				0.03	IRIS	D			
1,3-Propane sultone	1120-71-4	137	2B				0.00069		CAL						
Propionaldehyde	123-38-6	139		0.008	IRIS	InI									
Propoxur	114-26-1	140				B2									
Propylene dichloride	78-87-5	141		0.004	IRIS	B2									
Propylene oxide	75-56-9	142	2B	0.03	IRIS	B2	3.7E-06		IRIS						
Quinoline	91-22-5	144				LH									
Selenium compounds	7782-49-2	189	3	0.02	CAL	D									
Hydrogen selenide	7783-07-5	189		0.00008	P-CAL										
Selenious acid	7783-00-8	189				D									
Selenium dioxide	7446-08-4	189		0.02	CAL										
Selenium disulfide	7488-56-4	189		0.02	CAL										
Selenium sulfide	7446-34-6	189		0.02	CAL	B2									
Selenourea	630-10-4	189													

Table 1. Prioritized Chronic Dose-Response Values (5/9/2014).
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Sources: IRIS = Integrated Risk Information System; ATSDR = US Agency for Toxic Substances and Disease Registry; D-ATSDR = draft ATSDR; CA = California EPA; P-CAL = Proposed CAL; HEAST = EPA Health Effects Assessment Tables

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EPA MOA (2005 Guidelines) = mode of action for carcinogenicity: M* - mutagenic and early life data lacking; age-dependent adjustment factors should be applied when assessing risk for ages younger than 16 years per 2005 Supplemental Guidance. *[See Table1 notes]*

EPA WOE (1986 Guidelines) = weight-of-evidence for carcinogenicity under the 1986 EPA cancer guidelines: A - human carcinogen; B1 - probable carcinogen, limited human evidence; B2 - probable carcinogen, sufficient evidence in animals; C - possible human carcinogen; D - not classifiable E - evidence of noncarcinogenicity.

Table 1. Prioritized Chronic Dose-Response Values for Screening Risk Assessments (5/9/2014)

				CHRONIC INHALATION						CHRONIC ORAL					
				NONCANCER		CANCER				NONCANCER		CANCER			
CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	mg/m3	SOURCE	EPA WOE	1/(ug/m3)	MOA	SOURCE	mg/kg/d	SOURCE	EPA WOE	1/(mg/kg/d)	MOA	SOURCE
Styrene	100-42-5	146	2B	1	IRIS										
Styrene oxide	96-09-3	147	2A	0.006	P-CAL										
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	148	1	4E-08	CAL	B2	33		EPA ORD	7E-10	IRIS	B2	150000		EPA ORD
1,1,2,2-Tetrachloroethane	79-34-5	149	3			LH									
Tetrachloroethene	127-18-4	150	2A	0.04	IRIS	LH	2.6E-07		IRIS						
Titanium tetrachloride	7550-45-0	151		0.0001	ATSDR										
Toluene	108-88-3	152	3	5	IRIS	InI									
2,4-Toluene diamine	95-80-7	153	2B			B2	0.0011		CAL						
2,4/2,6-Toluene diisocyanate mixture (TDI)	26471-62-5	154	2B	0.00007	IRIS		0.000011		CAL						
o-Toluidine	95-53-4	155	1			B2	0.000051		CAL						
Toxaphene	8001-35-2	156	2B			B2	0.00032		IRIS			B2	1.1		IRIS
1,2,4-Trichlorobenzene	120-82-1	157		0.2	HEAST	D									
1,1,2-Trichloroethane	79-00-5	158	3	0.4	P-CAL	C	0.000016		IRIS						
Trichloroethylene	79-01-6	159	2A	0.002	IRIS	CH	4.1E-06	M*	IRIS						
2,4,5-Trichlorophenol	95-95-4	160													
2,4,6-Trichlorophenol	88-06-2	161				B2	3.1E-06		IRIS						
Triethylamine	121-44-8	162		0.007	IRIS										
Trifluralin	1582-09-8	163	3			C				0.0075	IRIS	C	0.0077		IRIS
Uranium compounds	7440-61-1	188													
Uranium, insoluble salts	URANINSOLS	188		0.0008	ATSDR										
Uranium, soluble salts	URANSOLS	188		0.00004	ATSDR										
Vinyl acetate	108-05-4	165	2B	0.2	IRIS										
Vinyl bromide	593-60-2	166	2A	0.003	IRIS	B2	0.000032		HEAST						
Vinyl chloride	75-01-4	167	1	0.1	IRIS	CH	8.8E-06		IRIS						
Vinylidene chloride	75-35-4	168	3	0.2	IRIS	SE									
m-Xylene	108-38-3	171													
o-Xylene	95-47-6	170													
Xylenes (mixed)	1330-20-7	169	3	0.1	IRIS	InI									

Weight of Evidence for Carcinogenicity

TR	EPA WOE (2005 Guidelines)	EPA WOE (1986 Guidelines)
1.00E-05	CH - carcinogenic to humans	A - human carcinogen
1.00E-05	LH - likely to be carcinogenic	B1 - probable carcinogen, limited human evidence / B2 - probable carcinogen, sufficient evidence in animals
1.00E-04	SE - suggestive evidence of carcinogenic potential	C - possible human carcinogen
1.00E-04	InI - inadequate information to assess carcinogenic potential	D - not classifiable
NA	NH - not likely to be carcinogenic.	E - evidence of noncarcinogenicity.

EPA MOA (2005 Guidelines) = mode of action for carcinogenicity:

M* - mutagenic and early life data lacking; age-dependent adjustment factors should be applied when assessing risk for ages younger than 16 years per 2005 Supplemental Guidance. [See Table1 notes.]

Chemical	CAS	Oral Slope Factor (mg/kg-day)-1	Toxicity Source	EPA Cancer Classification	Oral Slope Factor Tumor Type	Oral Slope Factor Target Organ	Oral Slope Factor Species	Oral Slope Factor Method	Oral Slope Factor Route	Oral Slope Factor Treatment Duration	Oral Slope Factor Study Reference	Oral Slope Factor Study Date
Chromium(III) (Soluble Particulates)	16065-83-1											
Chromium(III), Insoluble Salts	16065-83-1											
Chromium(VI)	18540-29-9	5.00E-01	IRIS	Carcinogenic potential cannot be determined	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8											
Ethylbenzene	100-41-4	1.10E-02	Cal EPA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead and Compounds	7439-92-1	8.50E-03	Cal EPA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Ethyl Ketone (2-Butanone)	78-93-3											
Methylene Chloride	75-09-2	2.00E-03	IRIS	likely to be carcinogenic in humans	Hepatocellular carcinomas or adenomas	Liver	male B6C3F1 mice	Multistage model with linear extrapolation from the point of departure (BMDL10)	NA	NA	Serota et al.	1986
Naphthalene	91-20-3											
Toluene	108-88-3											
Xylene, P-	106-42-3											
Xylene, m-	108-38-3											
Xylene, o-	95-47-6											
Xylenes	1330-20-7											
Zinc and Compounds	7440-66-6											

Chemical	CAS	Inhalation Unit Risk (µg/m3)-1	Toxicity Source	EPA Cancer Classification	Inhalation Unit Risk Tumor Type	Inhalation Unit Risk Target Organ	Inhalation Unit Risk Species	Inhalation Unit Risk Method	Inhalation Unit Risk Route	Inhalation Unit Risk Treatment Duration	Inhalation Unit Risk Study Reference	Inhalation Unit Risk Study Date
Chromium(III) (Soluble Particulates)	16065-83-1											
Chromium(III), Insoluble Salts	16065-83-1											
Chromium(VI)	18540-29-9	8.40E-02	IRIS	Carcinogenic potential cannot be determined	Lung cancer	Lung	Human	Multistage, extra risk	NA	NA	Mancuso	1975
Copper	7440-50-8											
Ethylbenzene	100-41-4	2.50E-06	Cal EPA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead and Compounds	7439-92-1	1.20E-05	Cal EPA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Ethyl Ketone (2-Butanone)	78-93-3											
Methylene Chloride	75-09-2	1.00E-08	IRIS	likely to be carcinogenic in humans	Hepatocellular carcinomas or adenomas, bronchoalveolar carcinomas or adenomas	Liver	male B6C3F1 mice	Multistage model with linear extrapolation from the point of departure (BMDL10)	NA	NA	Mennear et al. and NTP	1988 and 1986
Naphthalene	91-20-3	3.40E-05	Cal EPA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3											
Xylene, P-	106-42-3											
Xylene, m-	108-38-3											
Xylene, o-	95-47-6											
Xylenes	1330-20-7											
Zinc and Compounds	7440-66-6											