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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103



SDMS DocID 2129162

Office of Regional Counsel

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NOV 18 2010

VIA CERTIFIED MAIL
& TELEFAX

Heywood Becker
Turog Properties Management, Inc.
5382 Wismer Road
Pipersville, PA 18947

Re: Chem-Fab Superfund Site: Access to 300 North Broad Street, Doylestown for Subslab Soil Gas Survey

Dear Mr. Becker:

EPA seeks access to 300 North Broad Street in Doylestown, PA in order to perform a subslab soil gas survey in connection with the Agency's investigation of the Chem-Fab Site. On October 16, 2009, you signed a Consent to Enter Form authorizing entry by EPA for purposes of collecting surface water, groundwater, surface soil, and subsurface soil samples at the property. The work EPA now seeks to perform at this location is potentially beyond the scope of the work described in the previous form.

EPA has found that past operations at the Chem Fab Site have resulted in groundwater contamination. Some of the compounds that have entered the groundwater are volatile organic compounds (VOCs). VOCs are chemical compounds that easily evaporate into the air and can move from the groundwater into air inside homes and other buildings.

To determine whether any structures are being affected by the movement of VOCs from groundwater into the air, EPA is conducting sub-slab air quality testing in areas where historical data has demonstrated concentrations of groundwater contaminants above federal guideline standards. The test area includes the 300 North Broad Street property.

The study will require EPA to visit the property for three consecutive days. On the first day EPA will install the air testing equipment. This will involve drilling a small hole in the basement floor or slab and installing a dime-sized sampling port. On the second day EPA will connect a small canister to the equipment. On the third day the canister will be removed and taken to a laboratory for analysis. This results will assist EPA in determining whether

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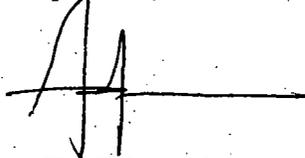
contaminants associated with the Chem-Fab Site are present within the structure on the property. If such contaminants exist, EPA may need to perform ask to perform additional work within the structure.

In order to perform this testing, EPA seeks consent to access the property from you and your tenant(s). Consent from tenants is important because EPA will need to coordinate entry times with the tenants and, in addition, work with tenants to ensure that products or items within the structure which may interfere with the test are temporarily removed.

I have enclosed two consent for Turog Properties and the other for any tenant(s) that may be present at the property. Please have these forms completed and returned to my office at your earliest convenience or call me at (215) 814-2487 if you have any questions. If you would prefer that I work directly with the tenants, please provide me with their identity and contact information. EPA would like to perform this work in January.

I look forward to your prompt response to this letter and thank you in advance for your attention to this matter.

Respectfully,

A handwritten signature in black ink, appearing to be 'ASG', written over a horizontal line.

ANDREW S. GOLDMAN
Sr. Assistant Regional Counsel

cc: Cindy Santiago (3HS31)

**CONSENT FOR ACCESS TO PROPERTY FOR VAPOR INTRUSION STUDY
(FOR SIGNATURE BY OWNER OF LEASED PROPERTY)**

Property Owner(s) Turog Properties (c/o Heywood Becker)

Address of Property: 300 North Broad Street, Doylestown, Pennsylvania

I am the owner of the property identified above ("Property"). I understand that the United States Environmental Protection Agency ("EPA") would like to perform a limited investigation on the Property pursuant to its response authority under the Superfund law, also known as the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9601-9675.

I hereby consent to allow EPA and its employees, agents, contractors and their subcontractors, and authorized representatives to enter the Property to conduct a subslab soil gas survey, which includes the following tasks:

1. Confirm, via discussion with the tenant, the temporary removal, from the interior of the residential/business structure at the Property ("Structure"), of any products or items which may potentially release vapors and interfere with the accuracy of EPA's soil gas survey.
2. Visually inspect the basement to identify sumps, cracks, and other possible vapor intrusion pathways and to locate utilities that may interfere with installation of sampling ports in the basement.
3. Install one or more vapor intrusion sampling ports by drilling a small hole (approximately 1/2 inch in diameter) into the basement floor, inserting a copper tube through the slab, and sealing the hole around the tube with concrete.
4. Connecting each installed port to a small canister which will collect air through the port for approximately 1 day.
5. Collect air samples throughout the Structure.
6. Disconnect each canister and cap each installed port flush with the basement floor.

These activities will require entry to the Property on three consecutive days. Activities on the first day will take approximately 30-60 minutes. Activities on the second and third days will take approximately 15-30 minutes each. I understand that EPA and/or its contractor or subcontractor will contact the tenant to schedule each entry.

This written permission is given by me voluntarily and without threats or promises of any kind. I acknowledge that I am authorized to consent to the entry described herein.

Print Name: _____

Date

**CONSENT FOR ACCESS TO PROPERTY FOR VAPOR INTRUSION STUDY
(FOR SIGNATURE BY TENANT)**

Property Tenant(s) _____

Address of Property: 300 North Broad Street, Doylestown, Pennsylvania

I am the tenant of the property identified above ("Property"). I understand that the United States Environmental Protection Agency ("EPA") would like to perform a limited investigation on the Property pursuant to its response authority under the Superfund law, also known as the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9601-9675.

I hereby consent to allow EPA and its employees, agents, contractors and their subcontractors, and authorized representatives to enter the Property to conduct a subslab soil gas survey, which includes the following tasks:

1. Confirm, via discussion with the tenant, the temporary removal, from the interior of the residential/business structure at the Property ("Structure"), of any products or items which may potentially release vapors and interfere with the accuracy of EPA's soil gas survey.
2. Visually inspect the basement to identify sumps, cracks, and other possible vapor intrusion pathways and to locate utilities that may interfere with installation of sampling ports in the basement.
3. Install one or more vapor intrusion sampling ports by drilling a small hole (approximately 1/2 inch in diameter) into the basement floor, inserting a copper tube through the slab, and sealing the hole around the tube with concrete.
4. Connecting each installed port to a small canister which will collect air through the port for approximately 1 day.
5. Collect air samples throughout the Structure.
6. Disconnect each canister and cap each installed port flush with the basement floor.

These activities will require entry to the Property on three consecutive days. Activities on the first day will take approximately 30-60 minutes. Activities on the second and third days will take approximately 15-30 minutes each. I understand that EPA and/or its contractor or subcontractor will contact me or my representative to schedule each entry and that I or my representative must be present at the Property at the agreed upon entry dates/times.

This written permission is given by me voluntarily and without threats or promises of any kind. I acknowledge that I am authorized to consent to the entry described herein.

Print Name: _____

Date

Name/Telephone number for scheduling purposes: _____ / _____

Best time to call for scheduling purposes: _____

7002 0860 0007 8008 9081

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Heywood Becker
Turog Properties Management, Inc.
5382 Wismer Road
Pipersville, PA 18947

F
(End)
Res
(End)
Tot

Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

PS Form 3800, April 2002 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Heywood Becker
Turog Properties Management, Inc.
5382 Wismer Road
Pipersville, PA 18947

2. Article Number (Copy from service label)

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly)	B. Date of Delivery
C. Signature	<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	

3. Service Type

Certified Mail Express Mail

Registered Return Receipt for Merchandise

Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

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4 January 2010

Mr. Huu Ngo, P.E.
Remedial Project Manager
Hazardous Site Cleanup Division (3HS21)
USEPA, Region 3
1650 Arch Street
Philadelphia, PA 19103

**Subject: Final Technical Memorandum
Chem Fab Site
Doylestown Township, Bucks County, Pennsylvania**

Dear Mr. Ngo:

EA Engineering, Science, and Technology, Inc. (EA) is pleased to submit this Final Technical Memorandum to discuss the results of a review of documents and analysis associated with the Chem Fab Site, located in Doylestown, Pennsylvania (PA).

1. INTRODUCTION AND SITE OVERVIEW

1.1 PROJECT INITIATION

Under the United States Environmental Protection Agency (USEPA) Region III Response Action Contract (RAC) No. EP-S3-07-07, Work Assignment No. 020RICO03DR, EA has been tasked to complete Remedial Investigation (RI) and Feasibility Study (FS) activities at the Chem Fab Site located in Doylestown, PA. This work will lead to the selection of a remedy that eliminates, reduces, and/or controls risks to human health and the environment at the site. This Technical Memorandum has been completed under Task 1.5, Project Initiation, of the above referenced work assignment. Included in this task is an overview of previous site investigations and assessments, an identification of potentially applicable remediation technologies and Applicable or Relevant and Appropriate Requirements (ARARs), and a preparation of a Conceptual Site Model (CSM) that evaluates the conceptual exposure pathway analysis for potential human and ecological receptors at and surrounding the site. The RI/FS reports will be used to support the generation of a Proposed Plan and Record of Decision (ROD) for the site.

1.2 SITE HISTORY

The Chem Fab Site was formerly operated as an electroplating and metal etching company from 1965 to 1994. During its operation, the facility incurred multiple violations for improper discharge of wastes. In 1987, as part of a Comprehensive Environmental Response, compensation and Liability Act (CERCLA) Removal Action, USEPA connected seven homes and two businesses located near the Chem Fab property to municipal water due to contamination found in their respective wells. During a second Removal Action from 1994 to 1995, USEPA removed and disposed of 117 drums of wastes and 8,400 gallons of liquid wastes from the Site. USEPA transitioned lead responsibilities for investigation of the Site to the Pennsylvania Department of Environmental Protection (PADEP) in 1998. Section 2 provides a list of reports developed by PADEP during their investigation which were reviewed for the preparation of this memorandum. The Site was added to the National Priorities List (NPL) in April 2007, at the request of



PADEP. USEPA initially conducted an investigation to determine if Potentially Responsible Parties (PRPs) could be identified to conduct the RI. USEPA concluded the PRP search in July 2009 and directed EA to initiate RI/FS report generation activities.

The Chem Fab Site is located on North Broad Street in Doylestown Township, Bucks County, PA (Figure 1). The Chem Fab facility is a one-acre parcel currently consisting of three commercial buildings with multiple tenants. According to the *Investigation Summary Report: September 2007 – May 2008* (URS, 2008), the Extra Space Storage office also includes an occupied, second floor residential apartment. The Site is bound by North Broad Street (north), by Tilley Fire Equipment's commercial facility (east), and the Extra Space Storage facility (west and south). For the purposes of this Technical Memorandum the Site boundary is assumed to include both the former Chem Fab facility and the present day Extra Space Storage facility resulting in a total site acreage of approximately eight acres (Figure 2).

Electroplating and etching operations at the facility generated wastes that included ferric chloride, mineral spirits, chromic acid rinse water and sludge, chromic acid, sulfuric acid, sodium bisulfate, sodium hydroxide, and lime. A trichloroethene (TCE) vapor degreasing process was used until 1973. The primary constituents of concern (COC) at the Site are the volatile organic compounds (VOCs) TCE, tetrachloroethene (PCE), and associated degradation by-products such as vinyl chloride (VC). Heavy metals including total and hexavalent chromium (Cr[VI]) have also be identified as contaminants of concern (COCs) as has 1,4-dioxane. Based on a review of previous analytical results, the source of the COCs was identified as historic Chem Fab operations and the adjoining the former tank farm area (Figure 3). The former Chem Fab tank farm had contained up to six above ground storage tanks (ASTs), including at least one 2,500-gallon, 4,000-gallon, and 8,500-gallon AST. The Site additionally had one 10,000-gallon underground storage tank (UST) and the tank farm area included an approximately 1,000-gallon underground catch basin (URS, 2008; Ogden, 2000). Multiple sketches included in the *Preliminary Assessment for Chem Fab Corporation* (23 January 1986) prepared by the Pennsylvania Department of Environmental Resources illustrate the layout and location of the former tank farm. The area, located behind the primary manufacturing building of the former Chem Fab facility, is also noted in multiple photographs in USEPA's *Historical Photographic Analysis* (June 2009) of the Site which indicates the area contained multiple vertical and horizontal storage tanks.

1.3 GEOLOGY AND HYDROGEOLOGY

The Chem Fab Site is located in Bucks County, which is predominantly an undulating plain characterized by low hills and ridges. Rocks underlying the county consist of schist, gneiss, shale, sandstone, quartzite, conglomerate, and limestone. Bucks County lies within the Appalachian Highlands physiographic division. The Appalachian Highlands is divided into several provinces, which in the Bucks County area include the Piedmont province, the Triassic-Lowland province, and the New England province.

The Site lies within the Triassic-Lowland physiographic province in Bucks County. This area is characterized by an uplifted plain formed by easily eroded inclined strata, with residual ridges marking the more resistant, tilted, volcanic rock. Local relief does not exceed 250 feet in elevation change. The bedrock underlying the site is Triassic-age Stockton lithofacies, which consists of light-colored, coarse-grained sandstone and conglomerate, red to brown fine-grained siliceous sandstone, and red shale. The sandstone is more prevalent than the shale in this area. The shale and sandstone are interbedded in no order and repeated with individual bedding planes pinching out in short distances.



This geologic unit has an average dip of 10 degrees and has a calculated thickness of approximately 3,000 feet. Bedrock strike trends from the southwest to the northeast (approximately N30°E) with an approximate shallow dip of 10 degrees from horizontal to the northwest. The formation contains a system of extensive fracturing, generally oriented parallel and perpendicular to the strike of the bedrock units (URS, 2006). The formation is cut by a well-developed system of joints and fractures (Ogden, 2000).

Two sets of fractures dominate the overall fracture network. One fracture set is essentially parallel to bedrock bedding planes and has a strike and dip of N32°E and 29°NW, respectively; the other fracture set is very nearly orthogonal to this set with a strike and dip of N217°E and 65°SE, respectively. Groundwater movement at the Site is largely determined by these underlying bedrock features (URS, 2009b).

The Stockton lithofacies is a significant source of water in Bucks County. Groundwater is contained in intergranular openings within the sedimentary rock where the cement has been weathered away; therefore, the occurrence and movement of groundwater are functions of the degree of weathering of the rock. Groundwater commonly occurs in artesian conditions where the sandstone and conglomerate beds are interlayered with red shale. This artesian flow is probably a function of the dip and orientation of the bedding. The dip of the Stockton formation averages 10 degrees or more; therefore, a selected water-bearing bed stops bearing water at an appreciable distance down dip, as the bed grades into unweathered bedrock. The formation has a wide range in permeability; recorded yields for the Stockton range from 2 to 440 gallons per minute (gpm) with an average yield of 78 gpm (Ogden, 2000). The bedrock aquifer is discussed in terms of shallow, intermediate, and deep levels. Sampling results indicate that groundwater at the Site, and therefore the contaminant plumes, move in two directions: (1) west-northwest movement from a shallow, easterly position suggests transport along the bedrock bedding planes and fractures; and (2) movement towards the southwest at an angle that approximately bisects the observed angle of high-angle fractures and the plunge of parallel fractures (URS, 2008). Additionally, areas of day-lighting groundwater, a result of vertically upward groundwater migration from shallow bedrock, have been observed and there may connections between groundwater and Cooks Run as well as wetlands in the area.

Groundwater elevation contours defined by shallow, intermediate, and deep wells indicate that the horizontal component of flow on the Site is toward the northeast (i.e., towards Cooks Run) at average horizontal gradients of 0.013, 0.015, and 0.02, respectively. Groundwater contours defined by the deep wells indicate a general groundwater flow component to the northwest in the southern portion of the site. Groundwater flow direction is diverted generally to the west within the central and northern portions of the Site. The approximate horizontal hydraulic gradient with the southern portion of the Site is 0.008, and 0.005 within the central and northern portions of the Site (URS, 2009a; refer to Figures 2-1 through 2-4 for illustrations of groundwater elevations).

Based on information from the Borough of Doylestown, residents of Doylestown rely on groundwater as a source of potable drinking water. The area in proximity to the site has a relatively shallow groundwater table. Well logs indicate a depth to water as shallow as approximately 0.6 feet. Potable wells and municipal supply wells are located in close proximity to the site. Contaminants have been detected in residential, commercial, and municipal wells (MSW-13) located west of the site and on the opposite side of Cooks Run. Contaminants have also been detected in municipal well (MSW-08) located south of the site. The depths of the majority of the wells are not known; however, they are likely to extend into bedrock (AMEC, 2002). The municipal well (MSW-13) has been taken offline and several of the potable wells have been abandoned for drinking water purposes based on historic groundwater investigations (Ogden, 2000).



1.4 TOPOGRAPHY AND SOIL

The topography of the majority of the Chem Fab site consists primarily of fill areas, partially vegetated land, and gentle slopes. The main portion of the site is covered with the onsite buildings and associated paved driveway and parking areas. The elevation ranges from approximately 360 to 400 feet above mean sea level (MSL), with a gentle downward slope to the southwest toward Cooks Run. The assessment of the site topography is based on a review of the U.S. Geologic Survey (USGS) Doylestown quadrangle for the site and surrounding area and onsite observations noted during previous investigation (Ogden, 2000).

Soil at the Site are associated with the Doylestown Series and Abbottstown Series and consist of deep, poorly drained, nearly level to gently sloping soil on uplands. The Doylestown soil were formed in silty material overlying a variety of loamy materials generally weathered from shale and sandstone, and the Abbottstown Series consists of deep, somewhat poorly drained, nearly level soil on uplands, formed in loamy material weathered from brown shale and sandstone. The soil onsite consist mainly of the Doylestown silt loam, 0-3 percent slopes. This Doylestown silt loam is found in concave positions along drainage ways and the base of slopes and on some ridge tops. Doylestown silt loams are generally wet and are described as a dark grayish-brown silt loam surface layer with a grayish-brown silty clay loam with light brownish-gray and strong brown mottles. The Abbottstown silt loam (8-15 percent) slopes are also found on the Site in areas similar to the Doylestown silt loam. This soil type is described as dark brown to reddish-brown silt loam, shaly silt loam, and shaly clay loam and can also be pink, yellow, brown, and gray mottles at depth. Reddish-brown, mottled shaly, silty clay loam overlies fractured red shale bedrock. Both soil series are considered poorly to moderately permeable and allow for slow to moderate runoff (Ogden, 2000).

Soil boring logs from previously completed sampling describe soil at the Site as being unsaturated, primarily brown to red silty clay or clayey silt with trace sand. Borings were advanced using direct push geoprobe techniques and encountered refusal at approximate depths between 4.4 feet to 15.6 feet below ground surface (bgs). The most recent soil sampling focused on the northeastern and southeastern portion of the former Chem Fab property and the entire Extra Space Storage facility (URS, 2008).

1.5 SURFACE WATER AND DRAINAGE

Pine Run and Cooks Run creeks are located within a two-mile radius of the former Chem Fab facility. Surface drainage is expected to flow to the southwest across the site, toward Cooks Run via overland flow. An on-site surface swale is also present and empties into Cooks Run. Based on analytical and geologic site data, vertically upward groundwater migration from shallow bedrock may be responsible for the observed overburden groundwater and on-site swale COCs. The overall presence of elevated concentrations of PCE, TCE, and Cr(VI) in water collected from the on-site surface swale and overburden monitoring wells, together with the lack of either near-surface soil contamination in these areas, or a credible subsurface pathway for groundwater in the overburden, strongly suggests that 'upwelling' from the shallow bedrock levels may be responsible for elevated overburden and swale concentrations at these locations. (URS, 2009b). Additionally, COCs in surface water and on-site swale may also be attributable to overland flow of surface run-off through areas where contaminated day-lighting groundwater has collected. Cooks Run is a tributary of Neshaminy Creek which eventually empties into the Delaware River.



In addition to Cooks Run, surface water is also present adjacent to the Site in the form of forested wetlands and two ponds south of the Extra Space Storage Facility. Based on a review of aerial photography, one of the ponds is associated with the Water Treatment Facility; the second appears to be a sediment and erosion control pond associated with a housing development. It is unknown if these ponds are lined or if they may have a hydrologic connection with underlying groundwater. The forested area to the east of Cooks Run includes scattered forested wetlands. These include isolated pools as well as areas associated with periodic inundation from Cooks Run. Hydrology of these wetlands is unclear, and hydrologic inputs could originate from several sources, including overbank flooding, ponding over fine grained deposits of clay or silt, and groundwater seeps (i.e., day lighting groundwater).

2. HISTORICAL DATA REVIEW

2.1 REPORT REVIEW

Between 1986 and 2009 various site investigations and sampling events were conducted. This included sampling of groundwater, surface water, and soil for a variety of contaminants. Data from these sampling events was used to profile the site and assess the risks from contaminants found at the site. To better understand the site and to prepare an updated CSM for the USEPA, EA has reviewed the following documents and the sampling data associated with them:

1. Preliminary Assessment for Chem Fab Corporation, Pennsylvania Department of Environmental Resources, January 1986
2. Volatile Gas Chromatography/Mass Spectrometry Analysis of Samples from Doylestown Groundwater Site for Superfund Removal, Weston, April 1989
3. USEPA Region III Memorandum, Subject: Request for Funds for a Removal Action, USEPA, March 1995
4. Final Draft Site Characterization Report, Ogden Environmental, July 2000
5. Final Phase II Site Investigation Report, AMEC, November 2002
6. Final Phase II Site Investigation Report Addendum, AMEC, January 2003
7. Final Engineering Evaluation Report, AMEC, May 2003
8. Final Phase II Supplemental Groundwater Investigation, AMEC, February 2004
9. Final Groundwater Investigation Report and Bench Scale Study, AMEC, August 2005
10. Groundwater Monitoring Report - October 2006, URS, January 2007
11. Soil Remedial Report, URS, April 2007
12. Technical Memorandum: Aquifer Testing Activities and Results, URS, April 2007
13. Investigation Summary Report: September 2007 – May 2008 and Revised Conceptual Site Model, URS, October 2008
14. Semi-Annual Groundwater Monitoring Report: September-October 2008, URS, January 2009
15. Historical Aerial Photographic Analysis, Land Use/Land Cover Analysis, Site Discovery Analysis, Wetlands/Drainage Analysis, and Fracture Trace Analysis of Chem Fab Superfund Site, USEPA, June 2009
16. Semi-Annual Groundwater Monitoring Report: April 2009, URS, June 2009
17. Treatability Testing Report, URS, June 2009

2.2 PREVIOUS GROUNDWATER INVESTIGATIONS

Groundwater samples previously collected at Chem Fab have been analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total and dissolved target analyte



list (TAL) metals (including cyanide and Cr[VI]). VOCs detected in groundwater that exceed current EPA Region III Risk Screening Levels (RSLs) include 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane (1,1,2-TCA), 1,1-Dichloroethane (1,1-DCA), 1,2-DCA, 1,4-Dioxane, Benzene, Bromodichloromethane, Carbon Tetrachloride, Chloroform, cis-1,2-Dichloroethene (cis-1,2-DCE), Dibromochloromethane, Ethylbenzene, Methyl tert-Butyl Ether (MTBE), Dichloromethane (DCM), PCE, trans-1,3-Dichloropropene, TCE, VC, and Xylenes (total). SVOCs detected in groundwater that exceed current EPA Region III RSLs include 1,4-Dichlorobenzene, bis(2-Ethylhexyl)phthalate, and Naphthalene. TAL metals detected in groundwater that exceed current EPA Region III Risk Screening Levels include Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Cadmium (Cd), Cr[III], Cr(VI), Cobalt (Co), Copper (Cu), Cyanide (total), Iron (Fe), Manganese (Mn), Mercury (Hg), Nickel (Ni), Thallium (Tl), and Vanadium (V). EA notes that these lists include contaminants detected in groundwater extracted from direct push borings, contaminants with “J” qualifiers, and that not all of these contaminants will be site COCs. The most recent groundwater sampling events (2008 and 2009) have focused on VOCs, Cr(VI), and TAL metals (minus cyanide). Groundwater samples (MW-02, MW-03, MW-04, MW-05, MW-06 and MW-07) collected in and immediately down gradient of the historic source areas (i.e., areas including the former ASTs, UST, and warehouse) contained VOCs (halogenated and BTEX), SVOCs, and TAL metals (including Cr[VI], no cyanide) that exceed current EPA Region III RSLs. Locations of all site Monitoring Wells are shown in Figure 4. Table 1 provides a summary of EPA Region III RSL exceedences for groundwater samples collected during previous investigations.

Figures 4-4 through 4-11 from the October 2008 Investigation Summary Report: September 2007 – May 2008 and Revised Conceptual Site Model (URS, 2008) illustrate “contoured” TCE and Cr(VI) plumes as part of the detailed hydrogeologic CSM previously developed for the Site. These figures as well as associated sampling results and narrative from the report were utilized to identify data gaps associated with groundwater at the Site. The following items from the URS hydrogeologic CSM are noted:

SHALLOW BEDROCK (>280 FT)

- TCE levels in excess of 1 mg/L extend from an on-site source in the vicinity of MW-02, MW-06, and MW-07 in a relatively narrow band in the shallow bedrock (>280 ft) towards MW-04 and MW-05 as well as MW-25. TCE levels in excess of 0.1 mg/L are present in the shallow bedrock across most of the site with a bias towards the west and northwest areas.
- Cr(VI) levels in excess of 5 mg/L extend from an on-site source in the vicinity of MW-02, MW-06, and MW-07 in a relatively narrow band in the shallow bedrock (>280 ft) towards MW-04, MW-05, MW-46, MW-37, and MW-26/27. Cr(VI) levels in excess of 1 mg/L are present in the shallow bedrock across most of the site with a bias towards the west and northwest. The long access of the Cr(VI) plume is located further to the east than the TCE plume in the shallow bedrock. This variance suggests a potentially different source location and/or direct migration patterns.

INTERMEDIATE BEDROCK (250 – 280 FT)

- TCE levels in the intermediate bedrock (250-280 ft) in excess of 5 mg/L extend from near an on-site source in the vicinity of MW-02, MW-06, and MW-07 towards MW-04, MW-05, MW-10, MW-11, MW-14, and MW-15. The TCE plume in the intermediate bedrock appears to split into eastern and western branches. The eastern branch extends towards the vicinity of MW-04, MW-05, MW-40A/B, and EW-01 while the western branch extends towards the area of MW-08, MW-12, MW-44, and MW-13.



- Cr(VI) levels in excess of 5 mg/L extend from an on-site source in the vicinity of MW-02, MW-06, and MW-07 towards MW-04, MW-05, MW-46, MW-14, MQW-15, MW-37, and MW-26/27. The plume is surrounded on the eastern and western side by narrow bands of Cr(VI) levels in excess of 1 mg/L. Similar to the TCE plume in the intermediate bedrock (250-280 ft) the Cr(VI) plume appears to be split into separate branches. An eastern branch extends towards MW-04, MW-05, MW-40A/B, and MW-02/06/07 while the western branch extends to the MW-08, MW-12, MW-41, MW-44, and MW-13 area. Elevated occurrences of Cr(VI) in the western branch of the plume are consistent with down-dip migration towards the west-northwest.

INTERMEDIATE BEDROCK (220 – 250 FT)

- TCE levels in the intermediate bedrock (220-250 ft) are less than 1 mg/L and have shifted west/northwest toward the areas of MW-08, MW-12, MW-23, MW-36, MW-41, and MW-44. The plume in the intermediate bedrock also extends southwestward towards the vicinity of MW-31/32/33. The shift toward elevated concentrations of TCE at depth and toward the west/northwest is parallel to the dip direction of the underlying bedrock formation.
- Cr(VI) levels are generally less than 5 mg/L and have shifted west/northwest toward the areas of MW-08, MW-12, MW-23, MW-36, MW-41, and MW-44 and extends southwest towards MW-37 and MW-31.

DEEP BEDROCK (<220 FT)

- Within the deep bedrock (<220 ft) elevated TCE levels are centered under the western portion of the Site in the vicinity of M-23, MW-41, and MW-44. As with the plume in the intermediate bedrock (250-280 ft), distinct eastern and western branches of the contaminant plume are evident with the highest concentrations being found in the western branch of the plume. Detections of TCE on the opposite side of Cooks Run associated with MW-24/30 may or may not be a result of former activities associated with the Site (URS, 2008).
- Similar to TCE levels in the deep bedrock, elevated Cr(VI) levels are centered under the western portion of the Site at M-23, MW-41, and MW-44 with the long access of the plume extending from MW-19 to MW-31/32/33. Distinct eastern and western branches of the contaminant plume continue to be evident with the highest concentrations of Cr(VI) being found in the western branch of the plume. It should be noted that despite potentially different source areas, releases, and migration patterns the configuration of the TCE and Cr(VI) plumes in the deep bedrock are quite similar.

2.3 PREVIOUS SOIL INVESTIGATIONS

Soil (surface and subsurface) samples previously collected at Chem Fab have been analyzed for VOCs, SVOCs, and TAL metals (including cyanide and Cr[VI]). VOCs detected in soil that exceed current EPA Region III RSLs include ethylbenzene, PCE, TCE, and VC. SVOCs detected in soil that exceed current EPA Region III RSLs include hexachlorobenzene and naphthalene. Polycyclic aromatic hydrocarbons (PAHs) detected in soil that exceed current EPA Region III RSLs include Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, and Indeno(1,2,3-c,d)pyrene. TAL metals detected in soil that exceed current EPA Region III RSLs include Al, Sb, As, Ba, Cd, Cr, Cr(VI), Co, Cu, Cyanide (total), Fe, Lead (Pb), Mn, Hg, Ni, Selenium (Se), Silver (Ag), V, and Zinc (Zn). EA notes that these lists include contaminants with “J” and/or “B” qualifiers, and that



not all of these contaminants will be site COCs. The most recent soil sampling event (2007) has focused on VOCs, Cr(VI), and TAL metals (minus cyanide). Soil samples (SB-04, SB-05, SB-06, SB07, SB-09, SB-10, and SB-11) collected from the historic source areas contained VOCs (Halogenated and BTEX), SVOCs, PAHs, and TAL metals (including Cr(VI)) exceeding current EPA Region III RSLs. All cyanide detections in the historic source areas (all IB samples) were "JB" qualified. Locations of previously collected soil samples are shown in Figure 5. Table 2 provides a summary of EPA Region III RSL exceedences for soil/sediment samples collected during previous investigations.

Prior to October 2007, previous soil investigations at the Site have focused on the interior of the former warehouse, the footprint of the former tank farm (currently paved) in the southeastern corner of the Chem Fab property, and the footprint of the former UST located in the western portion of the Site. During an October 2007 sampling event the northeastern and southeastern portions of the former Chem Fab property and the entire footprint of the Extra Storage Space property were sampled in an attempt to better characterize soil impacts associated with TCE and/or Cr(VI) (URS, 2008). A total of 88 soil borings were installed during this sampling event with 20 installed within the former Chem Fab property (borings B-21 through B-39) and the remaining 68 installed throughout the Extra Storage Space facility footprint (borings B-40 through B-107).

A number of contaminants were present in samples at levels that significantly exceeded USEPA RSLs and Pennsylvania Act 2 residential Medium Specific Concentrations (MSCs). These compounds included Cr(VI), cobalt, TCE, PCE, and vinyl chloride at depths that ranged from 1.0 to 10.6 feet bgs. However, the majority of the soil samples that exceeded the residential RSLs/MSCs were collected at depths greater than 8.0 feet bgs, within the weathered zone just above the top of the bedrock under the Site (URS, 2008). Exceedances associated with the October 2007 sampling were consistent with previous investigations and were located in the former tank farm area located south of the former manufacturing building and the patched asphalt area located east of the former manufacturing building. October 2007 exceedances were also noted within the surficial swale located along the southeastern corner of the Extra Space Storage Facility.

Compounds identified as exceeding residential and industrial (non-residential) RSLs/MSCs during the October 2007 event, which had not been noted during previous investigations, included vinyl chloride and cobalt. The exceedance of vinyl chloride, adjacent to the area of the former tank farm suggests that PCE and TCE identified during previous investigations may be degrading over time (URS, 2008).

2.4 PREVIOUS SURFACE WATER INVESTIGATIONS

Previous investigations the Site have included limited surface water sampling. Sampling locations were limited to Cooks Run. Locations of previously collected surface water samples are shown in Figure 6.

Surface water samples previously collected at Chem Fab have been analyzed for VOCs, SVOCs, total and dissolved TAL metals (including cyanide and Cr[VI]). VOCs detected in surface water that exceed current EPA Region III RSLs include 1,1,2-TCA, 1,1-DCA, Bromodichloromethane, Carbon Tetrachloride, Chloroform, Dibromochloromethane, Ethylbenzene, DCM, PCE, TCE, VC, and Xylenes (total). TAL metals detected in surface water that exceed current EPA Region III RSLs include As, Co, Cr(VI), Mn, and Ni. EA notes that these lists include contaminants with "J" qualifiers, and that not all of these contaminants will be site COCs. The most recent surface water sampling events (2008 and 2009)



have focused on VOCs, Cr(VI), and TAL metals (minus cyanide) Table 2 provides a summary of EPA Region III RSL exceedences for surface water samples collected during previous investigations.

Results of September 2007 surface water sampling indicated that organic compounds detected in Cooks Run (five samples) included PCE, TCE, 1-1-DCE, cis-1,2-DCE, and 1,1,1-TCA. The levels of inorganic compounds detected, including chromium, were identified as similar to concentrations detected during an October 2006 sampling event. One sample collected in the outfall area of the on-site drainage swale contained VOCs and metals, including TCE, PCE, and Cr(VI) (URS, 2008).

Surface water samples from Cooks Run collected during a Spring 2008 sampling event included PCE, TCE, 1,4-dioxane, 1-1-DCE, cis-1,2-DCE, 1,1,1-TCA, 2-butanone, 4-methyl-2-pentanone, DCM, MTBE, and 1,1-DCA. The levels of inorganic compounds detected, including chromium, were identified as similar to concentrations detected during the September 2007 sampling event discussed above.

2.5 PREVIOUS SEDIMENT INVESTIGATIONS

Sediment samples previously collected at Chem Fab have been analyzed for VOCs, SVOCs, and TAL metals (including cyanide and Cr(VI)). VOCs detected in sediments that exceed current EPA Region III RSLs cis-1,2-DCE, DCM, PCE, and TCE. SVOCs detected in sediments that exceed current EPA Region III RSLs Fluoranthene, Hexachlorobenzene, and Naphthalene. PAHs detected in sediments that exceed current EPA Region III RSLs include Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Indeno(1,2,3-c,d)pyrene, and Phenanthrene. TAL metals detected in sediments that exceed current EPA Region III RSLs include Al, As, Cd, Cr, Cr(VI), Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn. EA notes that these lists include contaminants with "J" qualifiers, and that not all of these contaminants will be site COCs. Sediment sampling was conducted once in 2000 Table 2 provides a summary of EPA Region III RSL exceedences for soil/sediment samples collected during previous investigations.

Sediment sampling locations were predominantly limited to Cooks Run and the current drainage swale that runs along the eastern and southern edges of the Extra Space Storage facility. Limited sampling was also conducted along a historic drainage channel and within a historic construction retention basin immediately west of the former Chem Fab facility, north of Extra Space. The sediment samples with the highest concentrations of VOCs and metals are SED-03, SED-04, and SED-15. SED-03 and SED-04 were collected immediately upstream and downstream of the historic drainage channel confluence with Cooks Run. SED-15 was collected at the southern edge of the Site, where the current drainage swale turns west toward Cooks Run. Locations of previously collected sediment samples are shown in Figure 6.

3. SITE UNDERSTANDING AND REMEDIAL INVESTIGATION DEVELOPMENT

3.1 DATA GAPS AND UNCERTAINTIES

EA has identified a number of uncertainties or data gaps associated with the site investigations and assessments. These include:

1. Lack of background sampling for soil and groundwater
2. Lack of surface water and sediment sampling associated with potential COC migration into Cooks Run



3. Lack of surface soil and subsurface soil sampling outside the assumed boundary of the Site to assess potential for areas of COCs outside the identified site boundary
4. Limited information on speciation of Cr(VI) in surface water
5. Lack of information on groundwater wells MSW-08 and MSW-13 (e.g., driller logs, well logs, geology information, etc.)
6. Lack of background data for figures included in previous reports (e.g., CAD information, DEM files, GIS data for well bore logs, etc. Note: sample location coordinates has been provided to EA and some CADD files are provided for the 2000 to 2003 Phase I/II Reports)
7. Lack of monitoring well cross sections including bedrock structure, pressure head gradient, known source(s), and contaminant distribution.
8. Data collected in the Site Characterization and Inspection phases of previous investigations was utilized to screen out SVOCs and cyanide as analytes in investigations conducted after 2003 by PADEP, since these contaminants did not exceed PADEP screening levels. EPA screening levels are lower than PADEP screening levels for these contaminants in most cases.
9. Vapor intrusion data collection is currently planned. This data will need to be evaluated and the CSM revised, as appropriate, when the data becomes available.

These uncertainties have been considered in the development of the proposed sampling outlined in Section 3.3 and will continue to be considered throughout completion of the Remedial Investigation and the evaluation of alternative technologies applicable to the site.

3.2 CONCEPTUAL SITE MODEL

Based on previous investigations that have been performed at the Site, it has been determined that soil, surface water, and groundwater have all been impacted with site-specific COCs. Diagram 1 presents a general CSM illustrating contaminant sources, release mechanisms, exposure pathways, migration routes, and potential human and ecological receptors at each site. Data from the October 2008 Investigation Summary Report: September 2007 – May 2008 and Revised Conceptual Site Model (URS, 2008) was used for the development of Diagram 1. The general CSM has been supplemented by the preparation of site-specific CSMs designed to evaluate potential ecological and human health risks.

A human health conceptual site model has been developed for the former Chem Fab facility to show potential sources of contamination, routes of migration, and receptors to focus the baseline human health risk assessment (BHHRA). Pathways begin from potential sources and progress through the environment through various fate and transport processes to potential human receptors. The model illustrates the pathways through which receptors may be exposed to sources of COCs. A site-specific, detailed Human Health CSM is included as part of Attachment 1.

Potential sources of COCs and exposure pathways have been characterized for the Site to support the screening level ecological risk assessment (SLERA). Pathways begin from potential sources and progress through the environment through various fate and transport processes to potential ecological receptors. The model illustrates the pathways through which receptors may be exposed to sources of COCs. A site-specific, detailed Ecological CSM is included as part of Attachment 2.

3.3 DATA COLLECTION FOR REMEDIAL INVESTIGATION



After a thorough review of documents provided and sampling data compiled from previous investigations, EA has developed data collection strategies (to fill specific data gaps) and conceptual sampling regimes for groundwater, soil, surface water, and sediment. These conceptual sampling regimes are based upon EAs current perception of data gaps and interpretation of existing data. All proposed sampling locations shown on Figures 4 through 6 will not be considered final until a Sampling and Analysis Plan is drafted and approved by EPA. All proposed sampling will be designed to address data gaps identified during review of available documentation, identify potential continuing sources of contamination (i.e., "hot spots"), and further delineate the extent of COC migration from the Site to off-site areas via various migration pathways. Conceptual details of proposed sampling for each media are described below and are illustrated in Figures 4 through 6 for informational purposes only. EA will continue communications with EPA and PADEP to obtain missing background data (e.g., CAD information, DEM files, GIS data for well bore logs, etc.) to address Data Gap #6.

3.3.1 GROUNDWATER

Groundwater monitoring well locations, if determined to be necessary, will be proposed under a separate submittal following the completion of cross sections. Proposed lines of section to address Data Gap #7 are shown on Figure 4 of this document and have been submitted to EPA under a separate submittal for review prior to the completion of the cross sections. Cross sections will be prepared by hand or utilizing appropriate software applications (e.g., Rock Works or GMS) dependent upon the availability of GIS and Rock Works/GMS data that has been requested. Approximately two cross sections will be completed for each line of section, one cross section will include bedrock structure and groundwater pressure head gradient while the second will include known source with groundwater contaminant distribution. Background groundwater sampling locations will be selected after the cross sections are completed to address Data Gap #1.

A groundwater transport model may also be needed to determine the affect of MSW-08 pulling water from the source site following completion and review of the groundwater fence diagram. Additional information may be needed to determine if modeling is feasible to determine the potential affect MSW-08 has on the source site are as follows. Information that is currently unavailable, but that would be beneficial for review to address Data Gap #5 includes:

- Slug tests (hydraulic conductivity) of wells not included in the URS *Technical Memorandum: Aquifer Testing Activities and Results*, dated 9 March 2007, and
- Lithology, water levels, elevation, coordinates, and pumping information of MSW-08 (to incorporate into fence diagram);
- Current water levels and static water levels of area and site wells; and
- Any other available lithology information for areas south of the Site (to incorporate into fence diagram).

As discussed in Section 2.2, monitoring well samples collected in and immediately down gradient of historical source locations had exceedences of current screening levels for VOCs, SVOCs, and TAL metals (including Cr[VI], no cyanide). SVOC analysis has not been included in site groundwater sampling since 2003; however, groundwater samples collected in 2003 had exceedences of current screening levels for SVOCs. To address Data Gap #8, the inclusion of SVOC analysis should be considered for future groundwater sampling.



Cyanide was detected in piezometer samples collected in a one time sampling event from SB-04, SB-05, SB-13, and SB-34. Cyanide was only detected in site soils above screening concentrations as “JB” qualified data in all IB samples. If additional direct push sampling/piezometer installation is required/approved, consideration should be given to reinstallation of piezometers in locations SS-05 and SB-13 (where cyanide detections were >26,000 ug/L) to validate data obtained in 2000.

3.3.2 SOIL

Additional soil sample locations are proposed to delineate the extent of soil potentially contaminated with Cr(VI) and to address Data Gap #3. Proposed soil sample locations were selected to delineate the previous soil locations which exceeded applicable standards (i.e., most recent RSLs) as shown in Figures 2-4 through 2-6 in the *Investigation Summary Report: September 2007 – May 2008* (URS, 2008). Standard depths of 0-1’, 1-2’, and 2-4’ will be utilized for proposed soil sampling to support the BHHRA. For SLERA, samples will be collected from the O and A horizons, or from depths of 0-6” and 6-12” should the horizons be indistinct. Proposed soil sample locations, as well as the locations of previous soil borings, are shown on Figure 5 and discussed below:

- Two sample locations via direct push are proposed directly south of SB-06. Cr(VI) was detected above applicable standards (i.e., most recent RSLs) in SB-06 from 3.5 to 4 feet and not detected from 8.5 to 9 feet (possibly refusal). Therefore, two samples are proposed to be analyzed at each of the two locations from 3.5 to 4 feet and directly above refusal. A sample directly above refusal is proposed to determine if potential contamination is present directly above bedrock in the vicinity of SB-06.
- One sample location via direct push is proposed to northeast of B-23. Cr(VI) was detected above applicable standards (i.e., most recent RSLs) in B-23 from 1 to 2 feet bgs and 5-6 feet bgs (refusal). Due to the presence of the current building directly to the east of B-23, a sample location is proposed to the north of the adjacent building (building is east of the site boundary). Two samples are proposed to be analyzed at this location from 1 to 2 feet and directly above refusal.
- Three sample locations are proposed directly east of B-58 and B-74. Cr(VI) was detected above applicable standards (i.e., most recent RSLs) in B-58 from 6.5 to 7.5 feet (refusal). Cr(VI) was also detected above applicable standards (i.e., most recent RSLs) in B-74 from 4.6 to 7.5 feet and 8 to 8.7 feet (refusal). Based on the previous analytical results of B-58 and B-74, two samples are proposed to be analyzed at each location from 6.5 to 7.5 feet and directly above refusal.
- In addition to the soil sample locations directly east of B-74, an additional sample location is proposed to the southeast of B-73. Cr(VI) was detected above applicable standards (i.e., most recent RSLs) in B-73 from 8 to 9 feet (refusal). Therefore, two samples are proposed to be collected from 5 to 6 feet (to determine if contamination is present at this location) and directly above refusal.
- Two sample locations are proposed to the south of SB-28. Cr(VI) was detected above applicable standards (i.e., most recent RSLs) in SB-28 from 6.5 to 7 feet and 8.5 to 9 feet (possibly refusal). Therefore, two samples are proposed to be analyzed at each location from 6.5 to 7 feet and directly above refusal.

A sample is proposed directly above refusal at the sample locations proposed above to determine if potential contamination (if any) is located throughout the entire extent of overburden. Knowing the



extent of contamination around these areas of concern (previous soil sample locations with Cr(VI) detected above the most recent RSLs) will help determine plans for future remedial actions.

Upon further review of previous soil samples collected for the analysis of potential TCE contamination onsite as summarized in the *Investigation Summary Report: September 2007 – May 2008* (URS Corporation, October 2008), EA believes that the extent of TCE soil contamination is well defined onsite and no further sampling is proposed for delineation of TCE.

Proposed background soil sampling locations to address Data Gap #1 are shown on Figure 5. As noted in Section 2.3, soil samples collected from the historic source areas contained VOCs (Halogenated and BTEX), SVOCs, PAHs, and TAL metals (including Cr(VI)) exceeding current EPA Region III RSLs. SVOC analysis has not been included in site soil sampling since 2003; however, soil samples collected in 2003 had exceedences of current screening levels for SVOCs. To address Data Gap #8, the inclusion of SVOC analysis should be considered for future soil sampling.

3.3.3 SURFACE WATER AND SEDIMENT

The exact connection between groundwater and surface water is unknown. However, it is believed that vertically upward groundwater migration from shallow bedrock is likely responsible for observed overburden groundwater and drainage swale contamination (URS, 2008). An analysis of the groundwater to surface water pathway should be performed by completing temperature and conductivity readings in association with proposed surface water sampling (discussed below) and examined for evidence of groundwater inputs. Based on the results of groundwater and surface water sampling, optimal locations for the installation of piezometers will be determined. Additionally, EA will consider water budget and surface water gauging during the evaluation of the groundwater to surface water pathway and, if appropriate, will propose this evaluation as part of the initial data gathering/data gap investigation.

In order to fully characterize surface water and sediment at the Site and address Data Gap #2 additional sampling is proposed. Sediment and surface water samples are proposed to characterize Cooks Run, the current drainage swale, historic drainage swales, historic retention pond, nearby impoundments, and adjacent forested wetlands. Based on observation, the vast majority of the substrate of Cooks Run is sand or larger sized particles. Except for localized areas where a thin layer of silt is present, many areas in Cooks Run do not contain the appropriate fine grain sediment for sampling and thus does not allow the collection of co-located sediment and surface water samples at all proposed points. Water quality within the potentially impacted reaches of Cooks run will be characterized, along with the potential points of groundwater discharge into the stream. In terms of sediment collection, there may be localized depositional areas within the channel between the site and North West Street. There were, however, no suitable sampling locations apparent between the site and outfall of the impoundment at the Water Treatment Facility. Fine grained material does appear to be deposited on the forested floodplain during storm events, thus sediment samples will primarily target these depositional areas.

All in all, sampling locations will target fine grained sediments in areas of potential deposition and surface water samples will be biased to areas expected to receive input from groundwater seeps. Lacking direct evidence of seeps, surface water samples will be collected from the locations shown on the map. The proposed sampling locations in the drainage swale are located SE of the former swale to determine if EOC sampling on this side of the Site is complete. There are two impoundments located southwest of the site; a stormwater impoundment associated with the adjacent residential area and a basin associated with the wastewater treatment plant. If during initial site sampling a hydrological connection between



impacted waters (surface or groundwater) and the impoundments is found, four sampling locations will be placed within the impoundments to better characterize those areas.

Twenty-one soil samples are proposed to characterize areas potentially receiving erosion from the site (10 samples) and areas potentially receiving input from overbank flooding. Sampling will focus on low lying areas likely to receive inputs from overland flow. Based on BTAG site visits, the forested wetland extends a substantial distance to the northwest from the creek and to the southwest along the creek. Soil and sediment samples will target this area. Surface water pools and channels were also observed within the forested wetland and should be sampled for surface water and sediment based on proximity to the groundwater plume and potential groundwater expression. At each sampling location, two composites representing the O and A soil horizons (or 0-0.5' and 0.5-2' if the horizons can not be identified) will be collected.

Twenty-three surface water and sediment samples will be taken based on the previously mentioned sampling rationale. Sediment samples will be collected from the top six inches of each fine-grained, sediment deposit. Surface water samples will be collected from the water surface, and both filtered and unfiltered samples will be collected and analyzed for target analyte list metals and VOCs. As Cr(VI) is also a concern for the Site, samples will also be analyzed to determine chromium speciation which will provide information necessary to address Data Gap #4. In all cases, sample results should be evaluated to determine whether the maximum extent of contamination has been characterized. If not, additional samples downstream or samples in sediment further from the Site boundary may be required.

Previous sampling at the site has not included characterization of background concentrations of chemicals in surface media that may be representative of regional reference concentrations. Therefore five co-located sediment and surface water and five surface soil samples are proposed for collection from areas north of N. Broad Street. This area is expected to be beyond the influence of the site and representative of natural conditions and ubiquitous anthropogenic inputs. Background samples will provide data necessary to address Data Gap #1.

The nature of groundwater/surface water transition zones also represents a significant data gap. In an effort to characterize the risks of potentially contaminated groundwater on aquatic systems, surface water temperatures and conductivity data will be collected and piezometers will be installed and surveyed. These measures will aid in characterizing groundwater inputs to surface water and the hyporheic zone.

3.3.4 VAPOR INTRUSION

Limited data is available concerning potential vapor intrusion into industrial and residential properties located in proximity to the site or know boundaries of the plume. EA understands that USEPA is currently collecting vapor intrusion data using the Superfund Technical Assistance Response Team (START) contractor. EA will need to review vapor intrusion data, when available, to determine if additional data collection is needed and to address Data Gap #9.

4. IDENTIFICATION OF POTENTIAL INTERIM ACTIONS

EPA requested that EA identify potential Interim Actions with the development of the initial CSM. If directed by EPA, these Interim Actions would be evaluated in a Focused Feasibility Study (FFS). Based upon a review of the documents noted in Section 2, EA has identified several potential Interim Actions. These potential Interim Actions are discussed in individual sections below:



4.1 SOIL

Previous investigations have identified several “hot spots” on the site which have levels of Cr(VI), and/or halogenated organic compounds that exceed RSLs. These areas can be seen in Figure 7 of the Soil Remedial Alternatives Analysis (URS, 2007b). This figure is attached for reference purposes. The largest “hot spot” is located primarily alongside an existing building located on the Site. The estimated volume of the soil is 32,106 ft³. The depth of soil reaches 12 feet bgs, and the October 2008 well sampling event noted static water levels of 6 feet bgs in wells located in proximity to this area. The soil potentially serves as a source for the continuing release of contaminants into groundwater, and the remediation of soil would aid in the ultimate remediation of the Site. Potential Interim Actions are identified below:

- Limited excavation and off site disposal of soil may be practicable, providing that adequate shoring of the existing foundations is possible.
- Application of reactive compounds to the excavated areas, prior to backfilling, may mitigate impacts to saturated soil (and groundwater).
- In Situ application of reactive compounds to the isolated areas located beneath the existing structure, may reduce impacts to groundwater and vapor intrusion.

Treatment using reactive chemicals has been bench tested for the Site. Reactive chemicals bench tested included calcium polysulfide [Cr(VI) treatment], calcium-sodium polysulfide [Cr(VI) treatment], EHC-M™ [Cr(V) and halogenated organics treatment], MRC™ [Cr(VI) and halogenated organics treatment], and EOS™ (halogenated organics treatment). EA would also recommend that hydraulic containment be established prior to the application of reactive compounds. This is discussed further in Section 4.2.

4.2 GROUNDWATER

The groundwater plume at the Site is currently uncontrolled. Establishing hydraulic control of the most contaminated portions of the plume would aid in remediation efforts and may lessen the length of long term monitoring following the Remedial Action. Previous studies conducted at the Site suggest that a single extraction well, functioning at low flow (1 to 3 gallons per minute), could hydraulically influence a large portion of the site (URS, 2007a). Potential Interim Actions are identified below:

- Extraction and treatment of contaminated groundwater, to establish hydraulic control over the more contaminated areas.
- In Situ application of reactive compounds after hydraulic control is established.

Treatment using reactive chemicals has been bench tested for the site. Reactive chemicals bench tested included calcium polysulfide [Cr(VI) treatment], calcium-sodium polysulfide [Cr(VI) treatment], EHC-M™ [Cr(VI) and halogenated organics treatment], MRC™ [Cr(VI) and halogenated organics treatment], and EOS™ (halogenated organics treatment).

5. APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

The development and evaluation of remedial alternatives under CERCLA includes a comparison of alternative site remedies to ARARs. The selected remedial action for the site must satisfy all ARARs unless specific waivers have been granted. The national goal of remedy selection is to protect human health and the environment, to maintain protection over time, and to minimize untreated waste [40 CFR 300.430 of the NCP (55 *Federal Register* 8846)]. The remedial action must comply with all applicable or



relevant and appropriate laws, regulations, and standards promulgated by the federal government. In addition, compliance with promulgated state laws is necessary if the state ARAR is more stringent than the federal ARAR.

The term “To be Considered (TBC)” refers to federal and/or state guidance documents or criteria that are not generally enforceable, but are advisory, and do not have the status of potential ARARs. Guidance documents or advisories may be used as a TBC in determining the necessary level of cleanup for protection of human health or the environment where no specific ARARs exist for a chemical or situation, or where such ARARs are not sufficient to afford protection. ARARs or TBCs for remedial action alternatives can be generally classified into one of the following three functional groups: chemical-specific, action-specific, and location-specific. See attached Tables 4 – 6 for a list of ARARs/TBCs associated with the Site and potential interim actions developed in Section 4 of this Technical Memorandum.

6. REFERENCES

- AMEC Earth & Environmental (AMEC), 2002. *Final Phase II Site Characterization Report: Chem Fab Site, Doylestown, Bucks County, Pennsylvania*. November 2002.
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- URS Corporation, 2006. *Groundwater Monitoring Report for semiannual sampling event conducted from October 16, 2006 to October 30, 2006*. October 2006.

Respectfully yours,

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.

John Fellingner

John Fellingner, Project Manager



TABLES

- Table 1 – Summary of Region III RSL Exceedences in Groundwater (CD only)
- Table 2 – Summary of Region III RSL Exceedences in Soil/Sediments (CD only)
- Table 3 – Summary of Region III RSL Exceedences in Surface Water (CD only)
- Table 4 – Potential Chemical-Specific ARARs/TBCs
- Table 5 – Potential Locations-Specific ARARs/TBCs
- Table 6 – Potential Action-Specific ARARs/TBCs

FIGURES

- Figure 1 – Site Location Map
- Figure 2 – Site Boundary
- Figure 3 – Historical Source Areas
- Figure 4 – Existing Groundwater Wells
- Figure 5 – Previously Completed and Proposed Soil Sampling Locations
- Figure 6 – Previously Completed and Proposed Surface Water/Sediment Sampling Locations

ATTACHMENTS

- Attachment 1 – Human Health Conceptual Site Model
- Attachment 2 – Ecological Conceptual Site Model

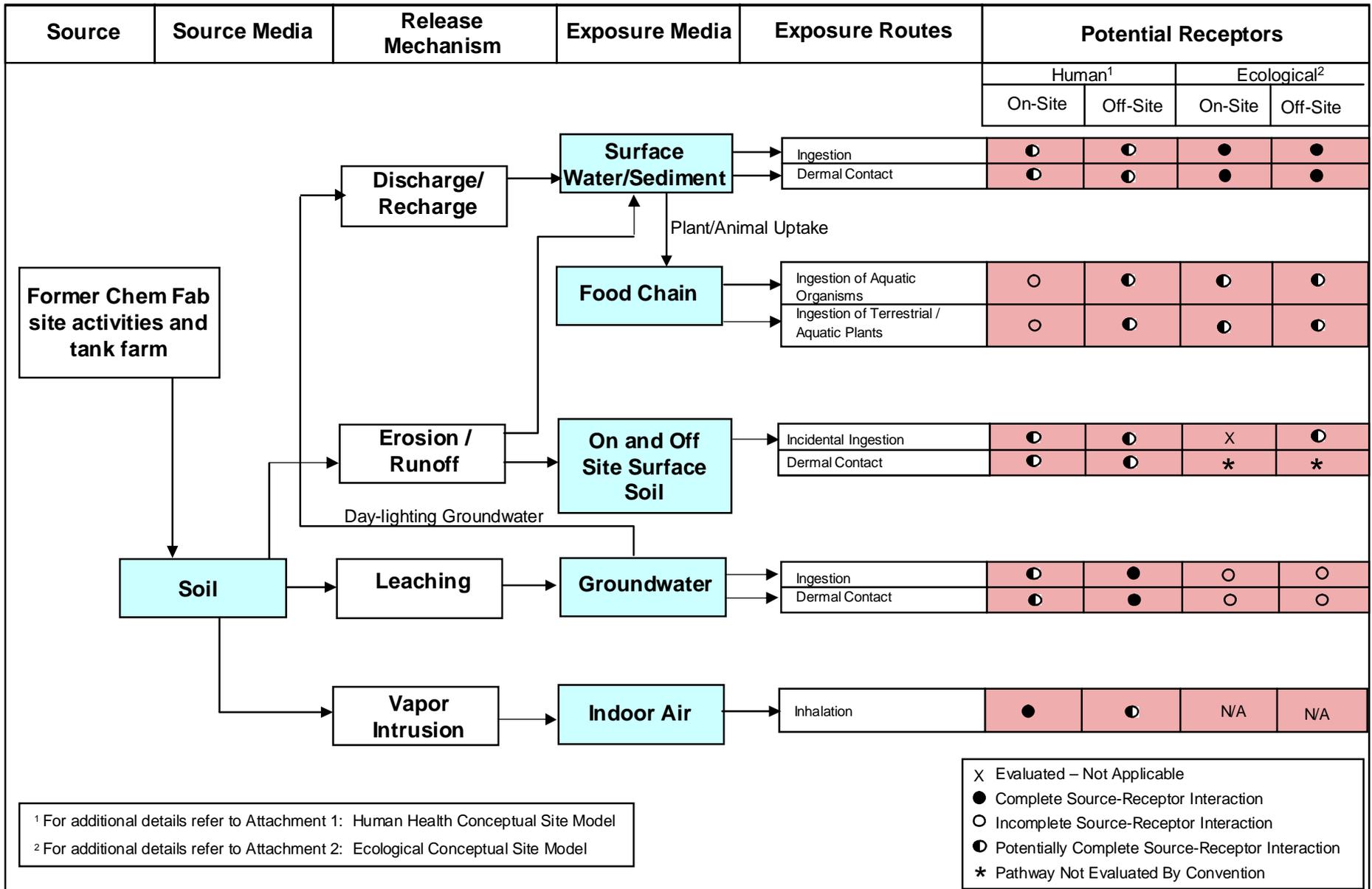


Diagram 1: General Conceptual Site Model
 Former Chem Fab Facility
 Doylestown, Bucks County, PA
 FINAL Technical Memorandum

Date:.....December 2009
 Prepared By: EA Engineering, Science, and Technology, Inc.
 Prepared For:.....USEPA Region III
 Contract: RAC No. EP-S3-07-07, Work Assignment No.
 020RICO03DR

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				DW										
Sample Name:				DW	DW	DW	DW	DW	DW	DW-01N	DW-02N	DW-03	DW-04	DW-05
Sample Date:				2006-05-02	2006-10-20	2007-11-12	2008-04-28	2008-09-30	2009-04-15	2001-06-22	2001-10-30	2002-01-09	2002-05-10	2002-09-09
Parent:														
Analyte	T or D	RSL Tapwater	Units											
Volatile Organic Compounds														
1,1,2,2-Tetrachloroethane	T	0.067	ug/l											
1,1,2-Trichloroethane	T	0.24	ug/l											
1,1-Dichloroethane	T	2.4	ug/l											
1,2-Dichloroethane	T	0.15	ug/l											
1,4-Dioxane	T	6.1	ug/l											
Benzene	T	0.41	ug/l											
Bromodichloromethane	T	0.12	ug/l											
Carbon Tetrachloride	T	0.2	ug/l		1 J									
Chloroform	T	0.19	ug/l	6.5 J	8	5 J	4 J	9	4 J					
cis-1,2-Dichloroethene	T	370	ug/l											
Dibromochloromethane	T	0.15	ug/l											
Ethylbenzene	T	1.5	ug/l	2.6 J	2 J			2 J						
Methyl tert-Butyl Ether	T	12	ug/l											
Methylene Chloride	T	4.8	ug/l	120	110	25	18	120	15					
Tetrachloroethene	T	0.11	ug/l	96	32	24	26	33	25	4.8 J	5	4 J	6	6
trans-1,3-Dichloropropene	T	0.43	ug/l											
Trichloroethene	T	1.7	ug/l	1400	970	710	800	1000	760	8	7	5	7	10
Vinyl Chloride	T	0.016	ug/l	10	2 J	2 J	5	2 J	3 J					
Xylenes (total)	T	2	ug/l	14	9	3 J	3 J	9	4 J					
Semi-Volatile Organic Compounds														
1,4-Dichlorobenzene	T	0.43	ug/l											
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l											
Naphthalene	T	0.14	ug/l											

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				DW	DW	DW	EW-01	EW-01	EW-01	EW-01	EW-01
Sample Name:				DW-06	DW-07	DW-08	EW-01	V-01_103.5-125_120520	EW-01_35-53_12052007	EW-01_38-53_12052007	EW-01_60-75_12052007
Sample Date:				2003-07-08	2003-10-08	2004-08-09	2006-05-01	2007-12-05	2007-12-05	2007-12-05	2007-12-05
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l				9				
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l								
Chloroform	T	0.19	ug/l			1 J					
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l			17					
Tetrachloroethene	T	0.11	ug/l	5.2	4.9	11	87	28	28 10	24	91 85
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	8.2	6.7	230	190	128	128 37	57	289 266
Vinyl Chloride	T	0.016	ug/l		0.1 J						
Xylenes (total)	T	2	ug/l			2.4 J					
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-01	EW-01	EW-01	EW-01	EW-02	EW-02	EW-02	EW-02
Sample Name:				_88-103_120	EW-01b-01	EW-01D	EW-01S	EW-02	EW-02_111-121_11152007	EW-02_124-130_11152007	EW-02_41.5-62_11162007
Sample Date:				2007-12-05	2004-08-17	2006-10-24	2006-10-24	2006-05-01	2007-11-15	2007-11-15	2007-11-16
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l		5.2	7	9				
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l			13	13				
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l					3 J			
Chloroform	T	0.19	ug/l		0.4 J			1 J			
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	38 13	48	82	90	14	5 4	3	13 11
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	100 49	120	130	180	7	33 21	13 10	40 38
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l		3						
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-02	EW-02	EW-02	EW-02	EW-02	EW-03
Sample Name:				EW-02_99-109_11162007	EW-02b-01	EW-02D	EW-02S	EW-02S	DUP-03
Sample Date:				2007-11-16	2004-08-18	2006-10-24	2006-05-02	2006-10-24	2006-05-02
Parent:									EW-03_05022006WG
Analyte	T or D	RSL Tapwater	Units						
Volatile Organic Compounds									
1,1,2,2-Tetrachloroethane	T	0.067	ug/l						
1,1,2-Trichloroethane	T	0.24	ug/l						
1,1-Dichloroethane	T	2.4	ug/l						
1,2-Dichloroethane	T	0.15	ug/l						
1,4-Dioxane	T	6.1	ug/l						
Benzene	T	0.41	ug/l						
Bromodichloromethane	T	0.12	ug/l						
Carbon Tetrachloride	T	0.2	ug/l	1.9	4 J	4 J	4 J	6	
Chloroform	T	0.19	ug/l	1.1	1 J	1 J	0.9 J	1 J	
cis-1,2-Dichloroethene	T	370	ug/l						
Dibromochloromethane	T	0.15	ug/l						
Ethylbenzene	T	1.5	ug/l						
Methyl tert-Butyl Ether	T	12	ug/l						
Methylene Chloride	T	4.8	ug/l						
Tetrachloroethene	T	0.11	ug/l	19 9	13	15	11	14	11
trans-1,3-Dichloropropene	T	0.43	ug/l						
Trichloroethene	T	1.7	ug/l	43 31	50	5	6	5	6
Vinyl Chloride	T	0.016	ug/l						
Xylenes (total)	T	2	ug/l						
Semi-Volatile Organic Compounds									
1,4-Dichlorobenzene	T	0.43	ug/l						
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l						
Naphthalene	T	0.14	ug/l						

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	
Sample Name:				EW-03	EW-03_117-127_12202007	EW-03_130-140_12202007	EW03-106	EW03-140	EW-03-18:25	EW-03-2:10	EW-03-24:45	EW-03-41:20	EW-03-47:40
Sample Date:				2006-05-02	2007-12-20	2007-12-20	2008-04-03	2008-04-03	2006-12-19	2006-12-18	2006-12-19	2006-12-20	2006-12-20
Parent:													
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l										
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l										
1,2-Dichloroethane	T	0.15	ug/l										
1,4-Dioxane	T	6.1	ug/l										
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l										
Carbon Tetrachloride	T	0.2	ug/l	6			3 J	3 J	4.4 J	4.3			5.2 J
Chloroform	T	0.19	ug/l	1 J				1 J	14	4.3	18 J	25 J	28
cis-1,2-Dichloroethene	T	370	ug/l										
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l						3 J			9.7 J	11 J
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l						180		290	550	650
Tetrachloroethene	T	0.11	ug/l	11	11	9			43	21	50	74	82
					9	9							
trans-1,3-Dichloropropene	T	0.43	ug/l										
Trichloroethene	T	1.7	ug/l	6	15	31	19 U	11 U	2300	550	2400	3600	4400
					11	30							
Vinyl Chloride	T	0.016	ug/l										
Xylenes (total)	T	2	ug/l						15		19 J	48	52
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l										
Naphthalene	T	0.14	ug/l										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-03	EW-04	EW-04	EW-04	EW-04	EW-04										
Sample Name:				EW03-84	EW-03a-01	EW-03-D	EW-03S	EW-03-S	INT1	INT2	INT3	INT4	INT5	INT6	EW-04	04_0-52_112	120-130_11	4_62-71_112	4_85-94_112
Sample Date:				2008-04-03	2004-08-18	2006-10-24	2006-05-02	2006-10-24	2006-12-11	2006-12-11	2006-12-12	2006-12-12	2006-12-12	2006-12-12	2006-05-01	2007-11-21	2007-11-20	2007-11-20	2007-11-20
Parent:																			
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l																
1,1-Dichloroethane	T	2.4	ug/l																
1,2-Dichloroethane	T	0.15	ug/l									0.2 J							
1,4-Dioxane	T	6.1	ug/l																
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l	3 J															
Carbon Tetrachloride	T	0.2	ug/l		2.1	6	5	5 J		3.8	4.2	5.3	3.6 J		5				
Chloroform	T	0.19	ug/l	1 J	2.4	1 J	1 J	1 J	5.4 J	1.4 J	2.3 J	1.4	3.1 J		2 J				
cis-1,2-Dichloroethene	T	370	ug/l																
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l																
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l																
Tetrachloroethene	T	0.11	ug/l		14	13	11	12	71	15	17	32	20	47	10	29	12	19	12
					25	11	8												
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l	34 U	260	4 J	4 J	3 J	3400	280	210	44	450	1900	45	932	86	169	446
																854	86	92	
Vinyl Chloride	T	0.016	ug/l																
Xylenes (total)	T	2	ug/l																
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-04	EW-04	EW-04	EW-04	EW-04	EW-05	EW-05	EW-05
Sample Name:				_98-107_112	EW-04a-01	EW-04D	EW-04S	EW-04S	EW-05	EW-05_0-40_11072007	EW-05_120-130_11062007
Sample Date:				2007-11-20	2004-08-17	2006-10-24	2006-05-02	2006-10-24	2006-05-01	2007-11-07	2007-11-06
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l		14				3 J		
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l			6	6	6	5		
Chloroform	T	0.19	ug/l		8.3 J	1 J	2 J	1 J	1 J		
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l		5.9 J						
Tetrachloroethene	T	0.11	ug/l	20 19	42	11	9	11	16	36 9	22
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	918 834	1900	19	42	35	59	536 111	101
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-05	EW-05	EW-05	EW-05	EW-05	EW-05	EW-05	EW-05	MW-01
Sample Name:				5_46-53_110	5_71-81_110	EW-05_86-96_11062007	5_99-109_110	EW-05-01	EW-05D	EW-05S	Sample P1/EW-05-PRE	MW-01
Sample Date:				2007-11-07	2007-11-07	2007-11-06	2007-11-06	2004-08-19	2006-10-20	2006-10-20	2004-08-26	2006-04-28
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l					5.7 J		6		
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l						6	3 J		
Chloroform	T	0.19	ug/l					5.0 J	1 J	5 J		
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l					61				
Tetrachloroethene	T	0.11	ug/l	20 12	24 23	38	32 30	88	15	51		9
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	269 170	507 500	815 411	145 142	2500	63	610		30
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l					5.9 J				
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-01								
Sample Name:				MW-01-01N	MW-01-02N	MW-01-03	MW-01-04	MW-01-05	MW-01-06	MW-01-07	MW-01-08	MW-1
Sample Date:				2001-06-20	2001-10-23	2002-01-08	2002-05-06	2002-09-09	2003-07-07	2003-10-06	2004-08-09	2006-10-20
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l									
Chloroform	T	0.19	ug/l									
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	18	9.5	15	15	14	20	14	15	8
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	36	74	59	46	41	17	19	19	10
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-02
Sample Name:				MW-1	MW-1	MW-1	MW-1	MW-02	MW-02-01N	MW-02-02N	MW-02-03	MW-02-04
Sample Date:				2007-09-20	2008-04-22	2008-09-23	2009-04-09	2006-05-03	2001-07-05	2001-10-23	2002-01-08	2002-05-07
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l					3 J			3 J	
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l									
Chloroform	T	0.19	ug/l					3 J			6	17 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l						70	14 J	25	54
Methyl tert-Butyl Ether	T	12	ug/l		12							
Methylene Chloride	T	4.8	ug/l					6	150	98	91	420
Tetrachloroethene	T	0.11	ug/l	6	7	5	5 J	170	620	140	200	720
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	22		13		540	1700	1000	810	3500
Vinyl Chloride	T	0.016	ug/l								5	5 J
Xylenes (total)	T	2	ug/l						450	97 J	160	250
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l						6.6 J	2.7 J	3 J	6 J

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-02	MW-02	MW-02						
Sample Name:				MW-02-05	MW-02-06	MW-02-07	MW-02-08	MW-02-25	MW-02-75	MW-02AN	MW-2	MW-2
Sample Date:				2002-09-10	2003-07-07	2003-10-06	2004-08-10	2001-04-26	2001-04-26	2001-07-05	2006-10-23	2007-09-24
Parent:										MW-02-01N_07052001WG		
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l	7 J	3.2 J	3.3 J					4 J	
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l				0.7 J					
Chloroform	T	0.19	ug/l	28	13	12 J	6.4				1 J	2 J
cis-1,2-Dichloroethene	T	370	ug/l	390				2600	770			
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l	160	24	15	3.5	360	130	66		
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l	700	270	250	69	240	190	140		
Tetrachloroethene	T	0.11	ug/l	1800	590	550	310	2500	850	580	95	93
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	6600	3200	2900	1500	4100	2000	1600	250	500
Vinyl Chloride	T	0.016	ug/l	10 J	4.2 J	3.6 J	2.2 J	54	18			
Xylenes (total)	T	2	ug/l	840	34	14	32	1700	660	420		
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l							7.8 J		
Naphthalene	T	0.14	ug/l	16						6.9 J		

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-02	MW-02	MW-02	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
Sample Name:				MW-2	MW-2	MW-2	DUP-02	MW-03	MW-03-01N	MW-03-02N	MW-03-03	MW-03-03B
Sample Date:				2008-04-25	2008-09-26	2009-04-13	2006-04-28	2006-04-28	2001-06-21	2001-10-24	2002-01-09	2002-01-09
Parent:							MW-03_04282006WG					MW-03-03_01092002WG
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l	4 J							7 J	7 J
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l				4 J	4 J				
Chloroform	T	0.19	ug/l		1 J		1 J	1 J	40 J		6 J	5 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l						41 J			
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l						1900	320	360	350
Tetrachloroethene	T	0.11	ug/l	63	56	37	15	15	150	54 J	60	57
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	150	300	110	40	40	13000	3800	4000	3700
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l						240			
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l						0.66 J	1.7 J	2 J	2 J
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l						1.2 J	0.58 J		

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
Sample Name:				MW-03-04	MW-03-05	MW-03-06	MW-03-07	MW-03-08	MW-03A-02N	MW-03AN	MW-03C-04	MW-03D-05
Sample Date:				2002-05-09	2002-09-16	2003-07-08	2003-10-08	2004-08-09	2001-10-24	2001-06-21	2002-05-09	2002-09-16
Parent:								MW-03-02N_102426-01N_062123-04_0509203-05_091620				
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l	5 J	8 J						5 J	8 J
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l					2.2 J				
Chloroform	T	0.19	ug/l	7 J	7 J	36 J	35 J	3.8 J			7 J	7 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l			37 J	34 J					
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l	300	320	1200	1400	87	340	2400	300	320
Tetrachloroethene	T	0.11	ug/l	65	73	140	120	21	56 J	140 J	65	71
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	5000	5300	12000	12000	940	4000	13000	5100	5300
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l	4 J		130	98 J				3 J	
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l	2 J	2 J				1.7 J	0.98 J	2 J	2 J
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l		1 J					1.3 J		

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-04	MW-04
Sample Name:				MW-03E-06	MW-03F-07	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	DUP-03	DUP-041509
Sample Date:				2003-07-08	2003-10-08	2006-10-19	2007-09-20	2008-04-22	2008-09-30	2009-04-15	2006-10-20	2009-04-15	
Parent:				MW-03-06_07082003WG	MW-03-07_10082003WG						MW-4_10202006	MW-4_04152009	
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l										
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l										
1,2-Dichloroethane	T	0.15	ug/l										
1,4-Dioxane	T	6.1	ug/l									12	9
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l							0.2 J			
Carbon Tetrachloride	T	0.2	ug/l			4 J	3 J	4.7	5 J	8 J			
Chloroform	T	0.19	ug/l	35 J	38 J	1 J		5	12	16 J	76	52	
cis-1,2-Dichloroethene	T	370	ug/l										
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l	38 J	32 J								15 J
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l	1200	1400			22	57	33	2300	780	
Tetrachloroethene	T	0.11	ug/l	120	120	17	14	23	31	41	130	110	
trans-1,3-Dichloropropene	T	0.43	ug/l										
Trichloroethene	T	1.7	ug/l	11000	12000	32	26	920	3100	4900	7700	8000	
Vinyl Chloride	T	0.016	ug/l										
Xylenes (total)	T	2	ug/l	120	98 J							110	100
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l										
Naphthalene	T	0.14	ug/l										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-04	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04
Sample Name:				DUP-100108	MW-04	MW-04-01N	MW-04-02N	MW-04-03	MW-04-04	MW-04-05	MW-04-06
Sample Date:				2008-10-01	2006-05-02	2001-06-22	2001-10-24	2002-01-09	2002-05-16	2002-09-17	2003-07-09
Parent:				MW-4_10012008WG							
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l	11							
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l								
Chloroform	T	0.19	ug/l	58	85	120 J		72	160	160	160
cis-1,2-Dichloroethene	T	370	ug/l						580	600	530
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l	5 J		120 J			260	240	200
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l	840	2900	7700	3000	2700	9700	9400	8200
Tetrachloroethene	T	0.11	ug/l	95	150	500		96	530	550	530
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	7700	10000	18000	9800	9800	35000	35000	32000
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l	63	160	960 J		250	1800	1600	840
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l						1 J	1 J	
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l			8.4 J	2.6 J	4 J	31	33	

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-04	MW-05	MW-05	MW-05	MW-05						
Sample Name:				MW-04-07	MW-04-08	MW-4	MW-4	MW-4	MW-4	MW-4	MW-05	MW-05-01N	MW-05-02N	MW-05-03
Sample Date:				2003-10-07	2004-08-11	2006-10-20	2007-09-25	2008-04-28	2008-10-01	2009-04-15	2006-05-03	2001-07-05	2001-10-24	2002-01-09
Parent:														
Analyte	T or D	RSL Tapwater	Units											
Volatile Organic Compounds														
1,1,2,2-Tetrachloroethane	T	0.067	ug/l											
1,1,2-Trichloroethane	T	0.24	ug/l											
1,1-Dichloroethane	T	2.4	ug/l									12 J		
1,2-Dichloroethane	T	0.15	ug/l											
1,4-Dioxane	T	6.1	ug/l			13	33	8	11	9				
Benzene	T	0.41	ug/l								8 J			
Bromodichloromethane	T	0.12	ug/l											
Carbon Tetrachloride	T	0.2	ug/l					6 J						
Chloroform	T	0.19	ug/l	140 J	130	77	140	70	60	51	46 J	52		38 J
cis-1,2-Dichloroethene	T	370	ug/l	440	480						920			1200
Dibromochloromethane	T	0.15	ug/l											
Ethylbenzene	T	1.5	ug/l	130 J	210		100			16 J	32 J	49 J		
Methyl tert-Butyl Ether	T	12	ug/l											
Methylene Chloride	T	4.8	ug/l	7600	5800	2300	5900	1300	820	810	2000	2800	3100	3200
Tetrachloroethene	T	0.11	ug/l	430	520	120	350	140	93	110	340	330		210
trans-1,3-Dichloropropene	T	0.43	ug/l											
Trichloroethene	T	1.7	ug/l	24000	30000	8800	22000	9800	7500	7900	22000	30000	29000	32000
Vinyl Chloride	T	0.016	ug/l											
Xylenes (total)	T	2	ug/l	530	1300	100	700	73	53	110	280	540		330
Semi-Volatile Organic Compounds														
1,4-Dichlorobenzene	T	0.43	ug/l									1.1 J	0.76 J	2 J
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									16		
Naphthalene	T	0.14	ug/l				13					20	19	42

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-05								
Sample Name:				MW-05-04	MW-05-05	MW-05-06	MW-05-07	MW-05-08	MW-5	MW-5	MW-5	MW-5
Sample Date:				2002-05-14	2002-09-10	2003-07-10	2003-10-09	2004-08-11	2006-10-23	2007-09-26	2008-04-28	2008-10-01
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l		3 J							
1,1,2-Trichloroethane	T	0.24	ug/l		10							
1,1-Dichloroethane	T	2.4	ug/l		9							
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l					24	27	22	20	
Benzene	T	0.41	ug/l		3 J							
Bromodichloromethane	T	0.12	ug/l		3 J							
Carbon Tetrachloride	T	0.2	ug/l		10							
Chloroform	T	0.19	ug/l	41 J	52	46 J	160	31 J	45 J	64 J	64	61 J
cis-1,2-Dichloroethene	T	370	ug/l	1400	1100	990	420	770	540	670	510	600
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l		38	47 J	150	37 J	38 J	51 J	56	51 J
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l	3400	4400	3200	8500	1800	2100	3300	2600	2800
Tetrachloroethene	T	0.11	ug/l	260	190	250	430	260	270	290	330	280
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	32000	28000	28000	27000	23000	18000	25000	21000	25000
Vinyl Chloride	T	0.016	ug/l		2 J							
Xylenes (total)	T	2	ug/l	98 J	530	200	730	340	270	350	360	380
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l	2 J	1 J					1 J		
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l	33	36					22		

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-05	MW-06	MW-07													
Sample Name:				MW-5	MW-06	MW-06-01N	MW-06-02N	MW-06-03	MW-06-04	MW-06-05	MW-06-06	MW-06-07	MW-06-08	MW-6	MW-6	MW-6	MW-6	MW-6	MW-07
Sample Date:				2009-04-15	2006-05-03	2001-06-20	2001-10-23	2002-01-08	2002-05-09	2002-09-11	2003-07-08	2003-10-08	2004-08-09	2006-10-23	2007-09-20	2008-04-23	2008-09-25	2009-04-10	2006-05-03
Parent:																			
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l								0.4 J	0.4 J	0.3 J						
1,1-Dichloroethane	T	2.4	ug/l		5	5.3	3.4 J		8 J	9 J	6	6.9	4.3	4 J	4 J	2.5	3 J		
1,2-Dichloroethane	T	0.15	ug/l																
1,4-Dioxane	T	6.1	ug/l	21									7	9		7			
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l			1.7 J	2.5 J	4 J	4 J	3 J	0.7 J	0.7 J	0.3 J						
Chloroform	T	0.19	ug/l	59 J		2.9 J	1.7 J	3 J	4 J	4 J	0.8 J	0.8 J	0.6 J			0.3 J			3 J
cis-1,2-Dichloroethene	T	370	ug/l	620															
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l	39 J					4 J										
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l	2100		26	6.8		39	21									5
Tetrachloroethene	T	0.11	ug/l	300	120	200	60	100	250	210	110	110	69	84	55	34	42	30	120
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l	22000	110	640	440	880	2200	1600	220	230	120	93	94	35	48	25	470
Vinyl Chloride	T	0.016	ug/l			2.2 J													
Xylenes (total)	T	2	ug/l	320					24	10 J									
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:		MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-08					
Sample Name:		MW-07-01N	MW-07-02N	MW-07-03	MW-07-04	MW-07-05	MW-07-06	MW-07-07	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-08				
Sample Date:		2001-06-20	2001-10-23	2002-01-08	2002-05-07	2002-09-09	2003-07-07	2003-10-06	2004-08-13	2004-08-13	2006-10-23	2007-09-24	2008-04-24	2008-04-25	2008-09-29	2009-04-14	2006-10-18					
Parent:										MW-07-08_08132004WG			MW-7_04242008WG									
Analyte	T or D	RSL Tapwater	Units																			
Volatile Organic Compounds																						
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																			
1,1,2-Trichloroethane	T	0.24	ug/l																			
1,1-Dichloroethane	T	2.4	ug/l				8 J							3 J								
1,2-Dichloroethane	T	0.15	ug/l																			
1,4-Dioxane	T	6.1	ug/l																			
Benzene	T	0.41	ug/l																			
Bromodichloromethane	T	0.12	ug/l																			
Carbon Tetrachloride	T	0.2	ug/l															3 J				
Chloroform	T	0.19	ug/l				36	17 J	38 J	8.9 J	8.8 J	5.9 J	5.8 J	2 J	2 J	3 J		2 J	2 J	3 J		
cis-1,2-Dichloroethene	T	370	ug/l				390		430													
Dibromochloromethane	T	0.15	ug/l																			
Ethylbenzene	T	1.5	ug/l				26 J	43 J	110	60	230	23	17	16	14							
Methyl tert-Butyl Ether	T	12	ug/l																			
Methylene Chloride	T	4.8	ug/l				140	380	860	440	1000	200	180	100	89							
Tetrachloroethene	T	0.11	ug/l				650	600	1000	590	1900	390	330	250	250	99	43	130		34	96	16
trans-1,3-Dichloropropene	T	0.43	ug/l																			
Trichloroethene	T	1.7	ug/l				1500	2900	5800	3600	9600	2600	2300	1400	1500	450	350	570		270	420	550
Vinyl Chloride	T	0.016	ug/l										2.6 J	2.6 J								
Xylenes (total)	T	2	ug/l				120 J	240 J	630	350	1300	57	37	92	89							
Semi-Volatile Organic Compounds																						
1,4-Dichlorobenzene	T	0.43	ug/l						1 J		1 J											
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																			
Naphthalene	T	0.14	ug/l				2.5 J	3.7 J	13	7 J	26											

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-08	MW-09	MW-09	MW-09	MW-09	MW-09										
Sample Name:				MW-08-01N	MW-08-02N	MW-08-03	MW-08-04	MW-08-05	MW-08-06	MW-8	MW-8	MW-8	MW-8	MW-8	MW-09	MW-09-01N	MW-09-02N	MW-09-03	MW-09-04
Sample Date:				2001-07-05	2001-10-25	2002-01-10	2002-05-08	2002-09-11	2004-08-13	2006-04-25	2007-09-24	2008-04-25	2008-09-30	2009-04-14	2006-10-18	2001-07-05	2001-10-25	2002-01-11	2002-05-10
Parent:																			
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l						0.6 J										
1,1,2-Trichloroethane	T	0.24	ug/l																
1,1-Dichloroethane	T	2.4	ug/l					3 J	2.6					8	9.4 J	7.6	12	14	
1,2-Dichloroethane	T	0.15	ug/l																
1,4-Dioxane	T	6.1	ug/l									7	8	14					
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l						1.2 J	3 J	3 J	3 J	2 J	2 J					
Chloroform	T	0.19	ug/l						1.4 J	3 J	3 J	3 J	2 J	2 J	2 J		1.6 J	2 J	2 J
cis-1,2-Dichloroethene	T	370	ug/l																
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l																
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l																
Tetrachloroethene	T	0.11	ug/l	2.3 J	2.1 J	2 J	3 J	3 J	9.9	14	16	18	13	14	13	25	26	23	40
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l	90	66	74	180	210	360	540	540	530	530	430	350	670	600	610	720
Vinyl Chloride	T	0.016	ug/l																
Xylenes (total)	T	2	ug/l																
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l												8 J				
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-09	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10									
Sample Name:				MW-09-05	MW-09-06	MW-09-07	MW-09-08	MW-9	MW-9	MW-9	MW-9	MW-9	DUP-02	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
Sample Date:				2002-09-13	2003-07-09	2003-10-07	2004-08-12	2006-04-25	2007-09-25	2008-04-24	2008-09-26	2009-04-10	2007-09-25	2006-05-01	2006-10-19	2007-09-25	2008-04-28	2008-09-30	2009-04-15
Parent:													MW-10_09252007WG						
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l																
1,1-Dichloroethane	T	2.4	ug/l	16	11	12	7	7				13 J	20 J	18 J	12 J	7 J	7 J		
1,2-Dichloroethane	T	0.15	ug/l																
1,4-Dioxane	T	6.1	ug/l									11		13	11	9	8	7	
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l						3 J	3 J	2 J	3 J							
Chloroform	T	0.19	ug/l	2 J	1.8 J	1.9 J	2.1 J	2 J	3 J	2 J	1 J	1 J	12 J	19 J	18 J	13 J	8 J	8 J	
cis-1,2-Dichloroethene	T	370	ug/l										380						
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l																
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l																
Tetrachloroethene	T	0.11	ug/l	40	27	24	21	15	18	16	11	12	94	120	120	91	83	76	68
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l	740	700	700	620	360	490	270	150	110	10000	13000	12000	9900	8600	8400	7800
Vinyl Chloride	T	0.016	ug/l																
Xylenes (total)	T	2	ug/l																
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l									1 J			1 J				
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l									4 J			4 J				

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:		MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-11							
Sample Name:		MW-10-01N	MW-10-02N	MW-10-03	MW-10-04	MW-10-05	MW-10-06	MW-10-07	MW-10-08	DUP-1	MW-11						
Sample Date:		2001-07-06	2001-10-29	2002-01-11	2002-05-10	2002-09-13	2003-07-10	2003-10-09	2004-08-12	2007-09-18	2006-04-26	2006-10-18	2007-09-18	2008-04-22	2008-09-24	2009-04-09	2001-09-21
Parent:		MW-11_09182007WG															
Analyte	T or D	RSL Tapwater	Units														
Volatile Organic Compounds																	
1,1,2,2-Tetrachloroethane	T	0.067	ug/l														
1,1,2-Trichloroethane	T	0.24	ug/l	4.5 J													
1,1-Dichloroethane	T	2.4	ug/l	25	19 J	34 J	32 J	32 J	32 J	26 J							
1,2-Dichloroethane	T	0.15	ug/l														
1,4-Dioxane	T	6.1	ug/l														
Benzene	T	0.41	ug/l														
Bromodichloromethane	T	0.12	ug/l														
Carbon Tetrachloride	T	0.2	ug/l							9.8	9.5	9.4	10	9.7	8.7	8	8.3
Chloroform	T	0.19	ug/l	26	19 J	29 J	30 J	29 J	28 J	28 J	1.9	1.9	2	2	1.7	1.8	2 J
cis-1,2-Dichloroethene	T	370	ug/l					400	390	570							
Dibromochloromethane	T	0.15	ug/l														
Ethylbenzene	T	1.5	ug/l	3 J													
Methyl tert-Butyl Ether	T	12	ug/l														
Methylene Chloride	T	4.8	ug/l														
Tetrachloroethene	T	0.11	ug/l	160	60	160	140	140	140	200	5.2	6.3	5.1	5.4	7.2	5.4	6
trans-1,3-Dichloropropene	T	0.43	ug/l														
Trichloroethene	T	1.7	ug/l	15000	9800	8300	13000	11000	16000	15000	18000		2.5		2	5.2	7
Vinyl Chloride	T	0.016	ug/l	3 J													
Xylenes (total)	T	2	ug/l														
Semi-Volatile Organic Compounds																	
1,4-Dichlorobenzene	T	0.43	ug/l	1 J	1 J	3 J	3 J										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l	6.7 J													
Naphthalene	T	0.14	ug/l	1.5 J		2 J	2 J										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:		MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	
Sample Name:		MW11-02N	MW-11-03C	MW-11-03N	MW-11-04	MW-11-05	MW-11-06	MW-11-07	MW-11-08	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	
Sample Date:		2001-09-21	2002-01-11	2001-10-29	2002-05-13	2002-09-12	2003-07-09	2003-10-07	2004-08-12	2006-04-25	2006-10-18	2007-09-21	2008-04-24	2008-09-26	2009-04-13	
Parent:																
Analyte	T or D	RSL Tapwater	Units													
Volatile Organic Compounds																
1,1,2,2-Tetrachloroethane	T	0.067	ug/l													
1,1,2-Trichloroethane	T	0.24	ug/l													
1,1-Dichloroethane	T	2.4	ug/l													
1,2-Dichloroethane	T	0.15	ug/l													
1,4-Dioxane	T	6.1	ug/l													
Benzene	T	0.41	ug/l													
Bromodichloromethane	T	0.12	ug/l													
Carbon Tetrachloride	T	0.2	ug/l	9	9	7.7	9	9	10	10	10	2 J	3 J	2 J	2 J	2 J
Chloroform	T	0.19	ug/l	1.8 J	2 J	2.1 J	2 J	2 J	2.1	1.9	1.8	3 J	3 J	3 J	2 J	2 J
cis-1,2-Dichloroethene	T	370	ug/l													
Dibromochloromethane	T	0.15	ug/l													
Ethylbenzene	T	1.5	ug/l													
Methyl tert-Butyl Ether	T	12	ug/l													
Methylene Chloride	T	4.8	ug/l													
Tetrachloroethene	T	0.11	ug/l	3.4 J	3 J	3.1 J	5 J	5 J	5.1	4.8	7	15	14	16	14	11
trans-1,3-Dichloropropene	T	0.43	ug/l													
Trichloroethene	T	1.7	ug/l	1.8 J	4 J	2.3 J	2 J	2 J				490	490	530	260	330
Vinyl Chloride	T	0.016	ug/l													
Xylenes (total)	T	2	ug/l													
Semi-Volatile Organic Compounds																
1,4-Dichlorobenzene	T	0.43	ug/l													
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l													
Naphthalene	T	0.14	ug/l													

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Name:				MW12-01N	MW-12-02N	MW-12-03	MW-12-04	MW-12-05	MW-12-06	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Date:				2001-09-21	2001-10-24	2002-01-10	2002-05-08	2002-09-10	2004-08-13	2006-04-25	2006-10-18	2007-09-18	2008-04-22	2008-09-24
Parent:														
Analyte	T or D	RSL Tapwater	Units											
Volatile Organic Compounds														
1,1,2,2-Tetrachloroethane	T	0.067	ug/l											
1,1,2-Trichloroethane	T	0.24	ug/l											
1,1-Dichloroethane	T	2.4	ug/l											
1,2-Dichloroethane	T	0.15	ug/l											
1,4-Dioxane	T	6.1	ug/l											
Benzene	T	0.41	ug/l											
Bromodichloromethane	T	0.12	ug/l											
Carbon Tetrachloride	T	0.2	ug/l						0.3 J	5	5.7	6.7	5.4	5.8
Chloroform	T	0.19	ug/l						0.3 J	1 J	1.4	1.3	1.1	1.2
cis-1,2-Dichloroethene	T	370	ug/l											
Dibromochloromethane	T	0.15	ug/l											
Ethylbenzene	T	1.5	ug/l											
Methyl tert-Butyl Ether	T	12	ug/l											
Methylene Chloride	T	4.8	ug/l											
Tetrachloroethene	T	0.11	ug/l	1.7 J	1.7 J	2 J	2 J	2 J	2.9	8	7.8	8.2	8.2	8.1
trans-1,3-Dichloropropene	T	0.43	ug/l											
Trichloroethene	T	1.7	ug/l	39	38	36	27	26	79	2 J				
Vinyl Chloride	T	0.016	ug/l											
Xylenes (total)	T	2	ug/l											
Semi-Volatile Organic Compounds														
1,4-Dichlorobenzene	T	0.43	ug/l											
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l											
Naphthalene	T	0.14	ug/l											

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-13	MW-14						
Sample Name:				MW-13	MW13-01N	MW-13-02N	MW-13-03	MW-13-04	MW-13-05	MW-13-06	MW-14
Sample Date:				2009-04-08	2001-09-20	2001-10-25	2002-01-11	2002-05-13	2002-09-12	2004-08-13	2006-04-26
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l	4.6	5.4	4.7 J	4 J	6	5	5.2	10
Chloroform	T	0.19	ug/l	1.1	1.3 J	1.4 J	1 J	2 J	1 J	1.3	2 J
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	6.8	6	4.4 J	7	8	7	10	5 J
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l				14	3 J	7	1.7	9
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-14							
Sample Name:				MW-14	MW-14	MW-14	MW-14	MW-14	MW14-01N	MW-14-02N	MW-14-03
Sample Date:				2006-10-17	2007-09-19	2008-04-23	2008-09-24	2009-04-08	2001-09-20	2001-10-29	2002-01-14
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l	11	13	12	10	11	9	5.3	8
Chloroform	T	0.19	ug/l	2.2	2	2	2	2	1.6 J	1.3 J	2 J
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	4.8	5.3	5.1	3.7	4.8	3.7 J	2 J	2 J
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	8.1	4.7	6.2	5.3	5.7	3.8 J	5.5	6
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-14	MW-14	MW-14	MW-15	MW-15	MW-15
Sample Name:				MW-14-04	MW-14-05	MW-14-06	DUP-01	MW-15	MW-15
Sample Date:				2002-05-14	2002-09-16	2004-08-16	2008-04-23	2006-04-25	2006-10-17
Parent:							MW-15_04232008WG		
Analyte	T or D	RSL Tapwater	Units						
Volatile Organic Compounds									
1,1,2,2-Tetrachloroethane	T	0.067	ug/l						
1,1,2-Trichloroethane	T	0.24	ug/l						
1,1-Dichloroethane	T	2.4	ug/l				4.1 J	6	5
1,2-Dichloroethane	T	0.15	ug/l						
1,4-Dioxane	T	6.1	ug/l						
Benzene	T	0.41	ug/l						
Bromodichloromethane	T	0.12	ug/l						
Carbon Tetrachloride	T	0.2	ug/l	13	12	12	3.3 J	4 J	3 J
Chloroform	T	0.19	ug/l	3 J	3 J	2	4.4 J	6	6
cis-1,2-Dichloroethene	T	370	ug/l						
Dibromochloromethane	T	0.15	ug/l						
Ethylbenzene	T	1.5	ug/l						
Methyl tert-Butyl Ether	T	12	ug/l						
Methylene Chloride	T	4.8	ug/l						
Tetrachloroethene	T	0.11	ug/l	8	6	5.6	54	73	64
trans-1,3-Dichloropropene	T	0.43	ug/l						
Trichloroethene	T	1.7	ug/l	99	130	6.7	930	1200	830
Vinyl Chloride	T	0.016	ug/l						
Xylenes (total)	T	2	ug/l						
Semi-Volatile Organic Compounds									
1,4-Dichlorobenzene	T	0.43	ug/l						
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l						
Naphthalene	T	0.14	ug/l						

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15
Sample Name:				MW-15	MW-15	MW-15	MW-15	MW-15-01	MW-15-01B	MW-15-02	MW-15-03	MW-15-04	MW-15-05
Sample Date:				2007-09-25	2008-04-23	2008-09-30	2009-04-14	2002-01-14	2002-01-14	2002-05-16	2002-09-17	2003-07-09	2003-10-07
Parent:								MW-15-01_01142002WG					
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l										
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l	7	4.1 J	5 J	4 J	7 J	7 J	8 J	8 J	3.1 J	3.0 J
1,2-Dichloroethane	T	0.15	ug/l										
1,4-Dioxane	T	6.1	ug/l										
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l										
Carbon Tetrachloride	T	0.2	ug/l	3 J	3.2 J	3 J	3 J		3 J			2.9 J	4.0 J
Chloroform	T	0.19	ug/l	6	4.5 J	5	4 J	8 J	8 J	11 J	9 J	9.4 J	8.1 J
cis-1,2-Dichloroethene	T	370	ug/l										
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l										
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l					19	20	12 J		19 J	
Tetrachloroethene	T	0.11	ug/l	92	53	49	48	120	120	170	180	61	53
trans-1,3-Dichloropropene	T	0.43	ug/l										
Trichloroethene	T	1.7	ug/l	1500	920	850	650	3800	3800	4400	4800	1900	1700
Vinyl Chloride	T	0.016	ug/l										
Xylenes (total)	T	2	ug/l										
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l										
Naphthalene	T	0.14	ug/l										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-15	MW-16	MW-17	MW-17												
Sample Name:				MW-15-06	DUP-042408	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16-01	MW-16-02	MW-16-03	MW-16-04	MW-16-05	MW-16-06	MW-17-01D	MW-17-01M
Sample Date:				2004-08-16	2008-04-24	2006-04-28	2006-10-17	2007-09-21	2008-04-24	2008-09-26	2009-04-14	2002-01-08	2002-05-06	2002-09-10	2003-07-07	2003-10-06	2004-08-10	2002-05-16	2002-05-15
Parent:				MW-16_04242008WG															
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l		2 J	2 J	2 J	2 J	2 J	2 J				1.7	1.9	1.8			
1,1-Dichloroethane	T	2.4	ug/l	3.0 J	40	48	43	45	40	49	41	66	55	54	37	39	41		
1,2-Dichloroethane	T	0.15	ug/l			1 J	1 J	1 J			1 J	2 J	2 J	1 J	1.2	1.2 J	1.2 J		
1,4-Dioxane	T	6.1	ug/l		28		36	40	35	38	33								
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l	4.3 J													5 J	4 J	
Chloroform	T	0.19	ug/l	7.4 J								1 J	0.8 J	0.8 J	0.7 J	0.7 J	0.6 J	1 J	0.8 J
cis-1,2-Dichloroethene	T	370	ug/l																
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l																
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l	6.2 J															
Tetrachloroethene	T	0.11	ug/l	71	220	190	190	190	220	170	210	200	220	180	170	150	190		
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l	2100	150	170	150	160	150	150	150	250	230	200	200	170	160		
Vinyl Chloride	T	0.016	ug/l																
Xylenes (total)	T	2	ug/l																
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-17							
Sample Name:				MW-17-01S	MW-17-02D	MW-17-02M	MW-17-02S	MW-17D	MW-17D	MW-17D	MW-17D
Sample Date:				2002-05-15	2002-09-16	2002-09-13	2002-09-11	2006-05-01	2006-10-20	2007-09-26	2008-09-24
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l			1 J	1 J				
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l		3 J			0.2 J	4 J	3.7	0.2 J
Chloroform	T	0.19	ug/l					0.3 J	1 J	0.9	0.4 J
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l					0.5		0.2 J	0.6
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l								
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-17								
Sample Name:				MW-17D	MW-17D-03	MW-17M	MW-17M	MW-17M	MW-17M	MW-17M	MW-17M	MW-17M-03
Sample Date:				2009-04-07	2004-08-19	2006-05-01	2006-10-30	2007-09-26	2008-04-30	2008-09-24	2009-04-07	2004-08-19
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	0.2 J	3	2.5	2.3	2.9	3 J	3.8	2.9	2.8
Chloroform	T	0.19	ug/l	0.3 J	0.9	0.8	0.8	0.8	1 J	1	0.9	0.8
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	0.4 J		0.2 J	0.3 J	0.4 J		0.5 J	0.5 J	0.2 J
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l			1.9	4	4.2	9	10	10	
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-17	MW-18	MW-18						
Sample Name:				MW-17S	MW-17S	MW-17S	MW-17S	MW-17S	MW-17S	MW-17S-03	MW-18	MW-18
Sample Date:				2006-05-01	2006-10-23	2007-09-26	2008-04-30	2008-09-23	2009-04-07	2004-08-19	2006-04-28	2006-10-19
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	2.5	0.7	0.2 J	4 J	4.2	4.2	0.3 J	4 J	4 J
Chloroform	T	0.19	ug/l	0.8	0.5	0.4 J	1 J	1.1	1.1	0.4 J	1 J	1 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	0.2 J	0.5	0.5		0.3 J	0.3 J	0.6	3 J	4 J
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l				3 J	4.9	2		140	170
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-18								
Sample Name:				MW-18	MW-18	MW-18	MW-18	MW-18-01	MW-18-02	MW-18-03	MW-18-04	MW-18-05
Sample Date:				2007-09-19	2008-04-24	2008-09-29	2009-04-13	2002-01-14	2002-05-17	2002-09-17	2003-07-10	2003-10-10
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	5 J	3 J	4 J	3 J	4 J	3 J	4 J	4	3.6
Chloroform	T	0.19	ug/l	2 J	2 J	2 J	1 J	1 J	1 J	1 J	1.2	1.1
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	5 J	6	6	6	1 J	1 J	1 J	1.4	1.3
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	220	220	230	210	47	46	47	44	51
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-18	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample Name:				MW-18-06	DUP-01	DUP-01	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample Date:				2004-08-18	2006-04-26	2006-10-17	2006-04-26	2006-10-17	2007-09-21	2008-04-23	2008-09-25	2009-04-10
Parent:					MW-19_04262006WG	MW-19_10172006WG						
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	4	4 J	3 J	4 J	3 J	3 J	3.9	3 J	3 J
Chloroform	T	0.19	ug/l	1.2	2 J	2 J	2 J	2 J	2 J	1.8	2 J	2 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	1.8	13	12	14	13	13	15	13	13
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	61	250	200	250	190	200	170	190	180
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20
Sample Name:				MW-19-01	MW-19-02	MW-19-03	MW-19-04	MW-19-05	MW-19-06	DUP-041009	MW-20	MW-20
Sample Date:				2002-01-10	2002-05-15	2002-09-18	2003-07-11	2003-10-09	2004-08-17	2009-04-10	2006-04-26	2006-10-17
Parent:									MW-20_04102009WG			
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l	5						6	4 J	3 J
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	3 J	4 J	4 J	3.6	3.3	3.2	2 J	1 J	
Chloroform	T	0.19	ug/l	4 J	3 J	3 J	2.1	1.8	1.6			
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	14	26	19	14	9.4	12	38	29	22
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	580	870	650	280	250	220	94	130	69
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-20								
Sample Name:				MW-20	MW-20	MW-20	MW-20	MW-20-01	MW-20-02	MW-20-03	MW-20-04	MW-20-05
Sample Date:				2007-09-21	2008-04-28	2008-09-25	2009-04-10	2002-01-10	2002-05-15	2002-09-18	2003-07-11	2003-10-09
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l	5 J	4 J	5 J	6	7	8 J	6	7.3	5.8
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	1 J	1 J	2 J	2 J	1 J		1 J	3.2	4.1
Chloroform	T	0.19	ug/l	2 J				4 J	6 J	5 J	2.1	2.0 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l					9				
Tetrachloroethene	T	0.11	ug/l	44	30	34	38	93	87	91	51	44
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	440	63	96	95	1300	1600	1300	340	410
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l						3 J			
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-20	MW-20	MW-20	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22
Sample Name:				MW-20-06	MW-20A-02	MW-20B-03	MW-22	MW-22	MW-22	22_0-46_121	116-126_12	128-138_12
Sample Date:				2004-08-17	2002-05-15	2002-09-18	2008-04-29	2008-09-24	2009-04-09	2007-12-18	2007-12-17	2007-12-17
Parent:					MW-20-02_05152002WG	MW-20-03_09182002WG						
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l	6.2	8 J	6		4 J				
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l					16				
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	1.9 J		1 J						
Chloroform	T	0.19	ug/l	1.2 J	6 J	5 J						
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	47	87	92	16	24	15	12	2	2
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	290	1600	1200	47	58	53	64	5	4
										62		4
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l		3 J							
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-22	MW-22	MW-22	MW-23	MW-23	MW-23	MW-23	MW-23
Sample Name:				MW-22_18.6-46_12182007	MW-22_66-76_12172007	MW-22_86-96_12172007	DUP-040809	DUP-092408	MW-23	MW-23	MW-23
Sample Date:				2007-12-18	2007-12-17	2007-12-17	2009-04-08	2008-09-24	2008-04-29	2008-09-24	2009-04-08
Parent:							MW-23_04082009WG	MW-23_09242008WG			
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l				2 J	5.4	2 J	2 J	2 J
Chloroform	T	0.19	ug/l					1.1	1 J	1 J	
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	8 6	8 6	7 6	7	7.9	8	7	8
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	37 36	37 36	13 12	3 J		8	3 J	4 J
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-23	MW-23	MW-23	MW-24	MW-24	MW-24	MW-24/30	MW-24/30	MW-24/30	MW-24/30	MW-24/30
Sample Name:				110-130_12	3_71-91_121	MW-23_95-115_12142007	MW-24	MW-24	MW-24	W-30-24_122-137_1218200	4_171-186_	-24_18-33_11	-24_44-59_11	-24_76-91_11
Sample Date:				2007-12-14	2007-12-14	2007-12-14	2008-04-29	2008-09-23	2009-04-09	2007-12-18	2007-12-18	2007-12-19	2007-12-19	2007-12-18
Parent:														
Analyte	T or D	RSL Tapwater	Units											
Volatile Organic Compounds														
1,1,2,2-Tetrachloroethane	T	0.067	ug/l											
1,1,2-Trichloroethane	T	0.24	ug/l											
1,1-Dichloroethane	T	2.4	ug/l											
1,2-Dichloroethane	T	0.15	ug/l											
1,4-Dioxane	T	6.1	ug/l											
Benzene	T	0.41	ug/l											
Bromodichloromethane	T	0.12	ug/l											
Carbon Tetrachloride	T	0.2	ug/l				1 J	1 J	1 J					
Chloroform	T	0.19	ug/l				0.8 J	0.9 J						
cis-1,2-Dichloroethene	T	370	ug/l											
Dibromochloromethane	T	0.15	ug/l											
Ethylbenzene	T	1.5	ug/l											
Methyl tert-Butyl Ether	T	12	ug/l											
Methylene Chloride	T	4.8	ug/l											
Tetrachloroethene	T	0.11	ug/l	13 10	20 17	17	5	5	5 J			11 9	11 6	
trans-1,3-Dichloropropene	T	0.43	ug/l											
Trichloroethene	T	1.7	ug/l	80 75	638 556	591 468	15	20	16	20 12	12	53 47	33 28	16
Vinyl Chloride	T	0.016	ug/l											
Xylenes (total)	T	2	ug/l											
Semi-Volatile Organic Compounds														
1,4-Dichlorobenzene	T	0.43	ug/l											
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l											
Naphthalene	T	0.14	ug/l											

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-24/30	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-26	MW-26	MW-26
Sample Name:				24_95-110_1	MW-25	MW-25	MW-25	MW-25	MW-25_0-44_11202007	MW-25_49-52_11122007	MW-26	MW-26	MW-26
Sample Date:				2007-12-18	2008-05-02	2008-09-29	2009-04-14	2007-11-20	2007-11-12	2008-05-02	2008-09-29	2009-04-14	
Parent:													
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l										
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l		6	7	5 J			5 J	7	6	
1,2-Dichloroethane	T	0.15	ug/l										
1,4-Dioxane	T	6.1	ug/l			7							
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l										
Carbon Tetrachloride	T	0.2	ug/l		2 J	2 J				1 J	2 J	2 J	
Chloroform	T	0.19	ug/l		3 J	4 J	3 J			2 J	5	3 J	
cis-1,2-Dichloroethene	T	370	ug/l										
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l										
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l										
Tetrachloroethene	T	0.11	ug/l		15	16	16	64 24	13 9	40	81	67	
trans-1,3-Dichloropropene	T	0.43	ug/l										
Trichloroethene	T	1.7	ug/l	15 10	550	690	580	953 589	661 495	310	980	490	
Vinyl Chloride	T	0.016	ug/l										
Xylenes (total)	T	2	ug/l										
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l										
Naphthalene	T	0.14	ug/l										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-26/27	MW-26/27	MW-26/27	MW-26/27	MW-26/27	MW-26/27	MW-26/27	MW-26/27	MW-26/27	MW-27	MW-27	MW-27	MW-28	MW-28	MW-28	MW-28/29	MW-28/29
Sample Name:				5-27_0-12_11	5-27_0-52_11	7_102.5-110	7_122.5-130	5-27_58-63_1	5-27_68-73_11	27_82.5-90_1	27_92-99.5_1	MW-27	MW-27	MW-27	MW-28	MW-28	MW-28	29_18-38_1	29_42-62_1	
Sample Date:				2007-11-05	2007-11-05	2007-11-29	2007-11-29	2007-11-05	2007-11-05	2007-12-03	2007-12-03	2008-05-01	2008-09-25	2009-04-09	2008-05-01	2008-09-25	2009-04-09	2007-12-13	2007-12-13	
Parent:																				
Analyte	T or D	RSL Tapwater	Units																	
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																	
1,1,2-Trichloroethane	T	0.24	ug/l																	
1,1-Dichloroethane	T	2.4	ug/l												3 J	3 J	3 J			
1,2-Dichloroethane	T	0.15	ug/l																	
1,4-Dioxane	T	6.1	ug/l																	
Benzene	T	0.41	ug/l																	
Bromodichloromethane	T	0.12	ug/l																	
Carbon Tetrachloride	T	0.2	ug/l									2 J	1 J	1 J	2 J	2 J	3 J			
Chloroform	T	0.19	ug/l												2 J	2 J	2 J			
cis-1,2-Dichloroethene	T	370	ug/l	1683																
Dibromochloromethane	T	0.15	ug/l																	
Ethylbenzene	T	1.5	ug/l																	
Methyl tert-Butyl Ether	T	12	ug/l																	
Methylene Chloride	T	4.8	ug/l																	
Tetrachloroethene	T	0.11	ug/l		31	13	11	12	39		21	11	8	10	21	22	22	37	26	
					23		10	11	34		18							36		
trans-1,3-Dichloropropene	T	0.43	ug/l																	
Trichloroethene	T	1.7	ug/l	1051	686	57	80	157	620	57	79	40	32	38	79	110	110	85	92	
					537		69	139	620	50	67							81		
Vinyl Chloride	T	0.016	ug/l																	
Xylenes (total)	T	2	ug/l																	
Semi-Volatile Organic Compounds																				
1,4-Dichlorobenzene	T	0.43	ug/l																	
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																	
Naphthalene	T	0.14	ug/l																	

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-28/29	MW-28/29	MW-28/29	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31/32/33	MW-31/32/33	MW-31/32/33	MW-31/32/33		
Sample Name:				29_66-76_12	29_84-94_12	29_98-118_1	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	32-33_0-50_1	33_114-135_7	32-33_51-66_	2-33_75-90_		
Sample Date:				2007-12-16	2007-12-13	2007-12-13	2008-05-01	2008-09-24	2009-04-09	2008-04-29	2008-09-23	2009-04-07	2008-05-02	2008-09-26	2009-04-13	2007-12-27	2007-12-27	2007-12-28	2007-12-28		
Parent:																					
Analyte	T or D	RSL Tapwater	Units																		
Volatile Organic Compounds																					
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																		
1,1,2-Trichloroethane	T	0.24	ug/l																		
1,1-Dichloroethane	T	2.4	ug/l																		
1,2-Dichloroethane	T	0.15	ug/l																		
1,4-Dioxane	T	6.1	ug/l																		
Benzene	T	0.41	ug/l																		
Bromodichloromethane	T	0.12	ug/l																		
Carbon Tetrachloride	T	0.2	ug/l				2 J	2 J	2 J				4 J	3 J	3 J						
Chloroform	T	0.19	ug/l				1 J	1 J	0.9 J				2 J	4 J	3 J						
cis-1,2-Dichloroethene	T	370	ug/l																		
Dibromochloromethane	T	0.15	ug/l																		
Ethylbenzene	T	1.5	ug/l																		
Methyl tert-Butyl Ether	T	12	ug/l																		
Methylene Chloride	T	4.8	ug/l																		
Tetrachloroethene	T	0.11	ug/l				13 12	11 9	11 9	13	13	12				9	10	13	9 9		
trans-1,3-Dichloropropene	T	0.43	ug/l																		
Trichloroethene	T	1.7	ug/l				55 48	45 35	38 22	22	45	21				280	380	360	15 280 59	343 343	9
Vinyl Chloride	T	0.016	ug/l																		
Xylenes (total)	T	2	ug/l																		
Semi-Volatile Organic Compounds																					
1,4-Dichlorobenzene	T	0.43	ug/l																		
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																		
Naphthalene	T	0.14	ug/l																		

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-31/32/33	MW-31/32/33	MW-31/32/33	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-34	MW-35	MW-35	MW-35	MW-35		
Sample Name:				2-33_91-106	1W313233-17	1W313233-20	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-34	MW-35	MW-35 (40-50)	MW35(50-60)	MW-35(60-70)		
Sample Date:				2007-12-28	2008-04-03	2008-04-03	2008-05-02	2008-09-29	2009-04-13	2008-05-02	2008-09-26	2009-04-13	2008-04-30	2008-09-24	2009-04-09	2009-04-08	2009-01-27	2009-01-26	2009-01-23		
Parent:																					
Analyte	T or D	RSL Tapwater	Units																		
Volatile Organic Compounds																					
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																		
1,1,2-Trichloroethane	T	0.24	ug/l																		
1,1-Dichloroethane	T	2.4	ug/l																		
1,2-Dichloroethane	T	0.15	ug/l																		
1,4-Dioxane	T	6.1	ug/l																		
Benzene	T	0.41	ug/l																		
Bromodichloromethane	T	0.12	ug/l																		
Carbon Tetrachloride	T	0.2	ug/l		3 J	2 J	4 J	4 J	3 J	3 J	3 J	3 J	3 J	3 J	1 J	1.4	1.5	1			
Chloroform	T	0.19	ug/l		2 J	2 J	3 J	4 J	3 J	2 J	2 J	2 J	1 J	0.8 J		0.56 J	0.42 J				
cis-1,2-Dichloroethene	T	370	ug/l																		
Dibromochloromethane	T	0.15	ug/l																		
Ethylbenzene	T	1.5	ug/l																		
Methyl tert-Butyl Ether	T	12	ug/l																		
Methylene Chloride	T	4.8	ug/l																		
Tetrachloroethene	T	0.11	ug/l	17			18	15	18	10	9	10	16	11	13	9	11	10.7	8		
trans-1,3-Dichloropropene	T	0.43	ug/l																		
Trichloroethene	T	1.7	ug/l	587 2			400	410	350	200	170	180	10	5	9	6	3.7		2.6		
Vinyl Chloride	T	0.016	ug/l																		
Xylenes (total)	T	2	ug/l																		
Semi-Volatile Organic Compounds																					
1,4-Dichlorobenzene	T	0.43	ug/l																		
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																		
Naphthalene	T	0.14	ug/l																		

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38	MW-39	MW-39	MW-39	MW-40A	MW-40A	MW-40A
Sample Name:				MW-35(82-92)	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38	MW-39	MW-39	MW-39	MW-40A	MW-40A	MW-40A
Sample Date:				2009-01-23	2008-05-01	2008-09-30	2009-04-13	2008-04-25	2008-09-25	2009-04-10	2008-04-30	2008-09-25	2009-04-10	2008-04-24	2008-09-29	2009-04-13	2008-05-01	2008-09-29	2009-04-14
Parent:																			MW-
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l																
1,1-Dichloroethane	T	2.4	ug/l					4 J											
1,2-Dichloroethane	T	0.15	ug/l																
1,4-Dioxane	T	6.1	ug/l																
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l	1.5	5 J	4 J	3 J	4 J	4 J	5	3 J	2 J	2 J	2 J	3 J	2 J			
Chloroform	T	0.19	ug/l	0.32 J	6	3 J	2 J	1 J	1 J	1 J	1 J	0.8 J	0.9 J	3 J	3 J	2 J	2 J	2 J	
cis-1,2-Dichloroethene	T	370	ug/l																
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l															2 J	
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l														11	17	
Tetrachloroethene	T	0.11	ug/l	10.2	26	15	15	34	19	21	15	12	14	23	17	18	88	45	14
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l		780	310	300	81	47	56	55	52	64	420	290	240	280	270	190
Vinyl Chloride	T	0.016	ug/l														2 J	5	
Xylenes (total)	T	2	ug/l														10	15	
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-40B	MW-40B	MW-40B	MW-40B	MW-41	MW-41	MW-41	MW-42	MW-42	MW-42	MW-42	MW-42	MW-43	MW-43	MW-43	MW-43
Sample Name:				DUP-092608	MW-40B	MW-40B	MW-40B	MW-41	MW-41	MW-41	MW-42	MW-42	MW-42	MW42-167	MW42-177	MW-43	MW-43	MW-43	MW-43
Sample Date:				2008-09-26	2008-05-01	2008-09-26	2009-04-14	2008-04-29	2008-09-29	2009-04-10	2008-04-30	2008-09-23	2009-04-08	2008-03-31	2008-03-31	2008-04-24	2008-04-25	2008-09-30	2009-04-15
Parent:				40B_09262008WG												MW-43_04242008WG			
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l	2 J															
1,1-Dichloroethane	T	2.4	ug/l	50	5 J	4 J	4 J												
1,2-Dichloroethane	T	0.15	ug/l																
1,4-Dioxane	T	6.1	ug/l	37	7	7											7	7	
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l		1 J	1 J		3 J	3 J	3 J	2 J	2 J	2 J	1 J	1 J				
Chloroform	T	0.19	ug/l		1 J	1 J		4 J	1 J	1 J	1 J				7 J		14 J	18 J	
cis-1,2-Dichloroethene	T	370	ug/l																
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l																
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l																
Tetrachloroethene	T	0.11	ug/l	180	81	66	56	21	12	12	12	11	12	10	9	55		61	71
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l	160	290	290	240	520	64	14	4 J	3 J	2 J	5	4 J	2100		4500	5500
Vinyl Chloride	T	0.016	ug/l																
Xylenes (total)	T	2	ug/l																
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-44	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-48	MW-48
Sample Name:				MW-44	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-48	MW-48
Sample Date:				2008-05-01	2008-09-29	2009-04-13	2008-05-05	2008-09-26	2009-04-14	2008-04-28	2008-09-25	2009-04-09	2008-04-30	2008-09-23	2009-04-09	2008-05-02	2008-09-23
Parent:																	
Analyte	T or D	RSL Tapwater	Units														
Volatile Organic Compounds																	
1,1,2,2-Tetrachloroethane	T	0.067	ug/l														
1,1,2-Trichloroethane	T	0.24	ug/l														
1,1-Dichloroethane	T	2.4	ug/l				8	9	12								
1,2-Dichloroethane	T	0.15	ug/l														
1,4-Dioxane	T	6.1	ug/l					7	7								
Benzene	T	0.41	ug/l														
Bromodichloromethane	T	0.12	ug/l														
Carbon Tetrachloride	T	0.2	ug/l	3 J	3 J	2 J				9	7	9				2 J	
Chloroform	T	0.19	ug/l	2 J	2 J	2 J		2 J	1 J	2 J	2 J	2 J		0.3 J	0.3 J		0.2 J
cis-1,2-Dichloroethene	T	370	ug/l														
Dibromochloromethane	T	0.15	ug/l														
Ethylbenzene	T	1.5	ug/l														
Methyl tert-Butyl Ether	T	12	ug/l														
Methylene Chloride	T	4.8	ug/l														
Tetrachloroethene	T	0.11	ug/l	15	15	15	60	75	91	13	8	8	6	25	13	5 J	6.8
trans-1,3-Dichloropropene	T	0.43	ug/l														
Trichloroethene	T	1.7	ug/l	370	190	240	170	350	300	23	10	8	2 J	6.5	3	9	2.7
Vinyl Chloride	T	0.016	ug/l														
Xylenes (total)	T	2	ug/l														
Semi-Volatile Organic Compounds																	
1,4-Dichlorobenzene	T	0.43	ug/l														
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l														
Naphthalene	T	0.14	ug/l														

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-48	MW-49	MW-49	MW-49	MW-49	MW-49	MW-49	MW-49	MW-51	MW-52	MW-52
Sample Name:				MW-48	MW-49	MW-49 (40-50)	MW-49 (50-60)	MW-49 (60-70)	MW-49(70-80)	MW-49(80-90)	MW-49(90-100)	MW-51	DUP-021009	MW-50/51/52 (105-115)
Sample Date:				2009-04-08	2009-04-07	2009-01-30	2009-01-30	2009-01-30	2009-01-29	2009-01-29	2009-01-29	2009-04-10	2009-02-10	2009-02-12
Parent:													MW-50/51/52/(200-212)-1025	
Analyte	T or D	RSL Tapwater	Units											
Volatile Organic Compounds														
1,1,2,2-Tetrachloroethane	T	0.067	ug/l											
1,1,2-Trichloroethane	T	0.24	ug/l											
1,1-Dichloroethane	T	2.4	ug/l											
1,2-Dichloroethane	T	0.15	ug/l											
1,4-Dioxane	T	6.1	ug/l											
Benzene	T	0.41	ug/l											
Bromodichloromethane	T	0.12	ug/l											
Carbon Tetrachloride	T	0.2	ug/l			1.3						1 J	1.5	0.63 J
Chloroform	T	0.19	ug/l			0.4 J						2 J	1.3	0.95 J
cis-1,2-Dichloroethene	T	370	ug/l											
Dibromochloromethane	T	0.15	ug/l											
Ethylbenzene	T	1.5	ug/l											
Methyl tert-Butyl Ether	T	12	ug/l											
Methylene Chloride	T	4.8	ug/l											
Tetrachloroethene	T	0.11	ug/l		5.8	1.1	1.3	1.3	0.99 J	0.97 J	0.79 J	6	6.4	2
trans-1,3-Dichloropropene	T	0.43	ug/l											
Trichloroethene	T	1.7	ug/l		7.8							12	28.2	3.2
Vinyl Chloride	T	0.016	ug/l											
Xylenes (total)	T	2	ug/l											
Semi-Volatile Organic Compounds														
1,4-Dichlorobenzene	T	0.43	ug/l											
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l											
Naphthalene	T	0.14	ug/l											

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52
Sample Name:				MW-50/51/52 (115-125)	MW-50/51/52 (130-140)	MW-50/51/52 (148-158)	MW-50/51/52 (171-181)	MW-50/51/52 (55-65)	MW-50/51/52 (77-87)	MW-50/51/52(184-195)	MW-50/51/52/(200-212)
Sample Date:				2009-02-11	2009-02-11	2009-02-11	2009-02-11	2009-02-12	2009-02-12	2009-02-10	2009-02-10
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l	0.64 J	1.6	1.7	1.3	2.4		1.5	1.5
Chloroform	T	0.19	ug/l	0.81 J	1.7	1.7	1.5	2.5	0.59 J	1.6	1.3
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	2.2	4.8	4.1	4.8	5.9	0.84 J	5.1	6.4
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	3.4	8	6.8	9.9	11.7		18.3	27.8
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-52	MW-53	MW-54	OSW-BW13	OSW-BW13	OSW-BW13	OSW-BW13	OSW-BW13
Sample Name:				MW-52	MW-53	MW-54	MSW-13_102-117_11102007	MSW-13_121-136_11102007	MSW-13_141-156_11092007	MSW-13_172-187_11092007	MSW-13_190-205_11092007
Sample Date:				2009-04-10	2009-04-08	2009-04-07	2007-11-10	2007-11-10	2007-11-09	2007-11-09	2007-11-09
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l	1 J	2 J						
Chloroform	T	0.19	ug/l	5							
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	6	10	1 J	1	2 2		1	1 1
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	27			7 4	6 6	3	4 4	4 4
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				OSW-BW13	OSW-BW13	OSW-BW13	OSW-BW13	OSW-BW13	OSW-BW13
Sample Name:				MSW-13_210-225_11092007	MSW-13_248-263_11082007	MSW-13_273-288_11082007	MSW-13_305-320_11082007	MSW-13_323-338_11072007	MSW-13_340-355_11072007
Sample Date:				2007-11-09	2007-11-08	2007-11-08	2007-11-08	2007-11-07	2007-11-07
Parent:									
Analyte	T or D	RSL Tapwater	Units						
Volatile Organic Compounds									
1,1,2,2-Tetrachloroethane	T	0.067	ug/l						
1,1,2-Trichloroethane	T	0.24	ug/l						
1,1-Dichloroethane	T	2.4	ug/l						
1,2-Dichloroethane	T	0.15	ug/l						
1,4-Dioxane	T	6.1	ug/l						
Benzene	T	0.41	ug/l						
Bromodichloromethane	T	0.12	ug/l						
Carbon Tetrachloride	T	0.2	ug/l						
Chloroform	T	0.19	ug/l						
cis-1,2-Dichloroethene	T	370	ug/l						
Dibromochloromethane	T	0.15	ug/l						
Ethylbenzene	T	1.5	ug/l						
Methyl tert-Butyl Ether	T	12	ug/l						
Methylene Chloride	T	4.8	ug/l						
Tetrachloroethene	T	0.11	ug/l	3	1 1	1 1	2		2
trans-1,3-Dichloropropene	T	0.43	ug/l						
Trichloroethene	T	1.7	ug/l	5 4	15 13	12 9	8 6	6	17
Vinyl Chloride	T	0.016	ug/l						
Xylenes (total)	T	2	ug/l						
Semi-Volatile Organic Compounds									
1,4-Dichlorobenzene	T	0.43	ug/l						
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l						
Naphthalene	T	0.14	ug/l						

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				OSW-BW13	OSW-BW13	OSW-BW13	OSW-BW13	OSW-QC	OSW-RH	OSW-RH	OSW-TH	OW-01	OW-01
Sample Name:				MSW-13_360-375_11072007	MSW-13_65-80_11102007	MSW-13_84-99_11102007	OSW-BW13-01	OSW-QC-01	OSW-RH-01	OSW-RH-2-01	OSW-TH-01	OW-1	OW-1
Sample Date:				2007-11-07	2007-11-10	2007-11-10	2000-03-02	2000-03-03	2000-03-02	2000-03-02	2000-03-02	2008-05-02	2008-09-30
Parent:										OSW-RH-01_03022000WG			
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l					1.69					
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l						4	3.86	6.55	5 J	4 J
1,2-Dichloroethane	T	0.15	ug/l										
1,4-Dioxane	T	6.1	ug/l										
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l										
Carbon Tetrachloride	T	0.2	ug/l										2 J
Chloroform	T	0.19	ug/l									5 J	5
cis-1,2-Dichloroethene	T	370	ug/l										
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l										
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l									5 J	
Tetrachloroethene	T	0.11	ug/l	9 9	1		1.78		13.6	13.9	32	130	150
trans-1,3-Dichloropropene	T	0.43	ug/l										
Trichloroethene	T	1.7	ug/l	19 15	7 7	7 2	8.38		39.5	37	94.3	1400	1300
Vinyl Chloride	T	0.016	ug/l										2 J
Xylenes (total)	T	2	ug/l										
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l										
Naphthalene	T	0.14	ug/l										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				OW-01	OW-02	OW-02	OW-03	OW-04	OW-04	OW-05	OW-05	OW-06	OW-06	OW-07	OW-07	OW-08	OW-08	OW-09	OW-09
Sample Name:				OW-1	OW-2	OW-2	OW-3	OW-4	OW-4	OW-5	OW-5	OW-6	OW-6	OW-7	OW-7	OW-8	OW-8	OW-9	OW-9
Sample Date:				2009-04-15	2008-10-02	2009-04-08	2008-10-02	2008-10-02	2009-04-08	2008-10-02	2009-04-15	2008-10-01	2009-04-15	2008-10-01	2009-04-14	2008-10-02	2009-04-07	2008-10-06	2009-04-07
Parent:																			
Analyte	T or D	RSL Tapwater	Units																
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	T	0.067	ug/l																
1,1,2-Trichloroethane	T	0.24	ug/l																0.8 J
1,1-Dichloroethane	T	2.4	ug/l			4 J				8 J	13 J	25	27 J	32	40				
1,2-Dichloroethane	T	0.15	ug/l																
1,4-Dioxane	T	6.1	ug/l							13	21	12	13	12	13				
Benzene	T	0.41	ug/l																
Bromodichloromethane	T	0.12	ug/l																
Carbon Tetrachloride	T	0.2	ug/l																
Chloroform	T	0.19	ug/l			5 J				13 J	20 J	14	11 J	15	15				
cis-1,2-Dichloroethene	T	370	ug/l							440	730								
Dibromochloromethane	T	0.15	ug/l																
Ethylbenzene	T	1.5	ug/l							5 J									
Methyl tert-Butyl Ether	T	12	ug/l																
Methylene Chloride	T	4.8	ug/l							310	79			6 J	12				
Tetrachloroethene	T	0.11	ug/l		120	0.8 J		3 J	3 J	250	510	69	92	47	87				
trans-1,3-Dichloropropene	T	0.43	ug/l																
Trichloroethene	T	1.7	ug/l		1500	7	4 J		190	200	2800	5200	5500	7400	2600	3200	9	2 J	3 J
Vinyl Chloride	T	0.016	ug/l								5 J				1 J				
Xylenes (total)	T	2	ug/l							20 J	20 J								
Semi-Volatile Organic Compounds																			
1,4-Dichlorobenzene	T	0.43	ug/l																
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l																
Naphthalene	T	0.14	ug/l																

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-01	RW-01	RW-01	RW-01	RW-01	RW-01	RW-01	RW-01
Sample Name:				RW-01	RW-01_107-112_12132007	RW-01_122-127_12132007	RW-01_130-150_12132007	RW-01_45-61_12132007	RW-01_68-73_12132007	RW-01_76-81_12132007	RW-01_83-103_12132007
Sample Date:				2006-04-28	2007-12-13	2007-12-13	2007-12-13	2007-12-13	2007-12-13	2007-12-13	2007-12-13
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l								
Chloroform	T	0.19	ug/l	0.2 J							
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	22	13 11	11 10	17 14	7 6	18 14	8 6	16 15
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	9.4	11 11	11 11	25 24	23 21	35 32	10 10	29 24
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-01	RW-01	RW-01	RW-01	RW-02	RW-02	RW-02	RW-02	RW-02
Sample Name:				RW-01-01	RW01-D	RW-01H-01	RW01-S	DUP-02	RW-02	RW-02_106-116_12112007	RW-02_120-130_12112007	RW-02_132-142_12102007
Sample Date:				2004-08-20	2006-10-18	2004-08-20	2006-10-18	2006-10-18	2006-04-28	2007-12-11	2007-12-11	2007-12-10
Parent:						RW-01-01_08202004WG		RW-02D_10182006WG				
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l					1.8	1.5			
Chloroform	T	0.19	ug/l					0.6	0.6			
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	6.4	19	9.9	8.9	8.8	8.4	3 2	5 5	9 7
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	29	7.9	29	13			3 2	5 4	8 5
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-03	RW-03
Sample Name:				RW-02_18-38_12122007	RW-02_42-62_12122007	RW-02_64-84_12122007	RW-02_76-96_12112007	RW-02-01	RW-02D	RW-02S	RW-03	RW-03_108-118_11262007
Sample Date:				2007-12-12	2007-12-12	2007-12-12	2007-12-11	2004-08-10	2006-10-18	2006-10-18	2006-04-28	2007-11-26
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l					0.5 J	1.8	1.8	3.8	
Chloroform	T	0.19	ug/l					0.2 J	0.6	0.6	1.1	
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	4 4	4 3	4 4	2 1	3.3	8.4	7.9	12	9 7
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	7 6	10 9	7 5	2				2.1	6 3
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-03	RW-03	RW-03	RW-03	RW-03	RW-03	RW-03	RW-04	RW-04
Sample Name:				RW-03_123-138_11262007	RW-03_140-150_11262007	RW-03_40-50_11212007	RW-03_52-67_11262007	RW-03-01	RW-03D	RW-03S	RW-04	RW-04_0-52_12142007
Sample Date:				2007-11-26	2007-11-26	2007-11-21	2007-11-26	2004-08-10	2006-10-19	2006-10-19	2006-04-27	2007-12-14
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l									
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l								0.6 J	
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l					0.3 J	4.1	3	3.5	
Chloroform	T	0.19	ug/l					0.9	1.1	0.9	1.2 J	
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	10 10	31 24	31	11 10	4.9	15	14	12	19
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	8 7	79 59	79	15 14	1.7	2.3	2	2.9	160
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-04	RW-04	RW-04	RW-04	RW-04	RW-04	RW-05	RW-05	RW-05
Sample Name:				RW-04_134-144_12132007	RW-04_66-76_12142007	RW-04_94-104_12132007	RW-04-01	RW-04D	RW-04S	RW-05	RW-05_0-52_12042007	RW-05_124-134_11292007
Sample Date:				2007-12-03	2007-12-14	2007-12-13	2004-08-11	2006-10-17	2006-10-17	2006-04-27	2007-12-04	2007-11-29
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l							0.4		
1,1-Dichloroethane	T	2.4	ug/l							7.9		
1,2-Dichloroethane	T	0.15	ug/l							0.2		
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l				1.2	4.3	3.6	0.6		
Chloroform	T	0.19	ug/l				1.3	1.2	1	0.9		
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	14 12	21	9	12	16	13	86	19 18	51 40
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l		143	140	25	7.6	10	260	160 146	181 156
Vinyl Chloride	T	0.016	ug/l							0.7		
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-05	RW-05	RW-05	RW-05	RW-05	RW-05	RW-05	RW-06	RW-06
Sample Name:				RW-05_21-40_11302007	RW-05_58-68_11292007	RW-05_66-76_12042007	RW-05_94-104_12032007	RW-05-01	RW-05D	RW-05S	RW-06	RW-06_120-130_11192007
Sample Date:				2007-11-30	2007-11-29	2007-12-04	2007-12-03	2004-08-12	2006-10-23	2006-10-23	2006-04-26	2007-11-19
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l									
1,1-Dichloroethane	T	2.4	ug/l						6	5		
1,2-Dichloroethane	T	0.15	ug/l									
1,4-Dioxane	T	6.1	ug/l						8			
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l					0.4 J			3.2	
Chloroform	T	0.19	ug/l					0.5			3.6	
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l					0.6				
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									
Tetrachloroethene	T	0.11	ug/l	115 64	79 71	21 21	9	6.4	59	50	22	11 8
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	809 441	1148 1080	143 131	140	40	140	120	660	341 308
Vinyl Chloride	T	0.016	ug/l					0.3 J				
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-06	RW-06	RW-06	RW-06	RW-06	RW-06	RW-06	RW-06	RW-06	RW-07
Sample Name:				RW-06_130-140_11192007	RW-06_140-150_11182007	RW-06_44-54_11202007	RW-06_55-65_11202007	RW-06_94-106_11192007	RW-06-01	RW-06D	RW-06S	RW-07	
Sample Date:				2007-11-19	2007-11-18	2007-11-20	2007-11-20	2007-11-19	2004-08-20	2006-10-19	2006-10-19	2006-04-27	
Parent:													
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l										
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l									7.9	
1,2-Dichloroethane	T	0.15	ug/l										
1,4-Dioxane	T	6.1	ug/l										
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l										
Carbon Tetrachloride	T	0.2	ug/l						4 J	4 J		2.6	
Chloroform	T	0.19	ug/l						4 J	4 J		1.1	
cis-1,2-Dichloroethene	T	370	ug/l										
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l										
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l										
Tetrachloroethene	T	0.11	ug/l	22 19	74	19 7		13 7		22	20	47	
trans-1,3-Dichloropropene	T	0.43	ug/l										
Trichloroethene	T	1.7	ug/l	1808 1507	5536 4216	289 169		776 411		670	570	150	
Vinyl Chloride	T	0.016	ug/l										
Xylenes (total)	T	2	ug/l										
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l										
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l										
Naphthalene	T	0.14	ug/l										

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-08
Sample Name:				RW-07_0-50_11282007	RW-07_100-110_11272007	RW-07_129-139_11272007	RW-07_54.5-64.5_11282007	RW-07_88-96.1_11282007	RW-07-01	RW-07D	RW-07S	RW-08				
Sample Date:				2007-11-28	2007-11-27	2007-11-27	2007-11-28	2007-11-28	2004-08-11	2006-10-17	2006-10-17	2006-04-26				
Parent:																
Analyte	T or D	RSL Tapwater	Units													
Volatile Organic Compounds																
1,1,2,2-Tetrachloroethane	T	0.067	ug/l													
1,1,2-Trichloroethane	T	0.24	ug/l													
1,1-Dichloroethane	T	2.4	ug/l								6	3 J				
1,2-Dichloroethane	T	0.15	ug/l													
1,4-Dioxane	T	6.1	ug/l													
Benzene	T	0.41	ug/l													
Bromodichloromethane	T	0.12	ug/l													
Carbon Tetrachloride	T	0.2	ug/l						0.3 J	2 J	3 J	4.7				
Chloroform	T	0.19	ug/l						0.6 J	0.9 J	1 J	2.3				
cis-1,2-Dichloroethene	T	370	ug/l													
Dibromochloromethane	T	0.15	ug/l													
Ethylbenzene	T	1.5	ug/l													
Methyl tert-Butyl Ether	T	12	ug/l													
Methylene Chloride	T	4.8	ug/l													
Tetrachloroethene	T	0.11	ug/l	26 23	18 17	26 24	38 35	38 28	16	44	29	19				
trans-1,3-Dichloropropene	T	0.43	ug/l													
Trichloroethene	T	1.7	ug/l	633 535	56 55	68 57	428 363	227 157	74	130	130	250				
Vinyl Chloride	T	0.016	ug/l													
Xylenes (total)	T	2	ug/l													
Semi-Volatile Organic Compounds																
1,4-Dichlorobenzene	T	0.43	ug/l													
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l													
Naphthalene	T	0.14	ug/l													

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-08	RW-08	RW-08	RW-08	RW-08	RW-08	RW-08	RW-08
Sample Name:				RW-08_104-114_11132007	RW-08_111-121_11132007	RW-08_126-136_11132007	RW-08_138-150_11132007	RW-08_40-50_11142007	RW-08_53-63_11142007	RW-08_68-83_11142007	RW-08-01
Sample Date:				2007-11-13	2007-11-13	2007-11-13	2007-11-13	2007-11-14	2007-11-14	2007-11-14	2004-08-19
Parent:											
Analyte	T or D	RSL Tapwater	Units								
Volatile Organic Compounds											
1,1,2,2-Tetrachloroethane	T	0.067	ug/l								
1,1,2-Trichloroethane	T	0.24	ug/l								
1,1-Dichloroethane	T	2.4	ug/l								
1,2-Dichloroethane	T	0.15	ug/l								
1,4-Dioxane	T	6.1	ug/l								
Benzene	T	0.41	ug/l								
Bromodichloromethane	T	0.12	ug/l								
Carbon Tetrachloride	T	0.2	ug/l								
Chloroform	T	0.19	ug/l								
cis-1,2-Dichloroethene	T	370	ug/l								
Dibromochloromethane	T	0.15	ug/l								
Ethylbenzene	T	1.5	ug/l								
Methyl tert-Butyl Ether	T	12	ug/l								
Methylene Chloride	T	4.8	ug/l								
Tetrachloroethene	T	0.11	ug/l	11 8 8 10		14 13	27 12	21 15	20 14	19 15	0.2 J
trans-1,3-Dichloropropene	T	0.43	ug/l								
Trichloroethene	T	1.7	ug/l	512 375 375 464	33	735 710	642 310	600 489	626 440	637 532	2.3
Vinyl Chloride	T	0.016	ug/l								
Xylenes (total)	T	2	ug/l								
Semi-Volatile Organic Compounds											
1,4-Dichlorobenzene	T	0.43	ug/l								
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l								
Naphthalene	T	0.14	ug/l								

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-08	RW-08	RW-09	RW-09	RW-09	RW-09	RW-09	RW-09	RW-09	RW-09	
Sample Name:				RW-08D	RW-08S	RW-09_110-120_11082007	RW-09_124-134_11082007	RW-09_37-47_11092007	RW-09_56-66_11092007	RW-09_76-86_11082007	RW-09-01	RW-09D	RW-09S	RW-9
Sample Date:				2006-10-23	2006-10-23	2007-11-08	2007-11-08	2007-11-09	2007-11-09	2007-11-08	2004-08-16	2006-10-19	2006-10-19	2006-04-27
Parent:														
Analyte	T or D	RSL Tapwater	Units											
Volatile Organic Compounds														
1,1,2,2-Tetrachloroethane	T	0.067	ug/l											
1,1,2-Trichloroethane	T	0.24	ug/l											
1,1-Dichloroethane	T	2.4	ug/l											
1,2-Dichloroethane	T	0.15	ug/l											
1,4-Dioxane	T	6.1	ug/l											
Benzene	T	0.41	ug/l											
Bromodichloromethane	T	0.12	ug/l											
Carbon Tetrachloride	T	0.2	ug/l	3 J	3 J									0.4
Chloroform	T	0.19	ug/l	2 J	2 J									0.3
cis-1,2-Dichloroethene	T	370	ug/l											
Dibromochloromethane	T	0.15	ug/l								0.7			
Ethylbenzene	T	1.5	ug/l											
Methyl tert-Butyl Ether	T	12	ug/l											
Methylene Chloride	T	4.8	ug/l											
Tetrachloroethene	T	0.11	ug/l	15	15	18	17 16	12 12	13 10	14 13	1	15	14	17
trans-1,3-Dichloropropene	T	0.43	ug/l											
Trichloroethene	T	1.7	ug/l	180	270	148	60 56	85 82	58 51	64 61	2.8	35	36	44
Vinyl Chloride	T	0.016	ug/l											
Xylenes (total)	T	2	ug/l											
Semi-Volatile Organic Compounds														
1,4-Dichlorobenzene	T	0.43	ug/l											
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l											
Naphthalene	T	0.14	ug/l											

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-10	RW-10	RW-10	RW-10	RW-10	RW-10	RW-10	RW-10	RW-10
Sample Name:				RW-10	RW-10_0-37_12072007	RW-10_129-134_12062007	RW-10_42-47_12102007	RW-10_54-59_12072007	RW-10_63-68_12072007	RW-10_72-77_12072007	RW-10_84-89_12062007	RW-10-01
Sample Date:				2006-04-27	2007-12-07	2007-12-06	2007-12-10	2007-12-07	2007-12-07	2007-12-07	2007-12-06	2004-08-16
Parent:												
Analyte	T or D	RSL Tapwater	Units									
Volatile Organic Compounds												
1,1,2,2-Tetrachloroethane	T	0.067	ug/l									
1,1,2-Trichloroethane	T	0.24	ug/l	0.3								
1,1-Dichloroethane	T	2.4	ug/l	6.6								
1,2-Dichloroethane	T	0.15	ug/l	0.2								
1,4-Dioxane	T	6.1	ug/l									
Benzene	T	0.41	ug/l									
Bromodichloromethane	T	0.12	ug/l									
Carbon Tetrachloride	T	0.2	ug/l	5.3								
Chloroform	T	0.19	ug/l	1.4								0.3 J
cis-1,2-Dichloroethene	T	370	ug/l									
Dibromochloromethane	T	0.15	ug/l									
Ethylbenzene	T	1.5	ug/l									
Methyl tert-Butyl Ether	T	12	ug/l									
Methylene Chloride	T	4.8	ug/l									5.3
Tetrachloroethene	T	0.11	ug/l	32	52 39	15 13	57 53	45 39	41 40	52 48	23 20	3.9
trans-1,3-Dichloropropene	T	0.43	ug/l									
Trichloroethene	T	1.7	ug/l	100	662 497	78 45	889 844	587 523	742 708	785 610	198 23	35
Vinyl Chloride	T	0.016	ug/l									
Xylenes (total)	T	2	ug/l									
Semi-Volatile Organic Compounds												
1,4-Dichlorobenzene	T	0.43	ug/l									
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l									
Naphthalene	T	0.14	ug/l									

Table 1a: Groundwater RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				RW-10	RW-10	SB-04	SB-04	SB-05	SB-05	SB-13	SB-13	SB-34	SB-39
Sample Name:				RW-10D	RW-10S	GW-01-01	GW-01A-01	GW-02-01	GW-02A-01	GW-03-01	GW-03A-01	GW-04-01	GW-05-01
Sample Date:				2006-10-20	2006-10-20	2000-01-04	2000-01-11	2000-01-05	2000-01-11	2000-01-06	2000-01-11	2000-01-13	2000-01-13
Parent:													
Analyte	T or D	RSL Tapwater	Units										
Volatile Organic Compounds													
1,1,2,2-Tetrachloroethane	T	0.067	ug/l										
1,1,2-Trichloroethane	T	0.24	ug/l										
1,1-Dichloroethane	T	2.4	ug/l	6	8							148	
1,2-Dichloroethane	T	0.15	ug/l									2.1 J	
1,4-Dioxane	T	6.1	ug/l		7								
Benzene	T	0.41	ug/l										
Bromodichloromethane	T	0.12	ug/l										
Carbon Tetrachloride	T	0.2	ug/l	6	3 J								
Chloroform	T	0.19	ug/l	2 J	6	78.8							
cis-1,2-Dichloroethene	T	370	ug/l			566		6740					
Dibromochloromethane	T	0.15	ug/l										
Ethylbenzene	T	1.5	ug/l					1260					
Methyl tert-Butyl Ether	T	12	ug/l										
Methylene Chloride	T	4.8	ug/l		13	31.4 J		210 J		74			
Tetrachloroethene	T	0.11	ug/l	32	61	2880		4330		87.4		9.54	
trans-1,3-Dichloropropene	T	0.43	ug/l			50		5		5		5	
Trichloroethene	T	1.7	ug/l	130	830	807		6230		2490		230	
Vinyl Chloride	T	0.016	ug/l			56 J						2.22 J	
Xylenes (total)	T	2	ug/l		2 J	30 J		6700		58 J			
Semi-Volatile Organic Compounds													
1,4-Dichlorobenzene	T	0.43	ug/l							5.09			
bis(2-Ethylhexyl)phthalate	T	4.8	ug/l			31.4		69.2 B		10.8 B		26 B	13.3 B
Naphthalene	T	0.14	ug/l			10.6		69.6		1.42 J		2.23	

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				DW											
Sample Name:				DW	DW	DW	DW	DW	DW	DW-01N	DW-02N	DW-03	DW-04	DW-05	DW-06
Sample Date:				2006-05-02	2006-10-20	2007-11-12	2008-04-28	2008-09-30	2009-04-15	2001-06-22	2001-10-30	2002-01-09	2002-05-10	2002-09-09	2003-07-08
Parent:															
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l			1.1 J	0.73 J	2.3	4.9						
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l	6000	11300	2400	4300	9500	2800						
Cobalt	T	11	ug/l	155	232	168	143	335	272	31.8 B	30.3 B	25.2 J	33.8 J	41.4 J	33.8 J
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l					59100	89500	32200		31800	26100		50200
Manganese	T	880	ug/l	4110	3900	4050	3210	3670	3060	3890	3050	2870	4290	3890	4010
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l		815			1240	977						
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l		0.68 J						2.8 B	7.9 J			
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l	155	230	159	134	282	148		30.2 B	40.9 J	32.1 J		
Copper	D	1500	ug/l												
Iron	D	26000	ug/l									55100	25700		
Manganese	D	880	ug/l	4020	3850	4080	3210	3680	2840		3100	3020	4250		
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l		814			1050							
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				DW	DW	EW-01	EW-01	EW-01	EW-01	EW-01	EW-01	EW-01	EW-01	
Sample Name:				DW-07	DW-08	EW-01	EW-01_103.5-125_12052007	EW-01_35-53_12052007	EW-01_38-53_12052007	EW-01_60-75_12052007	EW-01_88-103_12052007	EW-01b-01	EW-01D	EW-01S
Sample Date:				2003-10-08	2004-08-09	2006-05-01	2007-12-05	2007-12-05	2007-12-05	2007-12-05	2007-12-05	2004-08-17	2006-10-24	2006-10-24
Parent:														
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l								12.5			
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l			180	430	430		690			330	550
							420			680				
Cobalt	T	11	ug/l	38.4	110									
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l	27600								26500		
Manganese	T	880	ug/l	3870	4410							986		
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l											1 J
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l											
Cobalt	D	11	ug/l		119									
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l		4160									
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-02	EW-02	EW-02	EW-02	EW-02	EW-02	EW-02
Sample Name:				EW-02	EW-02_111-121_11152007	EW-02_124-130_11152007	EW-02_41.5-62_11162007	EW-02_99-109_11162007	EW-02b-01	EW-02D
Sample Date:				2006-05-01	2007-11-15	2007-11-15	2007-11-16	2007-11-16	2004-08-18	2006-10-24
Parent:										
Total Metals										
Aluminum	T	37000	ug/l							
Antimony	T	15	ug/l							
Arsenic	T	0.045	ug/l	1.8 J						
Barium	T	7300	ug/l							
Cadmium	T	18	ug/l							
Chromium VI	T	110	ug/l		660			400		
					660			380		
Cobalt	T	11	ug/l							
Copper	T	1500	ug/l							
Cyanide (total)	T	730	ug/l							
Iron	T	26000	ug/l	123000						
Manganese	T	880	ug/l							
Mercury	T	0.57	ug/l							
Nickel	T	730	ug/l							
Thallium	T	2.4	ug/l							
Vanadium	T	260	ug/l							
Dissolved Metals										
Antimony	D	15	ug/l							
Arsenic	D	0.045	ug/l							0.79 J
Barium	D	7300	ug/l							
Cadmium	D	18	ug/l							
Chromium VI	D	110	ug/l							
Cobalt	D	11	ug/l							
Copper	D	1500	ug/l							
Iron	D	26000	ug/l							
Manganese	D	880	ug/l							
Mercury	D	0.57	ug/l							
Nickel	D	730	ug/l							
Thallium	D	2.4	ug/l							

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-02	EW-02	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03
Sample Name:				EW-02S	EW-02S	DUP-03	EW-03	EW-03_117-127_12202007	EW-03_130-140_12202007	EW03-106	EW03-140	EW-03-18:25
Sample Date:				2006-05-02	2006-10-24	2006-05-02	2006-05-02	2007-12-20	2007-12-20	2008-04-03	2008-04-03	2006-12-19
Parent:						EW-03_05022006WG						
Total Metals												
Aluminum	T	37000	ug/l									
Antimony	T	15	ug/l									
Arsenic	T	0.045	ug/l			2 J	1.9 J					
Barium	T	7300	ug/l									
Cadmium	T	18	ug/l									
Chromium VI	T	110	ug/l									4500
Cobalt	T	11	ug/l									
Copper	T	1500	ug/l									
Cyanide (total)	T	730	ug/l									
Iron	T	26000	ug/l			40500						
Manganese	T	880	ug/l									
Mercury	T	0.57	ug/l									
Nickel	T	730	ug/l									
Thallium	T	2.4	ug/l									
Vanadium	T	260	ug/l									
Dissolved Metals												
Antimony	D	15	ug/l									
Arsenic	D	0.045	ug/l									
Barium	D	7300	ug/l									
Cadmium	D	18	ug/l									84600 U
Chromium VI	D	110	ug/l									
Cobalt	D	11	ug/l									
Copper	D	1500	ug/l									
Iron	D	26000	ug/l									
Manganese	D	880	ug/l									
Mercury	D	0.57	ug/l									
Nickel	D	730	ug/l									
Thallium	D	2.4	ug/l									

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-03	EW-04	EW-04	EW-04		
Sample Name:				EW-03-2:10	EW-03-24:45	EW-03-41:20	EW-03-47:40	EW03-84	EW-03a-01	EW-03-D	EW-03S	EW-03-S	INT1	INT2	INT3	INT4	INT5	INT6	EW-04	4_0-52_112	_120-130_11	
Sample Date:				2006-12-18	2006-12-19	2006-12-20	2006-12-20	2008-04-03	2004-08-18	2006-10-24	2006-05-02	2006-10-24	2006-12-11	2006-12-11	2006-12-12	2006-12-12	2006-12-12	2006-12-12	2006-05-01	2007-11-21	2007-11-20	
Parent:																						
Total Metals																						
Aluminum	T	37000	ug/l																			
Antimony	T	15	ug/l																			
Arsenic	T	0.045	ug/l								1.4 J											
Barium	T	7300	ug/l																			
Cadmium	T	18	ug/l																			
Chromium VI	T	110	ug/l	860	6300	13800	14400												130		370	360
Cobalt	T	11	ug/l																			
Copper	T	1500	ug/l																			
Cyanide (total)	T	730	ug/l																			
Iron	T	26000	ug/l								33100	26200										
Manganese	T	880	ug/l																			
Mercury	T	0.57	ug/l																			
Nickel	T	730	ug/l																			
Thallium	T	2.4	ug/l																			
Vanadium	T	260	ug/l																			
Dissolved Metals																						
Antimony	D	15	ug/l																			
Arsenic	D	0.045	ug/l							0.81 J		0.84 J										
Barium	D	7300	ug/l																			
Cadmium	D	18	ug/l																			
Chromium VI	D	110	ug/l																			
Cobalt	D	11	ug/l																			
Copper	D	1500	ug/l																			
Iron	D	26000	ug/l																			
Manganese	D	880	ug/l																			
Mercury	D	0.57	ug/l																			
Nickel	D	730	ug/l																			
Thallium	D	2.4	ug/l																			

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-04	EW-04	EW-04	EW-04	EW-04	EW-04	EW-04	EW-05	EW-05	EW-05	EW-05
Sample Name:				4_62-71_112	4_85-94_112	4_98-107_112	EW-04a-01	EW-04D	EW-04S	EW-04S	EW-05	EW-05_0-40_11072007	EW-05_120-130_11062007	5_46-53_110
Sample Date:				2007-11-20	2007-11-20	2007-11-20	2004-08-17	2006-10-24	2006-05-02	2006-10-24	2006-05-01	2007-11-07	2007-11-06	2007-11-07
Parent:														
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l								2.2			
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l	120	5000	13000						14000	320	8000
				110	5000	13000						13000		6000
Cobalt	T	11	ug/l								100			
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l											
Manganese	T	880	ug/l				5260							
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l					0.85 J		0.69 J				
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l											
Cobalt	D	11	ug/l											
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l											
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				EW-05	EW-05	EW-05	EW-05	EW-05	EW-05	EW-05	MW-01	MW-01	MW-01
Sample Name:				5_71-81_110	EW-05_86-96_11062007	_99-109_110	EW-05-01	EW-05D	EW-05S	Sample P1/EW-05-PRE	MW-01	MW-01-01N	MW-01-02N
Sample Date:				2007-11-07	2007-11-06	2007-11-06	2004-08-19	2006-10-20	2006-10-20	2004-08-26	2006-04-28	2001-06-20	2001-10-23
Parent:													
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l										
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l	18000	770	510	8800		12100				
				18000	770	440							
Cobalt	T	11	ug/l					15.9	44.4			13.9 B	
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l									2350	
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l										
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l					0.81 J	0.88 J	9.2 J			3.1 B
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l						35.5	44			
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l										

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-01										
Sample Name:				MW-01-03	MW-01-04	MW-01-05	MW-01-06	MW-01-07	MW-01-08	MW-1	MW-1	MW-1	MW-1	
Sample Date:				2002-01-08	2002-05-06	2002-09-09	2003-07-07	2003-10-06	2004-08-09	2006-10-20	2007-09-20	2008-04-22	2008-09-23	2009-04-09
Parent:														
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l									0.94 J		
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l											
Cobalt	T	11	ug/l											
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l											
Manganese	T	880	ug/l				1490	1610				1470		1520
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l							1.2 J				
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l											
Cobalt	D	11	ug/l											
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l									1450		1470
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-02												
Sample Name:				MW-02	MW-02-01N	MW-02-02N	MW-02-03	MW-02-04	MW-02-05	MW-02-06	MW-02-07	MW-02-08	MW-02-25	MW-02-75	MW-02AN	MW-2
Sample Date:				2006-05-03	2001-07-05	2001-10-23	2002-01-08	2002-05-07	2002-09-10	2003-07-07	2003-10-06	2004-08-10	2001-04-26	2001-04-26	2001-07-05	2006-10-23
Parent:																MW-02-01N_07052001WG
Total Metals																
Aluminum	T	37000	ug/l													
Antimony	T	15	ug/l				53.3 J									
Arsenic	T	0.045	ug/l		9.6 B	11.9	22.6					4.9 J			12.1 B	
Barium	T	7300	ug/l													
Cadmium	T	18	ug/l													
Chromium VI	T	110	ug/l	3300				59000	106000	36500	23600	10000				2000
Cobalt	T	11	ug/l		25.5 B			333	848	19.3 J	114	54.6			18.2 B	
Copper	T	1500	ug/l													
Cyanide (total)	T	730	ug/l													
Iron	T	26000	ug/l													
Manganese	T	880	ug/l					1320	2200							
Mercury	T	0.57	ug/l													
Nickel	T	730	ug/l					1390	2830							
Thallium	T	2.4	ug/l		8.7 B	10.3									8.9 B	
Vanadium	T	260	ug/l													
Dissolved Metals																
Antimony	D	15	ug/l													
Arsenic	D	0.045	ug/l		13.7 B	11.9						19.3		11.7 B	0.79 J	
Barium	D	7300	ug/l													
Cadmium	D	18	ug/l													
Chromium VI	D	110	ug/l			15300	11500									
Cobalt	D	11	ug/l					331				54.9				
Copper	D	1500	ug/l													
Iron	D	26000	ug/l													
Manganese	D	880	ug/l					1330								
Mercury	D	0.57	ug/l													
Nickel	D	730	ug/l					1380								
Thallium	D	2.4	ug/l												7.2 B	

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
Sample Name:				MW-2	MW-2	MW-2	MW-2	DUP-02	MW-03	MW-03-01N	MW-03-02N	MW-03-03	MW-03-03B	MW-03-04
Sample Date:				2007-09-24	2008-04-25	2008-09-26	2009-04-13	2006-04-28	2006-04-28	2001-06-21	2001-10-24	2002-01-09	2002-01-09	2002-05-09
Parent:								MW-03_04282006WG					MW-03-03_01092002WG	
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l									581	548	
Arsenic	T	0.045	ug/l						46.8 B	104	201	206		
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l	2200	730	1400	480	250	270					77200
Cobalt	T	11	ug/l			12.8				89	41.1 B	30.7 J	30 J	
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l											
Manganese	T	880	ug/l						2920	2510	3730	3730	3730	4340
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l						1380					
Thallium	T	2.4	ug/l						32.9	63.4	17.5 J	19.2 J		
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l							101				
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l							232000	116000	114000		
Cobalt	D	11	ug/l							38.5 B	29.2 J	29.7 J		
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l							2500	3930	3650	3650	4290
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l							56.2				

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
Sample Name:				MW-03-05	MW-03-06	MW-03-07	MW-03-08	MW-03A-02N	MW-03AN	MW-03C-04	MW-03D-05	MW-03E-06	MW-03F-07
Sample Date:				2002-09-16	2003-07-08	2003-10-08	2004-08-09	2001-10-24	2001-06-21	2002-05-09	2002-09-16	2003-07-08	2003-10-08
Parent:								MW-03-02N_10242	01N_06212	3-04_050920	3-05_091620	MW-03-06_07082003WG	MW-03-07_10082003WG
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l		167			97.6 B	48.2 B			166	
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l	71800	113000	117000	4900			83100	77100	109000	115000
Cobalt	T	11	ug/l		145	183		40.6 B	73.3			144	176
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l	6250	3950	3480		2470	2910	4270	6050	3890	3470
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l		1690	1920			1190			1690	1870
Thallium	T	2.4	ug/l					63.8	39.4				
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l				7.5 J	96.8 B					
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l					261000					
Cobalt	D	11	ug/l					42.2 B					
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l					2480		4270			
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l					63					

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-03	MW-03	MW-03	MW-03	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04
Sample Name:				MW-3	MW-3	MW-3	MW-3	DUP-03	DUP-041509	DUP-100108	MW-04	MW-04-01N	MW-04-02N
Sample Date:				2007-09-20	2008-04-22	2008-09-30	2009-04-15	2006-10-20	2009-04-15	2008-10-01	2006-05-02	2001-06-22	2001-10-24
Parent:							MW-4_10202006	MW-4_04152009	MW-4_10012008WG				
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l		1.4 J		1.8 J					36.8 B	31.8 B
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l	170	4700	14500	46800	19100	42000	21700	20300		
Cobalt	T	11	ug/l				10.9		28	34.9	15.6	380	155
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l									1150	
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l						849			2540	1100 E
Thallium	T	2.4	ug/l									33.4	16
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l				0.99 J						37.4 B
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										41400
Cobalt	D	11	ug/l				17.5		44	72.6	14.4		154
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l						930	1110			1120 E
Thallium	D	2.4	ug/l										23.8

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-04									
Sample Name:				MW-04-03	MW-04-04	MW-04-05	MW-04-06	MW-04-07	MW-04-08	MW-4	MW-4	MW-4	MW-4
Sample Date:				2002-01-09	2002-05-16	2002-09-17	2003-07-09	2003-10-07	2004-08-11	2006-10-20	2007-09-25	2008-04-28	2008-10-01
Parent:													
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l	243									
Arsenic	T	0.045	ug/l	90.8				68.2					
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l		21.8	21.5							
Chromium VI	T	110	ug/l		220000	229000	172000	146000	168000	21300	119000	17300	18000
Cobalt	T	11	ug/l	171	1430	1520	1010	777	898		292	16.1	27.8
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l		3350	3470	2690	2090	2430		1360		
Mercury	T	0.57	ug/l		1.5	1.9					3.5		
Nickel	T	730	ug/l	1230	9240	9250	7220	5610	6370		3440		
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l		152				160				
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l		22.3								
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l	172	1500				879		270	19.1	74.3
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l		3540				2230		1490		
Mercury	D	0.57	ug/l		1.3								
Nickel	D	730	ug/l	1240	9790				6200		3900		1220
Thallium	D	2.4	ug/l	15.1 J									

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-04	MW-05									
Sample Name:				MW-4	MW-05	MW-05-01N	MW-05-02N	MW-05-03	MW-05-04	MW-05-05	MW-05-06	MW-05-07	MW-05-08	MW-5
Sample Date:				2009-04-15	2006-05-03	2001-07-05	2001-10-24	2002-01-09	2002-05-14	2002-09-10	2003-07-10	2003-10-09	2004-08-11	2006-10-23
Parent:														
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l				3.1 B					495	9.1 J	
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l	41400	13900					3380	13600	156000	15800	19700
Cobalt	T	11	ug/l	24.8	171	208	166	172	147	178	205	771	137	204
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l			40300								
Manganese	T	880	ug/l		7710	10500	8240	8340	7460	7970	7720	2340	7620	8360
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l	764	1020					1170	1330	5970	1010	1290
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l				3.1 B							
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l				1850							
Cobalt	D	11	ug/l	43.5	172	199	164	165	148				135	191
Copper	D	1500	ug/l											
Iron	D	26000	ug/l			35400								
Manganese	D	880	ug/l		7620	10600	8140	8020	8200				7670	8090
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l	913	1050								997	1240
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-05	MW-05	MW-05	MW-05	MW-06												
Sample Name:				MW-5	MW-5	MW-5	MW-5	MW-06	MW-06-01N	MW-06-02N	MW-06-03	MW-06-04	MW-06-05	MW-06-06	MW-06-07	MW-06-08	MW-6	MW-6		
Sample Date:				2007-09-26	2008-04-28	2008-10-01	2009-04-15	2006-05-03	2001-06-20	2001-10-23	2002-01-08	2002-05-09	2002-09-11	2003-07-08	2003-10-08	2004-08-09	2006-10-23	2007-09-20	2008-04-23	2008-09-25
Parent:																				
Total Metals																				
Aluminum	T	37000	ug/l																	
Antimony	T	15	ug/l																	
Arsenic	T	0.045	ug/l		1.4 J				4.1 B	3.1 B								0.77 J		
Barium	T	7300	ug/l																	
Cadmium	T	18	ug/l																	
Chromium VI	T	110	ug/l	22500	31900	23800	28900	110				7820	7090	430	380	270		170	140	
Cobalt	T	11	ug/l	211	212	200	190		14.6 B	18.4 B			28.1 J							
Copper	T	1500	ug/l																	
Cyanide (total)	T	730	ug/l																	
Iron	T	26000	ug/l																	
Manganese	T	880	ug/l	8220	7600	7840	6660													
Mercury	T	0.57	ug/l				0.63													
Nickel	T	730	ug/l	1390	1410	1370	1190													
Thallium	T	2.4	ug/l																	
Vanadium	T	260	ug/l																	
Dissolved Metals																				
Antimony	D	15	ug/l																	
Arsenic	D	0.045	ug/l		0.71 J					2.3 B										
Barium	D	7300	ug/l																	
Cadmium	D	18	ug/l																	
Chromium VI	D	110	ug/l							2460	2350									
Cobalt	D	11	ug/l	205	223	209	201			18.4 B										
Copper	D	1500	ug/l																	
Iron	D	26000	ug/l																	
Manganese	D	880	ug/l	8000	7940	7960	6490													
Mercury	D	0.57	ug/l																	
Nickel	D	730	ug/l	1360	1500	1370	1230													
Thallium	D	2.4	ug/l																	

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-06	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08										
Sample Name:				MW-6	MW-07	MW-07-01N	MW-07-02N	MW-07-03	MW-07-04	MW-07-05	MW-07-06	MW-07-07	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-07-08	MW-08	MW-08-01N
Sample Date:				2009-04-10	2006-05-03	2001-06-20	2001-10-23	2002-01-08	2002-05-07	2002-09-09	2003-07-07	2003-10-06	2004-08-13	2004-08-13	2006-10-23	2007-09-24	2008-04-24	2008-04-25	2008-09-29	2009-04-14	2006-10-18	2001-07-05
Parent:														MW-07-08_08132004WG				MW-7_04242008WG				
Total Metals																						
Aluminum	T	37000	ug/l																			
Antimony	T	15	ug/l					842														
Arsenic	T	0.045	ug/l			9.8 B	88.7 B	271														
Barium	T	7300	ug/l																			
Cadmium	T	18	ug/l				18.3	24.5			18.4											
Chromium VI	T	110	ug/l		3700				77900	175000	18400	15600	15900	15700	3200	4600		2000	5200	1900	2800	
Cobalt	T	11	ug/l		32.8		4800	5220	1760	3680	269	222	314	306	26.2	22.3	28.9		15	16.3		
Copper	T	1500	ug/l				3420	4840		4800												
Cyanide (total)	T	730	ug/l																			
Iron	T	26000	ug/l																			
Manganese	T	880	ug/l				9040	11600	3910	7980												
Mercury	T	0.57	ug/l																			
Nickel	T	730	ug/l				11800	13600	4970	10600	1020	838	1000	1010								
Thallium	T	2.4	ug/l				42.8	29.2														
Vanadium	T	260	ug/l																			
Dissolved Metals																						
Antimony	D	15	ug/l																			
Arsenic	D	0.045	ug/l				82.3 B															
Barium	D	7300	ug/l																			
Cadmium	D	18	ug/l				17.6	23.8														
Chromium VI	D	110	ug/l				125000	160000														
Cobalt	D	11	ug/l		30.2		4510	5170	1820					23.9	19.4	18.3		16	12.3			
Copper	D	1500	ug/l				3160	4880	1500													
Iron	D	26000	ug/l																			
Manganese	D	880	ug/l				8500	2290	4060													
Mercury	D	0.57	ug/l																			
Nickel	D	730	ug/l				11100	13500	5100													
Thallium	D	2.4	ug/l				44.6															

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	
Sample Name:				MW-08-02N	MW-08-03	MW-08-04	MW-08-05	MW-08-06	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-09	MW-09-01N	MW-09-02N	MW-09-03	MW-09-04	MW-09-05	MW-09-06	MW-09-07	MW-09-08
Sample Date:				2001-10-25	2002-01-10	2002-05-08	2002-09-11	2004-08-13	2006-04-25	2007-09-24	2008-04-25	2008-09-30	2009-04-14	2006-10-18	2001-07-05	2001-10-25	2002-01-11	2002-05-10	2002-09-13	2003-07-09	2003-10-07	2004-08-12	
Parent:																							
Total Metals																							
Aluminum	T	37000	ug/l																				
Antimony	T	15	ug/l																				
Arsenic	T	0.045	ug/l	2.6 B												2.9 B							
Barium	T	7300	ug/l																				
Cadmium	T	18	ug/l																				
Chromium VI	T	110	ug/l					330	1900	2600	1700	1300	1000										
Cobalt	T	11	ug/l																				
Copper	T	1500	ug/l																				
Cyanide (total)	T	730	ug/l																				
Iron	T	26000	ug/l																				
Manganese	T	880	ug/l																				
Mercury	T	0.57	ug/l																				
Nickel	T	730	ug/l																				
Thallium	T	2.4	ug/l																		9.5 J		
Vanadium	T	260	ug/l																				
Dissolved Metals																							
Antimony	D	15	ug/l																				
Arsenic	D	0.045	ug/l												1.1 J								
Barium	D	7300	ug/l																				
Cadmium	D	18	ug/l																				
Chromium VI	D	110	ug/l																				
Cobalt	D	11	ug/l																				
Copper	D	1500	ug/l																				
Iron	D	26000	ug/l																				
Manganese	D	880	ug/l																				
Mercury	D	0.57	ug/l																				
Nickel	D	730	ug/l																				
Thallium	D	2.4	ug/l																				

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-09	MW-09	MW-09	MW-09	MW-09	MW-10														
Sample Name:				MW-9	MW-9	MW-9	MW-9	MW-9	DUP-02	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10-01N	MW-10-02N	MW-10-03	MW-10-04	MW-10-05	MW-10-06	MW-10-07		
Sample Date:				2006-04-25	2007-09-25	2008-04-24	2008-09-26	2009-04-10	2007-09-25	2006-05-01	2006-10-19	2007-09-25	2008-04-28	2008-09-30	2009-04-15	2001-07-06	2001-10-29	2002-01-11	2002-05-10	2002-09-13	2003-07-10	2003-10-09	
Parent:				MW-10_09252007WG																			
Total Metals																							
Aluminum	T	37000	ug/l																				
Antimony	T	15	ug/l																				
Arsenic	T	0.045	ug/l						1.6 J			1.6 J	1.6 J	1.5 J	1.3 J								
Barium	T	7300	ug/l						7740			7560				7960			7720		9890	9950	
Cadmium	T	18	ug/l																				
Chromium VI	T	110	ug/l		850	890	530	290															
Cobalt	T	11	ug/l						78.5	81	90	80	73.5	71	74.1	90.8	56.6	62.2	79.9	76.5	105	105	
Copper	T	1500	ug/l																				
Cyanide (total)	T	730	ug/l																				
Iron	T	26000	ug/l						35800		36600	36200	31900	28700	28400	28000			35500	35200	47000	44700	
Manganese	T	880	ug/l						27200	28500	30900	27400	23300	24000	24700	34100	21900	22800	29200	26100	37800	38000	
Mercury	T	0.57	ug/l																				
Nickel	T	730	ug/l																				
Thallium	T	2.4	ug/l														13 B			37.3			
Vanadium	T	260	ug/l																				
Dissolved Metals																							
Antimony	D	15	ug/l																				
Arsenic	D	0.045	ug/l						1.6 J			1.5 J	1.6 J	1.7 J	1.1 J	2.4 B							
Barium	D	7300	ug/l													7510			7720				
Cadmium	D	18	ug/l																				
Chromium VI	D	110	ug/l																				
Cobalt	D	11	ug/l						81.6	80.2	87.5	79.1	71.7	68	71.4	88.8	54.3	61.3	81.5				
Copper	D	1500	ug/l																				
Iron	D	26000	ug/l						36100		39200	35000	30300	28600	27300				31900				
Manganese	D	880	ug/l						27700	30100	28600	27000	23800	24200	24600	33400	21500	22500	29800				
Mercury	D	0.57	ug/l																				
Nickel	D	730	ug/l																				
Thallium	D	2.4	ug/l																				

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-10	MW-11	MW-12	MW-12																
Sample Name:				MW-10-08	DUP-1	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW11-01N	MW11-02N	MW-11-03C	MW-11-03N	MW-11-04	MW-11-05	MW-11-06	MW-11-07	MW-11-08	MW-12	MW-12	
Sample Date:				2004-08-12	2007-09-18	2006-04-26	2006-10-18	2007-09-18	2008-04-22	2008-09-24	2009-04-09	2001-09-21	2001-09-21	2002-01-11	2001-10-29	2002-05-13	2002-09-12	2003-07-09	2003-10-07	2004-08-12	2006-04-25	2006-10-18	
Parent:				MW-11_09182007WG																			
Total Metals																							
Aluminum	T	37000	ug/l																				
Antimony	T	15	ug/l																				
Arsenic	T	0.045	ug/l				0.95 J	0.76 J														0.83 J	
Barium	T	7300	ug/l	8570																			
Cadmium	T	18	ug/l																				
Chromium VI	T	110	ug/l																	1000	1200		
Cobalt	T	11	ug/l	101																			
Copper	T	1500	ug/l																				
Cyanide (total)	T	730	ug/l																				
Iron	T	26000	ug/l	44400																			
Manganese	T	880	ug/l	36700																			
Mercury	T	0.57	ug/l																				
Nickel	T	730	ug/l																				
Thallium	T	2.4	ug/l																				
Vanadium	T	260	ug/l																				
Dissolved Metals																							
Antimony	D	15	ug/l																				
Arsenic	D	0.045	ug/l				2.1	0.8 J						2.6 B								1.1 J	
Barium	D	7300	ug/l	8640																			
Cadmium	D	18	ug/l																				
Chromium VI	D	110	ug/l																				
Cobalt	D	11	ug/l	101																			
Copper	D	1500	ug/l																				
Iron	D	26000	ug/l	43200																			
Manganese	D	880	ug/l	35800																			
Mercury	D	0.57	ug/l																				
Nickel	D	730	ug/l																				
Thallium	D	2.4	ug/l																				

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-12	MW-12	MW-12	MW-12
Sample Name:				MW-12	MW-12	MW-12	MW-12
Sample Date:				2007-09-21	2008-04-24	2008-09-26	2009-04-13
Parent:							
Total Metals							
Aluminum	T	37000	ug/l				
Antimony	T	15	ug/l				
Arsenic	T	0.045	ug/l		1.5 J		
Barium	T	7300	ug/l				
Cadmium	T	18	ug/l				
Chromium VI	T	110	ug/l	1200	620	560	390
Cobalt	T	11	ug/l				
Copper	T	1500	ug/l				
Cyanide (total)	T	730	ug/l				
Iron	T	26000	ug/l				
Manganese	T	880	ug/l				
Mercury	T	0.57	ug/l				
Nickel	T	730	ug/l				
Thallium	T	2.4	ug/l				
Vanadium	T	260	ug/l				
Dissolved Metals							
Antimony	D	15	ug/l				
Arsenic	D	0.045	ug/l		0.72 J		
Barium	D	7300	ug/l				
Cadmium	D	18	ug/l				
Chromium VI	D	110	ug/l				
Cobalt	D	11	ug/l				
Copper	D	1500	ug/l				
Iron	D	26000	ug/l				
Manganese	D	880	ug/l				
Mercury	D	0.57	ug/l				
Nickel	D	730	ug/l				
Thallium	D	2.4	ug/l				

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
				MW12-01N	MW-12-02N	MW-12-03	MW-12-04	MW-12-05	MW-12-06	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
				2001-09-21	2001-10-24	2002-01-10	2002-05-08	2002-09-10	2004-08-13	2006-04-25	2006-10-18	2007-09-18	2008-04-22	2008-09-24	2009-04-08
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l										0.72 J		
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l												
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l								0.95 J				
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-13 MW13-01N 2001-09-20	MW-13 MW-13-02N 2001-10-25	MW-13 MW-13-03 2002-01-11	MW-13 MW-13-04 2002-05-13	MW-13 MW-13-05 2002-09-12	MW-13 MW-13-06 2004-08-13	MW-14 MW-14 2006-04-26	MW-14 MW-14 2006-10-17	MW-14 MW-14 2007-09-19	MW-14 MW-14 2008-04-23	MW-14 MW-14 2008-09-24	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l							0.8 J	0.96 J		1.1 J		
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l												
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l								1 J				
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-14 MW-14 2009-04-08	MW-14 MW14-01N 2001-09-20	MW-14 MW-14-02N 2001-10-29	MW-14 MW-14-03 2002-01-14	MW-14 MW-14-04 2002-05-14	MW-14 MW-14-05 2002-09-16	MW-14 MW-14-06 2004-08-16
Total Metals										
Aluminum	T	37000	ug/l							
Antimony	T	15	ug/l							
Arsenic	T	0.045	ug/l							
Barium	T	7300	ug/l							
Cadmium	T	18	ug/l							
Chromium VI	T	110	ug/l					361	891	
Cobalt	T	11	ug/l							
Copper	T	1500	ug/l							
Cyanide (total)	T	730	ug/l							
Iron	T	26000	ug/l							
Manganese	T	880	ug/l							
Mercury	T	0.57	ug/l							
Nickel	T	730	ug/l							
Thallium	T	2.4	ug/l							
Vanadium	T	260	ug/l							
Dissolved Metals										
Antimony	D	15	ug/l							
Arsenic	D	0.045	ug/l							
Barium	D	7300	ug/l							
Cadmium	D	18	ug/l							
Chromium VI	D	110	ug/l							
Cobalt	D	11	ug/l							
Copper	D	1500	ug/l							
Iron	D	26000	ug/l							
Manganese	D	880	ug/l							
Mercury	D	0.57	ug/l							
Nickel	D	730	ug/l							
Thallium	D	2.4	ug/l							

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-15 DUP-01 2008-04-23 MW-15_04232008WG	MW-15 MW-15 2006-04-25	MW-15 MW-15 2006-10-17	MW-15 MW-15 2007-09-25	MW-15 MW-15 2008-04-23	MW-15 MW-15 2008-09-30	MW-15 MW-15 2009-04-14	MW-15 MW-15-01 2002-01-14	MW-15 MW-15-01B 2002-01-14
Total Metals												
Aluminum	T	37000	ug/l									
Antimony	T	15	ug/l									
Arsenic	T	0.045	ug/l									
Barium	T	7300	ug/l									
Cadmium	T	18	ug/l									
Chromium VI	T	110	ug/l	7200	6600	6400	6200	6600	5800	7700	4770	4520
Cobalt	T	11	ug/l									
Copper	T	1500	ug/l									
Cyanide (total)	T	730	ug/l									
Iron	T	26000	ug/l									
Manganese	T	880	ug/l									
Mercury	T	0.57	ug/l									
Nickel	T	730	ug/l									
Thallium	T	2.4	ug/l									
Vanadium	T	260	ug/l									
Dissolved Metals												
Antimony	D	15	ug/l									
Arsenic	D	0.045	ug/l									
Barium	D	7300	ug/l									
Cadmium	D	18	ug/l									
Chromium VI	D	110	ug/l									
Cobalt	D	11	ug/l									
Copper	D	1500	ug/l									
Iron	D	26000	ug/l									
Manganese	D	880	ug/l									
Mercury	D	0.57	ug/l									
Nickel	D	730	ug/l									
Thallium	D	2.4	ug/l									

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-15	MW-15	MW-15	MW-15	MW-15	MW-16													
Sample Name:				MW-15-02	MW-15-03	MW-15-04	MW-15-05	MW-15-06	DUP-042408	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16-01	MW-16-02	MW-16-03	MW-16-04	MW-16-05		
Sample Date:				2002-05-16	2002-09-17	2003-07-09	2003-10-07	2004-08-16	2008-04-24	2006-04-28	2006-10-17	2007-09-21	2008-04-24	2008-09-26	2009-04-14	2002-01-08	2002-05-06	2002-09-10	2003-07-07	2003-10-06	2004-08-10	
Parent:				2WG																		
Total Metals																						
Aluminum	T	37000	ug/l																			
Antimony	T	15	ug/l																			
Arsenic	T	0.045	ug/l																			
Barium	T	7300	ug/l																			
Cadmium	T	18	ug/l																			
Chromium VI	T	110	ug/l	7320	7460	12800	10200	9000	180	170	170	190	180	140	220		167	149	240	250	200	
Cobalt	T	11	ug/l																			
Copper	T	1500	ug/l																			
Cyanide (total)	T	730	ug/l																			
Iron	T	26000	ug/l																			
Manganese	T	880	ug/l																			
Mercury	T	0.57	ug/l																			
Nickel	T	730	ug/l																			
Thallium	T	2.4	ug/l																			
Vanadium	T	260	ug/l																			
Dissolved Metals																						
Antimony	D	15	ug/l																			
Arsenic	D	0.045	ug/l						0.86 J				0.79 J									
Barium	D	7300	ug/l																			
Cadmium	D	18	ug/l																			
Chromium VI	D	110	ug/l																			
Cobalt	D	11	ug/l																			
Copper	D	1500	ug/l																			
Iron	D	26000	ug/l																			
Manganese	D	880	ug/l																			
Mercury	D	0.57	ug/l																			
Nickel	D	730	ug/l																			
Thallium	D	2.4	ug/l																			

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-17									
Sample Name:				MW-17-01D	MW-17-01M	MW-17-01S	MW-17-02D	MW-17-02M	MW-17-02S	MW-17D	MW-17D	MW-17D	MW-17D
Sample Date:				2002-05-16	2002-05-15	2002-05-15	2002-09-16	2002-09-13	2002-09-11	2006-05-01	2006-10-20	2007-09-26	2008-09-24
Parent:													
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l			7.6 J			6.5 J			0.73 J	
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l										
Cobalt	T	11	ug/l										
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l										
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l										
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l			16.7						1.4 J	
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l										
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l										

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location: MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17
				Sample Name: MW-17D-03	MW-17M	MW-17M	MW-17M	MW-17M	MW-17M	MW-17M	MW-17M-03	MW-17S	MW-17S
				Sample Date: 2004-08-19	2006-05-01	2006-10-30	2007-09-26	2008-04-30	2008-09-24	2009-04-07	2004-08-19	2006-05-01	2006-10-23
				Parent:									
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l			0.97 J						19	
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l										
Cobalt	T	11	ug/l										
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l										
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l										
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l									19.7	
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l										
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l										

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-17 MW-17S 2007-09-26	MW-17 MW-17S 2008-04-30	MW-17 MW-17S 2008-09-23	MW-17 MW-17S 2009-04-07	MW-17 MW-17S-03 2004-08-19	MW-18 MW-18 2006-04-28	MW-18 MW-18 2006-10-19	MW-18 MW-18 2007-09-19	MW-18 MW-18 2008-04-24	MW-18 MW-18 2008-09-29	MW-18 MW-18 2009-04-13	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l		0.75 J				0.89 J						
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l								140	200	220	220	
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l		0.77 J							0.82 J			
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample Name:				MW-18-01	MW-18-02	MW-18-03	MW-18-04	MW-18-05	MW-18-06	DUP-01	DUP-01	MW-19	MW-19	MW-19	MW-19
Sample Date:				2002-01-14	2002-05-17	2002-09-17	2003-07-10	2003-10-10	2004-08-18	2006-04-26	2006-10-17	2006-04-26	2006-10-17	2007-09-21	2008-04-23
Parent:										MW-19_04262006WG	MW-19_10172006WG				
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l											1 J	
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l							620	520	600	500	500	590
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l								1.1 J				
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-19 MW-19 2009-04-10	MW-19 MW-19-01 2002-01-10	MW-19 MW-19-02 2002-05-15	MW-19 MW-19-03 2002-09-18	MW-19 MW-19-04 2003-07-11	MW-19 MW-19-05 2003-10-09	MW-19 MW-19-06 2004-08-17	MW-20 DUP-041009 2009-04-10	MW-20 MW-20 2006-04-26	MW-20 MW-20 2006-10-17	MW-20 MW-20 2007-09-21	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l										0.7 J		
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l	440		609	527	800	680	540	350	720	330	6000	
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l												
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-20 MW-20 2008-04-28	MW-20 MW-20 2008-09-25	MW-20 MW-20 2009-04-10	MW-20 MW-20-01 2002-01-10	MW-20 MW-20-02 2002-05-15	MW-20 MW-20-03 2002-09-18	MW-20 MW-20-04 2003-07-11	MW-20 MW-20-05 2003-10-09	MW-20 MW-20-06 2004-08-17	MW-20 MW-20A-02 2002-05-15 MW-20-02_05152002WG	MW-20 MW-20B-03 2002-09-18 MW-20-03_09182002WG
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l				88.5 J							
Arsenic	T	0.045	ug/l				31.9							
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l	180	530	380		24500	20000	3100	2500	1800	23900	19900
Cobalt	T	11	ug/l											
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l											
Manganese	T	880	ug/l											
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l											
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l				16000							
Cobalt	D	11	ug/l											
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l											
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-22 MW-22 2008-04-29	MW-22 MW-22 2008-09-24	MW-22 MW-22 2009-04-09	MW-22 22_0-46_121	MW-22 _116-126_12	MW-22 _128-138_12	MW-22 MW-22_18.6-46_12182007 2007-12-18	MW-22 MW-22_66-76_12172007 2007-12-17	MW-22 MW-22_86-96_12172007 2007-12-17	MW-23 DUP-040809 2009-04-08 MW-23_04082009WG
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l			0.97 J							1.9 J
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l										
Cobalt	T	11	ug/l										
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l										
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l										
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l	1.1 J									1.1 J
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l										
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l										

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-23 DUP-092408 2008-09-24 MW-23_09242008WG	MW-23 MW-23 2008-04-29	MW-23 MW-23 2008-09-24	MW-23 MW-23 2009-04-08	MW-23 _110-130_12 2007-12-14	MW-23 3_71-91_121 2007-12-14	MW-23 MW-23_95-115_12142007 2007-12-14	MW-24 MW-24 2008-04-29	MW-24 MW-24 2008-09-23	MW-24 MW-24 2009-04-09
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l			1.9 J	1.6 J				0.86 J		
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l						1250 1250	2000 2000			
Cobalt	T	11	ug/l										
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l										
Manganese	T	880	ug/l										
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l										
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l		1 J	1.1 J	1.1 J				1.3 J		
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l										
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l										

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-24/30	MW-24/30	MW-24/30	MW-24/30	MW-24/30	MW-24/30	MW-24/30	MW-25	MW-25	MW-25	MW-25	MW-25	
				Sample Name:	W-30-24_122-137_1218200	24_171-186_1	24_18-33_12	24_44-59_12	24_76-91_12	24_95-110_1		MW-25	MW-25	MW-25	MW-25	MW-25	
				Sample Date:	2007-12-18	2007-12-18	2007-12-19	2007-12-19	2007-12-18	2007-12-18		2008-05-02	2008-09-29	2009-04-14	2007-11-20	2007-11-12	
				Parent:													
Total Metals																	
Aluminum	T	37000	ug/l														
Antimony	T	15	ug/l														
Arsenic	T	0.045	ug/l														
Barium	T	7300	ug/l														
Cadmium	T	18	ug/l														
Chromium VI	T	110	ug/l											150			
Cobalt	T	11	ug/l														
Copper	T	1500	ug/l														
Cyanide (total)	T	730	ug/l														
Iron	T	26000	ug/l														
Manganese	T	880	ug/l														
Mercury	T	0.57	ug/l														
Nickel	T	730	ug/l														
Thallium	T	2.4	ug/l														
Vanadium	T	260	ug/l														
Dissolved Metals																	
Antimony	D	15	ug/l														
Arsenic	D	0.045	ug/l														
Barium	D	7300	ug/l														
Cadmium	D	18	ug/l														
Chromium VI	D	110	ug/l														
Cobalt	D	11	ug/l														
Copper	D	1500	ug/l														
Iron	D	26000	ug/l														
Manganese	D	880	ug/l														
Mercury	D	0.57	ug/l														
Nickel	D	730	ug/l														
Thallium	D	2.4	ug/l														

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-26 MW-26 2008-05-02	MW-26 MW-26 2008-09-29	MW-26 MW-26 2009-04-14	MW-26/27 5-27_0-12_11 2007-11-05	MW-26/27 5-27_0-52_117 2007-11-05	MW-26/27 7_102.5-110 2007-11-29	MW-26/27 7_122.5-130 2007-11-29	MW-26/27 27_58-63_1 2007-11-05	MW-26/27 27_68-73_11 2007-11-05	MW-26/27 27_82.5-90_1 2007-12-03	MW-26/27 27_92-99.5_1 2007-12-03	MW-27 MW-27 2008-05-01	MW-27 MW-27 2008-09-25	MW-27 MW-27 2009-04-09	MW-28 MW-28 2008-05-01	MW-28 MW-28 2008-09-25	MW-28 MW-28 2009-04-09	
Total Metals																					
Aluminum	T	37000	ug/l																		
Antimony	T	15	ug/l																		
Arsenic	T	0.045	ug/l			0.95 J															
Barium	T	7300	ug/l																		
Cadmium	T	18	ug/l																		
Chromium VI	T	110	ug/l	4600	13600	9700	23000	14000			8000	9000	230								
							770	12000			7000	8000	210								
Cobalt	T	11	ug/l																		
Copper	T	1500	ug/l																		
Cyanide (total)	T	730	ug/l																		
Iron	T	26000	ug/l																		
Manganese	T	880	ug/l																		
Mercury	T	0.57	ug/l																		
Nickel	T	730	ug/l																		
Thallium	T	2.4	ug/l																		
Vanadium	T	260	ug/l																		
Dissolved Metals																					
Antimony	D	15	ug/l																		
Arsenic	D	0.045	ug/l		1.4 J																
Barium	D	7300	ug/l																		
Cadmium	D	18	ug/l																		
Chromium VI	D	110	ug/l																		
Cobalt	D	11	ug/l																		
Copper	D	1500	ug/l																		
Iron	D	26000	ug/l																		
Manganese	D	880	ug/l																		
Mercury	D	0.57	ug/l																		
Nickel	D	730	ug/l																		
Thallium	D	2.4	ug/l																		

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-28/29	MW-28/29	MW-28/29	MW-28/29	MW-28/29	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31/32/33	MW-31/32/33	MW-31/32/33	MW-31/32/33	MW-31/32/33	
				Sample Name:	29_18-38_12	29_42-62_12	29_66-76_12	29_84-94_12	29_98-118_1	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	32-33_0-50_1	33_114-135_7	2-33_51-66_2	2-33_75-90_2	2-33_91-106_2	
				Sample Date:	2007-12-13	2007-12-13	2007-12-16	2007-12-13	2007-12-13	2008-05-01	2008-09-24	2009-04-09	2008-04-29	2008-09-23	2009-04-07	2008-05-02	2008-09-26	2009-04-13	2007-12-27	2007-12-27	2007-12-28	2007-12-28	2007-12-28	
				Parent:																				
Total Metals																								
Aluminum	T	37000	ug/l																					
Antimony	T	15	ug/l																					
Arsenic	T	0.045	ug/l										1.9 J	1.8 J	2.1									
Barium	T	7300	ug/l																					
Cadmium	T	18	ug/l																					
Chromium VI	T	110	ug/l													250		190		2000	470	610	600	
																				1000	470	600	590	
Cobalt	T	11	ug/l																					
Copper	T	1500	ug/l																					
Cyanide (total)	T	730	ug/l																					
Iron	T	26000	ug/l																					
Manganese	T	880	ug/l																					
Mercury	T	0.57	ug/l																					
Nickel	T	730	ug/l																					
Thallium	T	2.4	ug/l																					
Vanadium	T	260	ug/l																					
Dissolved Metals																								
Antimony	D	15	ug/l																					
Arsenic	D	0.045	ug/l										2.3	1.8 J	1.6 J			0.96 J						
Barium	D	7300	ug/l																					
Cadmium	D	18	ug/l																					
Chromium VI	D	110	ug/l																					
Cobalt	D	11	ug/l																					
Copper	D	1500	ug/l																					
Iron	D	26000	ug/l																					
Manganese	D	880	ug/l																					
Mercury	D	0.57	ug/l																					
Nickel	D	730	ug/l																					
Thallium	D	2.4	ug/l																					

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-31/32/33	MW-31/32/33	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-34	MW-35	MW-35	MW-35	MW-35	MW-35	MW-36	MW-36	MW-36	
				Sample Name:	W313233-17	W313233-20	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-34	MW-35	MW-35 (40-50)	MW-35(50-60)	MW-35(60-70)	MW-35(82-92)	MW-36	MW-36	MW-36	
				Sample Date:	2008-04-03	2008-04-03	2008-05-02	2008-09-29	2009-04-13	2008-05-02	2008-09-26	2009-04-13	2008-04-30	2008-09-24	2009-04-09	2009-04-08	2009-01-27	2009-01-26	2009-01-23	2009-01-23	2008-05-01	2008-09-30	2009-04-13	
				Parent:																				
Total Metals																								
Aluminum	T	37000	ug/l																					
Antimony	T	15	ug/l																					
Arsenic	T	0.045	ug/l																					
Barium	T	7300	ug/l																					
Cadmium	T	18	ug/l																					
Chromium VI	T	110	ug/l				680	660	720	470	330	440	180		160						4400	2600	1900	
Cobalt	T	11	ug/l																					
Copper	T	1500	ug/l																					
Cyanide (total)	T	730	ug/l																					
Iron	T	26000	ug/l																					
Manganese	T	880	ug/l																					
Mercury	T	0.57	ug/l																					
Nickel	T	730	ug/l																					
Thallium	T	2.4	ug/l																					
Vanadium	T	260	ug/l																					
Dissolved Metals																								
Antimony	D	15	ug/l																					
Arsenic	D	0.045	ug/l				1.3 J																	
Barium	D	7300	ug/l																					
Cadmium	D	18	ug/l																					
Chromium VI	D	110	ug/l																					
Cobalt	D	11	ug/l																					
Copper	D	1500	ug/l																					
Iron	D	26000	ug/l																					
Manganese	D	880	ug/l																					
Mercury	D	0.57	ug/l																					
Nickel	D	730	ug/l																					
Thallium	D	2.4	ug/l																					

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38	MW-39	MW-39	MW-39	MW-40A	MW-40A	MW-40A	MW-40B	MW-40B	MW-40B	MW-40B	MW-41	MW-41	MW-41	
				Sample Name:	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38	MW-39	MW-39	MW-39	MW-40A	MW-40A	MW-40A	DUP-092608	MW-40B	MW-40B	MW-40B	MW-40B	MW-41	MW-41	MW-41
				Sample Date:	2008-04-25	2008-09-25	2009-04-10	2008-04-30	2008-09-25	2009-04-10	2008-04-24	2008-09-29	2009-04-13	2008-05-01	2008-09-29	2009-04-14	2008-09-26	2008-05-01	2008-09-26	2009-04-14	2008-04-29	2008-09-29	2009-04-10	
				Parent:	MW-40B_09262008WG																			
Total Metals																								
Aluminum	T	37000	ug/l																					
Antimony	T	15	ug/l																					
Arsenic	T	0.045	ug/l																					
Barium	T	7300	ug/l																					
Cadmium	T	18	ug/l																					
Chromium VI	T	110	ug/l	160	200	220	410	780	480	6300	4000	5300	7300	4300	560	140	1500	1900	960	4000	530			
Cobalt	T	11	ug/l										95.1	43.1										
Copper	T	1500	ug/l																					
Cyanide (total)	T	730	ug/l																					
Iron	T	26000	ug/l																					
Manganese	T	880	ug/l																					
Mercury	T	0.57	ug/l																					
Nickel	T	730	ug/l																					
Thallium	T	2.4	ug/l																					
Vanadium	T	260	ug/l																					
Dissolved Metals																								
Antimony	D	15	ug/l																					
Arsenic	D	0.045	ug/l					1.2 J	0.77 J												0.86 J			
Barium	D	7300	ug/l																					
Cadmium	D	18	ug/l																					
Chromium VI	D	110	ug/l																					
Cobalt	D	11	ug/l										94.8	45.8										
Copper	D	1500	ug/l																					
Iron	D	26000	ug/l																					
Manganese	D	880	ug/l																					
Mercury	D	0.57	ug/l																					
Nickel	D	730	ug/l																					
Thallium	D	2.4	ug/l																					

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-42	MW-42	MW-42	MW-42	MW-42	MW-43	MW-43	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46	MW-46	MW-46	MW-47
				Sample Name:	MW-42	MW-42	MW-42	MW42-167	MW42-177	MW-43	MW-43	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46	MW-46	MW-46	MW-47
				Sample Date:	2008-04-30	2008-09-23	2009-04-08	2008-03-31	2008-03-31	2008-04-24	2008-04-25	2008-09-30	2009-04-15	2008-05-01	2008-09-29	2009-04-13	2008-05-05	2008-09-26	2009-04-14	2008-04-28	2008-09-25	2009-04-09	2008-04-30
				Parent:	MW-43_04242008WG																		
Total Metals																							
Aluminum	T	37000	ug/l																				
Antimony	T	15	ug/l																				
Arsenic	T	0.045	ug/l																				
Barium	T	7300	ug/l																				
Cadmium	T	18	ug/l																				
Chromium VI	T	110	ug/l								1200	3300	4600	2400	1900	1400	1500	4600	6500				
Cobalt	T	11	ug/l														15	50.3	161				
Copper	T	1500	ug/l																				
Cyanide (total)	T	730	ug/l																				
Iron	T	26000	ug/l																				
Manganese	T	880	ug/l																				
Mercury	T	0.57	ug/l																				
Nickel	T	730	ug/l																				
Thallium	T	2.4	ug/l						7.9 B														
Vanadium	T	260	ug/l																				
Dissolved Metals																							
Antimony	D	15	ug/l																				
Arsenic	D	0.045	ug/l														0.89 J		1.1 J	0.81 J			
Barium	D	7300	ug/l																				
Cadmium	D	18	ug/l																				
Chromium VI	D	110	ug/l																				
Cobalt	D	11	ug/l														14.1	49.4	158				
Copper	D	1500	ug/l																				
Iron	D	26000	ug/l																				
Manganese	D	880	ug/l																				
Mercury	D	0.57	ug/l																				
Nickel	D	730	ug/l																				
Thallium	D	2.4	ug/l																				

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-47	MW-47	MW-48	MW-48
				Sample Name:	MW-47	MW-47	MW-48	MW-48
				Sample Date:	2008-09-23	2009-04-09	2008-05-02	2008-09-23
				Parent:				
Total Metals								
Aluminum	T	37000	ug/l					
Antimony	T	15	ug/l					
Arsenic	T	0.045	ug/l			0.83 J		
Barium	T	7300	ug/l					
Cadmium	T	18	ug/l					
Chromium VI	T	110	ug/l					
Cobalt	T	11	ug/l					
Copper	T	1500	ug/l					
Cyanide (total)	T	730	ug/l					
Iron	T	26000	ug/l					
Manganese	T	880	ug/l					
Mercury	T	0.57	ug/l					
Nickel	T	730	ug/l					
Thallium	T	2.4	ug/l					
Vanadium	T	260	ug/l					
Dissolved Metals								
Antimony	D	15	ug/l					
Arsenic	D	0.045	ug/l			0.82 J		
Barium	D	7300	ug/l					
Cadmium	D	18	ug/l					
Chromium VI	D	110	ug/l					
Cobalt	D	11	ug/l					
Copper	D	1500	ug/l					
Iron	D	26000	ug/l					
Manganese	D	880	ug/l					
Mercury	D	0.57	ug/l					
Nickel	D	730	ug/l					
Thallium	D	2.4	ug/l					

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	MW-48	MW-49	MW-49	MW-49	MW-49	MW-49	MW-49	MW-49	MW-49	MW-51	MW-52	MW-52	MW-52
				Sample Name:	MW-48	MW-49	MW-49 (40-50)	MW-49 (50-60)	MW-49 (60-70)	MW-49(70-80)	MW-49(80-90)	MW-49(90-100)	MW-51	DUP-021009	MW-50/51/52 (105-115)	MW-50/51/52 (115-125)	
				Sample Date:	2009-04-08	2009-04-07	2009-01-30	2009-01-30	2009-01-30	2009-01-29	2009-01-29	2009-01-29	2009-04-10	2009-02-10	2009-02-12	2009-02-11	
				Parent:										MW-50/51/52/(200-212)-1025			
Total Metals																	
Aluminum	T	37000	ug/l														
Antimony	T	15	ug/l														
Arsenic	T	0.045	ug/l														
Barium	T	7300	ug/l														
Cadmium	T	18	ug/l														
Chromium VI	T	110	ug/l														
Cobalt	T	11	ug/l														
Copper	T	1500	ug/l														
Cyanide (total)	T	730	ug/l														
Iron	T	26000	ug/l														
Manganese	T	880	ug/l			2160											
Mercury	T	0.57	ug/l														
Nickel	T	730	ug/l														
Thallium	T	2.4	ug/l														
Vanadium	T	260	ug/l														
Dissolved Metals																	
Antimony	D	15	ug/l														
Arsenic	D	0.045	ug/l														
Barium	D	7300	ug/l														
Cadmium	D	18	ug/l														
Chromium VI	D	110	ug/l														
Cobalt	D	11	ug/l														
Copper	D	1500	ug/l														
Iron	D	26000	ug/l														
Manganese	D	880	ug/l			2070											
Mercury	D	0.57	ug/l														
Nickel	D	730	ug/l														
Thallium	D	2.4	ug/l														

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-53	MW-54	OSW-BW13
				MW-50/51/52 (130-140)	MW-50/51/52 (148-158)	MW-50/51/52 (171-181)	MW-50/51/52 (55-65)	MW-50/51/52 (77-87)	MW-50/51/52(184-195)	MW-50/51/52/(200-212)	MW-52	MW-53	MW-54	MSW-13_102-117_11102007
				2009-02-11	2009-02-11	2009-02-11	2009-02-12	2009-02-12	2009-02-10	2009-02-10	2009-04-10	2009-04-08	2009-04-07	2007-11-10
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l								1.6 J		4.2	
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l											
Cobalt	T	11	ug/l											
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l											
Manganese	T	880	ug/l								1360			
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l											
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l											
Cobalt	D	11	ug/l											
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l								1360			
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				OSW-BW13 MSW-13_121-136_11102007 2007-11-10	OSW-BW13 MSW-13_141-156_11092007 2007-11-09	OSW-BW13 MSW-13_172-187_11092007 2007-11-09	OSW-BW13 MSW-13_190-205_11092007 2007-11-09	OSW-BW13 MSW-13_210-225_11092007 2007-11-09	OSW-BW13 MSW-13_248-263_11082007 2007-11-08	OSW-BW13 MSW-13_273-288_11082007 2007-11-08
Total Metals										
Aluminum	T	37000	ug/l							
Antimony	T	15	ug/l							
Arsenic	T	0.045	ug/l							
Barium	T	7300	ug/l							
Cadmium	T	18	ug/l							
Chromium VI	T	110	ug/l							
Cobalt	T	11	ug/l							
Copper	T	1500	ug/l							
Cyanide (total)	T	730	ug/l							
Iron	T	26000	ug/l							
Manganese	T	880	ug/l							
Mercury	T	0.57	ug/l							
Nickel	T	730	ug/l							
Thallium	T	2.4	ug/l							
Vanadium	T	260	ug/l							
Dissolved Metals										
Antimony	D	15	ug/l							
Arsenic	D	0.045	ug/l							
Barium	D	7300	ug/l							
Cadmium	D	18	ug/l							
Chromium VI	D	110	ug/l							
Cobalt	D	11	ug/l							
Copper	D	1500	ug/l							
Iron	D	26000	ug/l							
Manganese	D	880	ug/l							
Mercury	D	0.57	ug/l							
Nickel	D	730	ug/l							
Thallium	D	2.4	ug/l							

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				OSW-BW13 MSW-13_305-320_11082007 2007-11-08	OSW-BW13 MSW-13_323-338_11072007 2007-11-07	OSW-BW13 MSW-13_340-355_11072007 2007-11-07	OSW-BW13 MSW-13_360-375_11072007 2007-11-07	OSW-BW13 MSW-13_65-80_11102007 2007-11-10	OSW-BW13 MSW-13_84-99_11102007 2007-11-10	OSW-BW13 OSW-BW13-01 2000-03-02	OSW-QC OSW-QC-01 2000-03-03	OSW-RH OSW-RH-01 2000-03-02
Total Metals												
Aluminum	T	37000	ug/l									
Antimony	T	15	ug/l									
Arsenic	T	0.045	ug/l									
Barium	T	7300	ug/l									
Cadmium	T	18	ug/l									
Chromium VI	T	110	ug/l									
Cobalt	T	11	ug/l									
Copper	T	1500	ug/l									
Cyanide (total)	T	730	ug/l									
Iron	T	26000	ug/l									
Manganese	T	880	ug/l									
Mercury	T	0.57	ug/l									
Nickel	T	730	ug/l									
Thallium	T	2.4	ug/l									
Vanadium	T	260	ug/l									
Dissolved Metals												
Antimony	D	15	ug/l									
Arsenic	D	0.045	ug/l									
Barium	D	7300	ug/l									
Cadmium	D	18	ug/l									
Chromium VI	D	110	ug/l									
Cobalt	D	11	ug/l									
Copper	D	1500	ug/l									
Iron	D	26000	ug/l									
Manganese	D	880	ug/l									
Mercury	D	0.57	ug/l									
Nickel	D	730	ug/l									
Thallium	D	2.4	ug/l									

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				OSW-RH OSW-RH-2-01 2000-03-02 OSW-RH-01_03022000WG	OSW-TH OSW-TH-01 2000-03-02	OW-01 OW-1 2008-05-02	OW-01 OW-1 2008-09-30	OW-01 OW-1 2009-04-15	OW-02 OW-2 2008-10-02	OW-02 OW-2 2009-04-08	OW-03 OW-3 2008-10-02	OW-04 OW-4 2008-10-02	OW-04 OW-4 2009-04-08	OW-05 OW-5 2008-10-02	OW-05 OW-5 2009-04-15	OW-06 OW-6 2008-10-01	OW-06 OW-6 2009-04-15	OW-07 OW-7 2008-10-01	OW-07 OW-7 2009-04-14	OW-08 OW-8 2008-10-02	OW-08 OW-8 2009-04-07	
Total Metals																						
Aluminum	T	37000	ug/l																			
Antimony	T	15	ug/l																			
Arsenic	T	0.045	ug/l											1.2 J		4.7	1.2 J		1.2 J	2 J		
Barium	T	7300	ug/l																			
Cadmium	T	18	ug/l																			
Chromium VI	T	110	ug/l			14600	16400	12500						34500	58100	12000	8700	46100	40000			
Cobalt	T	11	ug/l																15.1	14.7	54.9	
Copper	T	1500	ug/l																			
Cyanide (total)	T	730	ug/l																			
Iron	T	26000	ug/l																			
Manganese	T	880	ug/l				1210				1540									2390	4670	
Mercury	T	0.57	ug/l																			
Nickel	T	730	ug/l																			
Thallium	T	2.4	ug/l																			
Vanadium	T	260	ug/l																			
Dissolved Metals																						
Antimony	D	15	ug/l																			
Arsenic	D	0.045	ug/l						1 J		1.3 J					3.5	1.8 J		1.1 J			
Barium	D	7300	ug/l																			
Cadmium	D	18	ug/l																			
Chromium VI	D	110	ug/l																			
Cobalt	D	11	ug/l												18.4						53.5	
Copper	D	1500	ug/l																			
Iron	D	26000	ug/l																			
Manganese	D	880	ug/l								1610									2340	4730	
Mercury	D	0.57	ug/l																			
Nickel	D	730	ug/l																			
Thallium	D	2.4	ug/l																			

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				OW-09 OW-9 2008-10-06	OW-09 OW-9 2009-04-07	RW-01 RW-01 2006-04-28	RW-01 RW-01_107-112_12132007 2007-12-13	RW-01 RW-01_122-127_12132007 2007-12-13	RW-01 RW-01_130-150_12132007 2007-12-13	RW-01 RW-01_45-61_12132007 2007-12-13	RW-01 RW-01_68-73_12132007 2007-12-13	RW-01 RW-01_76-81_12132007 2007-12-13	RW-01 RW-01_83-103_12132007 2007-12-13	RW-01 RW-01-01 2004-08-20	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l												
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l												
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l		2470										
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l												
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l		4630										
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-01 RW01-D 2006-10-18	RW-01 RW-01H-01 2004-08-20 RW-01-01_08202004WG	RW-01 RW01-S 2006-10-18	RW-02 DUP-02 2006-10-18 RW-02D_10182006WG	RW-02 RW-02 2006-04-28	RW-02 RW-02_106-116_12112007 2007-12-11	RW-02 RW-02_120-130_12112007 2007-12-11	RW-02 RW-02_132-142_12102007 2007-12-10	RW-02 RW-02_18-38_12122007 2007-12-12	RW-02 RW-02_42-62_12122007 2007-12-12
Total Metals													
Aluminum	T	37000	ug/l										
Antimony	T	15	ug/l										
Arsenic	T	0.045	ug/l				4.9						
Barium	T	7300	ug/l										
Cadmium	T	18	ug/l										
Chromium VI	T	110	ug/l										
Cobalt	T	11	ug/l										
Copper	T	1500	ug/l										
Cyanide (total)	T	730	ug/l										
Iron	T	26000	ug/l				111000						
Manganese	T	880	ug/l										
Mercury	T	0.57	ug/l										
Nickel	T	730	ug/l										
Thallium	T	2.4	ug/l										
Vanadium	T	260	ug/l										
Dissolved Metals													
Antimony	D	15	ug/l										
Arsenic	D	0.045	ug/l	0.97 J			0.72 J						
Barium	D	7300	ug/l										
Cadmium	D	18	ug/l										
Chromium VI	D	110	ug/l										
Cobalt	D	11	ug/l										
Copper	D	1500	ug/l										
Iron	D	26000	ug/l										
Manganese	D	880	ug/l										
Mercury	D	0.57	ug/l										
Nickel	D	730	ug/l										
Thallium	D	2.4	ug/l										

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-03	RW-03	RW-03	RW-03	RW-03	RW-03
				RW-02_64-84_12122007	RW-02_76-96_12112007	RW-02-01	RW-02D	RW-02S	RW-03	RW-03_108-118_11262007	RW-03_123-138_11262007	RW-03_140-150_11262007	RW-03_40-50_11212007	RW-03_52-67_11262007	
				2007-12-12	2007-12-11	2004-08-10	2006-10-18	2006-10-18	2006-04-28	2007-11-26	2007-11-26	2007-11-26	2007-11-21	2007-11-26	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l						2						
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l												
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l			5.1 J									
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

				Location:	RW-03	RW-03	RW-03	RW-04	RW-04	RW-04	RW-04	RW-04	RW-04	RW-04	RW-04	RW-05	RW-05
				Sample Name:	RW-03-01	RW-03D	RW-03S	RW-04	RW-04_0-52_12142007	RW-04_134-144_12132007	RW-04_66-76_12142007	RW-04_94-104_12132007	RW-04-01	RW-04D	RW-04S	RW-05	RW-05_0-52_12042007
				Sample Date:	2004-08-10	2006-10-19	2006-10-19	2006-04-27	2007-12-14	2007-12-03	2007-12-14	2007-12-13	2004-08-11	2006-10-17	2006-10-17	2006-04-27	2007-12-04
				Parent:													
Total Metals																	
Aluminum	T	37000	ug/l														
Antimony	T	15	ug/l														
Arsenic	T	0.045	ug/l				0.78 J							2.1	1.2 J	1 J	
Barium	T	7300	ug/l														
Cadmium	T	18	ug/l														
Chromium VI	T	110	ug/l									1000				680	
Cobalt	T	11	ug/l														
Copper	T	1500	ug/l														
Cyanide (total)	T	730	ug/l														
Iron	T	26000	ug/l		29900		33000										
Manganese	T	880	ug/l														
Mercury	T	0.57	ug/l														
Nickel	T	730	ug/l														
Thallium	T	2.4	ug/l														
Vanadium	T	260	ug/l														
Dissolved Metals																	
Antimony	D	15	ug/l														
Arsenic	D	0.045	ug/l											0.9 J			
Barium	D	7300	ug/l														
Cadmium	D	18	ug/l														
Chromium VI	D	110	ug/l														
Cobalt	D	11	ug/l														
Copper	D	1500	ug/l														
Iron	D	26000	ug/l														
Manganese	D	880	ug/l														
Mercury	D	0.57	ug/l														
Nickel	D	730	ug/l														
Thallium	D	2.4	ug/l														

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-05	RW-05	RW-05	RW-05	RW-05	RW-05	RW-05	RW-05	RW-05	RW-06	RW-06	RW-06	
				RW-05_124-134_11292007 2007-11-29	RW-05_21-40_11302007 2007-11-30	RW-05_58-68_11292007 2007-11-29	RW-05_66-76_12042007 2007-12-04	RW-05_94-104_12032007 2007-12-03	RW-05-01 2004-08-12	RW-05D 2006-10-23	RW-05S 2006-10-23	RW-06 2006-04-26	RW-06_120-130_11192007 2007-11-19	RW-06_130-140_11192007 2007-11-19		
Total Metals																
Aluminum	T	37000	ug/l													
Antimony	T	15	ug/l													
Arsenic	T	0.045	ug/l													
Barium	T	7300	ug/l													
Cadmium	T	18	ug/l													
Chromium VI	T	110	ug/l	480 480	9000 9000	4000 3000		3000 1000	4200	260	240	3400	3000 3000	13000 12000		
Cobalt	T	11	ug/l						11.8							
Copper	T	1500	ug/l													
Cyanide (total)	T	730	ug/l													
Iron	T	26000	ug/l													
Manganese	T	880	ug/l													
Mercury	T	0.57	ug/l													
Nickel	T	730	ug/l													
Thallium	T	2.4	ug/l													
Vanadium	T	260	ug/l													
Dissolved Metals																
Antimony	D	15	ug/l													
Arsenic	D	0.045	ug/l													
Barium	D	7300	ug/l													
Cadmium	D	18	ug/l													
Chromium VI	D	110	ug/l													
Cobalt	D	11	ug/l						17.8							
Copper	D	1500	ug/l													
Iron	D	26000	ug/l													
Manganese	D	880	ug/l													
Mercury	D	0.57	ug/l													
Nickel	D	730	ug/l													
Thallium	D	2.4	ug/l													

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-06	RW-06	RW-06	RW-06	RW-06	RW-06	RW-06	RW-07	RW-07	RW-07	RW-07	
				RW-06_140-150_11182007 2007-11-18	RW-06_44-54_11202007 2007-11-20	RW-06_55-65_11202007 2007-11-20	RW-06_94-106_11192007 2007-11-19	RW-06-01 2004-08-20	RW-06D 2006-10-19	RW-06S 2006-10-19	RW-07 2006-04-27	RW-07_0-50_11282007 2007-11-28	RW-07_100-110_11272007 2007-11-27	RW-07_129-139_11272007 2007-11-27	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l								1.4 J				
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l	24000 24000	3000 110	4000 2500	4000 4000	390	3800	3300			300 300	210 180	
Cobalt	T	11	ug/l												
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l								31900				
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l												
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-07	RW-07	RW-07	RW-07	RW-07	RW-07	RW-08	RW-08	RW-08	RW-08	RW-08
				RW-07_54.5-64.5_11282007 2007-11-28	RW-07_88-96.1_11282007 2007-11-28	RW-07-01 2004-08-11	RW-07D 2006-10-17	RW-07S 2006-10-17	RW-08 2006-04-26	RW-08_104-114_11132007 2007-11-13	RW-08_111-121_11132007 2007-11-13	RW-08_126-136_11132007 2007-11-13	RW-08_138-150_11132007 2007-11-13	
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l				1.3 J	0.86 J						
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l	420 420	680 670		180	150	1000	3750 3250 3500 3500	660	4000 4000	2500 2000	
Cobalt	T	11	ug/l											
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l											
Manganese	T	880	ug/l											
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l				0.73 J	0.97 J						
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l											
Cobalt	D	11	ug/l											
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l											
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-08	RW-08	RW-08	RW-08	RW-08	RW-08	RW-08	RW-09	RW-09	RW-09	RW-09
				RW-08_40-50_11142007 2007-11-14	RW-08_53-63_11142007 2007-11-14	RW-08_68-83_11142007 2007-11-14	RW-08-01 2004-08-19	RW-08D 2006-10-23	RW-08S 2006-10-23	RW-09_110-120_11082007 2007-11-08	RW-09_124-134_11082007 2007-11-08	RW-09_37-47_11092007 2007-11-09	RW-09_56-66_11092007 2007-11-09	
Total Metals														
Aluminum	T	37000	ug/l											
Antimony	T	15	ug/l											
Arsenic	T	0.045	ug/l											
Barium	T	7300	ug/l											
Cadmium	T	18	ug/l											
Chromium VI	T	110	ug/l	2250 2000	2750 2500	2750 2750		980	1900	360 350		1500 1300	150 150	
Cobalt	T	11	ug/l											
Copper	T	1500	ug/l											
Cyanide (total)	T	730	ug/l											
Iron	T	26000	ug/l				40900							
Manganese	T	880	ug/l											
Mercury	T	0.57	ug/l											
Nickel	T	730	ug/l											
Thallium	T	2.4	ug/l											
Vanadium	T	260	ug/l											
Dissolved Metals														
Antimony	D	15	ug/l											
Arsenic	D	0.045	ug/l											
Barium	D	7300	ug/l											
Cadmium	D	18	ug/l											
Chromium VI	D	110	ug/l											
Cobalt	D	11	ug/l											
Copper	D	1500	ug/l											
Iron	D	26000	ug/l											
Manganese	D	880	ug/l											
Mercury	D	0.57	ug/l											
Nickel	D	730	ug/l											
Thallium	D	2.4	ug/l											

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-09	RW-09	RW-09	RW-09	RW-09	RW-10	RW-10	RW-10	RW-10	RW-10	RW-10	
				RW-09_76-86_11082007 2007-11-08	RW-09-01 2004-08-16	RW-09D 2006-10-19	RW-09S 2006-10-19	RW-9 2006-04-27	RW-10 2006-04-27	RW-10_0-37_12072007 2007-12-07	RW-10_129-134_12062007 2007-12-06	RW-10_42-47_12102007 2007-12-10	RW-10_54-59_12072007 2007-12-07	RW-10_63-68_12072007 2007-12-07	
Total Metals															
Aluminum	T	37000	ug/l												
Antimony	T	15	ug/l												
Arsenic	T	0.045	ug/l					0.82 J							
Barium	T	7300	ug/l												
Cadmium	T	18	ug/l												
Chromium VI	T	110	ug/l	120 120					320	3000 3000	260 240	13000 5000	8000 3000	3000 3000	
Cobalt	T	11	ug/l						58.4						
Copper	T	1500	ug/l												
Cyanide (total)	T	730	ug/l												
Iron	T	26000	ug/l												
Manganese	T	880	ug/l												
Mercury	T	0.57	ug/l												
Nickel	T	730	ug/l												
Thallium	T	2.4	ug/l												
Vanadium	T	260	ug/l												
Dissolved Metals															
Antimony	D	15	ug/l												
Arsenic	D	0.045	ug/l			0.92 J									
Barium	D	7300	ug/l												
Cadmium	D	18	ug/l												
Chromium VI	D	110	ug/l												
Cobalt	D	11	ug/l												
Copper	D	1500	ug/l												
Iron	D	26000	ug/l												
Manganese	D	880	ug/l												
Mercury	D	0.57	ug/l												
Nickel	D	730	ug/l												
Thallium	D	2.4	ug/l												

Table 1b: Groundwater RSL Exceedences for Total Metals and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				RW-10	RW-10	RW-10	RW-10	RW-10	SB-04	SB-04	SB-05	SB-05	SB-13	SB-13	SB-34	SB-39
				RW-10_72-77_12072007	RW-10_84-89_12062007	RW-10-01	RW-10D	RW-10S	GW-01-01	GW-01A-01	GW-02-01	GW-02A-01	GW-03-01	GW-03A-01	GW-04-01	GW-05-01
				2007-12-07	2007-12-06	2004-08-16	2006-10-20	2006-10-20	2000-01-04	2000-01-11	2000-01-05	2000-01-11	2000-01-06	2000-01-11	2000-01-13	2000-01-13
Total Metals																
Aluminum	T	37000	ug/l						380000		238000		354000			
Antimony	T	15	ug/l						161		427		406			
Arsenic	T	0.045	ug/l								10					
Barium	T	7300	ug/l													
Cadmium	T	18	ug/l													
Chromium VI	T	110	ug/l	13000 7000	1000 1000		170	10600								
Cobalt	T	11	ug/l					44.1	512		1040		620			
Copper	T	1500	ug/l								5600					
Cyanide (total)	T	730	ug/l						3420		26600		26200		945	
Iron	T	26000	ug/l						418000		276000		411000			
Manganese	T	880	ug/l						7350		5830		13400		1590	
Mercury	T	0.57	ug/l						1.1		0.9		1			
Nickel	T	730	ug/l						1100		2670		1410			
Thallium	T	2.4	ug/l													
Vanadium	T	260	ug/l						558		333		502			
Dissolved Metals																
Antimony	D	15	ug/l									148		241		
Arsenic	D	0.045	ug/l				1.1 J									
Barium	D	7300	ug/l													
Cadmium	D	18	ug/l													
Chromium VI	D	110	ug/l													
Cobalt	D	11	ug/l					43.2	13.2		371		199			
Copper	D	1500	ug/l													
Iron	D	26000	ug/l													
Manganese	D	880	ug/l						1440		5740		3460			
Mercury	D	0.57	ug/l													
Nickel	D	730	ug/l								865					
Thallium	D	2.4	ug/l													

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	B-01	B-01	B-02	B-02	B-03	B-03	B-04	B-04	B-05	B-05	B-06	B-06	B-07	B-07	B-08
						Sample Name:	B-01-01N	B-01-02N	B-02-01N	B-02-02N	B-03-01N	B-03-02N	B-04-01N	B-04-02N	B-05-01N	B-05-02N	B-06-01N	B-06-02N	B-07-01N	B-07-02N	B-08-01N
						Sample Date:	2001-05-02	2001-05-02	2001-05-02	2001-05-02	2001-05-03	2001-05-03	2001-05-02	2001-05-02	2001-05-03	2001-05-03	2001-05-02	2001-05-02	2001-05-02	2001-05-02	2001-05-02
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SB	SB
						Parent:															B-08
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg					<u>11000</u>	<u>5100 J</u>										
1,2,4-Trichlorobenzene			100		ug/kg						<u>99 J</u>										
1,2-Dichloroethene			300		ug/kg					<u>4500 J</u>		<u>2300</u>	<u>7200</u>		<u>600</u>	<u>990 J</u>					
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg					<u>28000</u>	<u>35000</u>		<u>7300</u>		<u>140 J</u>	<u>2800</u>	<u>18000 J</u>				
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg	<u>21000</u>				<u>190000</u>	<u>110000</u>		<u>3900</u>		<u>680</u>	<u>300 J</u>					
Toluene			100		ug/kg					<u>20000</u>	<u>2800 J</u>										
Trichloroethene	2800	14000	300		ug/kg					<u>130000</u>	<u>120000</u>	<u>2500</u>	<u>140000</u>			<u>44000</u>	<u>4000000</u>				<u>960</u>
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg					<u>160000</u>	<u>190000</u>	<u>730 J</u>	<u>45000</u>		<u>590 J</u>	<u>29000</u>	<u>280000 J</u>				<u>510</u>
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg						<u>580</u>										
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg					<u>2600</u>	<u>300 J</u>		<u>1400</u>				<u>8300</u>				
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen
 Exceeds RSL Industrial Screen
 Exceeds RSL Residential and Industrial Screen
 Exceeds BTAG Screen
 Exceeds SSL Screen

						Location:	B-08	B-08	B-09	B-10	B-10	B-11	B-11	B-12	B-12	B-13	B-14	B-14	B-15	B-16	B-16
						Sample Name:	B-08-02N	B-08-03N	B-09-01N	B-10-01N	B-10-02N	B-11-01N	B-11-02N	B-12-01N	B-12-02N	B-13-01N	B-14-01N	B-14-02N	B-15-01N	B-16-01N	B-16-02N
						Sample Date:	2001-05-02	2001-05-02	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-03	2001-05-03	2001-05-04	2001-05-03	2001-05-03
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SB	SB	SS	SB
						Parent:	-01N_05022001SB														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg			1600	360	41000					660						
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg					900 J											
Trichloroethene	2800	14000	300		ug/kg	6400	480														260 E
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg	190	110	9800	3600	240000					4100						
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg				400												
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg											100 J					

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	B-17	B-17	B-18	B-18	B-19	B-20	B-21	B-21	B-22	B-22	B-22	B-23	B-23	B-24	B-24
						Sample Name:	B-17-01N	B-17-02N	B-18-01N	B-18-02N	B-19-01N	B-20-01N	B-21-2.2-3.2	B-21-6.1-7.1	B-22-1.9-2.9	B-22-5.7-6.7	B-22-8.0-8.9	B-23-1.5-2.5	B-23-4.4-6.4	B-24-2.7-3.7	B-24-5.3-6.3
						Sample Date:	2001-05-04	2001-05-04	2001-05-04	2001-05-04	2001-05-04	2001-05-04	2007-10-26	2007-10-26	2007-10-25	2007-10-25	2007-10-25	2007-10-26	2007-10-26	2007-10-26	2007-10-26
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg			430	1200												
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg				220 J	2500											
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg				190 J	1300											

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	B-25	B-25	B-26	B-26	B-26	B-27	B-27	B-28A	B-28A	B-28A	B-28B	B-28B	B-29	B-30	B-30
						Sample Name:	B-25-1.0-2.0	B-25-5.0-6.0	B-26-1.7-3.7	B-26-4.1-5.1	FD-102607	B-27-1.0-2.0	B-27-6.0-7.0	B-28A-1.0-2.0	B-28A-2.2-3.2	B-28A-5.0-6.0	B-28B-1.2-2.2	B-28B-12.7-13.3	B-29-5.1-6.1	B-30-2.6-3.6	B-30-6.6-7.6
						Sample Date:	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-24	2007-10-24	2007-10-24
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:	B-26-1.7-3.7_10262007SB														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	B-30	B-31	B-31	B-32	B-32	B-32	B-32	B-32	B-33	B-35	B-35	B-36	B-36	B-37	B-37
						Sample Name:	B-30-8.5-9.5	B-31-2.2-3.2	B-31-5.6-6.6	B-32-1.5-2.5	B-32-3.0-4.0	B-32-4.8-5.8	B-32-6.3-7.3	B-32-9.3-10.3	B-33-2.1-3.1	B-35-2.5-3.5	B-35-4.4-5.4	B-36-5.2-7.2	B-36-8.0-8.5	B-37-0.5-1.5	B-37-5.4-6.4
						Sample Date:	2007-10-24	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-26	2007-10-26	2007-10-25	2007-10-25	2007-10-25	2007-10-25
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB							
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg				790	2900				1200							
Ethylbenzene	5700	29000	100		ug/kg				360	8400	760	17000	4200	1800							
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg										110000		560				
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg									330	21000						
Vinyl Chloride	60				ug/kg					84 J		230 J									
Xylenes (total)			100		ug/kg				510	1700	1500	6700	6100	11000							
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	B-38	B-38	B-39	B-39	B-40	B-40	B-41	B-41	B-42	B-42	B-42	B-43	B-43	B-43	B-44
						Sample Name:	B-38-1.6-2.6	B-38-5.9-6.9	B-39-1.6-3.6	B-39-6.2-7.2	B-40-2.3-3.3	B-40-4.0-5.6	B-41-2.0-3.0	B-41-4.5-5.5	B-42-2.6-3.6	B-42-6.7-7.7	B-42-8.0-8.7	B-43-1.0-2.0	B-43-4.6-5.6	B-43-8.3-9.3	B-44-2.6-3.6
						Sample Date:	2007-10-25	2007-10-25	2007-10-26	2007-10-26	2007-10-23	2007-10-23	2007-10-24	2007-10-24	2007-10-23	2007-10-23	2007-10-23	2007-10-23	2007-10-23	2007-10-23	2007-10-24
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	B-44	B-44	B-45	B-45	B-45	B-45	B-54	B-54	B-55	B-58	B-73	B-74	B-74	B-76	B-76
						Sample Name:	B-44-6.4-7.4	B-44-8.6-9.6	B-45-12.0-12.6	B-45-2.7-3.7	B-45-6.2-7.2	B-45-9.3-10.3	B-54-5.7-6.7	FD-102307	B-55-4.0-5.0	B-58-6.5-7.5	B-73-8.0-9.0	B-74-6.5-7.5	B-74-8.0-8.7	B-76-7.0-8.0	B-76-8.0-8.3
						Sample Date:	2007-10-24	2007-10-24	2007-10-24	2007-10-24	2007-10-24	2007-10-24	2007-10-23	2007-10-23	2007-10-23	2007-10-19	2007-10-19	2007-10-19	2007-10-19	2007-10-17	2007-10-17
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:	B-54-8.0-10.0_10232007SB														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		B-89	B-93	IB-01	IB-01	IB-02	IB-02	IB-03	IB-03	IB-04	IB-04	IB-05	IB-05	IB-06	IB-06	IB-07
		Sample Name:		B-89-13.7-14.3	B-93-12.3-13.3	IB-01-01N	IB-01-02N	IB-02-01N	IB-02-02N	IB-03-01N	IB-03-02N	IB-04-01N	IB-04-02N	IB-05-01N	IB-05-02N	IB-06-01N	IB-06-02N	IB-07-01N
		Sample Date:		2007-10-17	2007-10-15	2001-09-24	2001-09-24	2001-09-24	2001-09-24	2001-09-24	2001-09-24	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg											2500		
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg											430		
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg											1400		
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg	270	320		1200							3700	440	
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg											570 J		
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg											940		
Pyrene			100		ug/kg													

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	IB-07	IB-08	IB-08	IB-09	IB-09	IB-10	IB-10	IB-11	IB-11	IB-12	IB-12	IB-12	IB-12	IB-13	IB-13
						Sample Name:	IB-07-02N	IB-08-01N	IB-08-02N	IB-09-01N	IB-09-02N	IB-10-01N	IB-10-02N	IB-11-01N	IB-11-02N	IB-12-01N	IB-12-02N	IB-16-01N	IB-16-02N	IB-13-01N	IB-13-02N
						Sample Date:	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25
						Matrix:	SB	SS	SB	SB	SB	SS	SB	SB	SB						
						Parent:	IB-12-01N_092520-02N_09252001SB														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg											270		480			
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg											610	420	960			
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg														210 J		
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		IB-14	IB-14	IB-15	IB-15	SB-01										
		Sample Name:		IB-14-01N	IB-14-02N	IB-15-01N	IB-15-02N	SB-01-01	SB-01-02	SB-01-d1	SB-01-d10	SB-01-d11	SB-01-d12	SB-01-d2	SB-01-d3	SB-01-d4	SB-01-d5	SB-01-d6
		Sample Date:		2001-09-25	2001-09-25	2001-09-25	2001-09-25	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-01	SB-01	SB-01	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-02	SB-03	SB-03
						Sample Name:	SB-01-d7	SB-01-d8	SB-01-d9	SB-02-01	SB-02-02	SB-02-d1	SB-02-d2	SB-02-d3	SB-02-d4	SB-02-d5	SB-02-d6	SB-02-d7	SB-02-d8	SB-02-d8	SB-03-01	SB-03-01	SB-03-02	SB-03-02
						Sample Date:	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																			
Volatile Organic Compounds																								
1,1,1-Trichloroethane			300		ug/kg																			
1,2,4-Trichlorobenzene			100		ug/kg																			
1,2-Dichloroethene			300		ug/kg																			
cis-1,2-Dichloroethene			300		ug/kg																			
Ethylbenzene	5700	29000	100		ug/kg																			
Methylene Chloride			300		ug/kg																			
Tetrachloroethene	570	2700	300		ug/kg																			
Toluene			100		ug/kg																			
Trichloroethene	2800	14000	300		ug/kg				528	1150														
Vinyl Chloride	60				ug/kg																			
Xylenes (total)			100		ug/kg																			
Semi-Volatile Organic Compounds																								
1,2-Dichlorobenzene			300		ug/kg																			
2,4-Dimethylphenol			100		ug/kg																			
Fluoranthene			100		ug/kg																			
Hexachlorobenzene	300	1100			ug/kg																			
Naphthalene	3900		100		ug/kg																			
Pyrene			100		ug/kg																			

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen*

		Location:		SB-03	SB-04													
		Sample Name:		SB-03-03	SB-03-d1	SB-03-d10	SB-03-d11	SB-03-d12	SB-03-d13	SB-03-d2	SB-03-d3	SB-03-d4	SB-03-d5	SB-03-d6	SB-03-d7	SB-03-d8	SB-03-d9	SB-04-01
		Sample Date:		2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04
		Matrix:		SB														
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													1710
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-04	SB-05	SB-05	SB-05											
						Sample Name:	SB-04-02	SB-04-d1	SB-04-d10	SB-04-d11	SB-04-d2	SB-04-d3	SB-04-d4	SB-04-d5	SB-04-d6	SB-04-d7	SB-04-d8	SB-04-d9	SB-05-01	SB-05-02	SB-05-d1
						Sample Date:	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-05	2000-01-05
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																569
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg														6060	1500	
Ethylbenzene	5700	29000	100		ug/kg														25000	6670	
Methylene Chloride			300		ug/kg																752 J
Tetrachloroethene	570	2700	300		ug/kg	618															38000
Toluene			100		ug/kg																1260 J
Trichloroethene	2800	14000	300		ug/kg																30100
Vinyl Chloride	60				ug/kg																573 J
Xylenes (total)			100		ug/kg																47400
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																4490
Pyrene			100		ug/kg																830

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-05	SB-06	SB-06	SB-06	SB-06										
						Sample Name:	SB-05-d10	SB-05-d11	SB-05-d12	SB-05-d2	SB-05-d3	SB-05-d4	SB-05-d5	SB-05-d6	SB-05-d7	SB-05-d8	SB-05-d9	SB-06-01	SB-06-02	SB-06-d1	SB-06-d10
						Sample Date:	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05
						Matrix:	SB	SB	SB	SB											
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg															124 J	
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg												331	1490			
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg															236	
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg															332	
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-07	SB-07	SB-07	SB-07	SB-07	SB-08									
		Sample Name:		SB-07-d5	SB-07-d6	SB-07-d7	SB-07-d8	SB-07-d9	SB-08-01	SB-08-02	SB-08-d1	SB-08-d10	SB-08-d11	SB-08-d2	SB-08-d3	SB-08-d4	SB-08-d5	SB-08-d6
		Sample Date:		2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05
		Matrix:		SB														
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-08	SB-08	SB-08	SB-09	SB-09	SB-09	SB-09	SB-09	SB-09	SB-09	SB-09
						Sample Name:	SB-08-d7	SB-08-d8	SB-08-d9	SB-09-01	SB-09-02	SB-09-d1	SB-09-d10	SB-09-d11	SB-09-d2	SB-09-d3	SB-09-d4
						Sample Date:	2000-01-05	2000-01-05	2000-01-05	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:											
Analyte	RSL RES	RSL IND	BTAG	SSL	Units												
Volatile Organic Compounds																	
1,1,1-Trichloroethane			300		ug/kg												
1,2,4-Trichlorobenzene			100		ug/kg												
1,2-Dichloroethene			300		ug/kg												
cis-1,2-Dichloroethene			300		ug/kg												
Ethylbenzene	5700	29000	100		ug/kg												
Methylene Chloride			300		ug/kg												
Tetrachloroethene	570	2700	300		ug/kg												
Toluene			100		ug/kg												
Trichloroethene	2800	14000	300		ug/kg												
Vinyl Chloride	60				ug/kg												
Xylenes (total)			100		ug/kg												
Semi-Volatile Organic Compounds																	
1,2-Dichlorobenzene			300		ug/kg												
2,4-Dimethylphenol			100		ug/kg												
Fluoranthene			100		ug/kg												
Hexachlorobenzene	300	1100			ug/kg												
Naphthalene	3900		100		ug/kg				214	96.4 J							
Pyrene			100		ug/kg												

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-09	SB-09	SB-09	SB-09	SB-09	SB-10									
		Sample Name:		SB-09-d5	SB-09-d6	SB-09-d7	SB-09-d8	SB-09-d9	SB-10-01	SB-10-02	SB-10-d1	SB-10-d10	SB-10-d2	SB-10-d3	SB-10-d4	SB-10-d5	SB-10-d6	SB-10-d7
		Sample Date:		2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
		Matrix:		SB														
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-10	SB-10	SB-11	SB-12	SB-12										
						Sample Name:	SB-10-d8	SB-10-d9	SB-11-01	SB-11-d1	SB-11-d10	SB-11-d2	SB-11-d3	SB-11-d4	SB-11-d5	SB-11-d6	SB-11-d7	SB-11-d8	SB-11-d9	SB-12-01	SB-12-d10
						Sample Date:	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-12	SB-12	SB-12	SB-12	SB-12	SB-12	SB-13								
		Sample Name:		SB-12-d2	SB-12-d3	SB-12-d4	SB-12-d5	SB-12-d6	SB-12-d7	SB-13-01	SB-13-d1	SB-13-d10	SB-13-d11	SB-13-d12	SB-13-d13	SB-13-d14	SB-13-d2	SB-13-d3
		Sample Date:		2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
		Matrix:		SB														
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg					254 B								
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-13	SB-13	SB-13	SB-13	SB-13	SB-13	SB-14									
		Sample Name:		SB-13-d4	SB-13-d5	SB-13-d6	SB-13-d7	SB-13-d8	SB-13-d9	SB-14-01	SB-14-02	SB-14-d1	SB-14-d10	SB-14-d11	SB-14-d12	SB-14-d13	SB-14-d2	SB-14-d3	
		Sample Date:		2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	
		Matrix:		SB															
		Parent:																	
Analyte	RSL RES	RSL IND	BTAG	SSL	Units														
Volatile Organic Compounds																			
1,1,1-Trichloroethane			300		ug/kg														
1,2,4-Trichlorobenzene			100		ug/kg														
1,2-Dichloroethene			300		ug/kg														
cis-1,2-Dichloroethene			300		ug/kg														
Ethylbenzene	5700	29000	100		ug/kg														
Methylene Chloride			300		ug/kg														
Tetrachloroethene	570	2700	300		ug/kg														
Toluene			100		ug/kg														
Trichloroethene	2800	14000	300		ug/kg														
Vinyl Chloride	60				ug/kg														
Xylenes (total)			100		ug/kg														
Semi-Volatile Organic Compounds																			
1,2-Dichlorobenzene			300		ug/kg														
2,4-Dimethylphenol			100		ug/kg														
Fluoranthene			100		ug/kg														
Hexachlorobenzene	300	1100			ug/kg														
Naphthalene	3900		100		ug/kg														
Pyrene			100		ug/kg														

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-15								
		Sample Name:		SB-14-d4	SB-14-d5	SB-14-d6	SB-14-d7	SB-14-d8	SB-14-d9	SB-15-01	SB-15-02	SB-15-d1	SB-15-d10	SB-15-d11	SB-15-d12	SB-15-d13	SB-15-d14	SB-15-d2
		Sample Date:		2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07
		Matrix:		SB														
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-15	SB-16													
						Sample Name:	SB-15-d3	SB-15-d4	SB-15-d5	SB-15-d6	SB-15-d7	SB-15-d8	SB-15-d9	SB-16-01	SB-16-02	SB-16-d1	SB-16-d10	SB-16-d2	SB-16-d3	SB-16-d4	SB-16-d5
						Sample Date:	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg									294 B	322 B						
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-16	SB-16	SB-16	SB-16	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17		
		Sample Name:		SB-16-d6	SB-16-d7	SB-16-d8	SB-16-d9	SB-17-01	SB-17-02	SB-17-d1	SB-17-d10	SB-17-d11	SB-17-d12	SB-17-d13	SB-17-d14	SB-17-d15	SB-17-d16	SB-17-d2	
		Sample Date:		2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	
		Parent:																	
Analyte	RSL RES	RSL IND	BTAG	SSL	Units														
Volatile Organic Compounds																			
1,1,1-Trichloroethane			300		ug/kg														
1,2,4-Trichlorobenzene			100		ug/kg														
1,2-Dichloroethene			300		ug/kg														
cis-1,2-Dichloroethene			300		ug/kg														
Ethylbenzene	5700	29000	100		ug/kg														
Methylene Chloride			300		ug/kg			251 B	282 B										
Tetrachloroethene	570	2700	300		ug/kg														
Toluene			100		ug/kg														
Trichloroethene	2800	14000	300		ug/kg														
Vinyl Chloride	60				ug/kg														
Xylenes (total)			100		ug/kg														
Semi-Volatile Organic Compounds																			
1,2-Dichlorobenzene			300		ug/kg														
2,4-Dimethylphenol			100		ug/kg														
Fluoranthene			100		ug/kg														
Hexachlorobenzene	300	1100			ug/kg														
Naphthalene	3900		100		ug/kg														
Pyrene			100		ug/kg														

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-18						
		Sample Name:		SB-17-d3	SB-17-d4	SB-17-d5	SB-17-d6	SB-17-d7	SB-17-d8	SB-17-d9	SB-18-01	SB-18-02	SB-18-d1	SB-18-d10	SB-18-d11	SB-18-d2	SB-18-d3	SB-18-d4
		Sample Date:		2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-18	SB-18	SB-18	SB-18	SB-18	SB-19										
						Sample Name:	SB-18-d5	SB-18-d6	SB-18-d7	SB-18-d8	SB-18-d9	SB-19-01	SB-19-02	SB-19-d1	SB-19-d10	SB-19-d11	SB-19-d2	SB-19-d3	SB-19-d4	SB-19-d5	SB-19-d6	
						Sample Date:	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	
						Matrix:	SB															
						Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																	
Volatile Organic Compounds																						
1,1,1-Trichloroethane			300		ug/kg																	
1,2,4-Trichlorobenzene			100		ug/kg																	
1,2-Dichloroethene			300		ug/kg																	
cis-1,2-Dichloroethene			300		ug/kg																	
Ethylbenzene	5700	29000	100		ug/kg																	
Methylene Chloride			300		ug/kg																	
Tetrachloroethene	570	2700	300		ug/kg																	
Toluene			100		ug/kg																	
Trichloroethene	2800	14000	300		ug/kg							1160										
Vinyl Chloride	60				ug/kg																	
Xylenes (total)			100		ug/kg																	
Semi-Volatile Organic Compounds																						
1,2-Dichlorobenzene			300		ug/kg																	
2,4-Dimethylphenol			100		ug/kg																	
Fluoranthene			100		ug/kg																	
Hexachlorobenzene	300	1100			ug/kg																	
Naphthalene	3900		100		ug/kg																	
Pyrene			100		ug/kg																	

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-19	SB-19	SB-19	SB-20									
		Sample Name:		SB-19-d7	SB-19-d8	SB-19-d9	SB-20-01	SB-20-02	SB-20-d1	SB-20-d10	SB-20-d11	SB-20-d12	SB-20-d13	SB-20-d2	SB-20-d3	SB-20-d4
		Sample Date:		2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10
		Matrix:		SB												
		Parent:														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units											
Volatile Organic Compounds																
1,1,1-Trichloroethane			300		ug/kg											
1,2,4-Trichlorobenzene			100		ug/kg											
1,2-Dichloroethene			300		ug/kg											
cis-1,2-Dichloroethene			300		ug/kg											
Ethylbenzene	5700	29000	100		ug/kg											
Methylene Chloride			300		ug/kg											
Tetrachloroethene	570	2700	300		ug/kg											
Toluene			100		ug/kg											
Trichloroethene	2800	14000	300		ug/kg											
Vinyl Chloride	60				ug/kg											
Xylenes (total)			100		ug/kg											
Semi-Volatile Organic Compounds																
1,2-Dichlorobenzene			300		ug/kg											
2,4-Dimethylphenol			100		ug/kg											
Fluoranthene			100		ug/kg											
Hexachlorobenzene	300	1100			ug/kg											
Naphthalene	3900		100		ug/kg											
Pyrene			100		ug/kg											

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-20	SB-20	SB-20	SB-21	SB-22											
						Sample Name:	SB-20-d7	SB-20-d8	SB-20-d9	SB-21-01	SB-21-02	SB-21-d1	SB-21-d2	SB-21-d3	SB-21-d4	SB-21-d5	SB-21-d6	SB-21-d7	SB-21-d8	SB-21-d9	SB-22-01	
						Sample Date:	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	
						Matrix:	SB															
						Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																	
Volatile Organic Compounds																						
1,1,1-Trichloroethane			300		ug/kg																	
1,2,4-Trichlorobenzene			100		ug/kg																	
1,2-Dichloroethene			300		ug/kg																	
cis-1,2-Dichloroethene			300		ug/kg																	
Ethylbenzene	5700	29000	100		ug/kg																	
Methylene Chloride			300		ug/kg																	272 B
Tetrachloroethene	570	2700	300		ug/kg																	
Toluene			100		ug/kg																	
Trichloroethene	2800	14000	300		ug/kg																	
Vinyl Chloride	60				ug/kg																	
Xylenes (total)			100		ug/kg																	
Semi-Volatile Organic Compounds																						
1,2-Dichlorobenzene			300		ug/kg																	
2,4-Dimethylphenol			100		ug/kg																	
Fluoranthene			100		ug/kg																	136 J
Hexachlorobenzene	300	1100			ug/kg																	
Naphthalene	3900		100		ug/kg																	
Pyrene			100		ug/kg																	111 J

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-23	SB-23		
		Sample Name:		SB-22-02	SB-22-d1	SB-22-d10	SB-22-d11	SB-22-d12	SB-22-d2	SB-22-d3	SB-22-d4	SB-22-d5	SB-22-d6	SB-22-d7	SB-22-d8	SB-22-d9	SB-23-01	SB-23-02
		Sample Date:		2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg	259 B											350 B	442 B
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg	343												
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg	301												

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen
 Exceeds RSL Industrial Screen
 Exceeds RSL Residential and Industrial Screen
 Exceeds BTAG Screen
 Exceeds SSL Screen

		Location:		SB-24	SB-25	SB-25	SB-25	SB-25	SB-25	SB-25								
		Sample Name:		SB-24-d2	SB-24-d3	SB-24-d4	SB-24-d5	SB-24-d6	SB-24-d7	SB-24-d8	SB-24-d9	SB-25-01	SB-25-02	SB-25-d1	SB-25-d10	SB-25-d11	SB-25-d12	SB-25-d2
		Sample Date:		2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11
		Matrix:		SB														
		Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units													
Volatile Organic Compounds																		
1,1,1-Trichloroethane			300		ug/kg													
1,2,4-Trichlorobenzene			100		ug/kg													
1,2-Dichloroethene			300		ug/kg													
cis-1,2-Dichloroethene			300		ug/kg													
Ethylbenzene	5700	29000	100		ug/kg													
Methylene Chloride			300		ug/kg													
Tetrachloroethene	570	2700	300		ug/kg													
Toluene			100		ug/kg													
Trichloroethene	2800	14000	300		ug/kg													
Vinyl Chloride	60				ug/kg													
Xylenes (total)			100		ug/kg													
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene			300		ug/kg													
2,4-Dimethylphenol			100		ug/kg													
Fluoranthene			100		ug/kg													
Hexachlorobenzene	300	1100			ug/kg													
Naphthalene	3900		100		ug/kg													
Pyrene			100		ug/kg													

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-25	SB-26	SB-26	SB-26	SB-26	SB-26	SB-26								
						Sample Name:	SB-25-d3	SB-25-d4	SB-25-d5	SB-25-d6	SB-25-d7	SB-25-d8	SB-25-d9	SB-27-01	SB-26-01	SB-26-02	SB-26-d1	SB-26-d2	SB-26-d3	SB-26-d4	
						Sample Date:	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	
						Matrix:	SB	SB	SB	SB	SB	SB	SB								
						Parent:								SB-25-01_01112000SB							
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Volatile Organic Compounds																					
1,1,1-Trichloroethane			300		ug/kg																
1,2,4-Trichlorobenzene			100		ug/kg																
1,2-Dichloroethene			300		ug/kg																
cis-1,2-Dichloroethene			300		ug/kg																
Ethylbenzene	5700	29000	100		ug/kg																
Methylene Chloride			300		ug/kg																
Tetrachloroethene	570	2700	300		ug/kg																
Toluene			100		ug/kg																
Trichloroethene	2800	14000	300		ug/kg																
Vinyl Chloride	60				ug/kg																
Xylenes (total)			100		ug/kg																
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene			300		ug/kg																
2,4-Dimethylphenol			100		ug/kg																
Fluoranthene			100		ug/kg																
Hexachlorobenzene	300	1100			ug/kg																
Naphthalene	3900		100		ug/kg																
Pyrene			100		ug/kg																

Table 2a: Soil and Sediment RSL Exceedences for VOCs and SVOCs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen**
- Exceeds SSL Screen

						Location:	SB-26	SB-26	SB-26	SB-26	SB-28	SB-29										
						Sample Name:	SB-26-d5	SB-26-d6	SB-26-d7	SB-26-d8	SB-28-01	SB-28-02	SB-28-d1	SB-28-d2	SB-28-d3	SB-28-d4	SB-28-d5	SB-28-d6	SB-28-d7	SB-28-d8	SB-29-01	
						Sample Date:	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	
						Matrix:	SB															
						Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																	
Volatile Organic Compounds																						
1,1,1-Trichloroethane			300		ug/kg							956										
1,2,4-Trichlorobenzene			100		ug/kg																	
1,2-Dichloroethene			300		ug/kg																	
cis-1,2-Dichloroethene			300		ug/kg							913										
Ethylbenzene	5700	29000	100		ug/kg							5300										
Methylene Chloride			300		ug/kg							693										336
Tetrachloroethene	570	2700	300		ug/kg							34200										
Toluene			100		ug/kg							654 J										
Trichloroethene	2800	14000	300		ug/kg							10500										
Vinyl Chloride	60				ug/kg																	
Xylenes (total)			100		ug/kg							7880										
Semi-Volatile Organic Compounds																						
1,2-Dichlorobenzene			300		ug/kg							487 J										
2,4-Dimethylphenol			100		ug/kg																	
Fluoranthene			100		ug/kg																	
Hexachlorobenzene	300	1100			ug/kg																	
Naphthalene	3900		100		ug/kg																	
Pyrene			100		ug/kg																	

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-29										
						Sample Name:	SB-29-02	SB-29-d1	SB-29-d10	SB-29-d2	SB-29-d3	SB-29-d4	SB-29-d5	SB-29-d6	SB-29-d7	SB-29-d8	SB-29-d9
						Sample Date:	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11
						Matrix:	SB										
						Parent:											
Analyte	RSL RES	RSL IND	BTAG	SSL	Units												
Volatile Organic Compounds																	
1,1,1-Trichloroethane			300		ug/kg												
1,2,4-Trichlorobenzene			100		ug/kg												
1,2-Dichloroethene			300		ug/kg												
cis-1,2-Dichloroethene			300		ug/kg												
Ethylbenzene	5700	29000	100		ug/kg												
Methylene Chloride			300		ug/kg												
Tetrachloroethene	570	2700	300		ug/kg												
Toluene			100		ug/kg												
Trichloroethene	2800	14000	300		ug/kg												
Vinyl Chloride	60				ug/kg												
Xylenes (total)			100		ug/kg												
Semi-Volatile Organic Compounds																	
1,2-Dichlorobenzene			300		ug/kg												
2,4-Dimethylphenol			100		ug/kg												
Fluoranthene			100		ug/kg												
Hexachlorobenzene	300	1100			ug/kg												
Naphthalene	3900		100		ug/kg												
Pyrene			100		ug/kg												

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

					Location:	B-01	B-01	B-02	B-02	B-03	B-03	B-04	B-04	B-05	B-05	B-06	B-06	B-07	B-07	B-08	
					Sample Name:	B-01-01N	B-01-02N	B-02-01N	B-02-02N	B-03-01N	B-03-02N	B-04-01N	B-04-02N	B-05-01N	B-05-02N	B-06-01N	B-06-02N	B-07-01N	B-07-02N	B-08-01N	
					Sample Date:	2001-05-02	2001-05-02	2001-05-02	2001-05-02	2001-05-03	2001-05-03	2001-05-02	2001-05-02	2001-05-03	2001-05-03	2001-05-02	2001-05-02	2001-05-02	2001-05-02	2001-05-02	
					Matrix:	SB	SS	SB	SB												
					Parent:																B-08
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg	13300	5130	7590	7170	5430	4260	9270	7810	7240	4130	7960	7850	8610	6880	8190	
Antimony	31			0.27	mg/kg						<i>1</i>				<i>0.7</i>						
Arsenic	0.39	1.6		18	mg/kg	1.8	2.5	3	6.3	9.9	3.8	4.3	3	6.9	3.1	3.9	2	4.2	1 B	3.2	
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg					<i>0.89</i>											
Chromium	280.0	1400.0		26	mg/kg	36.8		52.8	82.9	7870 E	1170 E	226	116		383 E						
Chromium VI	39	200.0			mg/kg					243	568				41.4						
Cobalt	23	300.0		13	mg/kg	17.7			13.6			18.7	23.1	17.6	14.1	20.4	22.2		13.8		
Copper	3100.0			28	mg/kg				46	60		77.5	55.1	96.7	38.3		35.6				
Cyanide (total)			0.005		mg/kg	0.22 JB	0.26 JB	0.21 JB	0.22 JB	0.25 JB	0.18 JB	0.23 JB	0.27 JB	0.17 JB	0.18 JB	0.25 JB	0.14 JB	0.11 JB	0.13 JB		
Iron	55000.0		12		mg/kg	10500	11200	17200	18700	58200	13100	25100	23300	23900	13400	23700	25600	17700	12900	18900	
Lead	400.0			11	mg/kg					185	521										
Manganese	1800.0			220.0	mg/kg			244	889					293	246	240	227	279			
Mercury	4.3	24	0.058		mg/kg																
Nickel				38	mg/kg							51.7	43.1	42.6							
Selenium				0.52	mg/kg					1.3		0.62		0.61	0.59 B						
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg										0.68 B						
Vanadium				7.8	mg/kg	12.4	15	19.9	25.5	36.3	15.5	27.7	22.3	31.8	14.6	30.1	28.2	26.2	13.1	31.5	
Zinc				46	mg/kg																
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg					160 J	100 J										

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		Sample Name:		Sample Date:		Matrix:		Parent:										
		B-08	B-08	B-09	B-10	B-10	B-11	B-11	B-12	B-12	B-13	B-14	B-14	B-15	B-16	B-16				
		B-08-02N	B-08-03N	B-09-01N	B-10-01N	B-10-02N	B-11-01N	B-11-02N	B-12-01N	B-12-02N	B-13-01N	B-14-01N	B-14-02N	B-15-01N	B-16-01N	B-16-02N				
		2001-05-02	2001-05-02	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-01	2001-05-03	2001-05-03	2001-05-04	2001-05-03	2001-05-03				
		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SB	SB	SS	SB				
		-01N_05022001SB																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg	8460	5650	4430	11500	8260	9890	9150	7740	7360	8890	9010	5720	13500	6100	7770
Antimony	31			0.27	mg/kg		0.78									0.64				0.73
Arsenic	0.39	1.6		18	mg/kg	3.5	1.5	2.2	4	3.3	2.6	2.8	1.7	3.1	6.1	7.8	2.5	2.7	5.2	3
Barium				330.0	mg/kg									330						
Cadmium				0.36	mg/kg	0.36 B	0.45 B					0.45 B	0.45 B		1					0.56 B
Chromium	280.0	1400.0		26	mg/kg		30.8 E					27.9		27.1	110					
Chromium VI	39	200.0			mg/kg	56.3								46.5						
Cobalt	23	300.0		13	mg/kg				14		14.5		18.4	18.5			12.6	15.8		
Copper	3100.0			28	mg/kg						35.6 E	63.2 E		29.1 E						109
Cyanide (total)			0.005		mg/kg	0.28 JB	0.23 JB	0.22 JB	0.23 JB	0.25 JB	0.23 JB	0.23 JB		0.21 JB	0.26 JB	0.28 JB	0.15 JB	0.25 JB	0.18 JB	0.21 JB
Iron	55000.0		12		mg/kg	26700	30500	7040	16100	19600	33000	38600	19200	33700	25400	28300	17500	28300	15600	34300
Lead	400.0			11	mg/kg		14.3		16.2		11.7	19.8	12.7 E	10.7 E	27.9	65.8				16.4
Manganese	1800.0			220.0	mg/kg			226	253	589		866	226	1280	911	233			256	
Mercury	4.3	24	0.058		mg/kg									0.066	0.13					
Nickel				38	mg/kg															
Selenium				0.52	mg/kg	0.6 B	0.94								1.1					0.6 B
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg		0.95 B		1.1 B	1.2 B	0.71 B	0.87 B					0.87 B	0.74 B	1 B	1.6
Vanadium				7.8	mg/kg	27.9	26	8.2	31.7	26.7	25.2	23.6	11.9	15.1	30.2	31.7	11.7	37.3 *	31.8	18.8
Zinc				46	mg/kg							71.8	67.4	73.2	58.9	294				56.1
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg											52 J				
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

						Location:	B-17	B-17	B-18	B-18	B-19	B-20	B-21	B-21	B-22	B-22	B-22	B-23	B-23	B-24	B-24
						Sample Name:	B-17-01N	B-17-02N	B-18-01N	B-18-02N	B-19-01N	B-20-01N	B-21-2.2-3.2	B-21-6.1-7.1	B-22-1.9-2.9	B-22-5.7-6.7	B-22-8.0-8.9	B-23-1.5-2.5	B-23-4.4-6.4	B-24-2.7-3.7	B-24-5.3-6.3
						Sample Date:	2001-05-04	2001-05-04	2001-05-04	2001-05-04	2001-05-04	2001-05-04	2007-10-26	2007-10-26	2007-10-25	2007-10-25	2007-10-25	2007-10-26	2007-10-26	2007-10-26	2007-10-26
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg	5880	3970	6750	6780	5160	4100	19600	20600	17700	21800	18700	17800	15800	25300	20500	
Antimony	31			0.27	mg/kg													1.06 J			
Arsenic	0.39	1.6		18	mg/kg	1.6	1.2 B	1.5	2.5	3.6	2.5	3.49	1.85 J	2.86	1.36 J	1.72 J	2 J	1.61 J	1.91 J	1.43 J	
Barium				330.0	mg/kg												466	365	421		
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg		36.5	44.2				28.1	26.8	29	29.3	77.9	34.5	30.4	33.9	56	
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg	17	12.9						17.6		12.9	17.5	18.5	19.9	27.9	16.4	
Copper	3100.0			28	mg/kg														34.9		
Cyanide (total)			0.005		mg/kg		0.24 JB	0.26 JB	0.14 JB	0.15 JB	0.25 JB										
Iron	55000.0		12		mg/kg	18600	15500	25100	10900	24300	13500	25400	35700	19300	40300	33900	42200	39000	52500	46600	
Lead	400.0			11	mg/kg							10.9		11.7	13.5		16.9	18.9	18.5	15	
Manganese	1800.0			220.0	mg/kg	893	588		447	245	2270	335	2300	309	329	387	1660	1200	3660	775	
Mercury	4.3	24	0.058		mg/kg																
Nickel				38	mg/kg																
Selenium				0.52	mg/kg													1.74 J		1.14 J	
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg	1.8	1.3 B					1.8 B	0.0797 J	0.089 J	0.182 J	0.331 J	0.21 J	0.299 J	0.235 J	0.317 J	0.314 J
Vanadium				7.8	mg/kg	24 *	25.4 *	26.6 *	22.8 *	20.5 *	17.1 *	45.3	37	47	30.4	39.6	25.7	25.7	55.9	42.7	
Zinc				46	mg/kg										52.8		60.4	53	58.9	62.8	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg						110 J										
Benzo(a)anthracene	150		100		ug/kg						520 J										
Benzo(a)pyrene	15	210	100		ug/kg				94 J		410 J										
Benzo(b)fluoranthene	150		100		ug/kg				130 J		680 J										
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg						490 J										
Chrysene			100		ug/kg				140 J		740 J										
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg						110 J										
Phenanthrene			100		ug/kg						1000										

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

		Location:		B-25	B-25	B-26	B-26	B-26	B-27	B-27	B-28A	B-28A	B-28A	B-28B	B-28B	B-29	B-30	B-30		
		Sample Name:		B-25-1.0-2.0	B-25-5.0-6.0	B-26-1.7-3.7	B-26-4.1-5.1	FD-102607	B-27-1.0-2.0	B-27-6.0-7.0	B-28A-1.0-2.0	B-28A-2.2-3.2	B-28A-5.0-6.0	B-28B-1.2-2.2	B-28B-12.7-13.3	B-29-5.1-6.1	B-30-2.6-3.6	B-30-6.6-7.6		
		Sample Date:		2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-26	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-24	2007-10-24	2007-10-24		
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB		
		Parent:		B-26-1.7-3.7_10262007SB																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg	19300	21300	22700	17200	23400	21300	20800	21600	19200	22000	19100	22200	24800	15400	18900
Antimony	31			0.27	mg/kg	1.24 J	3.24		1.28 J	1.03 J							1.04 J	1.38 J	1.12 J	
Arsenic	0.39	1.6		18	mg/kg	2.25 J	2.5	1.44 J	1.54 J	1.13 J	7.57	1.53 J	4.65	3.11	2 J	7.65	1.13 J	1.61 J	3.76	1.68 J
Barium				330.0	mg/kg	505					706			914		376				485
Cadmium				0.36	mg/kg													1.99		2.17
Chromium	280.0	1400.0		26	mg/kg	396	2190	144	634	199	31.6	26.9	38.2	32.6	30.1	109	49.5	46.6	29.3	28.6
Chromium VI	39	200.0			mg/kg	103	106			39.2										
Cobalt	23	300.0		13	mg/kg	37.8	53.6	42.6	23.7	30			14		44.6	16.8	17.6	13.1		38.8
Copper	3100.0			28	mg/kg	30.9	69.8	37.5		45.7			56.7			62.6		43.1		196
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	46200	56500	40400	38500	47800	31100	43100	29300	20000	44400	38600	43800	45300	14000	46400
Lead	400.0			11	mg/kg	20.9	24.3	16.4	15.8	13.3	37.4		49.3	13.8	18	33.2	23.1	20	11.6	24.7
Manganese	1800.0			220.0	mg/kg	2420	954	491	411	228			1980		4030	846	1120	700		3350
Mercury	4.3	24	0.058		mg/kg					0.185			0.108 J							
Nickel				38	mg/kg	57	95.6	68.9	57.1	56.5										99.1
Selenium				0.52	mg/kg		1.32 J					1.11 J								
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg	0.248 J	0.277 J	0.329 J	0.259 J	0.284 J	0.0937 J	0.199 J	0.199 J	0.177 J	0.35 J	0.277 J	0.422 J	0.368 J	0.177 J	0.422 J
Vanadium				7.8	mg/kg	25	30.7	39.2	18.3	47.9	50.6	35.1	50	42.9	45.5	66.7	36.8	32.5	42.9	26
Zinc				46	mg/kg	47.8	71.3	67.6	68	57.1	46.7	62.5	69		61.1	94.9	94.8	73.3		106
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

		Location:		Sample Name:		Sample Date:		Matrix:		Parent:										
		B-30	B-31	B-31	B-32	B-32	B-32	B-32	B-32	B-33	B-35	B-35	B-36	B-36	B-37	B-37				
		B-30-8.5-9.5	B-31-2.2-3.2	B-31-5.6-6.6	B-32-1.5-2.5	B-32-3.0-4.0	B-32-4.8-5.8	B-32-6.3-7.3	B-32-9.3-10.3	B-33-2.1-3.1	B-35-2.5-3.5	B-35-4.4-5.4	B-36-5.2-7.2	B-36-8.0-8.5	B-37-0.5-1.5	B-37-5.4-6.4				
		2007-10-24	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-25	2007-10-26	2007-10-26	2007-10-25	2007-10-25	2007-10-25	2007-10-25				
		SB	SB	SB	SB	SB	SB	SB	SB											
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg	19000	21200	31100	22400	21800	21200	26500	29300	15400	18200	18500	20700	15600	17900	17400
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg	1.31 J	2.49	1.41 J	3.22	3.31	2.51	2.17 J	2.43	3.45	2.01 J	2.33 J	2.02 J	1.85 J	3.03	0.645 J
Barium				330.0	mg/kg	490														
Cadmium				0.36	mg/kg	1.88			0.358 J									0.391 J		
Chromium	280.0	1400.0		26	mg/kg	38.9	25.7	68.7	291	32.4	56.6	65.4	711	1770	43.4	46.7	30.2		26.5	
Chromium VI	39	200.0			mg/kg				59.5				50.3	781						
Cobalt	23	300.0		13	mg/kg	21.3	18.5	22.5	109	15.2	18.8		25.5		20					22.3
Copper	3100.0			28	mg/kg	195			55.6		31.4	45.8	49.4	38.2						
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	45000	31800	45900	20500	27100	25300	32800	56100	36200	28300	22700	40700	25300	28200	33400
Lead	400.0			11	mg/kg	20.1		17.8	22.7	10.8			17				10.6			14.1
Manganese	1800.0			220.0	mg/kg	1710	679	1350	371		277			399			642	224	351	845
Mercury	4.3	24	0.058		mg/kg				0.0582 J											
Nickel				38	mg/kg							61.4								
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg	0.408 J	0.121 J	0.341 J	0.145 J	0.109 J	0.0499 J	0.0304 J	0.367 J	0.0503 J	0.102 J	0.019 J	0.151 J	0.057 J	0.138 J	0.223 J
Vanadium				7.8	mg/kg	48.1	38.1	37.2	40.4	41.4	37.1	52.6	43.7	34.8	34.1	40.1	41.2	38.9	42.4	36.9
Zinc				46	mg/kg	81.1		95.1	52.6											
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

						Location:	B-38	B-38	B-39	B-39	B-40	B-40	B-41	B-41	B-42	B-42	B-42	B-43	B-43	B-43	B-44
						Sample Name:	B-38-1.6-2.6	B-38-5.9-6.9	B-39-1.6-3.6	B-39-6.2-7.2	B-40-2.3-3.3	B-40-4.0-5.6	B-41-2.0-3.0	B-41-4.5-5.5	B-42-2.6-3.6	B-42-6.7-7.7	B-42-8.0-8.7	B-43-1.0-2.0	B-43-4.6-5.6	B-43-8.3-9.3	B-44-2.6-3.6
						Sample Date:	2007-10-25	2007-10-25	2007-10-26	2007-10-26	2007-10-23	2007-10-23	2007-10-24	2007-10-24	2007-10-23	2007-10-23	2007-10-23	2007-10-23	2007-10-23	2007-10-23	2007-10-24
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg	16100	17300	19400	15700	12800	7700	13400	16900	24800	19800	13600	14500	11600	13000	17400	
Antimony	31			0.27	mg/kg									1.64 J			1.44 J	1.32 J	1.75 J		
Arsenic	0.39	1.6		18	mg/kg	3.45	0.653 J	3.83	3.03	2.59	1.97 J	1.72 J	1.48 J	1.61 J	1.79 J	3.08	3.26	1.26 J	0.793 J	2.48	
Barium				330.0	mg/kg											674					
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg	27.6	32	27.4		33.6	32.8	28.5	28.7	39.2	44.3	61.5	26.7	33.6	75.1	28.8	
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg			12.7						15.6		74.1	18.9		28.1		
Copper	3100.0			28	mg/kg				82.8				47.6		39.4	30.8			29		
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	27400	28500	31000	17700	23200	19800	24400	27600	46000	39300	28700	22400	25100	29900	25700	
Lead	400.0			11	mg/kg									14	18.3				10.5		
Manganese	1800.0			220.0	mg/kg	250		528	850	315	645			248	355	5020	875		504		
Mercury	4.3	24	0.058		mg/kg																
Nickel				38	mg/kg														44.4		
Selenium				0.52	mg/kg									1.14 J	1.46 J	1.18 J			1.06 J		
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg	0.069 J	0.145 J	0.0845 J		0.0567 J	0.0426 J	0.0733 J	0.0626 J	0.315 J	0.211 J	0.129 J	0.119 J	0.096 J	0.167 J	0.131 J	
Vanadium				7.8	mg/kg	39.3	36.8	42.4	25.3	47.6	42.5	42.8	43.1	46.2	35.1	42.1	40.8	32.9	30.9	40.4	
Zinc				46	mg/kg									50.4	60.7				46.2		
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:		Sample Name:		Sample Date:		Matrix:		Parent:										
		B-44	B-44	B-45	B-45	B-45	B-45	B-54	B-54	B-55	B-58	B-73	B-74	B-74	B-76	B-76				
		B-44-6.4-7.4	B-44-8.6-9.6	B-45-12.0-12.6	B-45-2.7-3.7	B-45-6.2-7.2	B-45-9.3-10.3	B-54-5.7-6.7	FD-102307	B-55-4.0-5.0	B-58-6.5-7.5	B-73-8.0-9.0	B-74-6.5-7.5	B-74-8.0-8.7	B-76-7.0-8.0	B-76-8.0-8.3				
		2007-10-24	2007-10-24	2007-10-24	2007-10-24	2007-10-24	2007-10-24	2007-10-23	2007-10-23	2007-10-23	2007-10-19	2007-10-19	2007-10-19	2007-10-19	2007-10-17	2007-10-17				
		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB				
		B-54-8.0-10.0_10232007SB																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg	25500	23500	20900	15700	25800	25200									
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg	1.95 J	1.03 J	11.6	1.91 J	1.55 J	3.55									
Barium				330.0	mg/kg	374	460	3280		349										
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	66.4	89	27.7		28.4										
Chromium VI	39	200.0			mg/kg						46.3	48.2	48.1	101	496	112	270	53.6	44.6	
Cobalt	23	300.0		13	mg/kg	38.8	13.8	44.2		16.6										
Copper	3100.0			28	mg/kg			75.5		78.2	73.5									
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	46100	52000	47100	22900	38500	30200									
Lead	400.0			11	mg/kg	21.6	19.3													
Manganese	1800.0			220.0	mg/kg	2060	907	13300	458	1140	399									
Mercury	4.3	24	0.058		mg/kg															
Nickel				38	mg/kg	63.9		48.4												
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg	0.379 J	0.384 J	0.272 J	0.143 J	0.408 J	0.356 J									
Vanadium				7.8	mg/kg	34.2	32.2	44.7	39.1	28.8	29.6									
Zinc				46	mg/kg	86.2	87.9			66.8										
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

		Location:		Sample Name:		Sample Date:		Matrix:		Parent:										
		B-89	B-93	IB-01	IB-01	IB-02	IB-02	IB-03	IB-03	IB-04	IB-04	IB-05	IB-05	IB-06	IB-06	IB-07				
		B-89-13.7-14.3	B-93-12.3-13.3	IB-01-01N	IB-01-02N	IB-02-01N	IB-02-02N	IB-03-01N	IB-03-02N	IB-04-01N	IB-04-02N	IB-05-01N	IB-05-02N	IB-06-01N	IB-06-02N	IB-07-01N				
		2007-10-17	2007-10-15	2001-09-24	2001-09-24	2001-09-24	2001-09-24	2001-09-24	2001-09-24	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25				
		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB				
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg			6660	6090	5170	12300	9720	10600	11400	7780	7100	7250	8240	5320	9990
Antimony	31			0.27	mg/kg							0.48	0.58							
Arsenic	0.39	1.6		18	mg/kg			1.8	0.75 B	0.67 B	15.1	2.8	4.9	4.2	1.5	1.5	4.9	4.1	2.4	6.8
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg							1.6								
Chromium	280.0	1400.0		26	mg/kg							30.7 E					62 E	946 E		40.3 E
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg			13.1					15.2	13.3		14.8	48.2	30.5		13.5
Copper	3100.0			28	mg/kg							100		35.5				67.3		
Cyanide (total)			0.005		mg/kg			0.22 JB	0.25 JB	0.24 JB	0.31 JB	0.11 JB	0.13 JB	0.12 JB	0.15 JB	0.16 JB	0.17 JB	0.21 JB	0.21 JB	0.27 JB
Iron	55000.0		12		mg/kg			23800	11500	5170	22700	15300	48700	19200	20100	11000	16500	16500	12800	28800
Lead	400.0			11	mg/kg						66.9		11.9	55.5			23.7	32.1		17.8
Manganese	1800.0			220.0	mg/kg			471				465	241	416			230	329		255
Mercury	4.3	24	0.058		mg/kg									0.078				0.08		0.18
Nickel				38	mg/kg												128			
Selenium				0.52	mg/kg							0.59 B		0.9						
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg			0.8 B			0.93 B									
Vanadium				7.8	mg/kg			17	18.8	10.2	39.7	28.6	50.7	30.8	26.4	21.4	23.9	25.9	16.3	39.7
Zinc				46	mg/kg						1000						104			
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

					Location:	IB-07	IB-08	IB-08	IB-09	IB-09	IB-10	IB-10	IB-11	IB-11	IB-12	IB-12	IB-12	IB-12	IB-13	IB-13
					Sample Name:	IB-07-02N	IB-08-01N	IB-08-02N	IB-09-01N	IB-09-02N	IB-10-01N	IB-10-02N	IB-11-01N	IB-11-02N	IB-12-01N	IB-12-02N	IB-16-01N	IB-16-02N	IB-13-01N	IB-13-02N
					Sample Date:	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25	2001-09-25
					Matrix:	SB	SS	SB	SB	SB	SS	SB								
					Parent:	IB-12-01N_092520-02N_09252001SB														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg	9540	11100	8280	7720	6300	5200	8830	9790	8630	7440	6330	7260	8160	11600	7310
Antimony	31			0.27	mg/kg		0.53			0.56		0.55	0.51							
Arsenic	0.39	1.6		18	mg/kg	2.6	3.9	4.6	4.2	0.99 B	0.88 B	4.4	4.5	2.5	3.3	4.8	2.6	2.2	3.8	2.3
Barium				330.0	mg/kg										573					
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg					26.2		46.1		553 N						
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg	13.3				15.4			52.5	33.8	23.4	16.4	14.8			
Copper	3100.0			28	mg/kg									48.3 E						
Cyanide (total)			0.005		mg/kg	0.22 JB	0.23 JB	0.11 JB	0.12 JB	0.13 JB	0.12 JB	0.16 JB	0.17 JB	0.15 JB	0.18 JB	0.17 JB	0.25 JB	0.22 JB	0.18 JB	0.19 JB
Iron	55000.0		12		mg/kg	38800	20300	16500	23700	16300	16700	14800	19400	25900	24300	23800	23100	23700	16200	20700
Lead	400.0			11	mg/kg	11.3	12.3					55.5	29.2	15.8					38.9	
Manganese	1800.0			220.0	mg/kg				252	304					3470	813	604	395	1550	
Mercury	4.3	24	0.058		mg/kg															
Nickel				38	mg/kg								227	62.3						
Selenium				0.52	mg/kg	0.61							0.94							
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg			1 B	1.8	0.72 B										
Vanadium				7.8	mg/kg	27.9	31.8	25	35.4	19.6	19.7	26.2	35.1	16.2	31.9	30	28.6	19.6	27.7	31
Zinc				46	mg/kg									65						
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

		Location:				IB-14	IB-14	IB-15	IB-15	SB-01	SB-01	SB-01	SB-01	SB-01	SB-01	SB-01	SB-01	SB-01	SB-01		
		Sample Name:				IB-14-01N	IB-14-02N	IB-15-01N	IB-15-02N	SB-01-01	SB-01-02	SB-01-d1	SB-01-d10	SB-01-d11	SB-01-d12	SB-01-d2	SB-01-d3	SB-01-d4	SB-01-d5	SB-01-d6	
		Sample Date:				2001-09-25	2001-09-25	2001-09-25	2001-09-25	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04
		Matrix:				SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
		Parent:																			
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg	12100	9190	15100	4550	12200	14900										
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg	7.1	1.5	3.4	1.4												
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg		204 N			111	140	1480	6227.2	5148.8		9414.4	4400	4608	9036.8	6400	
Chromium VI	39	200.0			mg/kg					43.7											
Cobalt	23	300.0		13	mg/kg	19	34.6			12.8	16.9	788.4	1409.6	870.4			489.2	1129.6	968.8	789.2	
Copper	3100.0			28	mg/kg		50.5 E			28		486.4	2449.6			2659.2	177.2	1720	2400	1649.6	
Cyanide (total)			0.005		mg/kg	0.26 JB	0.2 JB	0.28 JB	0.15 JB												
Iron	55000.0		12		mg/kg	31900	23300	20000	9700	20400	33500	31385.6	46796.8	39296	30387.2	45184	21491.2	43878.4	46387.2	45184	
Lead	400.0			11	mg/kg	14.5	12.9	10.5		11.6	18.3										
Manganese	1800.0			220.0	mg/kg	1220	396			357	434	3728	5347.2	3427.2		5497.6	3628.8	5699.2	5680	4988.8	
Mercury	4.3	24	0.058		mg/kg			0.062				247.4	1220			1480	85.4	828.8	1229.6	836	
Nickel				38	mg/kg											651.2	333.4		710.4	486.8	
Selenium				0.52	mg/kg	1															
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg	40.7	15.7	32.7	17.5	27.3	38.5										
Zinc				46	mg/kg		52.2					298.8	1300	58.5		1620	154.9	804	1369.6	942.4	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-03	SB-03	SB-03	SB-03	SB-03	SB-03	SB-04									
						Sample Name:	SB-03-03	SB-03-d1	SB-03-d10	SB-03-d11	SB-03-d12	SB-03-d13	SB-03-d2	SB-03-d3	SB-03-d4	SB-03-d5	SB-03-d6	SB-03-d7	SB-03-d8	SB-03-d9	SB-04-01	
						Sample Date:	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB							
						Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																	
Metals																						
Aluminum	77000.0		1		mg/kg	11200															12500	
Antimony	31			0.27	mg/kg																	
Arsenic	0.39	1.6		18	mg/kg																	
Barium				330.0	mg/kg																	
Cadmium				0.36	mg/kg																	
Chromium	280.0	1400.0		26	mg/kg	90.9	5209.6	1089.6	6019.2	3958.4	6249.6	5280	4019.2		3699.2				4217.6	2160		
Chromium VI	39	200.0			mg/kg																	
Cobalt	23	300.0		13	mg/kg	17.2	621.6	964.8	752	1209.6		502.4	293.8	532.4					444.4	688.8	15.1	
Copper	3100.0			28	mg/kg		1120		2059.2	1469.6	2120	671.2	181.2						1289.6			
Cyanide (total)			0.005		mg/kg																	
Iron	55000.0		12		mg/kg	37100	24691.2	41676.8	38988.8	44595.2	37683.2	28083.2	16396.8	20288	20390.4	15897.6	9696	19993.6	28800	22700		
Lead	400.0			11	mg/kg	20.8		40.5						25.1							11.7	
Manganese	1800.0			220.0	mg/kg		3040	4169.6	2739.2	4278.4		3558.4	1699.2	2289.6	2320				2388.8	3328	328	
Mercury	4.3	24	0.058		mg/kg		486.8		1200	814.4	1169.6	313.8	76.1						634.8			
Nickel				38	mg/kg		299.8		532			275	204.5		294.2				247.8			
Selenium				0.52	mg/kg																	
Silver				4.2	mg/kg																	
Thallium			0.001		mg/kg																	
Vanadium				7.8	mg/kg	18.5																27.2
Zinc				46	mg/kg	51.6	566.8	88.3	1100	872	1140	305.8	93.7		74.8				670.4			
Polyaromatic Hydrocarbons																						
Anthracene			100		ug/kg																	
Benzo(a)anthracene	150		100		ug/kg																	
Benzo(a)pyrene	15	210	100		ug/kg																	
Benzo(b)fluoranthene	150		100		ug/kg																	
Benzo(g,h,i)perylene			100		ug/kg																	
Benzo(k)fluoranthene			100		ug/kg																	
Chrysene			100		ug/kg																	
Dibenz(a,h)anthracene	15				ug/kg																	
Fluorene			100		ug/kg																	
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																	
Phenanthrene			100		ug/kg																	

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:				SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-04	SB-05	SB-05	SB-05	
		Sample Name:				SB-04-02	SB-04-d1	SB-04-d10	SB-04-d11	SB-04-d2	SB-04-d3	SB-04-d4	SB-04-d5	SB-04-d6	SB-04-d7	SB-04-d8	SB-04-d9	SB-05-01	SB-05-02	SB-05-d1	
		Sample Date:				2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-04	2000-01-05	2000-01-05	2000-01-05
		Matrix:				SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
		Parent:																			
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg	11300												8360	7170		
Antimony	31			0.27	mg/kg														4.2		
Arsenic	0.39	1.6		18	mg/kg													1.5	4.1		
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg		3977.6	6924.8	2988.8		3760	3689.6	3408	2068.8		855.2	2120		360		
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg		488.8				856									844	
Copper	3100.0			28	mg/kg		1739.2	1140			1049.6	1200	1069.6	522.8				129	132	105.2	
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	12700	17792	17792	15897.6	24192	24793.6	17395.2	6019.2	16499.2	11897.6	8704	9964.8	9340	16500	24691.2	
Lead	400.0			11	mg/kg															47.3	
Manganese	1800.0			220.0	mg/kg		2299.2	2788.8	1580		3680	2388.8		1520						2120	
Mercury	4.3	24	0.058		mg/kg		955.2	580.4			460.8	620.4	577.6	257.4				0.2			
Nickel				38	mg/kg		321.6	538						361						294.4	
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg	20.8												12.3	13.9		
Zinc				46	mg/kg		996.8	564		476.8	693.2	484.4	189.9							65.1	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg															220	

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-06	SB-07	SB-07	SB-07	SB-07	SB-07	SB-07								
						Sample Name:	SB-06-d2	SB-06-d3	SB-06-d4	SB-06-d5	SB-06-d6	SB-06-d7	SB-06-d8	SB-06-d9	SB-07-01	SB-07-02	SB-07-d1	SB-07-d2	SB-07-d3	SB-07-d4	
						Sample Date:	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg											13000	5490				
Antimony	31			0.27	mg/kg												3.2				
Arsenic	0.39	1.6		18	mg/kg																
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg	2428.8	1788.8			1629.6		2428.8	2200			297	1580	1409.6		1760	
Chromium VI	39	200.0			mg/kg											129					
Cobalt	23	300.0		13	mg/kg	577.6	529.6	492			371.8				36.5		418.8		290.6	345.6	
Copper	3100.0			28	mg/kg		98.1				82	127.6	122.4	55.7				1029.6		350.4	
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	18188.8	21196.8	22092.8	15795.2	28697.6	12499.2	19392	9728	23200	20700	18892.8	22694.4	11200	18790.4		
Lead	400.0			11	mg/kg	29.2							33.2			43.8					
Manganese	1800.0			220.0	mg/kg	3068.8	2659.2	2499.2	1440	2259.2	1169.6	2828.8	1260		428	3249.6	2800	1549.6	1600		
Mercury	4.3	24	0.058		mg/kg		50.4										540.8	29.6	211.8		
Nickel				38	mg/kg							280.8	244.2	85.4							
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg										35.7	28.2					
Zinc				46	mg/kg		64.3										72.6	601.2		224	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen**
- Exceeds SSL Screen

		Location:				SB-07	SB-07	SB-07	SB-07	SB-07	SB-08									
		Sample Name:				SB-07-d5	SB-07-d6	SB-07-d7	SB-07-d8	SB-07-d9	SB-08-01	SB-08-02	SB-08-d1	SB-08-d10	SB-08-d11	SB-08-d2	SB-08-d3	SB-08-d4	SB-08-d5	SB-08-d6
		Sample Date:				2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05	2000-01-05
		Matrix:				SB														
		Parent:																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg					13700	9330									
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	2659.2	3417.6	888.8	5369.6	3628.8		31.1	3968	3228.8		4067.2	5968		2628.8	
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg	584	351.8	255.6			19	15.8		559.2	819		706.4		410.8	1009.6
Copper	3100.0			28	mg/kg				766	1349.6						228	3249.6	660.4	133.5	
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	24396.8	16793.6	12697.6	22489.6	15692.8	33800	24200	24896	24089.6	32200	19993.6	23897.6	20492.8	21299.2	41779.2
Lead	400.0			11	mg/kg						15.2									
Manganese	1800.0			220.0	mg/kg	2689.6	2148.8	986.4	2489.6	1948.8	668	230	2480	2068.8	2890	2480	2108.8		2739.2	4428.8
Mercury	4.3	24	0.058		mg/kg		28.7		317.4	738.4						180.6	1920	498.4	75.3	
Nickel				38	mg/kg		283.8		384.4	378.8			373			478				
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg						26.3	26.8								
Zinc				46	mg/kg				360.6	744.8				94.9	226.2	1948.8	362.8		61	
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen
 Exceeds RSL Industrial Screen
 Exceeds RSL Residential and Industrial Screen
 Exceeds BTAG Screen
 Exceeds SSL Screen

						Location:	SB-08	SB-08	SB-08	SB-09	SB-09	SB-09	SB-09	SB-09	SB-09	SB-09	SB-09
						Sample Name:	SB-08-d7	SB-08-d8	SB-08-d9	SB-09-01	SB-09-02	SB-09-d1	SB-09-d10	SB-09-d11	SB-09-d2	SB-09-d3	SB-09-d4
						Sample Date:	2000-01-05	2000-01-05	2000-01-05	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:											
Analyte	RSL RES	RSL IND	BTAG	SSL	Units												
Metals																	
Aluminum	77000.0		1		mg/kg					12900	11500						
Antimony	31			0.27	mg/kg												
Arsenic	0.39	1.6		18	mg/kg												
Barium				330.0	mg/kg												
Cadmium				0.36	mg/kg												
Chromium	280.0	1400.0		26	mg/kg	4147.2	2280	1340		26.3	1420	1899.2	2339.2	2068.8	2548.8	3568	
Chromium VI	39	200.0			mg/kg												
Cobalt	23	300.0		13	mg/kg	648.8		470			656.8		540.4		321.8	498.4	
Copper	3100.0			28	mg/kg	1760							1140	1220	1049.6	258.4	
Cyanide (total)			0.005		mg/kg												
Iron	55000.0		12		mg/kg	26188.8	23897.6	22195.2	25400	24100	18099.2	26291.2	27187.2	21990.4	12000	19788.8	
Lead	400.0			11	mg/kg					12.3	51.1						
Manganese	1800.0			220.0	mg/kg	2880	3388.8	2028.8		537	3200	2649.6	3129.6	4038.4	1560	2849.6	
Mercury	4.3	24	0.058		mg/kg	841.6							606.8	655.2	533.6	101.8	
Nickel				38	mg/kg		301.6					272.8	326.4				
Selenium				0.52	mg/kg												
Silver				4.2	mg/kg												
Thallium			0.001		mg/kg												
Vanadium				7.8	mg/kg				34.9	30.8							
Zinc				46	mg/kg	885.6	87.9				64.5	48.9	640.4	878.4	659.2	122.7	
Polyaromatic Hydrocarbons																	
Anthracene			100		ug/kg												
Benzo(a)anthracene	150		100		ug/kg												
Benzo(a)pyrene	15	210	100		ug/kg												
Benzo(b)fluoranthene	150		100		ug/kg												
Benzo(g,h,i)perylene			100		ug/kg												
Benzo(k)fluoranthene			100		ug/kg												
Chrysene			100		ug/kg												
Dibenz(a,h)anthracene	15				ug/kg												
Fluorene			100		ug/kg				111 J								
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg												
Phenanthrene			100		ug/kg				271								

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

Location:						SB-09	SB-09	SB-09	SB-09	SB-09	SB-10										
Sample Name:						SB-09-d5	SB-09-d6	SB-09-d7	SB-09-d8	SB-09-d9	SB-10-01	SB-10-02	SB-10-d1	SB-10-d10	SB-10-d2	SB-10-d3	SB-10-d4	SB-10-d5	SB-10-d6	SB-10-d7	
Sample Date:						2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	
Matrix:						SB															
Parent:																					
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg						11500	10400									
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg																
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg	5568	2868.8	2289.6	1769.6	2988.8	90.8	39.3	2868.8	5430	2680	2449.6		3408	3200	1300	
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg	530	574	1000	689.2	801.6		28.2	967.2	740	616.8	803.6		831.2	465.2	550	
Copper	3100.0			28	mg/kg	3148.8					48.8	35.2	1280	501	488				737.6		
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	21299.2	27878.4	19289.6	24588.8	25088	26400	30200	26598.4	34400	21888	26393.6	19097.6	23488	22899.2	26291.2	
Lead	400.0			11	mg/kg						20.8	14.7									
Manganese	1800.0			220.0	mg/kg	2600	3977.6	2889.6	2499.2	2108.8	821		3657.6	2900	2440	2948.8	2440	2729.6	2480	2529.6	
Mercury	4.3	24	0.058		mg/kg	1889.6		65.5	24.1		0.182		647.2	243	298				323.4	36.3	
Nickel				38	mg/kg	523.6	288.2					54.7		329						212.2	
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg						32.7	26.7									
Zinc				46	mg/kg	1948.8		180.3				48.8	725.2	335	391.2				459.6		
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

						Location:	SB-10	SB-10	SB-11	SB-11	SB-11	SB-11	SB-11	SB-11	SB-11	SB-11	SB-11	SB-11	SB-12	SB-12	
						Sample Name:	SB-10-d8	SB-10-d9	SB-11-01	SB-11-d1	SB-11-d10	SB-11-d2	SB-11-d3	SB-11-d4	SB-11-d5	SB-11-d6	SB-11-d7	SB-11-d8	SB-11-d9	SB-12-01	SB-12-d10
						Sample Date:	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg				12100											15400	
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg			2													
Barium				330.0	mg/kg															487	
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg		2320	189	5337.6	3188.8	3667.2	1560	1828.8	4889.6	3280	2139.2	1169.6	1760	70.6	3347.2	
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg		500.8	31.5	743.6	952	550		632	773.6		608.4	875.2	1100	65.2	960.8	
Copper	3100.0			28	mg/kg			88.2	498.4		272.2			268.6	1260					65.3	
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	30080	28390.4	39800	34278.4	38579.2	22899.2	21196.8	32486.4	35379.2	30080	25792	34099.2	37580.8	37800	38784	
Lead	400.0			11	mg/kg			16.3				44.1								26.4	
Manganese	1800.0			220.0	mg/kg	3718.4	3179.2	596	3099.2	4979.2	2788.8	1979.2	3718.4	5017.6	2259.2	2388.8	3478.4	3600	1950	4659.2	
Mercury	4.3	24	0.058		mg/kg				245.6		112.2			150.6	722.8						48.6
Nickel				38	mg/kg			43.1	334.2											97.5	
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg			30.8												26.9	
Zinc				46	mg/kg				329	95.4	140.7			234.4	763.6		63.7	78.9	94.8	121.1	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

						Location:	SB-12	SB-12	SB-12	SB-12	SB-12	SB-12	SB-13								
						Sample Name:	SB-12-d2	SB-12-d3	SB-12-d4	SB-12-d5	SB-12-d6	SB-12-d7	SB-13-01	SB-13-d1	SB-13-d10	SB-13-d11	SB-13-d12	SB-13-d13	SB-13-d14	SB-13-d2	SB-13-d3
						Sample Date:	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg								8490								
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg																
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg	3108.8	2588.8	1969.6	1609.6	1080			138	1609.6		1668.8				1449.6	3788.8
Chromium VI	39	200.0			mg/kg								63.1								
Cobalt	23	300.0		13	mg/kg	505.6	852	310.4	1149.6	723.2	1320		13.9		504.8		582.8	1180	802.4	575.2	642.8
Copper	3100.0			28	mg/kg	218.2															
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	22092.8	28185.6	11596.8	35686.4	30182.4	45696	28700	21196.8	14092.8	16896	20992	35788.8	23091.2	20198.4	23795.2	
Lead	400.0			11	mg/kg			34.8	59.6	42.2	42.3	12.4	61.7	42.3	35.8					61.8	45.5
Manganese	1800.0			220.0	mg/kg	3028.8	3228.8	1549.6	6428.8	5929.6	4688		2099.2	1899.2	1540	1400	4739.2	3019.2	3089.6	2440	
Mercury	4.3	24	0.058		mg/kg	74.9															
Nickel				38	mg/kg									205.6							
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg								25.3								
Zinc				46	mg/kg	139.4			82.4	75.4	87.2		221.4					75.1	89.6	149.1	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:				SB-13	SB-13	SB-13	SB-13	SB-13	SB-13	SB-14								
		Sample Name:				SB-13-d4	SB-13-d5	SB-13-d6	SB-13-d7	SB-13-d8	SB-13-d9	SB-14-01	SB-14-02	SB-14-d1	SB-14-d10	SB-14-d11	SB-14-d12	SB-14-d13	SB-14-d2	SB-14-d3
		Sample Date:				2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-06	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07
		Matrix:				SB														
		Parent:																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg						10600	13700								
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	3667.2	1340	1969.6	1080	1209.6	1380	48.4	60.6	1689.6	3089.6			1420	2240	3769.6
Chromium VI	39	200.0			mg/kg								58.4							
Cobalt	23	300.0		13	mg/kg	431.2	475.2	426.4	354	571.2	668.4		13.5	272.4	808			952	618.8	
Copper	3100.0			28	mg/kg					122.9					2320	2459.2	2080			750.8
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	24998.4	19891.2	19788.8	17395.2	24396.8	24294.4	33100	34600	14694.4	36377.6	54784	34380.8	34892.8	23897.6	19993.6
Lead	400.0			11	mg/kg		57.2	36.8				18.7	19.2	86.2						
Manganese	1800.0			220.0	mg/kg	3280	2289.6	2640	1840	3379.2	2640	230		2129.6	3907.2	6636.8		4387.2	2899.2	3000
Mercury	4.3	24	0.058		mg/kg					77.7					1240	1329.6	1129.6		45.1	331.4
Nickel				38	mg/kg	334.2		192.6					39.8	229.6						329
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg							17.2	35							
Zinc				46	mg/kg	53.3	61.4	51.6	48.6	96.3	53.4	58.3	63.8	61.4	1280	1640	1160		107.3	380.4
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

		Location:				SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-15								
		Sample Name:				SB-14-d4	SB-14-d5	SB-14-d6	SB-14-d7	SB-14-d8	SB-14-d9	SB-15-01	SB-15-02	SB-15-d1	SB-15-d10	SB-15-d11	SB-15-d12	SB-15-d13	SB-15-d14	SB-15-d2
		Sample Date:				2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07
		Matrix:				SB														
		Parent:																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg						13900	12500								
Antimony	31			0.27	mg/kg							16.1								
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	3779.2	3179.2	3987.2	2929.6	3958.4	2840	33	1200	3219.2		3548.8	4649.6	4128		
Chromium VI	39	200.0			mg/kg								249							
Cobalt	23	300.0		13	mg/kg			803.2		764.8	892	21	22.1		797.6	584.8	1009.6		261.2	
Copper	3100.0			28	mg/kg	1280	898.4	404.4	520.8	514	1049.6			321.6		656.8	1109.6	673.6	2080	
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	21990.4	36684.8	44083.2	39296	38784	36096	28000	36100	16000	33075.2	39475.2	44288	31283.2	24998.4	12499.2
Lead	400.0			11	mg/kg							16.8	22.4	47.7					37.9	
Manganese	1800.0			220.0	mg/kg	2748.8	4937.6	5638.4	4908.8	3728	4329.6	633	689	1828.8	5120	5648	5398.4	6368	1420	
Mercury	4.3	24	0.058		mg/kg	632.4	433.2	246	233.4	293	519.6			191.6	37.6	349.8	513.2	333	1160	
Nickel				38	mg/kg					419.2			44	310.6		459.6				
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg							16.9	19.6							
Zinc				46	mg/kg	694	500	249.2	305.2	404.4	576.8	85.1	86.9	241.2	67.5	456	617.6	411.2	1180	
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen
- Exceeds SSL Screen

		Location:					SB-15	SB-16													
		Sample Name:					SB-15-d3	SB-15-d4	SB-15-d5	SB-15-d6	SB-15-d7	SB-15-d8	SB-15-d9	SB-16-01	SB-16-02	SB-16-d1	SB-16-d10	SB-16-d2	SB-16-d3	SB-16-d4	SB-16-d5
		Sample Date:					2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07
		Matrix:					SB														
		Parent:																			
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg								10100	8750							
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg									5.8							
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg	2849.6	2059.2		3468.8			3398.4	67.3		3939.2	3427.2	4880	2480	3968	3289.6	
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg	621.2	881.6		747.6			976			356.6	368.2	616.8	710.8	594	306	
Copper	3100.0			28	mg/kg	731.2		2148.8	1788.8			650			1269.6	1360	1029.6		944	759.2	
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	30976	38400	43392	37990.4	36198.4	38579.2	37299.2	13300	14900	16998.4	14092.8	22899.2	31590.4	34790.4	11897.6	
Lead	400.0			11	mg/kg																
Manganese	1800.0			220.0	mg/kg	4908.8	4668.8		3878.4			4678.4	250		2868.8	1979.2	2720	3089.6	4528	1849.6	
Mercury	4.3	24	0.058		mg/kg	399.4		788	928.8	901.6	692.4	279.8			675.2	710.4	540.8	37.7	479.6	351	
Nickel				38	mg/kg	202.2									357.4	283.2			302		
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg								19.3	20.6							
Zinc				46	mg/kg	450.4	117.4	885.6	1109.6	1160		316.4			692.4	732	541.2	72.2	551.6	362.4	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg								245								

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen**
- Exceeds SSL Screen

		Location:		SB-16	SB-16	SB-16	SB-16	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17			
		Sample Name:		SB-16-d6	SB-16-d7	SB-16-d8	SB-16-d9	SB-17-01	SB-17-02	SB-17-d1	SB-17-d10	SB-17-d11	SB-17-d12	SB-17-d13	SB-17-d14	SB-17-d15	SB-17-d16	SB-17-d2		
		Sample Date:		2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07		
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB		
		Parent:																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg			12000	11900											
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	4377.6	3657.6	2188.8	2059.2	86.3	2560		2569.6	2699.2		2920	2969.6			
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg			439.2			466					909.6	732.8			
Copper	3100.0			28	mg/kg	308	1480	1609.6		75.2	1040	397.2		150.9		240.2		2059.2		
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	13888	12697.6	10400	9996.8	34800	29000	14796.8	19392	45696	40192	29184	40192	32281.6	38092.8	16192
Lead	400.0			11	mg/kg					19.3	12.9									
Manganese	1800.0			220.0	mg/kg		1889.6	2259.2			510	2289.6	3099.1	8659.2	4729.6	3840		3520	2868.8	
Mercury	4.3	24	0.058		mg/kg	118.1	764.4	918.4			502.8	203.1		59.2		135.9		912		
Nickel				38	mg/kg	282.8														
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg					18.3	14.2									
Zinc				46	mg/kg	128.7	826.4	912.8		68.5	68.3	570	299.4		85.1	128.2		239.8	97	
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-17	SB-18													
						Sample Name:	SB-17-d3	SB-17-d4	SB-17-d5	SB-17-d6	SB-17-d7	SB-17-d8	SB-17-d9	SB-18-01	SB-18-02	SB-18-d1	SB-18-d10	SB-18-d11	SB-18-d2	SB-18-d3	SB-18-d4
						Sample Date:	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-07	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg									17200	11800						
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg																
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg	4348.8			5558.4	1720	3948.8	2489.6	28.9	28.2	3360		3468.8	2289.6	3558.4		
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg			1120		1129.6	1409.6	1309.6					744.8	333	704.8	718	
Copper	3100.0			28	mg/kg	1429.6	1708.8	98.8	1819.2		1689.6			126	1529.6		1529.6	277	1380		
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	18188.8	30592	35584	45798.4	39296	43187.2	44492.8	34500	22800	18496	26982.4	21094.4	15296	29798.4	25395.2	
Lead	400.0			11	mg/kg							63.9	20.8	115			40.3				37.4
Manganese	1800.0			220.0	mg/kg	1680	6489.6	3587.2	4137.6	4969.6	5568	5059.2	329	374	1540		2649.6	1560	3548.8	3249.6	
Mercury	4.3	24	0.058		mg/kg	732.8	1180	68.6	1069.6		830.4			0.1	848.8	576.4	795.6	137.5	827.2	17.7	
Nickel				38	mg/kg	410.4									257.8						
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg								41.2	30							
Zinc				46	mg/kg	805.2	956.8	139.4	1140	130.3	921.6	124.7		138	938.4	937.6	976.8	181.1	906.4	48.9	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-18	SB-18	SB-18	SB-18	SB-18	SB-19									
						Sample Name:	SB-18-d5	SB-18-d6	SB-18-d7	SB-18-d8	SB-18-d9	SB-19-01	SB-19-02	SB-19-d1	SB-19-d10	SB-19-d11	SB-19-d2	SB-19-d3	SB-19-d4	SB-19-d5	SB-19-d6
						Sample Date:	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10
						Matrix:	SB														
						Parent:															
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																
Metals																					
Aluminum	77000.0		1		mg/kg							13000	9780								
Antimony	31			0.27	mg/kg																
Arsenic	0.39	1.6		18	mg/kg																
Barium				330.0	mg/kg																
Cadmium				0.36	mg/kg																
Chromium	280.0	1400.0		26	mg/kg		1460	5177.6	5747.2	2019.2			4080		1280	3440	3920	2089.6	3347.2	3680	
Chromium VI	39	200.0			mg/kg																
Cobalt	23	300.0		13	mg/kg		850.4		1289.6	837.6	12.7			801.6	868	524.4		899.2		796.8	
Copper	3100.0			28	mg/kg	1620		2449.6	1748.8	444			1680			1020	1659.2		1160		
Cyanide (total)			0.005		mg/kg																
Iron	55000.0		12		mg/kg	35379.2	31590.4	42393.6	40985.6	28595.2	32500	29200	16896	25996.8	31180.8	26598.4	17190.4	28800	36480	37888	
Lead	400.0			11	mg/kg						17.6	14.5			34						
Manganese	1800.0			220.0	mg/kg		3488	4838.4	3788.8	2760	952	281		3708.8	3718.4	3169.6	2139.2	2748.8	4608	5337.6	
Mercury	4.3	24	0.058		mg/kg	1020		1229.6	980	298.8			750.4			520.8	920.8	111.4	556		
Nickel				38	mg/kg												502.8				433.2
Selenium				0.52	mg/kg																
Silver				4.2	mg/kg																
Thallium			0.001		mg/kg																
Vanadium				7.8	mg/kg						16.8	21.8									
Zinc				46	mg/kg	838.4	67	1409.6	1089.6	391.8			895.2	88.1	63.8	592.8	903.2	185.3	559.6	139.5	
Polyaromatic Hydrocarbons																					
Anthracene			100		ug/kg																
Benzo(a)anthracene	150		100		ug/kg																
Benzo(a)pyrene	15	210	100		ug/kg																
Benzo(b)fluoranthene	150		100		ug/kg																
Benzo(g,h,i)perylene			100		ug/kg																
Benzo(k)fluoranthene			100		ug/kg																
Chrysene			100		ug/kg																
Dibenz(a,h)anthracene	15				ug/kg																
Fluorene			100		ug/kg																
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																
Phenanthrene			100		ug/kg																

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen
 Exceeds RSL Industrial Screen
 Exceeds RSL Residential and Industrial Screen
 Exceeds BTAG Screen
 Exceeds SSL Screen

		Location:		Sample Name:		Sample Date:		Matrix:		Parent:										
		SB-19	SB-19	SB-19	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20	SB-20				
		SB-19-d7	SB-19-d8	SB-19-d9	SB-20-01	SB-20-02	SB-20-d1	SB-20-d10	SB-20-d11	SB-20-d12	SB-20-d13	SB-20-d2	SB-20-d3	SB-20-d4	SB-20-d5	SB-20-d6				
		2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10				
		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB				
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg															
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg			35.9	3.6		60.8									
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	5657.6	3558.4	1100		2200	4009.6	2369.6		3587.2	3379.2	3080	4099.2	4969.6	2800	
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg	1029.6	965.6	698.8		14.5	354.6		744.8	764	700.8	533.6				
Copper	3100.0			28	mg/kg	863.2	322			114	204.1	1080	329	817.6	517.6	254	1920	1140	184.7	
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	43699.2	31590.4	23398.4	20000	26700	12096	13696	30387.2	34790.4	24896	19200	7737.6	10099.2	12499.2	9715.2
Lead	400.0			11	mg/kg				113	15.1	289.4		48.3							
Manganese	1800.0			220.0	mg/kg	11596.8	3600	2148.8	336	372	1769.6	2049.6	2800	3379.2	2560	2569.6		1229.6	1389.6	997.6
Mercury	4.3	24	0.058		mg/kg	404	204.4		0.6		103.7	548.8	170.8		366.4	238.8	115.9	1089.6	525.2	70.4
Nickel				38	mg/kg						339.4								305.6	178.3
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg				31.2	16.4										
Zinc				46	mg/kg	445.2	261.6		64.6	46.7	170.2	641.6	200.3	92.6	421.6	286.6	114.3	1040	602.8	78
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

- Exceeds RSL Residential Screen
- Exceeds RSL Industrial Screen
- Exceeds RSL Residential and Industrial Screen
- Exceeds BTAG Screen**
- Exceeds SSL Screen

		Location:		SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-22	SB-23	SB-23			
		Sample Name:		SB-22-02	SB-22-d1	SB-22-d10	SB-22-d11	SB-22-d12	SB-22-d2	SB-22-d3	SB-22-d4	SB-22-d5	SB-22-d6	SB-22-d7	SB-22-d8	SB-22-d9	SB-23-01	SB-23-02		
		Sample Date:		2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10	2000-01-10		
		Matrix:		SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB		
		Parent:																		
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg	9350											9540	13900		
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg		3059.2		3360	2748.8	1080		2828.8	2369.6	2059.2		3089.6	29		
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg			499.6		286.2			369.2	451.6	418	624.4		15.2		
Copper	3100.0			28	mg/kg		1349.6		837.6	532		1380	436	968.8	1939.2		2748.8	1449.6		
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	33500	16896	20992	25792	27187.2	12198.4	37299.2	14988.8	20390.4	14592	29184	39680	26496	20400	39900
Lead	400.0			11	mg/kg	17.8				40.7									24.6	
Manganese	1800.0			220.0	mg/kg	233		2468.8	3840	3449.6	1920		2560	2939.2	2948.8	4188.8		3737.6	464	
Mercury	4.3	24	0.058		mg/kg		637.2		444.4	258		960.8	220	477.2	1069.6		1480	738.4		
Nickel				38	mg/kg				478				221.4							
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg	17.4												40	33.9	
Zinc				46	mg/kg		640.8		482.4	366		998.4	223.4	555.2	1060	72.8	1549.6	828.8	40	66.1
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg	187														
Benzo(a)pyrene	15	210	100		ug/kg	148														
Benzo(b)fluoranthene	150		100		ug/kg	121														
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg	155														
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg	127														

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-24	SB-25														
						Sample Name:	SB-24-d2	SB-24-d3	SB-24-d4	SB-24-d5	SB-24-d6	SB-24-d7	SB-24-d8	SB-24-d9	SB-25-01	SB-25-02	SB-25-d1	SB-25-d10	SB-25-d11	SB-25-d12	SB-25-d2	
						Sample Date:	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	
						Matrix:	SB	SB														
						Parent:																
Analyte	RSL RES	RSL IND	BTAG	SSL	Units																	
Metals																						
Aluminum	77000.0		1		mg/kg										11800	9820						
Antimony	31			0.27	mg/kg																	
Arsenic	0.39	1.6		18	mg/kg											1.3						
Barium				330.0	mg/kg																	
Cadmium				0.36	mg/kg																	
Chromium	280.0	1400.0		26	mg/kg	3019.2	2179.2	1129.6	1589.6	1609.6	1720	3379.2			64.1		1509.6	2560			1349.6	
Chromium VI	39	200.0			mg/kg																	
Cobalt	23	300.0		13	mg/kg	395.8	528.8		402.8	330.8		460		13.7			1029.6	690.4	1060		461.2	
Copper	3100.0			28	mg/kg				863.2		404.2	564.8	1140		125		738	399.6			137.8	
Cyanide (total)			0.005		mg/kg																	
Iron	55000.0		12		mg/kg	21696	20288	20096	10099.2	10598.4	10099.2	18291.2	13990.4	16000	25400	18995.2	38579.2	12595.2	16588.8	24089.6		
Lead	400.0			11	mg/kg																	
Manganese	1800.0			220.0	mg/kg	1739.2	2160	1809.6	1240	1209.6	1400	2108.8		390	307		2680				2209.6	
Mercury	4.3	24	0.058		mg/kg				448.8		204.8	272.8	682.8				483.2	214.4	234.4		130.7	
Nickel				38	mg/kg							190.8										
Selenium				0.52	mg/kg																	
Silver				4.2	mg/kg																	
Thallium			0.001		mg/kg																	
Vanadium				7.8	mg/kg										33.6	29.1						
Zinc				46	mg/kg				504.8		266	292.2	733.2					284.2	327.8		131.5	
Polyaromatic Hydrocarbons																						
Anthracene			100		ug/kg																	
Benzo(a)anthracene	150		100		ug/kg																	
Benzo(a)pyrene	15	210	100		ug/kg																	
Benzo(b)fluoranthene	150		100		ug/kg																	
Benzo(g,h,i)perylene			100		ug/kg																	
Benzo(k)fluoranthene			100		ug/kg																	
Chrysene			100		ug/kg																	
Dibenz(a,h)anthracene	15				ug/kg																	
Fluorene			100		ug/kg																	
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg																	
Phenanthrene			100		ug/kg																	

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

Location:						SB-25	SB-25	SB-25	SB-25	SB-25	SB-25	SB-25	SB-25	SB-26	SB-26	SB-26	SB-26	SB-26	SB-26	
Sample Name:						SB-25-d3	SB-25-d4	SB-25-d5	SB-25-d6	SB-25-d7	SB-25-d8	SB-25-d9	SB-27-01	SB-26-01	SB-26-02	SB-26-d1	SB-26-d2	SB-26-d3	SB-26-d4	
Sample Date:						2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11
Matrix:						SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Parent:						SB-25-01_01112000SB														
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg								13600	12200	12800					
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg		3009.6					1229.6			35.2		2320	2409.6	3628.8	
Chromium VI	39	200.0			mg/kg															
Cobalt	23	300.0		13	mg/kg			292.4	218.8		302.8	307.8			21		900	1729.6	984	
Copper	3100.0			28	mg/kg	2169.6	1460			1440			27.7					320.4	813.6	
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	25996.8	19699.2	5840	9068.8	17190.4	9158.4	7564.8	30500	21900	32700	1948.8	15296	24998.4	16998.4	
Lead	400.0			11	mg/kg			30.2	20.5				12.9	13.1						
Manganese	1800.0			220.0	mg/kg			693.6	761.6		1520				262					
Mercury	4.3	24	0.058		mg/kg	977.6	872.8			666						117.5		254.4	594.8	
Nickel				38	mg/kg															
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg								38.1	34	51.5			265.4	380.2	684.8
Zinc				46	mg/kg		764			435.2										
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen
 Exceeds RSL Industrial Screen
 Exceeds RSL Residential and Industrial Screen
 Exceeds BTAG Screen
 Exceeds SSL Screen

Location:						SB-26	SB-26	SB-26	SB-26	SB-28	SB-29									
Sample Name:						SB-26-d5	SB-26-d6	SB-26-d7	SB-26-d8	SB-28-01	SB-28-02	SB-28-d1	SB-28-d2	SB-28-d3	SB-28-d4	SB-28-d5	SB-28-d6	SB-28-d7	SB-28-d8	SB-29-01
Sample Date:						2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11
Matrix:						SB														
Parent:																				
Analyte	RSL RES	RSL IND	BTAG	SSL	Units															
Metals																				
Aluminum	77000.0		1		mg/kg					16600	9500									12600
Antimony	31			0.27	mg/kg															
Arsenic	0.39	1.6		18	mg/kg															
Barium				330.0	mg/kg															
Cadmium				0.36	mg/kg															
Chromium	280.0	1400.0		26	mg/kg	1280	5468.8	2929.6		37.3	122				1760	661.2	585.6			44.4
Chromium VI	39	200.0			mg/kg						108									
Cobalt	23	300.0		13	mg/kg	1349.6	3558.4	1739.2	1800	25.3	13.6		345.4	301.4	380.2		295.4	535.6	284	21.1
Copper	3100.0			28	mg/kg		989.6	146.7	967.2	113	107	1049.6	99			623.6				
Cyanide (total)			0.005		mg/kg															
Iron	55000.0		12		mg/kg	19891.2	59084.8	25689.6	10995.2	24100	25400	17894.4	18188.8	15692.8	16998.4	12800	16000	19596.8	14694.4	33200
Lead	400.0			11	mg/kg									23.4				25.1		13.2
Manganese	1800.0			220.0	mg/kg					538	383	2400	2788.8	1729.6	2188.8	2840	1699.2	2428.8	2040	2320
Mercury	4.3	24	0.058		mg/kg		820	170.6	515.2			511.2				287.6				
Nickel				38	mg/kg															
Selenium				0.52	mg/kg															
Silver				4.2	mg/kg															
Thallium			0.001		mg/kg															
Vanadium				7.8	mg/kg					37.2	36.1									40.7
Zinc				46	mg/kg	68.4	1240	233.8	493.6			525.6				294.2				
Polyaromatic Hydrocarbons																				
Anthracene			100		ug/kg															
Benzo(a)anthracene	150		100		ug/kg															
Benzo(a)pyrene	15	210	100		ug/kg															
Benzo(b)fluoranthene	150		100		ug/kg															
Benzo(g,h,i)perylene			100		ug/kg															
Benzo(k)fluoranthene			100		ug/kg															
Chrysene			100		ug/kg															
Dibenz(a,h)anthracene	15				ug/kg															
Fluorene			100		ug/kg															
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg															
Phenanthrene			100		ug/kg															

Table 2b: Soil and Sediment RSL Exceedences for Metals and PAHs

All data taken from Chem Fab EQUIS Database (07 July 2009)

Exceeds RSL Residential Screen

Exceeds RSL Industrial Screen

Exceeds RSL Residential and Industrial Screen

Exceeds BTAG Screen

Exceeds SSL Screen

						Location:	SB-29	SB-29	SB-29	SB-29	SB-29	SB-29	SB-29	SB-29	SB-29	SB-29	
						Sample Name:	SB-29-02	SB-29-d1	SB-29-d10	SB-29-d2	SB-29-d3	SB-29-d4	SB-29-d5	SB-29-d6	SB-29-d7	SB-29-d8	SB-29-d9
						Sample Date:	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11	2000-01-11
						Matrix:	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
						Parent:											
Analyte	RSL RES	RSL IND	BTAG	SSL	Units												
Metals																	
Aluminum	77000.0		1		mg/kg	8170											
Antimony	31			0.27	mg/kg												
Arsenic	0.39	1.6		18	mg/kg												
Barium				330.0	mg/kg												
Cadmium				0.36	mg/kg												
Chromium	280.0	1400.0		26	mg/kg	98.7	1939.2					1769.6	2179.2				
Chromium VI	39	200.0			mg/kg												
Cobalt	23	300.0		13	mg/kg		599.2			744		657.6	753.6	429.2			
Copper	3100.0			28	mg/kg			1529.6				1389.6		244.8			
Cyanide (total)			0.005		mg/kg												
Iron	55000.0		12		mg/kg	22100	19200	17792	17190.4	38400	37683.2	31488	26188.8	35276.8	15193.6	13094.4	
Lead	400.0			11	mg/kg												
Manganese	1800.0			220.0	mg/kg	677	3040	2040		3769.6		7008	4489.6	4320	2089.6	1589.6	
Mercury	4.3	24	0.058		mg/kg				697.2		352.6	571.2		141.3			
Nickel				38	mg/kg												
Selenium				0.52	mg/kg												
Silver				4.2	mg/kg												
Thallium			0.001		mg/kg												
Vanadium				7.8	mg/kg	26.2											
Zinc				46	mg/kg			712.4				798.8		134.9			
Polyaromatic Hydrocarbons																	
Anthracene			100		ug/kg												
Benzo(a)anthracene	150		100		ug/kg												
Benzo(a)pyrene	15	210	100		ug/kg												
Benzo(b)fluoranthene	150		100		ug/kg												
Benzo(g,h,i)perylene			100		ug/kg												
Benzo(k)fluoranthene			100		ug/kg												
Chrysene			100		ug/kg												
Dibenz(a,h)anthracene	15				ug/kg												
Fluorene			100		ug/kg												
Indeno(1,2,3-c,d)pyrene	150		100		ug/kg												
Phenanthrene			100		ug/kg												

Table 3: Surface Water RSL Exceedences for VOCs, Total Metals, and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				SW-01 2197 201 2004-04-20	SW-01 SW-01 2009-04-13	SW-01 SW-01-01 2000-01-24	SW-01 SW1 2004-08-19	SW-01 SW-1 2006-12-18	SW-01 SW-1 2007-09-18	SW-01 SW-1 2008-05-01	SW-01 SW-1 2008-10-01	SW-01 SW1-101906 2006-10-19	SW-01 SW-1-5106 2006-05-01	SW-02 2197 202 2004-04-20	SW-02 2197 206 2004-04-20 2197 202_04202004WS	SW-02 SW-02 2009-04-13	SW-02 SW-02-01 2000-01-24	SW-02 SW-06 2009-04-13			
Analyte	T or D	RSL Tapwater	Units																		
Volatile Organic Compounds																					
1,1,2-Trichloroethane	T	0.24	ug/l																		
1,1-Dichloroethane	T	2.4	ug/l																		
Bromodichloromethane	T	0.12	ug/l											0.26 J	0.3 J						
Carbon Tetrachloride	T	0.2	ug/l											0.3 J	0.3 J						
Chloroform	T	0.19	ug/l											0.24 J	0.2 J						
Dibromochloromethane	T	0.15	ug/l											0.59	0.6						
Ethylbenzene	T	1.5	ug/l																		
Methylene Chloride	T	4.8	ug/l																		
Tetrachloroethene	T	0.11	ug/l	0.82	1.7	1.4	1.1	1.2	0.8	1.2	1	1.4	1.4	0.74	0.8	0.9	1.19	0.8			
Trichloroethene	T	1.7	ug/l		12		5.6	5	4	8.6	5.5	7.1	6.4	5.8	5.7	21		19			
Vinyl Chloride	T	0.016	ug/l		0.1 J											0.2 J		0.2 J			
Xylenes (total)	T	2	ug/l																		
Total Metals																					
Arsenic	T	0.045	ug/l						0.93 J					4.3	4.4	1.2 J		2.2			
Chromium VI	T	110	ug/l		130			150	210	110	130	130	170			800		840			
Cobalt	T	11	ug/l																		
Manganese	T	880	ug/l																	1170	
Nickel	T	730	ug/l																		
Dissolved Metals																					
Arsenic	D	0.045	ug/l						0.91 J												
Chromium VI	D	110	ug/l											875	923						
Cobalt	D	11	ug/l																		
Manganese	D	880	ug/l																		
Nickel	D	730	ug/l																		

Table 3: Surface Water RSL Exceedences for VOCs, Total Metals, and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location: Sample Name: Sample Date: Parent:				SW-02 SW-06-01 2000-01-24 SW-02-01_01242000WS	SW-02 SW2 2004-08-19	SW-02 SW-2 2006-12-18	SW-02 SW-2 2008-05-01	SW-02 SW-2 2008-10-01	SW-02 SW2-101906 2006-10-19	SW-02 SW-2-5106 2006-05-01	SW-02 SW6 2004-08-19 SW2_08192004WS	SW-02 SW-6 2008-05-01 SW-2_05012008WS	SW-02 SW6-101906 2006-10-19 SW2-101906_10192006WS	SW-02 SW-6-5106 2006-05-01 SW-2-5106_05012006WS	SW-03 2197 203 2004-04-20		
Analyte	T or D	RSL Tapwater	Units														
Volatile Organic Compounds																	
1,1,2-Trichloroethane	T	0.24	ug/l														
1,1-Dichloroethane	T	2.4	ug/l														
Bromodichloromethane	T	0.12	ug/l														
Carbon Tetrachloride	T	0.2	ug/l		0.3 J						0.4 J						
Chloroform	T	0.19	ug/l		0.2 J						0.3 J						
Dibromochloromethane	T	0.15	ug/l		0.2 J						0.2 J						
Ethylbenzene	T	1.5	ug/l														
Methylene Chloride	T	4.8	ug/l														
Tetrachloroethene	T	0.11	ug/l	1.04	0.4 J	1.2	0.7		0.2 J	0.2 J	0.4 J	0.7	0.2 J	0.2 J	0.89		
Trichloroethene	T	1.7	ug/l			23	15		6.3	5.2		15	6.4	5.2			
Vinyl Chloride	T	0.016	ug/l		0.1 J			0.1 J	0.2 J	0.1 J	0.1 J		0.2 J	0.1 J			
Xylenes (total)	T	2	ug/l														
Total Metals																	
Arsenic	T	0.045	ug/l		11.1	0.92 J	0.85 J				6.2 J	0.72 J					
Chromium VI	T	110	ug/l			2000	560			310		600		290			
Cobalt	T	11	ug/l														
Manganese	T	880	ug/l														
Nickel	T	730	ug/l														
Dissolved Metals																	
Arsenic	D	0.045	ug/l		5.7 J				1.3 J		4.9 J						
Chromium VI	D	110	ug/l														
Cobalt	D	11	ug/l														
Manganese	D	880	ug/l														
Nickel	D	730	ug/l														

Table 3: Surface Water RSL Exceedences for VOCs, Total Metals, and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				SW-03	SW-04																
Sample Name:				SW-03	SW-03-01	SW3	SW-3	SW-3	SW-3	SW-3	SW3-101906	SW-3-5106	2197 204	SW-04	SW-04-01	SW4	SW-4	SW-4	SW-4		
Sample Date:				2009-04-13	2000-01-24	2004-08-19	2006-12-18	2007-09-18	2008-05-01	2008-10-01	2006-10-19	2006-05-01	2004-04-20	2009-04-13	2000-01-24	2004-08-19	2006-12-18	2007-09-18	2008-05-01	2008-10-01	
Parent:																					
Analyte	T or D	RSL Tapwater	Units																		
Volatile Organic Compounds																					
1,1,2-Trichloroethane	T	0.24	ug/l		7.1																
1,1-Dichloroethane	T	2.4	ug/l																		
Bromodichloromethane	T	0.12	ug/l																		
Carbon Tetrachloride	T	0.2	ug/l			0.2 J															
Chloroform	T	0.19	ug/l			0.2 J															
Dibromochloromethane	T	0.15	ug/l																		
Ethylbenzene	T	1.5	ug/l																		
Methylene Chloride	T	4.8	ug/l																		
Tetrachloroethene	T	0.11	ug/l	0.8	7.1	0.9	0.8	0.9	1.1	1.1	1	1.5	0.74	2.1	1.38	1.1	1.1	0.7	1.4	1.5	
Trichloroethene	T	1.7	ug/l	19	14.2	3.5	10	4.5	10	6.4	6.9	6.8		12	1.67	6.8	4.9	4	9.5	6.8	
Vinyl Chloride	T	0.016	ug/l	0.1 J			0.2 J				0.2 J			0.1 J							
Xylenes (total)	T	2	ug/l																		
Total Metals																					
Arsenic	T	0.045	ug/l			6.5 J		0.94 J	1 J		0.76 J							0.99 J	0.88 J		
Chromium VI	T	110	ug/l	920			580	220	130	120	110	180		130			140	310	110	150	
Cobalt	T	11	ug/l																		
Manganese	T	880	ug/l																		
Nickel	T	730	ug/l																		
Dissolved Metals																					
Arsenic	D	0.045	ug/l					0.83 J											0.94 J		
Chromium VI	D	110	ug/l																		
Cobalt	D	11	ug/l																		
Manganese	D	880	ug/l																		
Nickel	D	730	ug/l																		

Table 3: Surface Water RSL Exceedences for VOCs, Total Metals, and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				SW-04	SW-04	SW-05	SW-07	SW-07	SW-07	SW-07	SW-07	SW-07									
Sample Name:				SW4-101906	SW-4-5106	2197 205	SW-05	SW5	SW-5	SW-5	SW-5	SW-5	SW5-101906	SW-5-5106	SW-07	SW-6	SW7	SW-7	SW-7	SW-7	
Sample Date:				2006-10-19	2006-05-01	2004-04-20	2009-04-13	2004-08-19	2006-12-18	2007-09-18	2008-05-01	2008-10-01	2006-10-19	2006-05-01	2009-04-13	2007-09-18	2004-08-19	2006-12-18	2008-05-01	2008-10-01	
Parent:																					
Analyte	T or D	RSL Tapwater	Units																		
Volatile Organic Compounds																					
1,1,2-Trichloroethane	T	0.24	ug/l																		
1,1-Dichloroethane	T	2.4	ug/l																		
Bromodichloromethane	T	0.12	ug/l																		
Carbon Tetrachloride	T	0.2	ug/l																		
Chloroform	T	0.19	ug/l																		
Dibromochloromethane	T	0.15	ug/l																		
Ethylbenzene	T	1.5	ug/l																		
Methylene Chloride	T	4.8	ug/l																		
Tetrachloroethene	T	0.11	ug/l	1.9	1.4	0.8	2	1.6	1.4	1.3	1.6	1.2	1.7	1.8	2.1	1.8	0.7	0.9	0.9	1.2	
Trichloroethene	T	1.7	ug/l	8.7	7.1		15	10	6.4	8.7	12	8.2	10	9.6	16	21	10	6.8	5	9.5	
Vinyl Chloride	T	0.016	ug/l				0.2 J				0.1 J				0.2 J						
Xylenes (total)	T	2	ug/l																		
Total Metals																					
Arsenic	T	0.045	ug/l								0.97 J	1.1 J				1 J			0.97 J		
Chromium VI	T	110	ug/l	140	200		160		150	350	110	170	160	210	160	440		160		180	
Cobalt	T	11	ug/l																		
Manganese	T	880	ug/l																		
Nickel	T	730	ug/l																		
Dissolved Metals																					
Arsenic	D	0.045	ug/l								0.88 J					0.96 J					
Chromium VI	D	110	ug/l																		
Cobalt	D	11	ug/l																		
Manganese	D	880	ug/l																		
Nickel	D	730	ug/l																		

Table 3: Surface Water RSL Exceedences for VOCs, Total Metals, and Dissolved Metals

All data taken from Chem Fab EQUIS Database (07 July 2009)

Location:				SW-07	SW-07	SW-08	SW-08	SW-08	SW-08	SW-08	SW-09	SW-10	SW-11	SW-111207	SW-12	SW-14	SWALE	XS-02	XS-03	XS-04	
Sample Name:				SW7-101906	SW-7-5106	SW-08	SW-8	SW-8	SW-8-102606	SW-8-5106	SW-9	SW-10	SW-11	SW-111207	SW-12	SW-14-01	SWALE	XSW-02N	XSW-03N	XSW-04N	
Sample Date:				2006-10-19	2006-05-01	2009-04-13	2006-12-18	2008-05-01	2006-10-26	2006-05-01	2006-12-18	2006-12-18	2006-12-18	2007-11-12	2006-12-18	2000-01-24	2003-07-09	2001-09-27	2001-09-27	2001-09-27	
Parent:																					
Analyte	T or D	RSL Tapwater	Units																		
Volatile Organic Compounds																					
1,1,2-Trichloroethane	T	0.24	ug/l																		
1,1-Dichloroethane	T	2.4	ug/l				4.3 J		5	3.6											
Bromodichloromethane	T	0.12	ug/l																		
Carbon Tetrachloride	T	0.2	ug/l							0.5				0.2 J							
Chloroform	T	0.19	ug/l				4 J		4 J	3				1.1							
Dibromochloromethane	T	0.15	ug/l																		
Ethylbenzene	T	1.5	ug/l				4.9 J		12	10											
Methylene Chloride	T	4.8	ug/l				36		43	29											
Tetrachloroethene	T	0.11	ug/l	1.6	1.3		210		280	150	0.3 J	0.4 J	0.4 J	17	0.4 J	1.04			1.8 J	2.2 J	
Trichloroethene	T	1.7	ug/l	14	9.3		1300	1.8	1100	890				260				3 J	18	38	
Vinyl Chloride	T	0.016	ug/l				2.2 J		3 J	2.1				0.2 J							
Xylenes (total)	T	2	ug/l				10		41	24											
Total Metals																					
Arsenic	T	0.045	ug/l			1.5 J	0.67 J	14.7		0.72 J											2.3 B
Chromium VI	T	110	ug/l	170	220		26300		34900	36400				3700			29100				
Cobalt	T	11	ug/l				1090	30.9	786	808											
Manganese	T	880	ug/l				2360	3180	2190	2100											
Nickel	T	730	ug/l				2990		2260	2430											
Dissolved Metals																					
Arsenic	D	0.045	ug/l					0.73 J	1 J	0.76 J									2.9 B		3.9 B
Chromium VI	D	110	ug/l																		
Cobalt	D	11	ug/l				931		759	829											
Manganese	D	880	ug/l				1990		2080	2110											
Nickel	D	730	ug/l				2610		2210	2500											

Tables 4 – 6: Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBC) Guidance Documents

Table 4 - Potential Chemical-Specific ARARs/TBCs

Standard, Requirement, Criterion, Or Limitation	Citation Or Reference	Description	Status	Comments
FEDERAL				
National Primary Drinking Water Standards	40 CFR Part 141	Establishes health-based standards (i.e., Maximum Contaminant Levels) for public drinking water.	Applicable	Applicable for contaminants which impact groundwater.
EPA Region III Risk Screening Level Tables	NA	Establishes chemical screening guidelines for use during risk assessment.	TBC	May be useful in development of cleanup goals.
General Pre-Treatment Standards	40 CFR Part 402	Establishes standards for discharge to POTW.	TBC	May be applicable for groundwater treatment Interim Action
Other: Delaware River Basin Commission (DRBC)	18 CFR 410	DRBC Water Quality Standards	TBC	DRBC has standards not listed in PA Water Quality Standards
PENNSYLVANIA				
Pennsylvania Water Quality Standards	Title 25 PA Code 93	Establishes guidelines for protection of watershed quality.	Applicable	Applicable to remedial actions impacting contaminant migration to surface water.
Safe Drinking Water	Title 25 PA Code 109	Establishes health-based standards (i.e., Maximum Contaminant Levels) for public drinking water.	Applicable	Applicable for contaminants which impact groundwater.

Table 5 - Potential Locations-Specific ARARs/TBCs

Standard, Requirement, Criterion, Or Limitation	Citation Or Reference	Description	Status	Comments
FEDERAL				
Protection of Floodplains	Executive Order 11988	Establishes requirements for the preservation of floodplain areas.	Applicable	May be applicable to remedial actions that affect floodplain areas.
Protection of Wetlands	Executive Order 11990	Requires minimization of destruction, loss, or degradation of wetlands.	Applicable	Site located near wetland areas.
Endangered Species/Wildlife: The Endangered Species Act of 1978	16 USC 1531 50 CFR 402	Requires federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of endangered/threatened species or adversely modify or destroy the critical habitats of such species.	Applicable	Applicable to remedial activities that may affect endangered or threatened species that may exist in areas affected by the remedial activity.
National Historic Preservation Act	(16 USC 470) Section 106 <i>et. Seq.</i> 36 CFR 800	Establishes guidelines for conducting construction activities in areas of national historic sites.	Applicable	May be applicable if remedial actions affect historic structures or landmarks in site area.

PENNSYLVANIA				
Antidegradation of streams	25 PA Code 9.123	Establishes the protection of high quality streams in PA.	Applicable	May be applicable to remedial activities occurring near the stream.
Protection of Floodplains	25 PA Code 106	Establishes the protection of floodplains in PA	Applicable	May be applicable to remedial actions that affect floodplain areas.
Protection of Wetlands	25 PA Code 105	Establishes the protection of wetlands in PA	Applicable	Site located near wetland areas.
Rare threatened or endangered species	25 PA Code 9.314	Requires the protection of the rare, threatened, and endangered species and protect and maintain the habitats of these species	Relevant and Appropriate	May be applicable if rare, threatened of endangered species are found on the site.
Pennsylvania Historic Preservation Act	PL 1160, 71 PS Section 1047.1	Establishes guidelines for conducting construction activities in areas of national historic sites.	Applicable	May be applicable if remedial actions affect historic structures or landmarks in site area.

Table 6 - Potential Action-Specific ARARs/TBCs

Standard, Requirement, Criterion, Or Limitation	Citation Or Reference	Description	Status	Comments
FEDERAL				
Ambient Water Quality Criteria	40 CFR 131	Establishes discharge standards to maintain the chemical, physical, and biological integrity of the nation's waters.	Applicable	Actions at the site could directly impact surface water quality.
Air : National Ambient Air Quality Standards (NAAQS)	40 CFR Part 50	Establishes primary and secondary NAAQS in Section 109 Clean Air Act.	Applicable	Applicable to alternatives that may emit pollutants to the air; establishes standards to protect health and welfare.
National Emission Standards for Hazardous Air Pollutants (NESHAPs)	40 CFR 61	Establishes specific emissions levels allowed for toxic air pollutants	Applicable	Applicable to alternatives that may emit toxic pollutants to the air.
Standards of Performance for New Stationary Sources	40 CFR 60	Establishes emission standards for pollutants from new or modified stationary (facility) sources.	Potentially Applicable	Potentially applicable to alternatives that have the potential to impact ambient air quality including onsite soil treatments.
Hazardous Waste: RCRA: Identification and Listing of a Hazardous Waste	40 CFR 261 Subpart B	Identifies solid wastes, which are subject to regulation as hazardous wastes under the chapter.	Potentially Applicable	May be applicable for hazardous solid waste handled during media treatment or generated during system installation. A determination will have to be made as to whether the constituents in contaminated media, if encountered, qualify as hazardous waste.
Off-Site Transport of Hazardous Waste	EPA OSWER Directive 9834.11	Establishes technical guidelines for the off-site transport of hazardous waste.	Applicable	Applicable if remedial activities include the off-site transport and management of hazardous waste.
RCRA – Part 262 Standards for Generators. Part 263 Standards for Transporters	40 CFR Parts 262 and 263	Applicable to generators and transporters of hazardous waste.	Applicable	Applicable to off-site disposal or treatment of hazardous material.

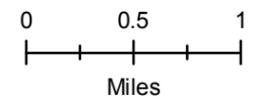
Standard, Requirement, Criterion, Or Limitation	Citation Or Reference	Description	Status	Comments
RCRA – Part 264, Subtitle C	40 CFR Part 264	Applicable to the treatment, storage, transportation and disposal of hazardous waste defined under 40 CFR Part 261.	Applicable	Applicable to off-site disposal or treatment of hazardous material.
RCRA – Part 268 Land Disposal Restrictions	40 CFR Part 268	Establishes standards for land disposal of RCRA hazardous waste. Requires treatment to diminish a waste's toxicity and/or minimize containment migration.	Applicable	Applicable if remedial activities include land disposal of RCRA hazardous waste.
Transportation of Hazardous Waste	49 CFR 172	Provides standards for the transportation of Hazardous Materials	Applicable	Applicable to remedial activities that involve the off-site transportation of hazardous waste.
Other: Wetland Permits	CWA Section 404	Develops requirements for wetland protection	Applicable	Applicable to remedial actions that may impact wetlands, such as excavation or dredging.
Occupational Safety and Health Standards	29 CFR 1910	Sets the medical, training, and monitoring requirements for which all workers engaged in hazardous waste operations must comply. Workers involved in remedial activities at the site must comply with OSHA regulations.	Applicable	
Occupational Safety and Health Standards	29 CFR 1926	Sets the standards for which all workers engaged in construction hazardous at the site must comply with.	TBC	May be applicable if Interim Actions involving construction are undertaken
PENNSYLVANIA				
Water: Drilling of Water Wells	17 PA Code 47	Establishes the requirement for drilling water wells in PA	Applicable	Applicable for the installation of wells during the remedial activity.
Hazardous Waste: PA Hazardous Waste Regulations	25 PA Code 260a-262	Establishes guidelines for hazardous waste management.	Applicable	Applicable to hazardous materials generated from remedial activities
Land Disposal Restrictions	25 PA Code 268a	Establishes standards for land disposal of RCRA hazardous waste. Requires treatment to diminish toxicity and/or minimize contaminant migration.	Applicable	Applicable if remedial activities include land disposal of RCRA hazardous waste.
Hazardous Materials Transportation	67 PA Code 403	Requirements for transporting hazardous materials within Pennsylvania.	Applicable	Applicable if any hazardous materials are taken offsite.
Air: Standards for Contaminants	25 PA Code 123	Develops requirements for emitting certain air pollutants.	Applicable	May be applicable if alternatives emit certain air pollutants.
National Emissions Standards for Hazardous Air Pollutants (NESHAPs)	25 PA Code 124	Adopts emissions standards (NESHAPs) for those hazardous air pollutants.	Applicable	Applicable to alternatives that have the potential to impact ambient air quality.
Construction, Modification, Reactivation and Operation of Sources	25 PA Code 127	Establishes procedures for design and operation emission sources.	Applicable	May be applicable if remedial activity includes air pollution control equipment.

Standard, Requirement, Criterion, Or Limitation	Citation Or Reference	Description	Status	Comments
Ambient Air Quality Standards (NAAQS)	25 PA Code 131	Establishes primary and secondary AAQS for ambient air quality to protect public health and welfare.	Applicable	Applicable to alternatives that have the potential to impact ambient air quality.
Other: The Pennsylvania Land Recycling Technical Manual	25 PA Code 250	Establishes recommendations and guidance for voluntary state cleanup activities and land reuse.	TBC	Used for Act 2 sites in voluntary state cleanup activities and land reuse activities. Sets cleanup guidance for site reuse, depending on future use.
Program Guidance for Superfund Site Cleanup and State Act 2 Sites, Pennsylvania DEP	N/A	Requirements for coordination between State and Superfund cleanup actions onsite.	TBC	Used to increase coordination between regulatory parties at State Act 2/Superfund Sites.
Hazardous Sites Cleanup Act	35 PS §6020.101	Establishes authority to be involved in the cleanup of Superfund sites in Pennsylvania	Applicable	Allows for input of PA decision makers
Pennsylvania Erosion Control Regulations	25 PA 102	Sets control measures for erosion control during construction	TBC	May be applicable if Interim Actions involve excavation and/or land construction actions.
Pennsylvania NPDES Rules	25 PA 92	Sets discharge limits for point source discharges to PA waters	TBC	May be applicable if Interim Actions involve groundwater treatment

Chem Fab Site
Doylestown Township,
Bucks County, Pennsylvania

Legend

 Approximate Property Boundary
(Extra Space Storage and
Former Chem Fab Facility)



Basemap Source: ESRI StreetMap, 2006

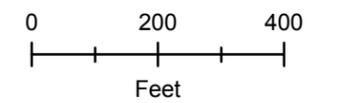


Figure 1 – Site Location
Technical Memorandum

Chem Fab Site
Doylestown Township,
Bucks County, Pennsylvania

Legend

Approximate Property Boundary
(Extra Space Storage and
Former Chem Fab Facility)



Aerial Photo Source: DVRPC, 2007
Basemap Source: ESRI StreetMap, 2006



Figure 2 – Site Boundary and Immediate Vicinity
Technical Memorandum

Chem Fab Site
Doylestown Township,
Bucks County, Pennsylvania

Legend

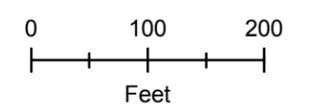
Approximate Locations of
Potential Former Source Areas

- ① Ground Scarring (1971)
- ② Vertical Tanks (1975); Vertical & Horizontal Tanks (1993)
- ③ Open Storage (1978); Storage with Horizontal Tanks (1986)
- ④ Construction Retention Basin (1986)
- ⑤ Culvert (1986)
- ⑥ Debris Areas Associated with Construction of Extra Space Storage (1986)

Approximate Location of
Historical Drainage Channels

Approximate Property Boundary
(Extra Space Storage and
Former Chem Fab Facility)

Disclaimer:
Approximate locations of potential former
source areas identified on this figure are
based on information included in the
Historical Aerial Photographic Analysis
completed by USEPA (June 2009).



Aerial Photo Source: DVRPC, 2007
Basemap Source: ESRI StreetMap, 2006

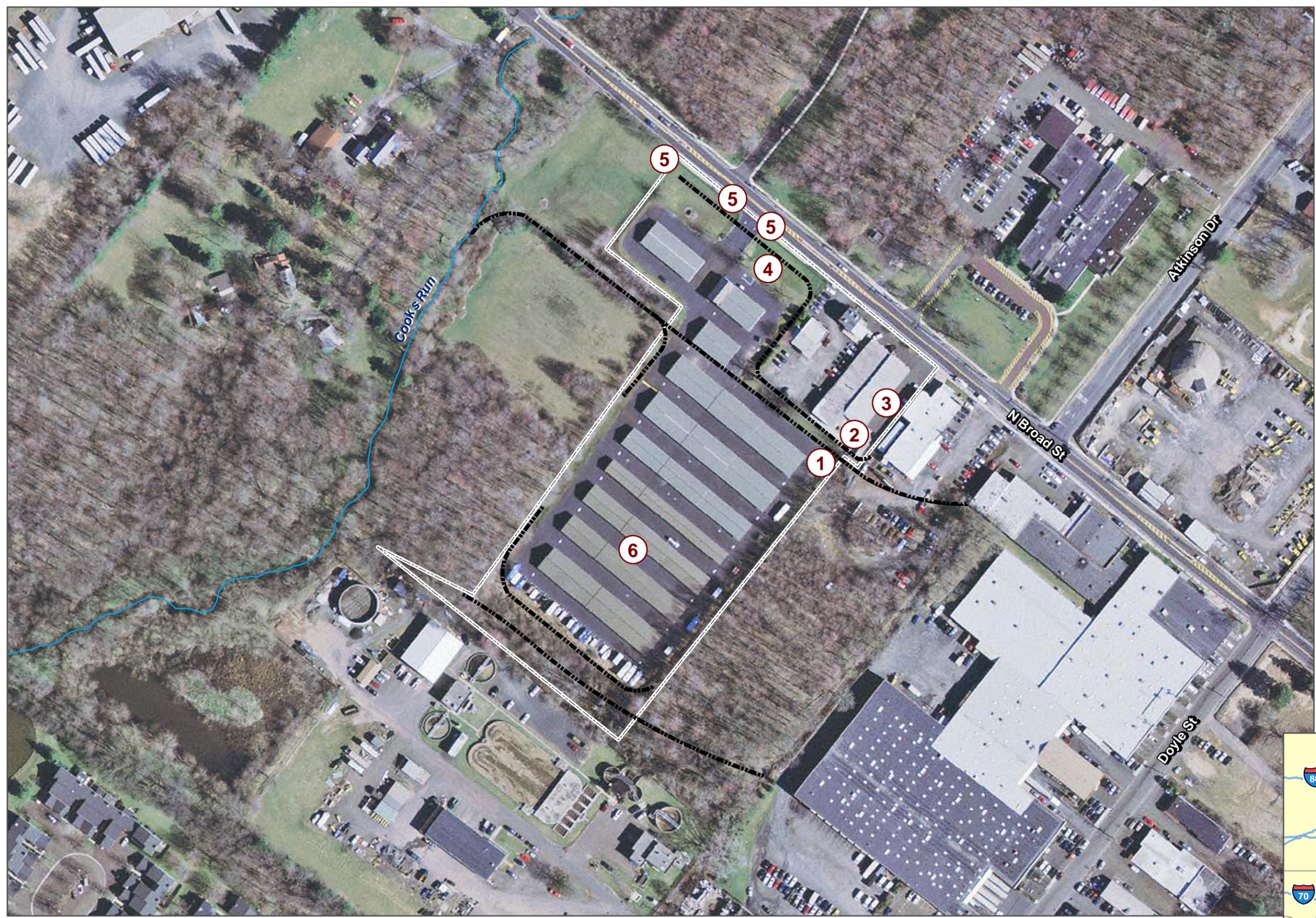


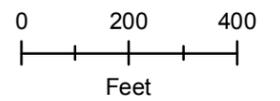
Figure 3 – Potential Former Source Areas
Technical Memorandum

Chem Fab Site
Doylestown Township,
Bucks County, Pennsylvania

Legend

- Existing Monitoring Well Location
- Municipal Drinking Water Well
- Proposed Lines of Section
- Approximate Property Boundary (Extra Space Storage and Former Chem Fab Facility)

- Notes:**
- EW-03 was originally 150ft but has been abandoned to 80.5ft - i.e. MW-47 (RW-01)
 - Parentheses indicate former well identification number
 - MSW-13 is offline

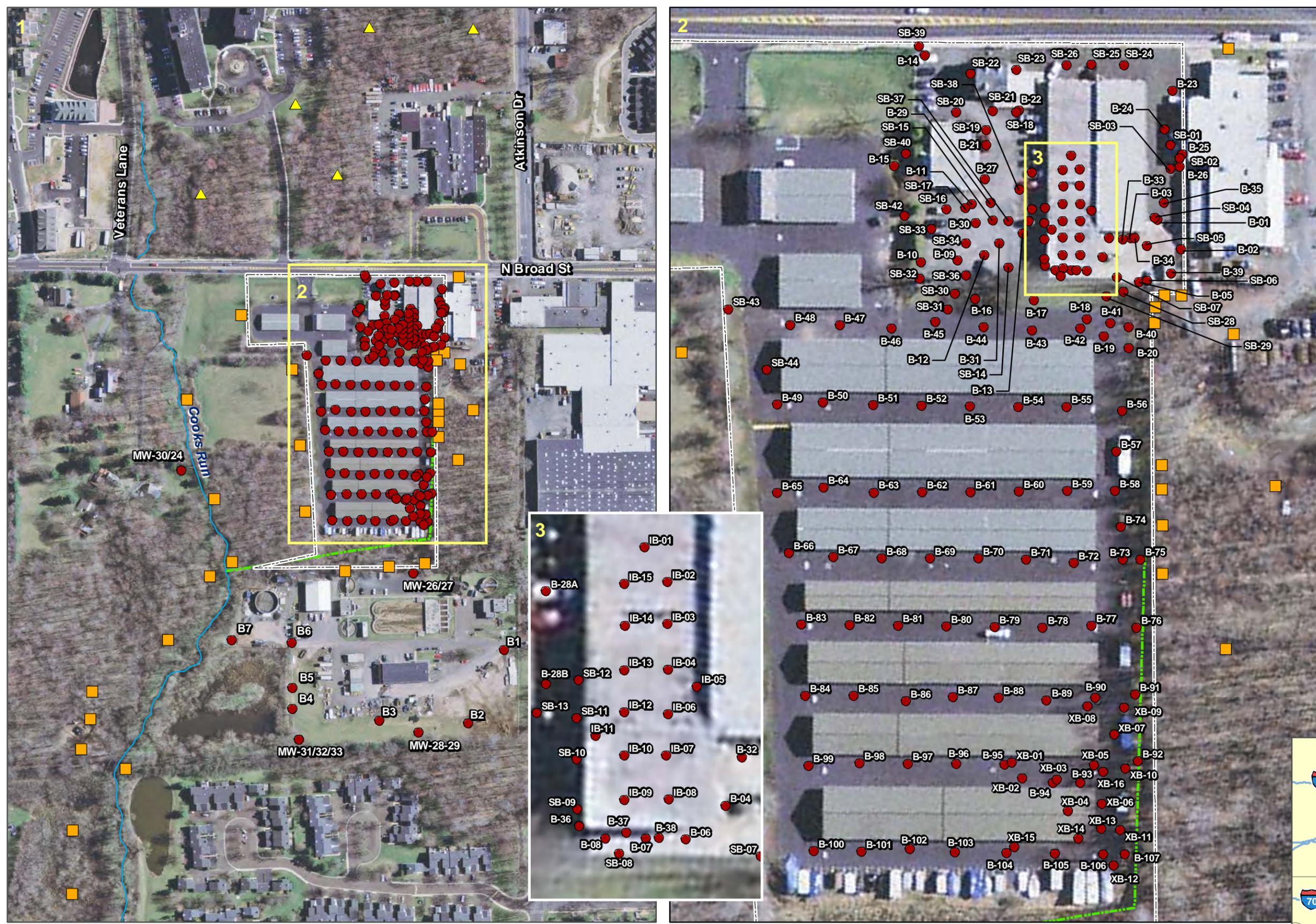


Aerial Photo Source: DVRPC, 2007
Basemap Source: ESRI StreetMap, 2006



Figure 4 – Existing Groundwater Wells
Technical Memorandum

Chem Fab Site
Doylestown Township,
Bucks County, Pennsylvania



- Legend**
- Previously Completed Soil Sampling Location
 - ▲ Proposed Background Soil Samples (Data Gap 1)
 - Proposed Soil Samples (Data Gap 3)
 - Approximate Location of On-site Drainage Swale
 - - - Approximate Property Boundary (Extra Space Storage and Former Chem Fab Facility)

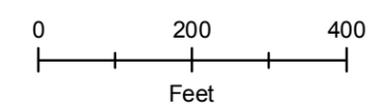
Aerial Photo Source: DVRPC, 2007
Basemap Source: ESRI StreetMap, 2006



Figure 5 – Previously Completed and Proposed Soil Sampling Locations
Technical Memorandum

Chem Fab Site
Doylestown Township,
Bucks County, Pennsylvania

- Legend**
- ▲ Background Sediment/
Surface Water Samples
(Data Gap 1)
 - Previously Completed
Sediment Sampling Location
 - Previously Completed
Surface Water Sampling Location
 - Proposed Additional
Sediment Samples
(Data Gap 2)
 - Proposed Additional
Surface Water Samples
(Data Gap 2 and Data Gap 4)
 - Approximate Location of
On-site Drainage Swale
 - Approximate Property Boundary
(Extra Space Storage and
Former Chem Fab Facility)



Aerial Photo Source: DVRPC, 2007
Basemap Source: ESRI StreetMap, 2006



Figure 6 – Previously Completed and Proposed Surface Water and Sediment Sampling Locations
Technical Memorandum

ATTACHMENT 1 – HUMAN HEALTH CONCEPTUAL SITE MODEL

1.0 HUMAN HEALTH CONCEPTUAL SITE MODEL

A Human Health conceptual site model (CSM) has been developed for the former Chem Fab facility to show potential sources of contamination, routes of migration, and receptors to focus the baseline human health risk assessment (BHHRA). Pathways begin from potential sources and progress through the environment through various fate and transport processes to potential human receptors. The model illustrates the pathways through which receptors may be exposed to sources of chemicals of concern (COCs). Specific sources and exposure are discussed further below and are illustrated in the Human Health CSM diagram.

1.1 SOURCES AND RELEASE MECHANISMS

There are a number of potential sources of chemicals at the Site located in Doylestown, Bucks County Pennsylvania. The primary sources of the COCs have been identified as historic operations associated with the former Chem Fab facility and adjoining former tank farm area (now the Extra Space Storage facility). The Chem Fab area is suburban and consists of a patchwork of undeveloped, residential, commercial, and light industrial areas. The site itself is commercial, with at least one residential apartment. The primary sources at the site are wastes from electroplating and metal etching, storage tanks, and drums of wastes (URS Corporation, 2008). Chemicals associated with these sources include acids and bases, metals, and chlorinated solvents. Previous studies have identified chromium as a particular concern.

Secondary sources of COCs in media relevant to human receptors may include soil in and around the commercialized area where sources were located; soil off-site which has received contamination through waterborne erosion; on-site groundwater; off-site groundwater migrating from the site; sediment and surface water in Cooks Run; and minor ditches, drainages and impoundments that may have received runoff or deposits of sediment.

The media potentially posing a risk of impact for human receptors due to historic releases from the Site include surface soil, subsurface soil, groundwater, surface water, and sediment.

1.2 FATE AND TRANSPORT

A number of fate and transport pathways govern the transfer of elevated concentrations of chemicals between different environmental media and between different portions of the site and are discussed further in Section 2.2 of the Ecological CSM (Attachment 2 of the Technical Memorandum).

1.3 RECEPTORS OF CONCERN

When conducting a BHHRA, EPA (1989, 1991) guidance requires that plausible exposure under both current and future land-use be evaluated. The BHHRA for the Site will evaluate the risk to a range of human receptor populations that are either currently or reasonably anticipated to be exposed to COCs.

The Chem Fab site is suburban and consists of a patchwork of undeveloped, residential, commercial, and light industrial areas. Under the current commercial/industrial land use scenario, the only onsite receptors would be trespassers or other recreational users, commercial/industrial workers and residents. Future use of the site is not yet determined; therefore several different potential future users include in the CSM and are discussed below.

Recreational User or Trespasser. Use of the site as a trespasser or other recreational user is considered a possible scenario under current and potential future. As a result, the recreational user is evaluated as a receptor of concern. The recreational user is assessed for both a child and an adult. The child represents 0 to 6 years of age, corresponding to typical EPA guidance for a resident (EPA 1989, 1991, 1997). The most likely recreational users of this site under any future recreational development would be nearby residents as the property is in a predominantly residential, urban area. Because the recreational user would frequent the site more than a trespasser, the recreational user scenario provides a conservative estimate of current trespasser risks. As such, a separate trespasser scenario will not be assessed for the site.

Commercial/Industrial Worker. Current land use at the site includes commercial and industrial land use. The evaluation of a commercial or industrial site worker includes current and future workers at the site that would not be involved in construction or digging activities. It is assumed this receptor may consume groundwater as potable via the tap and may shower with tap water. This scenario also includes a site landscaper.

Construction Worker. Construction workers may perform construction work during future development of the site. The construction worker is expected to perform short-term construction projects.

Resident. Currently there is a single apartment located on-site in the second story of one of the commercial buildings. Because continued residential use is a possibility in the future and because there are off-site residents in the general direction of groundwater flow and migration, a child and an adult residential receptor will be evaluated. Age-dependent adjustment factors (ADAFs) for mutagenic COCs (e.g., PAHs) will be performed for mutagenic COCs present at the site.

1.4 IDENTIFICATION OF EXPOSURE PATHWAYS

An exposure pathway describes a mechanism by which a population or individual may be exposed to chemicals present at a site. A completed exposure pathway requires the following four components:

- A source and mechanism of chemical release to the environment;
- An environmental transport medium for the released chemical;
- A point of potential human contact with the contaminated medium; and
- A human exposure route at the point of exposure.

All four components must exist for an exposure pathway to be complete and for exposure to occur. Incomplete exposure pathways do not result in actual human exposure and are not assessed further in the BHHRA.

Recreational User. The recreational user is not expected to dig greater than 1 ft bgs. As a result, the recreational user is evaluated for exposure to surface soil, surface water and sediment.

Specifically, exposure pathways evaluated for a recreational user include:

- incidental ingestion of surface soil, surface water and sediment;
- dermal contact with surface soil, surface water (including groundwater seeps) and sediment; and
- inhalation of particulate from surface soil.

Commercial/Industrial Worker. The evaluation of a commercial or industrial site worker includes current and future workers at and around the site that would not be involved in construction or digging activities and would most likely contact surface soil. This scenario would also include site landscapers; it

is assumed that this receptor contacts surface soil; a qualitative discussion of future exposure to subsurface soil and total soil will be performed (based on the results of the resident). It is assumed this receptor may consume groundwater as potable via the tap and shower with tap water. It is not likely that this worker would contact site surface water and sediment.

Specific exposure pathways evaluated for a site worker include:

- incidental ingestion of surface soil;
- dermal contact with surface soil;
- inhalation of fugitive dust from surface soil;
- inhalation of VOCs from groundwater or soil through vapor intrusion into buildings;
- ingestion of groundwater from the tap;
- dermal contact with groundwater from the tap; and
- inhalation of vapors while showering from groundwater (Foster Chrostowski Shower Model as modified by EPA Region III).

Construction Worker. Construction workers may perform construction work during future development of the site. Due to the nature of construction activities, the construction worker may contact both surface and subsurface soil. Future construction at the site would likely include earth moving in some form, mixing both surface and subsurface soils. Therefore, surface and subsurface soils will be combined as total soil for the assessment of this receptor. An additional evaluation of subsurface soil detections versus those in surface soil will be performed to ensure that surface concentrations at the site do not dilute any potential subsurface hot spots. In addition, the construction may contact groundwater during construction activities. In the event that elevated levels of VOCs are found in soil or groundwater, an evaluation of construction worker exposure to volatilized constituents will be evaluated. It is not likely that this worker will contact site surface water and sediment.

Specifically, exposure pathways evaluated for a construction worker include:

- incidental ingestion of total soil;
- dermal contact with total soil;
- inhalation of particulate entrained from total soil;
- incidental ingestion of groundwater;
- dermal contact with groundwater; and
- inhalation of VOCs in soil or groundwater via modeling (e.g., trench model).

Resident. Given the single on-site residence, possibility of future residential development, and off-site residents in the general direction of groundwater flow and migration, residential receptors will be evaluated as both a child and an adult. Current residential receptors on and off site would be exposed only to surface soil, sediment and surface water. Future construction prior to any residential use would likely include earth moving in some form, mixing both surface and subsurface soils. Therefore, surface and subsurface soils will be combined as total soil for the assessment of future receptors. An additional evaluation of subsurface soil detections versus those in surface soil will be performed to ensure that surface concentrations at the site do not dilute any potential subsurface hot spots in the consideration of total soil. The more conservative of subsurface soil and total soil will be quantitatively evaluated for future residential exposure. Future use of groundwater as potable is not prohibited; as such residential use of groundwater as tap water will be quantitatively evaluated.

Specifically, exposure pathways evaluated for a resident include:

- incidental ingestion of surface soil/total soil, surface water and sediment;

- dermal contact with surface soil/total soil, surface water and sediment;
- inhalation of particulate from soil;
- indoor air migration of VOCs from groundwater or soil through vapor intrusion into buildings;
- ingestion of groundwater from the tap;
- dermal contact with groundwater from the tap;
- inhalation of VOCs from groundwater while showering (using the Foster Chrostowski Shower Model as modified by EPA Region III).

1.5 SUMMARY

The proposed above will provide the framework necessary to focus a baseline human health risk assessment. Complete exposure pathways for the former Chem Fab facility will be quantitatively assessed in the BHHRA.

References

- U.S. Environmental Protection Agency (EPA). 1989. *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A) (Interim Final)*. Report No. EPA/540/1-89/002. Office of Emergency and Remedial Response, Washington, DC. December.
- U.S. Environmental Protection Agency (EPA). 1991. *Risk Assessment Guidance for Superfund Volume I-Human Health Evaluation Manual: Supplemental Guidance-“Standard Default Exposure Factors” (Interim Final)*. Publication 9285.7-01B.
- U.S. Environmental Protection Agency (EPA). 1997. *Exposure Factors Handbook: Volumes I, II, and III*. EPA/600/P-95/002a,b,c. August.
- U.S. Environmental Protection Agency (EPA). 2004. *Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E: Supplemental Guidance for Dermal Risk Assessment) Final*. Office of Emergency and Remedial Response.

ATTACHMENT 2 – ECOLOGICAL CONCEPTUAL SITE MODEL

2.0 INTRODUCTION

As part of the CSM, potential sources of COCs and exposure pathways have been characterized for the Site to support the screening level ecological risk assessment (SLERA). The model illustrates the pathways through which receptors may be exposed to sources of COCs. Sources and exposure are discussed further below and are illustrated in the Ecological CSM diagram.

2.1 SOURCES AND RELEASE MECHANISMS

There are a number of potential sources of chemicals at the Site located in Doylestown, Bucks County Pennsylvania. The primary sources of the COCs have been identified as historic operations associated with the former Chem Fab facility and adjoining former tank farm area (now the Extra Space Storage facility). The Chem Fab area is suburban and consists of a patchwork of undeveloped, residential, commercial, and light industrial areas. The Site itself is commercial, but includes at least one residential apartment. The primary sources at the site are wastes from electroplating and metal etching, storage tanks, and drums of wastes (URS Corporation, 2008). Chemicals associated with these sources include acids and bases, metals, and chlorinated solvents. Previous studies have identified chromium as a particular concern.

Secondary sources of metals and COCs in media relevant to ecological receptors may include soil in and around the commercial area where sources were located; soil off-site which has received contamination through waterborne erosion; sediment and surface water in Cooks Run; and minor ditches, drainages and impoundments that may have received runoff or deposits of sediment. Migration of chemicals offsite is a concern, since groundwater and surface water pathways may carry chemicals to nearby water bodies or potable drinking water wells. Of potential concern is the area in and around a drainage swale observed to have noticeable discoloration associated with chromium contamination. Also of potential concern is discharge of groundwater known to contain the chlorinated volatile organic compounds (VOCs) PCE and TCE and hexavalent chromium [Cr(VI)] to sediment and surface water in Cooks Run.

The media potentially posing a risk of impact for ecological receptors due to historic releases from the Chem Fab site include surface soil, surface water, and sediment. Plant and prey tissue that have bioaccumulated chemicals is also a potential medium of exposure. Contaminants of potential concern in one or more of these media include chlorinated VOCs, aromatic VOCs, 1,4-dioxane, Cr(VI), total chromium, PCE, and TCE with Cr(VI) being of the greatest concern. Other metals of potential concern as indicated by past studies include barium, cadmium, mercury, and nickel.

2.2 FATE AND TRANSPORT

A number of fate and transport pathways govern the transfer of elevated concentrations of chemicals between different environmental media and between different portions of the site.

Erosion, Deposition, and Runoff - Chemicals released to soil at the site may be transported by erosion and re-deposition in other portions of the site or to sediment and surface water. Similarly, sediment containing chemicals may be eroded and deposited farther downstream. The most likely locations for deposition of soil containing chemicals at the Chem Fab site are the grassy and forested areas immediately beyond the boundary of the commercial area. In addition, there was a drainage swale running along the commercial area that drains to Cooks Run. While

part of this swale has been covered, it provided a past route of transport for eroded material and runoff to Cooks Run. Surface water down gradient of the covered area still appears to be discolored thus the swale will be sampled as a potential source of contamination. The highest deposition rates for suspended particles within the Cooks Run stream or the drainage swale are expected in areas where water velocity decreases. This includes the areas inside of bends, impoundments, immediately upstream of narrowing within the drainage/streambed, and immediately downstream of widening within the streambed or confluences. There may also be deposition to the soil along the sides of the creek due to overbank flooding, as much of the forested and field areas near the site are form the floodplain for the stream. Waterborne erosion is considered relevant to ecological receptors in terms of its effects on redistribution of chemicals from contaminated low quality habitats (i.e. on-site contaminated soil or sources) to high quality surrounding habitats (i.e. surrounding fields and forests, Cooks Run stream).

Adsorption and Desorption - Chemicals carried in surface waters and groundwater on or from the Chem Fab site have the potential to adsorb onto sediment or soil particles, meaning that the particles of chemicals bind to the surface of the sediment. The binding to the surface may vary dependent upon soil and sediment chemistry. Sometimes the bonds are weak and reversible, when the reverse occurs it is called desorption. As chemicals desorb from the sediment they are released back into the surface waters where they have the potential to migrate further away from the original source. Both of these processes again concern ecological receptors in that they allow chemicals from low quality habitats to be redistributed to high quality habitats utilized by wildlife and plants. They also govern the bioavailability of chemicals, because some metals may bind to the soil in forms that are not readily digested and absorbed.

Leaching and Adsorption (Soil and Groundwater)

Another potential transport pathway is leaching of chemicals from surface sources (i.e., swale sediment, contaminated soils) to groundwater. Ecological receptors are not expected to come into contact with groundwater. However, data from previous investigations indicate that groundwater at the former Chem Fab facility may upwell into groundwater at shallow depths or directly into drainage ditches and Cooks Run on the site (URS Corporation, 2008). Precipitation that filters through these sources may enter shallow groundwater that may then discharge to the ponds next to residential areas. The above mechanisms provide transport pathways from groundwater to surface water. With respect to surface water, the transport of COCs in shallow groundwater to surface water bodies may expose aquatic organisms to dissolved phase COCs. Preliminary comparisons of toxicity values to measured concentrations indicate that the primary compounds of concern in surface water are limited to PCE, TCE, and Cr(VI) (URS Corporation, 2008).

Upwelling (Groundwater to Surface water)

Vertically upward groundwater migration from shallow bedrock was determined to be likely responsible for the observed overburden groundwater and on-site elevated swale COC concentrations (URS Corporation, 2008). As the groundwater moves back up into surface water, it not only has the potential to collect more contaminants from the surrounding soils, but it also brings the contaminants that it originally had with it. Monitoring wells installed by URS lent credence to the occurrence of upwelling and suggests that surface waters on the Chem Fab site and those close to the site may be impacted by the COCs in the water. The most likely areas of upwelling are the east banks of Cooks Run west of the commercial area and ponds southwest of the site.

Bioaccumulation and Bioavailability

Bioaccumulation is also a relevant transport pathway. Plants and animals that come in contact with contamination in soil, sediment, or water may uptake chemicals. Dependent upon the chemical and the organism, these chemicals may accumulate in tissue. This transfer from abiotic media to biotic media constitutes a transport pathway and may result in exposures for wildlife that consumes plants and animals that have bioaccumulated chemicals. Both TCE and Cr(VI) are considered potentially bioaccumulative and may accumulate in the tissue of plants and animals (Knowles 2002; Avenant-Oldwage & Marx 2000). In the hexavalent form, chromium can cross biological membranes of aquatic organisms, readily penetrating gill membranes by passive diffusion. This allows the metal to concentrate in tissues at levels up to 4,000 times those in the surrounding environment (Knoll and Fromm 1960; Buhler et al. 1977; Duffus 1980). Other metals may also bioaccumulate. Therefore, bioaccumulation represents a significant transport pathway at the site.

It is important to note that all of the transport pathways discussed above are dependent upon factors that influence the forms of chemicals in environmental media and their bioavailability. This is especially important for metals. Metals are present in nature in a wide range of chemical forms. Some forms are readily soluble. Soluble forms of some metals are highly mobile in soil, sediment and water and thus facilitate higher transport rates. Soluble forms of these metals are also more bioavailable, which means that they are taken up more easily by plants and animals. Many of the mineral forms of metals found in naturally occurring rocks and soils are relatively insoluble. They do not dissolve easily, are relatively immobile in environmental media and are not readily taken up by wildlife. Changes in the chemistry of soil, sediment or water may make metals more or less soluble, and thus determine their ultimate mobility and bioavailability.

2.3 SITE ECOLOGY

Though no direct ecological habitat surveys have been completed for the Chem Fab site, several studies have been conducted at locations within a 20 mile radius in Bucks County in comparable habitats. Habitat studies of areas close by give a reasonable representation of the habitats likely to be found at the former Chem Fab facility location. The entire Doylestown Township lies within the Neshaminy Creek watershed, which covers much of central and lower Bucks County (Lowenstein et al. 1989). This creek meanders through the western section of the township for over eight miles, fed by tributaries such as Cooks Run, the stream that runs directly through the Chem Fab facility site. Both topography and soil conditions are affected by and related to the surface drainage pattern. The watershed is subject to impacts from urban and agricultural runoff as well as runoff from the Chem Fab site.

The Pennsylvania Department of Conservation and Natural Resources (DCNR)¹ has observed that the predominant mixed hardwood forests in the area are composed of oaks, maples and walnuts. Solebury is a town approximately nine miles northeast of Doylestown. The Solebury Township is situated in the northern Piedmont section of the Eastern Deciduous Forest that is likely to be very similar to the type of forest located at the Chem Fab site in Doylestown. Its dominant natural vegetation is mixed-oak and oak-hickory forest, with four main habitat types; woodlands, wetlands, successional lands (meadows, old fields, thickets), and streams (from small tributaries to the Delaware River) (Ardman et al. 2002).

¹ <http://www.dcnr.state.pa.us/stateparks/parks/tyler.aspx>

The *Natural Areas Inventory of Bucks County* identifies significant natural areas in Bucks County. The *Natural Areas Inventory of Bucks County* documents a great diversity of plants and animals within the county. These include: 2,038 species of plant; 135 species of breeding birds and 117 species of transient or occasional visiting birds; 10 species of turtles; 15 species of snakes; 11 species of frogs and toads; 12 salamander species and 2 lizard species; over 40 species of large and small mammals; a variety of cold-water and warm-water fish species; and a vast number of mosses, lichens, algae, fungi, microorganisms and invertebrates (butterflies - at least 30 species - other insects, freshwater mussels) (Rhoads and Block 1999). It is uncertain which of these species may occur on the Site.

Terrestrial habitat at the Site consists of two mowed fields separated by a small tree line west of the site, a large forested area also to the west, and a smaller forested area to the east. Wooded areas are primarily deciduous. There is a community/residential area southwest of the Chem Fab site as well as industrial areas to both the south and east. Habitat on the site itself consists of paved, gravel, or compacted ground and thus does not support site ecology.

There are several different aquatic habitats present on the Chem Fab site. A drainage ditch runs south along the west side of the site before traveling through the woods and discharging to Cooks Run. Preliminary observations indicate that this ditch provides ephemeral or relatively poor habitat for aquatic receptors. Cooks Run is a small stream to the west that runs through the large wooded area parallel to the Chem Fab site. In the vicinity of the site, stream depth ranges at its center from a few inches to one to two feet, and the width ranges from three to four feet to over 20 feet in areas where overflow floods surrounding low-lying forest. Cooks Run received input immediately south of the site from a wastewater treatment plant. The stream flows approximately 3-3.5 miles southwest of the site where it discharges to Neshaminy Creek. There is also a large pond that may be in the pathway of migrating contaminants behind the residential development southwest of the former Chem Fab facility.

Threatened and Endangered Species

An important consideration in forming an ecological conceptual model is the presence of endangered, threatened and rare species, both plant and animal, on the site. There is no site-specific information presently available for the site regarding sensitive species. General information is available regarding endangered, threatened, or rare species in the Neshaminy Creek watershed from studies by the Morris Arboretum of the University of Pennsylvania (for flora) and for the state of Pennsylvania from the United States Fish and Wildlife Service (for fauna). The species listed in Table 1 are from these historic records and have not been confirmed in the field.

Table 1: Threatened and Endangered Species for Bucks County and Pennsylvania

Scientific Name	Common Name	Family Name
Plants (Endangered)		
<i>Agalinis auriculata</i>	Eared false-foxglove	Scrophulariaceae
<i>Ammannia coccinea</i>	Tooth cup	Lythraceae
<i>Chasmanthium laxum</i>	Slender sea-oats	Poaceae
<i>Dryopteris campyloptera</i>	Mountain wood fern	Dryopteridaceae
<i>Echinochloa walteri</i>	Walter's barnyard-grass	Poaceae
<i>Eleocharis obtusa</i> var. <i>peasei</i>	Spike-rush	Cyperaceae
<i>Eleocharis parvula</i>	Dwarf spike-rush	Cyperaceae
<i>Heteranthera multiflora</i>	Mud-plantain	Pontederiaceae
<i>Iris prismatica</i>	Slender blue flag	Iridaceae
<i>Juncus dichotomus</i>	Forked rush	Juncaceae
<i>Lycopus rubellus</i>	Gypsy-wort	Lamiaceae
<i>Lyonia mariana</i>	Staggerbush	Ericaceae
<i>Poa autumnalis</i>	Autumn bluegrass	Poaceae
<i>Prunus maritima</i>	Beach plum	Rosaceae
<i>Pycnanthemum torrei</i>	Torrey's mountain-mint	Lamiaceae
<i>Quercus phellos</i>	Willow oak	Fagaceae
<i>Rhexia mariana</i>	Maryland meadow-beauty	Melastomaceae
<i>Sagittaria calycina</i>	Long-lobed arrowhead	Alismataceae
<i>Schoenoplectus smithii</i>	Smith's bulrush	Cyperaceae
<i>Sericocarpus linifolius</i>	Narrow-leaved white-topped aster	Asteraceae
<i>Triplasis purpurea</i>	Purple sandgrass	Poaceae
<i>Viburnum nudum</i>	Possum-haw	Caprifoliaceae
<i>Viola brittoniana</i> ssp. <i>brittoniana</i>	Coast violet	Violaceae
Plants (Threatened)		
<i>Bidens bidentoides</i>	Swamp beggar-ticks	Asteraceae
<i>Lycopodiella appressa</i>	Appressed bog clubmoss	Lycopodiaceae
<i>Magnolia tripetala</i>	Umbrella-tree	Magnoliaceae
<i>Magnolia virginiana</i>	Sweet-bay magnolia	Magnoliaceae
Plants (Rare)		
<i>Amaranthus cannabinus</i>	Salt-marsh water-hemp	Amaranthaceae
<i>Lupinus perennis</i>	Blue lupine	Fabaceae
<i>Orontium aquaticum</i>	Goldenclub	Araceae
<i>Potamogeton zosteriformis</i>	Flat-stemmed pondweed	Potamogetonaceae
<i>Sagittaria subulata</i>	Subulate arrowhead	Alismataceae
<i>Schoenoplectus fluviatilis</i>	River bulrush	Cyperaceae
<i>Senecio anonymus</i>	Appalachian groundsel	Asteraceae
<i>Zizania aquatica</i> var. <i>aquatica</i>	Wild-rice	Poaceae
Animals (Endangered)		
<i>Myotis sodalists</i>	Bat, Indiana	Vespertilionidae
<i>Pleurobema clava</i>	Clubshell	Unionidae
<i>Lampsilis abrupt</i>	Mucket, pink (pearlymussel)	Unionidae
<i>Pleurobema plenum</i>	Pigtoe, rough	Unionidae
<i>Plethobasus cooperianus</i>	Pimpleback, orangefoot (pearlymussel)	Scolioidea
<i>Charadrius melodus</i>	Plover, piping Great Lakes watershed	Charadriidae
<i>Epioblasma torulosa rangiana</i>	Riffleshell, northern	Unionidae
<i>Obovaria retusa</i>	Ring pink (mussel)	Unionidae
<i>Alasmidonta heterodon</i>	Wedgemussel, dwarf	Unionidae
Animals (Threatened)		
<i>Clemmys muhlenbergii</i>	Turtle, bog (Muhlenberg) northern	Emydidae

Note: While a species of concern in the past, and protected under the Bald Eagle Protection Act of 1940 [16 U.S.C. 668-668d, 54 Stat. 250] as amended, as of August 2007 the American bald eagle has been removed from the federal list of threatened and endangered species.

2.4 IDENTIFICATION OF EXPOSURE PATHWAYS

Exposure routes link chemicals in exposure media to ecological receptors. The following sections describe the major exposure routes. Ecological receptors potentially present at the site include plants, terrestrial invertebrates, wildlife (birds, mammals, etc.), and aquatic organisms. The following sections identify the major routes of exposure and their applicability to each of these receptor groups.

2.4.1 Direct Contact/Dermal Contact

Plants, invertebrates, aquatic organisms and wildlife may all be exposed to environmental media through direct contact. Plants may absorb chemicals from surface and subsurface soil via their roots. They may also absorb chemicals from air or airborne particles through their leaves. Absorption through the roots is expected to be the most significant pathway. Absorption of chemicals from air or airborne particles is expected to be a relatively insignificant pathway, although this pathway may be re-evaluated if data from the remedial investigation indicate that significant airborne contamination is present. Plants are known to uptake metals and some organics; however, uptake of hydrophobic and/or large molecular weight compounds by plants is limited. Based on this information, direct exposure to surface and subsurface soil is considered a complete and significant pathway for plants.

Aquatic and benthic organisms may be exposed to chemicals in sediment and surface water through direct contact. Chemicals may be absorbed from water or sediment through the skin and gills. This exposure pathway is considered to be complete and significant for both media.

Terrestrial invertebrates may be exposed to chemicals in soil and air through direct contact and chemicals may be absorbed from soil through the skin. This exposure pathway is considered to be complete and significant for soil, but of limited significance for exposures to air.

Wildlife may be exposed to chemicals in air, soil (both surface and subsurface), sediment, or water via direct contact during foraging or burrowing. Most wildlife are equipped with protective outer coverings such as fur, feathers, or scales that prevent or limit the dermal absorption of chemicals from environmental media (CHPPM 2004). EPA guidance identifies that, in most cases, dermal exposures are likely to be less significant than exposures through ingestion and their evaluation involves considerable uncertainty (EPA 2003a). This guidance provides example calculations for an example species showing that less than 0.2% of the total chemical dose to wildlife is likely to come from dermal contact. Given that many metals demonstrate relatively low dermal absorption, this exposure route is considered complete but relatively insignificant for wildlife with the exception of amphibians.

2.4.2 Inhalation

Inhalation is a potentially complete pathway for both terrestrial invertebrates and wildlife. These animals may inhale chemicals which have volatilized or which are adsorbed to airborne particulates. Currently, it is unclear whether volatile compounds are present at the site in high enough concentrations to cause significant exposures. Similarly, it is unclear whether suspension of airborne particulates occurs with sufficient duration or frequency to result in significant inhalation exposures. EPA guidance indicates that, in general, inhalation pathways are likely to be insignificant compared to ingestion pathways (EPA 2003a). This guidance states that most chemicals inhaled with dust are trapped in mucus membranes and ingested; therefore, their

impact is captured through analysis of incidentally ingested soil. It also provides example calculations showing that less than 0.1% of the total risk to wildlife is likely to come from inhalation. Finally, a large number of assumptions are required for quantification of inhalation exposures, leading to significant uncertainties. The ERA will evaluate whether this pathway is potentially complete and significant based on the concentrations of CVOC found in shallow water.

2.4.3 Ingestion

The most significant exposure route for wildlife is ingestion of chemicals in contaminated media (EPA 2003a). Wildlife may ingest chemicals in environmental media by drinking surface water or by incidentally ingesting soil and sediment while grooming or foraging. As discussed above, chemicals may bioaccumulate in the tissue of plants and animals. Therefore, wildlife may also ingest chemicals plants and animals that they consume as food. Herbivores may be exposed to chemicals that have bioaccumulated in plant tissue. Carnivores may be exposed to chemicals that have accumulated in prey. Omnivores may be exposed to chemicals in both plant and animal food items. The Chem Fab site is expected to support a range of wildlife that spans several trophic levels and feeding guilds. This includes both primary and secondary consumers, and species which consume plants, invertebrates, small birds and mammals, and fish or aquatic organisms. Ingestion of chemicals in soil, sediment, surface water, and/or food is considered a complete and potentially significant exposure pathway.

2.5 ASSESSMENT ENDPOINTS

Assessment endpoints are clear statements of the environmental value to be protected from impacts (EPA 1997). Assessment endpoints are usually defined in terms of an ecological entity and its attributes.

The selection of assessment endpoints is based on the fundamental knowledge of site ecology, and incorporates consideration of the COPCs, exposure pathways, toxic mechanisms and potentially important exposure groups. Per EPA guidance (EPA 1997, 1999a), the focus of the ERA is to protect the ecological values at the Site-wide population or community level except where threatened or endangered species are concerned. For example, maintenance of sustainable populations of a specific species of songbird is an example of a population level assessment endpoint, while maintenance of native bird diversity is a community level endpoint. While population and community level endpoints such as these express important ecological values, they are often very difficult to assess. Therefore, initial steps of an ERA typically focuses on assessment endpoints defined in terms of effects on individual organisms; this makes quantitation of risks easier, since potential individual exposures and impacts can be more easily measured or estimated. It should be noted that where threatened or endangered species are specifically concerned, the focus of the ERA is at the level of individual organisms.

The following preliminary assessment endpoints were defined to reflect the potential impacts of complete and significant exposure pathways discussed above and to aid in selecting representative receptor species:

- Viability of plant communities in fields, forests and associated riparian habitats.
- Viability of terrestrial invertebrate communities as resources for terrestrial wildlife.
- Viability of aquatic and benthic organism communities.

- Viability of wildlife communities, including a variety of feeding guilds and taxa likely to use site habitats.

These assessment endpoints are general and should be refined and revised if necessary during part of the early stages of the ERA.

2.6 SELECTION OF REPRESENTATIVE RECEPTORS

Ecological receptors potentially present at the site include plants, terrestrial invertebrates, wildlife (birds, mammals, etc.) and aquatic organisms. Selection of representative receptor species is based primarily on several factors: 1) the likelihood of a species to use the site and the area immediately surrounding the site, 2) the potential for exposure to site-related contaminants based on the feeding habits and life history of the organisms/guild represented by the receptor species, 3) the availability of life history and exposure information for the selected receptor species, and 4) the availability of toxicity information for the representative receptor species. The receptors of concern (and representative receptor species) included in this ERA are:

- Terrestrial plants (multiple species)
- Soil invertebrates (earthworm)
- Small herbivorous mammals (meadow vole)
- Vermivorous birds (American robin)
- Vermivorous mammals (northern short-tailed shrew)
- Aquatic insectivorous birds (Carolina wren)
- Aquatic insectivorous mammals (little brown bat)
- Predatory birds (sharp-shinned hawk)
- Piscivorous birds (great blue heron)
- Piscivorous mammals (raccoon)
- Benthic and aquatic organisms (multiple species)
- Amphibians and reptiles (multiple species)

The rationale for selection of representative receptor species is summarized below.

Terrestrial Plants

Based on the general nature of available plant toxicity data, no specific plant species are selected for evaluation. Instead, the assessment evaluates the potential for adverse effects to herbaceous plant populations.

Terrestrial Invertebrates

Earthworms are selected as the receptor species for evaluating the potential for adverse effects to soil invertebrates for several reasons. Earthworms have direct contact with soil and are sensitive to chemicals in soil, relative to other soil invertebrates. Furthermore, earthworms serve an important ecological role in the aeration of soils and cycling of nutrients and are an important food source for some soil invertebrate-eating species (e.g., shrews). Lastly, toxicity data for earthworms are available in the scientific literature.

Terrestrial Vertebrates

A diversity of terrestrial wildlife species is likely to occur in the grassy areas of the Chem Fab site area. To identify potentially impacted species, groups, or guilds, the feeding guilds of the mammals, invertebrates, and birds known to occur in the area are reviewed.

While the risk assessments make conclusions concerning the potential for adverse effects to individual organisms, the objective is to be protective of the populations that use the Chem Fab area. However, few methods are available to extrapolate the potential for adverse effects from the individual level to the population level. Therefore, it was assumed that if there is no potential for direct adverse effects to individual organisms, then it is also unlikely for there to be the potential for direct adverse effects to populations. Similarly, it was assumed that if there is the potential for adverse effects to individual organisms, then there is also the potential for adverse effects to populations.

The following sections provide a summary of the avian and mammalian representative receptor species identified for evaluation.

- ***Small Herbivorous Mammals***

The meadow vole (*Microtus pennsylvanicus*) is selected as the representative receptor species to evaluate the potential for adverse effects to small herbivorous mammals from the ingestion of chemicals in terrestrial plant material. The meadow vole was selected as a representative receptor species for evaluation, because it is likely to occur in the study area, has a relatively small foraging range (which increases the potential for exposure to localized areas of chemical contamination), and has a diet comprised mainly of plant material. Also, it is an important component of the food chain as a common prey species for higher trophic level predatory birds and mammals. In addition to the ingestion of chemicals in food items, the inadvertent ingestion of chemicals in surface soil and direct consumption of chemicals in surface water were evaluated for the above species.

- ***Invertebrate-Eating Wildlife***

The American robin (*Turdus migratorius*) is selected as the invertebrate-eating avian species for evaluation, because a significant portion of its diet is comprised of earthworms and consequently, this species would have a higher rate of incidental ingestion of surface soil than an insect-eating bird species.

The short-tailed shrew (*Blarina brevicauda*) is selected as the invertebrate-eating mammal species for evaluation, because it feeds largely on soil invertebrates. Thus, it not only would be potentially exposed through prey items, but also would have a relatively high rate of incidental ingestion of soil while foraging. Furthermore, it has a small home range (0.07-4.4 acres) (USEPA 1993a) and thus could conceivably consume all of its diet from on-site.

In addition to the ingestion of chemicals in food items, the inadvertent ingestion of chemicals in surface soil and direct consumption of chemicals in surface water will be considered for the above species.

- ***Aquatic Insectivorous Wildlife***

The Carolina wren (*Thryothorus ludovicianus*) is selected as the aquatic insectivorous avian species for evaluation and the little brown bat (*Myotis lucifugus*) is selected as the mammal

species because although they prefer wooded floodplain wetland and riparian corridor habitat, they will also forage in residential areas.

Ingestion of chemicals in food items, the ingestion of chemicals in surface water and incidental ingestion of soil are also possible and are considered further for both species.

- ***Higher Trophic Level Predatory Wildlife***

The sharp-shinned hawk (*Accipiter striatus*) likely forages, and potentially nests in habitats near or within the Chem Fab area. Furthermore, small mammals are present throughout the site and are likely to provide a food source, thus completing this potential exposure pathway.

Ingestion of chemicals in food items, the ingestion of chemicals in surface water and incidental ingestion of soil are also possible and are considered further for both species.

- ***Aquatic Organism-Eating Terrestrial Wildlife***

The great blue heron (*Ardea herodias*) is selected as the avian receptor species for evaluating potential adverse effects to birds from the ingestion of aquatic prey at the Chem Fab site. The great blue heron was selected for evaluation because a large proportion of its diet is comprised of fish and larger aquatic invertebrates.

The raccoon (*Procyon lotor*) is selected as the small mammalian receptor species for evaluating potential adverse effects to small mammals from the ingestion of fish and aquatic invertebrates. A raccoon's diet consists primarily of fish and occasionally other aquatic organisms.

In addition to the ingestion of chemicals in food items, the inadvertent ingestion of chemicals in sediment and direct consumption of chemicals in surface water were evaluated for the above species.

Aquatic Organisms

Because of limitations in the available toxicity data, no specific aquatic species is selected for evaluation; instead, the assessment will evaluate the potential for adverse effects to aquatic organism populations.

Benthic Organisms

Because the toxicity data being used in the ERA were designed to evaluate the potential for adverse effects to benthic organism populations, no individual species were selected for evaluation, and the assessment will evaluate the potential for adverse effects to the overall aquatic and benthic populations.

Amphibians and Reptiles

The assessment of risks to amphibians and reptiles is limited by the lack of sufficient literature-based exposure and toxicity information. The ERA will examine the availability of data that can be used to quantitatively assess risks to amphibian and reptile receptors. Based on the available data, quantitative assessment will be performed, if defensible.

2.7 MEASUREMENT ENDPOINTS AND DATA GAPS

Because assessment endpoints are often defined in terms of ecological characteristics that are hard to measure (i.e. the health of a population or community), measurement endpoints are selected provide a quantifiable means of characterizing risks. Measurement endpoints are

quantifiable ecological characteristics that are related to each assessment endpoint (EPA 1989). Measurement endpoints have been identified for the screening level ecological risk assessment, including a refinement of screening level models. As presented in Table 2, each measurement endpoint includes explicit criteria as to whether results indicate potential or no potential for risk. The measurement endpoints for plants and worms include comparison of maximum exposure point concentrations to benchmarks and calculation of frequency of benchmark exceedance across all site samples. EA has selected conservative benchmarks to ensure that contaminants that are not likely to pose a risk are accurately identified..

For higher trophic level organisms, measurement endpoints are based on the results of food web models that predict the dose of chemicals ingested by wildlife. These doses were compared to benchmarks. The first measurement endpoint evaluated was a screening level comparison of maximum case scenario doses to no-effects benchmarks. Additional comparisons (e.g., mean case scenario doses to no-effects benchmarks, low effects benchmarks, and background doses, etc.) provide a risk range that informs the Baseline Ecological Risk Assessment problem formulation. More detailed presentation of measurement endpoints is provided in Table 2.

Data Groupings

Given that habitats at the site are relatively contiguous, and that the current area of concern is relatively small, it is proposed that all data for the site be evaluated in the screening level ecological risk assessment as a single grouping. However, the overall evaluation will be supplemented by spatial analysis to identify any significant differences between habitat types. For example, evaluation of specific samples will be used to determine if concentrations in the ponds and drainage swale differ from those in Cooks Run.

Data Gaps

Several data gaps are identified as potentially necessary to evaluate the measurement endpoints identified in the attached table entitled *Measurement Endpoints for Ecological Risk Assessment of the Former Chem Fab Facility*. The primary media of concern for ecological receptors are surface soil, sediment and surface water. Soil borings have been collected and analyzed from the commercial areas of the site, and surface water has been collected from Cooks Run. Additional data is necessary to characterize other portions of the site where chemicals may be present in habitat used by potential receptors. Proposed soil, sediment, and surface water samples have been illustrated on Figure 3 of the Technical memorandum.

Sediment and surface water samples are proposed to characterize Cooks Run, the drainage swale, and nearby impoundments. Based on observation, the vast majority of the substrate of Cooks Run is sand or larger sized particles. Except for localized areas where a thin layer of silt is present, many areas in Cooks Run do not contain the appropriate fine grain sediment for sampling and thus does not allow the collection of co-located sediment and surface water samples at all proposed points. Water quality within the potentially impacted reaches of Cooks run will be characterized, along with the potential points of groundwater discharge into the stream. In terms of sediment collection, there may be localized depositional areas within the channel between the site and North West Street. There was, however, no suitable sampling locations apparent between the site and outfall of the impoundment at the wastewater treatment plant. Fine grained material does appear to be deposited on the forested floodplain during storm events, thus sediment samples will primarily target these depositional areas.

All in all, sampling locations will target fine grained sediments in areas of potential deposition and surface water samples will be biased to areas expected to receive input from groundwater seeps. Lacking direct evidence of seeps, surface water samples will be collected from the locations shown on the map. The proposed sampling locations in the drainage swale are located SE of the former swale to determine if EOC sampling on this side of the Site is complete. There are two impoundments located southwest of the site; a stormwater impoundment associated with the adjacent residential area and a basin associated with the wastewater treatment plant. If during the initial site sampling a hydrological connection between impacted waters (surface or groundwater) and the impoundments is found, four sampling locations will be placed within the impoundments to better characterize them.

Twenty-one soil samples are proposed to characterize areas potentially receiving erosion from the site (10 samples) and areas potentially receiving input from overbank flooding. Sampling will focus on low lying areas likely to receive inputs from overland flow. Based on BTAG site visits, the forested wetland extends a substantial distance to the northwest from the creek and to the southwest along the creek. Soil and sediment samples will target this area. Surface water pools and channels were also observed within the forested wetland and should be sampled for surface water and sediment based on proximity to the groundwater plume and potential groundwater expression. At each sampling location, two composites representing the O and A soil horizons (or 0-0.5' and 0.5-2' if the horizons can not be identified) will be collected.

Twenty-three surface water and sediment samples will be taken based on the previously mentioned sampling rationale. Sediment samples will be collected from the top six inches of each fine-grained, sediment deposit. Surface water samples will be collected from the water surface, and both filtered and unfiltered samples will be collected and analyzed. All samples will be analyzed for target analyte list metals and volatile organic chemicals. Because Cr(VI) is a concern for the site, samples will also be analyzed to determine chromium speciation. In all cases, sample results should be evaluated to determine whether the maximum extent of contamination has been characterized. If not, additional samples downstream or samples in soil further from the site boundary may be required.

Previous sampling at the site has not included characterization of background concentrations of chemicals in surface media that may be representative of regional reference concentrations. Therefore five co-located sediment and surface water and five surface soil samples are proposed for collection from areas north of N. Broad Street. This area is expected to be beyond the influence of the site and representative of natural conditions and ubiquitous anthropogenic inputs.

The nature of groundwater/surface water transition zones also represents a significant data gap. In an effort to characterize the risks of potentially contaminated groundwater on aquatic systems, surface water temperatures and conductivity data will be collected, piezometers will be installed and surveyed. These measures will aid in characterizing groundwater inputs to surface water and the hyporheic zone.

Results of the SLERA

The sampling proposed above will provide the information necessary to support a screening level ecological risk assessment. Dependent upon the results of the screening level assessment, additional sampling may be required to support further assessment. Data collection could include chemical analyses to determine bioavailability; analysis of field collected tissue to

determine site-specific bioaccumulation; bioaccumulation or toxicity bioassays using media collected from the site; or additional spatial characterization of the extent of contamination.

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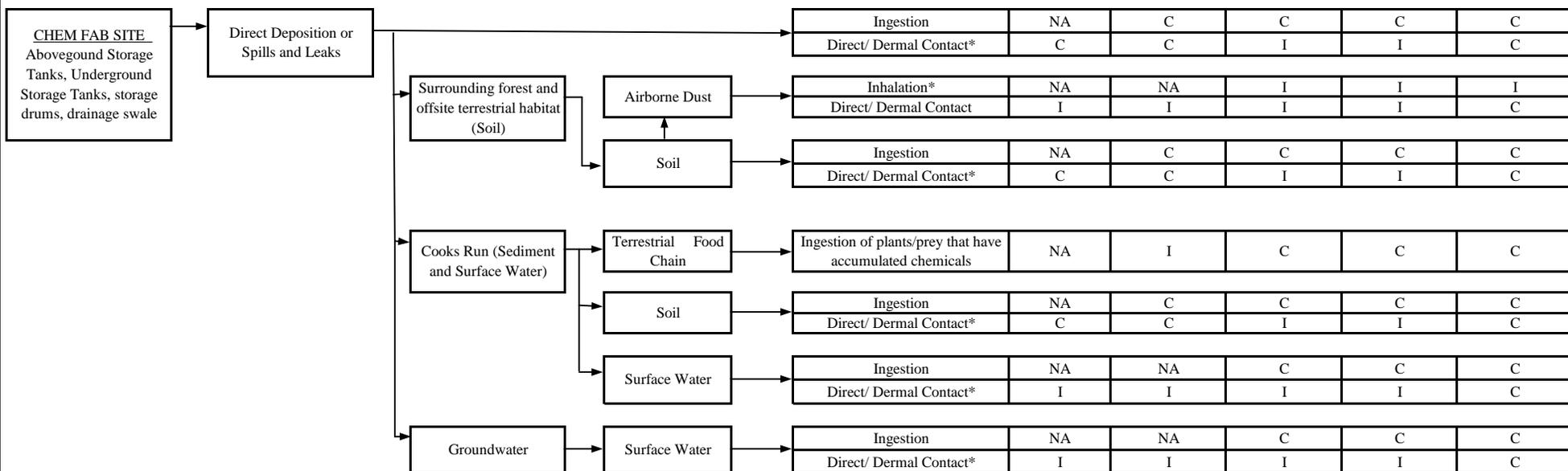
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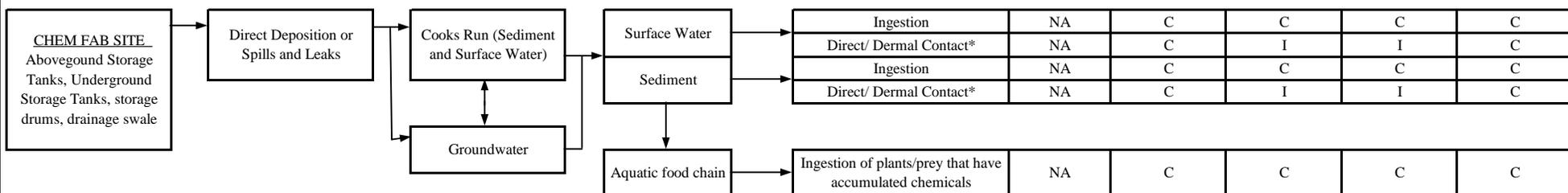
**PRELIMINARY ECOLOGICAL CONCEPTUAL SITE MODEL
CHEM FAB SITE**

PRIMARY SOURCE	PRIMARY RELEASE MECHANISM	SECONDARY SOURCE	TERTIARY SOURCE	EXPOSURE ROUTE	RECEPTORS				
					Plants	Soil Invertebrates or Aquatic and benthic organisms	Birds	Mammals	Reptiles & Amphibians

TERRESTRIAL EXPOSURE PATHWAYS



AQUATIC EXPOSURE PATHWAYS



LEGEND

- I Complete pathway, but not significant
- C Potentially complete exposure pathway

* Inhalation and direct contact are identified as complete pathways for higher trophic level wildlife. However, example calculations and information provided in EPA and other exposure modeling guidance demonstrates that these pathways are insignificant compared to ingestion (USEPA, 2003; USACHPPM, 2004).

**Ecological CSM Table:
Measurement Endpoints for Ecological Risk Assessment of the Former Chem Fab Facility**

Assessment Endpoint	Measurement Endpoint	On Site-Measurements/Exposure Point Concentrations (EPC)	Evaluation Method	Risk Indicators
Receptor-Specific Evaluation (SLERA & BRAPF)				
Viability of plant communities in fields, forests and associated riparian habitats	Comparison of total soil concentrations to benchmarks	<ul style="list-style-type: none"> • Soil concentrations measured at site in past and more recent sampling - SLERA: Maximum Concentrations - Refined SLERA: Mean concentrations and concentrations on a sample by sample basis 	<ul style="list-style-type: none"> • Direct comparison to plant benchmarks from 1) USEPA EcoSSLs; ORNL benchmarks (Efroymsen et al., 1997a); Region III BTAG Screening Levels • Direct comparison to background concentrations 	<ul style="list-style-type: none"> • Exceedence of benchmarks indicates potential for risks • Exceedence of benchmarks and background indicates a more certain potential for risks
Viability of terrestrial invertebrate communities as resources for terrestrial wildlife	Comparison of soil concentrations to benchmarks	<ul style="list-style-type: none"> • Soil concentrations measured at site in past and more recent sampling - SLERA: Maximum Concentrations - Refined SLERA: Mean concentrations and concentrations on a sample by sample basis 	<ul style="list-style-type: none"> • Direct comparison to invertebrate benchmarks from USEPA EcoSSLs; ORNL benchmarks (Efroymsen et al., 1997b); Region III BTAG Screening Levels • Direct comparison to background concentrations 	<ul style="list-style-type: none"> • Exceedence of benchmarks indicates potential for risks • Exceedence of benchmarks and background indicates a more certain potential for risks
Viability of aquatic and benthic organism communities	Comparison of sediment and surface water concentrations to benchmarks and to Region III BTAG Screening Levels	<ul style="list-style-type: none"> • Sediment and surface water concentrations measured at site in past and more recent sampling - SLERA: Maximum Concentrations - Refined SLERA: Mean concentrations and concentrations on a sample by sample basis 	<ul style="list-style-type: none"> • Direct comparison to aquatic organism benchmarks from literature-based studies • Direct comparison to background concentrations 	<ul style="list-style-type: none"> • Exceedence of benchmarks indicates potential for risks • Exceedence of benchmarks and background indicates a more certain potential for risks
Viability of wildlife communities terrestrial mammals and birds	Comparison of modeled food web doses to benchmarks	<ul style="list-style-type: none"> • Soil and surface water concentrations measured at site in past and more recent sampling - SLERA: Maximum Concentrations - Refined SLERA: Mean Concentrations • Plant and invertebrate food item tissue concentrations modeled using literature-based equations applied to soil - SLERA: Maximum Concentrations - Refined SLERA: Mean Concentrations • Ingested dose based on literature-based exposure factors and uptake equations - SLERA: Maximum Dose - Refined SLERA: Mean Dose 	<ul style="list-style-type: none"> • Compare modeled wildlife doses to no-effects benchmarks • Compare modeled wildlife doses to low-effects benchmarks • Mammal and bird dose-based benchmarks from 1) USEPA EcoSSL 2) ORNL benchmarks (Sample et al., 1998) 3) Additional literature-based sources as relevant 	<ul style="list-style-type: none"> • Exceedence of benchmarks indicates a potential for risks • Exceedence of low-effects benchmarks indicates a more certain potential for risks
	Comparison of modeled food web doses on site to modeled food web doses for background concentrations	<ul style="list-style-type: none"> • Soil and surface water concentrations measured at site and in background areas - Refined SLERA: Maximum and Mean Concentrations • Plant food item tissue concentrations modeled using literature-based equations - Refined SLERA: Maximum and Mean Concentrations • Ingested dose based on literature-based exposure factors and uptake equations - Refined SLERA: Maximum and Mean Dose 	<ul style="list-style-type: none"> • Compare modeled on-site wildlife doses to modeled background wildlife doses 	<ul style="list-style-type: none"> • Exceedence of both benchmarks and background indicates a more certain potential for risks
Viability of wildlife communities piscivorous mammals and birds	Comparison of modeled food web doses to benchmarks	<ul style="list-style-type: none"> • Sediment and surface water concentrations measured at site in past and more recent sampling - SLERA: Maximum Concentrations - Refined SLERA: Mean Concentrations • Aquatic food item tissue concentrations modeled using literature-based equations - SLERA: Maximum Concentrations - Refined SLERA: Mean Concentrations • Ingested dose based on literature-based exposure factors and uptake equations - SLERA: Maximum Dose - Refined SLERA: Mean Dose 	<ul style="list-style-type: none"> • Compare modeled wildlife doses to no-effects benchmarks • Compare modeled wildlife doses to low-effects benchmarks • Bird dose-based benchmarks from 1) USEPA EcoSSL 2) ORNL benchmarks (Sample et al., 1998) 3) Additional literature-based sources as relevant 	<ul style="list-style-type: none"> • Exceedence of benchmarks indicates a potential for risks • Exceedence of low-effects benchmarks indicates a more certain potential for risks
	Comparison of modeled food web doses on site to modeled food web doses for background concentrations	<ul style="list-style-type: none"> • Sediment and surface water concentrations measured at site and in background areas - Refined SLERA: Maximum and Mean Concentrations • Aquatic organism food item tissue concentrations modeled using literature-based equations - Refined SLERA: Maximum and Mean Concentrations • Ingested dose based on literature-based exposure factors and uptake equations - Refined SLERA: Maximum and Mean Dose 	<ul style="list-style-type: none"> • Compare modeled on-site wildlife doses to modeled background wildlife doses 	<ul style="list-style-type: none"> • Exceedence of both benchmarks and background indicates a more certain potential for risks
Viability of wildlife communities reptiles and amphibians	Comparison of modeled food web doses to benchmarks	<ul style="list-style-type: none"> • EPCs evaluated for other receptors 	<ul style="list-style-type: none"> • Evaluate whether other wildlife receptors are at risk and consider results as surrogate for reptiles. 	<ul style="list-style-type: none"> • Risks from COPCs to other receptors indicate that there may be a risk to reptiles from the same COPCs



Re: Chem-Fab Site: Access for Vapor Intrusion Study 

Andrew Goldman to: Heywood Becker

Cc: Cindy Santiago

Bcc: Andrew Goldman

SDMS DocID

2129164

01/14/2011 04:13 PM

Mr. Becker--

In response to your questions:

1. EPA intends to conduct vapor sampling in each occupied building included on the property owned by Turog. Our understanding is that the property includes the buildings depicted in the attached photograph. In my November 18, 2010 letter I asked that you obtain signatures from your tenants on the "Tenant" form I provided. If you do not wish to perform this task, please confirm the identity of each tenant currently occupying the property so that we may approach them for consent.

2. As for methodology, the following paraphrased explanation provided by EPA's On Scene Coordinator supplements the description provided in my November letter:

The sampling will take 3 days but each day will take no more than approximately 30 minutes.

First day:

We will walk together with the owner and/or tenant to identify a location to drill. With this we want to make sure that we are not hitting any spot that we should avoid such as gas lines, etc. Even when the hole will be very small (approx. an inch) and flush with the floor, we still want to avoid as much disturbance as possible, therefore we normally try to find a spot under the stairs (if they have stairs) or inside of a closet, so that it is not visible to others. If no hidden place is safe to drill, then we have to do it somewhere else. After we drill, we insert the probe and seal the gaps around it with concrete. We have to drill in the lowest level of the building because our purpose is to measure the vapors underneath the structure.

Second day:

We connect a summa canister to the probe and leave it there collecting air from the sub-slab for 24 hours. We also place a canister somewhere else in that same room. If there is another floor above that level, then we normally place another canister there. The locations will be determined based on a conversation with the owner and/or tenant, because it should be placed in the area where most people spend most of their time. The reason for that is that we want to be able to compare the concentration of contaminants in a breathing area to the concentration of contaminants in the sub-slab. In case that the indoor air is contaminated, we will be able to say if it is potentially coming from the groundwater contamination. The canisters, which are about the size of a basketball ball, make no noise.

Third day:

We stop by to pick up the canisters. Once we disconnect the one collecting air from the sub-slab, we place a Teflon cap that will prevent the vapors (if present) from coming to the interior of the property. As I mentioned before, it will be flush with the floor.

Once the laboratory sends the results, they have to be validated, then a toxicologist will review them. After the toxicologist gives his/her recommendation, I will share it with the owner together with the results.

000251
AR000766

Please get back to me at your earliest convenience to advise us of your position with respect to:

1. Your consent for EPA to enter Turog's property consistent with the terms of the form I previously provided
2. Your willingness to collect consent forms from your tenants, or a list of contact information for such tenants.

EPA will be collecting vapor samples from other properties in the area in early February, and it would be beneficial for us to include the Turog property at that time. I therefore ask for a prompt reply to this email. Thank you in advance for your cooperation in this matter.



Turog Parcel.pdf



Andrew S. Goldman (3RC41)
Sr. Assistant Regional Counsel

U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029
Phone: 215.814.2487
Fax: 215.814.2603
goldman.andrew@epa.gov

The information contained in this communication is confidential, may be protected by the attorney-client privilege and/or the attorney work product doctrine, and is intended solely for the use of the addressee(s). If you have received this communication in error, please notify me by return email and destroy this communication and all copies thereof.

Heywood Becker Do you know the specifics of which buildings, an... 12/17/2010 09:40:48 AM

From: Heywood Becker <yalephd1970@yahoo.com>
To: Andrew Goldman/R3/USEPA/US@EPA
Date: 12/17/2010 09:40 AM
Subject: Re: Chem-Fab Site: Access for Vapor Intrusion Study

Do you know the specifics of which buildings, and/or addresses, and the mode of testing? Passive charcoal filters, or drilling, at the other extreme, for example?

From: "Goldman.Andrew@epamail.epa.gov" <Goldman.Andrew@epamail.epa.gov>
To: yalephd1970@yahoo.com
Sent: Fri, December 10, 2010 2:16:17 PM
Subject: Chem-Fab Site: Access for Vapor Intrusion Study

Mr. Becker--

000252
AR000767

I have not heard from you in response to my email dated 11/18 or the certified letter sent to you on the same day (the return receipt slip shows the letter was signed for on 11/22). Please contact me via email or at (215) 814-2487 to let me know when we might receive signed entry forms. Thanks.



Andrew S. Goldman (3RC41)

Sr. Assistant Regional Counsel

U.S. Environmental Protection Agency

1650 Arch Street

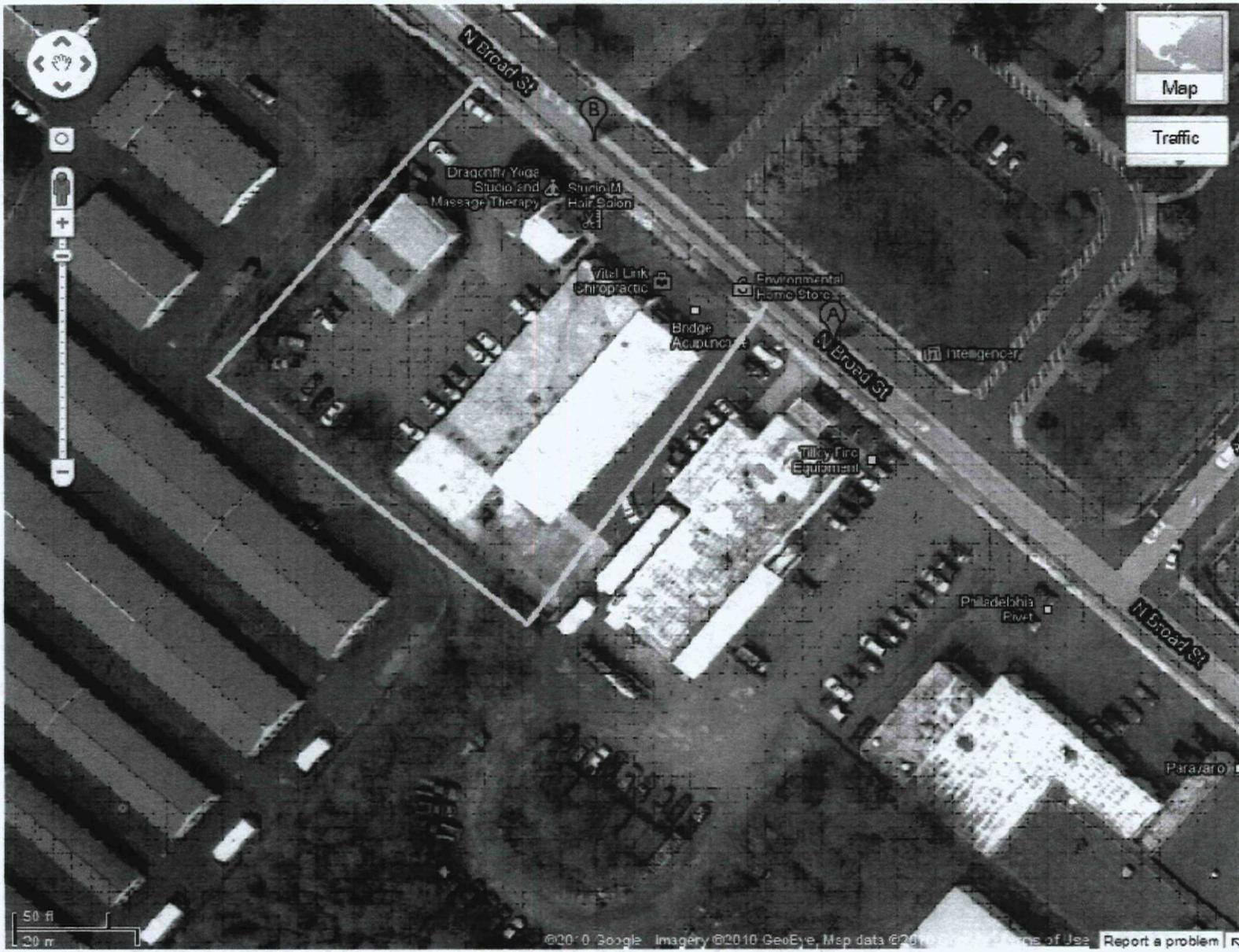
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Chem-Fab Site: Parcel Owned by Turog



SDMS DocID 2129163



Re: Chem-Fab Site: Access for Vapor Intrusion Study Andrew Goldman to: Heywood Becker

12/17/2010 11:56 AM

Mr. Becker--

I need to coordinate with the On Scene Coordinator for the answers to your questions. This may be a bit slow because she is currently out of the country. I'll will get back to you as soon as I have gathered some information. Thanks for your patience.



Andrew S. Goldman (3RC41)
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 12/17/2010 09:40 AM
 Show Details

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Subject: Chem-Fab Site: Access for Vapor Intrusion Study

Mr. Becker--

I have not heard from you in response to my email dated 11/18 or the certified letter sent to you on the same day (the return receipt slip shows the letter was signed for on 11/22). Please contact me via email or at (215) 814-2487 to let me know when we might receive signed entry forms. Thanks.



Andrew S. Goldman (3RC41)
 Sr. Assistant Regional Counsel

U.S. Environmental Protection Agency
 1650 Arch Street
 Philadelphia, PA 19103-2029
 Phone: 215.814.2487
 Fax: 215.814.2601
 goldman.andrew@epa.gov

The information contained in this communication is confidential, may be protected by the attorney-client privilege and/or the attorney work product doctrine, and is intended solely for the use of the addressee(s). If you have received this communication in error, please notify me by return email and destroy this communication and all copies thereof.

000256



Chem-Fab Site: Access for Vapor Intrusion Study
Andrew Goldman to: yalephd1970

12/10/2010 02:16 PM

Mr. Becker--

I have not heard from you in response to my email dated 11/18 or the certified letter sent to you on the same day (the return receipt slip shows the letter was signed for on 11/22). Please contact me via email or at (215) 814-2487 to let me know when we might receive signed entry forms. Thanks.



Andrew S. Goldman (3RC41)

Sr. Assistant Regional Counsel

U.S. Environmental Protection Agency

1650 Arch Street

Pittsburgh, PA 15109-2839

Phone: (215) 814-2487

Fax: (412) 814-2837

asgoldman@epa.gov

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000257



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103



SDMS DocID 2129166

Office of Regional Counsel

Andrew S. Goldman
Direct Dial (215) 814-2487

Telefax (215) 814-2803

FEB 04 2011

VIA CERTIFIED MAIL
& ELECTRONIC MAIL

Heywood Becker
Turog Properties Management, Inc.
5382 Wismer Road
Pipersville, PA 18947

Re: **Chem-Fab Superfund Site: Access to 300 North Broad Street, Doylestown for Subslab Soil Gas Survey**

Dear Mr. Becker:

By letter dated November 18, 2010, I wrote to request consent for access to the above-referenced property to conduct vapor intrusion sampling. My letter included a consent form for signature by Turog Properties Management Inc. as well as a separate form for signature by Turog's tenants at the property.

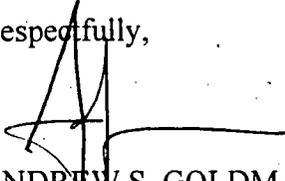
On December 17 you sent me an email asking several questions relating to EPA's request. I responded to your question via email on January 14, 2011 (the unavailability of EPA's On Scene Coordinator delayed my ability to respond earlier). In my January 14 email I requested that you advise me of Turog's position on (1) EPA's request for consent to enter the property to conduct the sampling, and (2) Turog's willingness to collect signatures from its tenants on the tenant consent form. Having received no response, I sent you a followup email on January 26 requesting a response.

Please be advised that EPA's On Scene Coordinator will take steps to obtain consent from Turog's tenants. I write today to request that Turog consent to entry as requested in November 2010 and again enclose a copy of the consent form. **If I do not hear from you by Friday, February 11, I will assume that Turog declines to consent to entry for the sampling. EPA will then consider taking additional steps to secure entry to the property including, among other things, issuing an administrative access order under 42 U.S.C. § 9604(e)(5) and/or securing a warrant authorizing entry for the sample work.**

000258
AR000773

Please contact me at your earliest convenience to discuss this matter.

Respectfully,

A handwritten signature in black ink, appearing to read 'Andrew S. Goldman', with a long horizontal flourish extending to the right.

ANDREW S. GOLDMAN
Sr. Assistant Regional Counsel

Enclosure

cc: Cindy Santiago, OSC

**CONSENT FOR ACCESS TO PROPERTY FOR VAPOR INTRUSION STUDY
(FOR SIGNATURE BY OWNER OF LEASED PROPERTY)**

Property Owner(s) Turog Properties (c/o Heywood Becker)

Address of Property: 300 North Broad Street, Doylestown, Pennsylvania

I am the owner of the property identified above ("Property"). I understand that the United States Environmental Protection Agency ("EPA") would like to perform a limited investigation on the Property pursuant to its response authority under the Superfund law, also known as the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9601-9675.

I hereby consent to allow EPA and its employees, agents, contractors and their subcontractors, and authorized representatives to enter the Property to conduct a subslab soil gas survey, which includes the following tasks:

1. Confirm, via discussion with the tenant, the temporary removal, from the interior of the residential/business structure at the Property ("Structure"), of any products or items which may potentially release vapors and interfere with the accuracy of EPA's soil gas survey.
2. Visually inspect the basement to identify sumps, cracks, and other possible vapor intrusion pathways and to locate utilities that may interfere with installation of sampling ports in the basement.
3. Install one or more vapor intrusion sampling ports by drilling a small hole (approximately 1/2 inch in diameter) into the basement floor, inserting a copper tube through the slab, and sealing the hole around the tube with concrete.
4. Connecting each installed port to a small canister which will collect air through the port for approximately 1 day.
5. Collect air samples throughout the Structure.
6. Disconnect each canister and cap each installed port flush with the basement floor.

These activities will require entry to the Property on three consecutive days. Activities on the first day will take approximately 30-60 minutes. Activities on the second and third days will take approximately 15-30 minutes each. I understand that EPA and/or its contractor or subcontractor will contact the tenant to schedule each entry.

This written permission is given by me voluntarily and without threats or promises of any kind. I acknowledge that I am authorized to consent to the entry described herein.

Print Name: _____

Date

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only. No Insurance Coverage Provided)

7000 1670 0013 0587 2988

OFFICIAL USE

Heywood Becker
 Turog Properties Management, Inc.
 5382 Wismer Road
 Pipersville, PA 18947 *3RC41*
Andrew Goldman

Sent To _____
 Street, Apt. No., or PO Box No. _____
 City, State, ZIP+4 _____

PS Form 3800 May 2000 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) _____ B. Date of Delivery *2/8/11*

C. Signature *[Signature]* Agent Addressee

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below: _____

Heywood Becker
 Turog Properties Management, Inc.
 5382 Wismer Road
 Pipersville, PA 18947

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Copy from service label)

7000 1670 0013 0587 2988



SDMS DocID 2129167

From: Heywood Becker <yalephd1970@yahoo.com>
To: Andrew Goldman/R3/USEPA/US@EPA
Date: 02/04/2011 05:15 PM
Subject: Re: Chem-Fab Site: Access for Vapor Intrusion Study

Having just recovered from being ill since early in January, I was drafting a response two days ago when my computer died. A replacement has been promised by Tuesday, and I shall then finish and send it directly thereafter. **From:** "Goldman.Andrew@epamail.epa.gov"

<Goldman.Andrew@epamail.epa.gov>
To: Heywood Becker <yalephd1970@yahoo.com>
Cc: Santiago.Cindy@epamail.epa.gov
Sent: Friday, February 4, 2011 4:16 PM
Subject: Re: Chem-Fab Site: Access for Vapor Intrusion Study
Please see attached PDF.



Andrew S. Goldman (3RC41)

Senior Assistant Regional Counsel

U.S. Environmental Protection Agency

1200 New York Avenue
Washington, DC 20460-0001
Phone: (202) 566-6000
Fax: (202) 566-6727
goldman.andy@epa.gov

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Letter to Goldman.doc

Turog Properties Management, Inc.

POST OFFICE BOX 180
CARVERSVILLE, BUCKS COUNTY
PENNSYLVANIA
18913-0180

215.297.0700

February 10, 2011

Mr. Andrew S. Goldman, Esq.
Sr. Asst. Regional Counsel
US EPA Region III
1650 Arch Street
Philadelphia, PA 19103

*Re: Chem-Fab Superfund Site
Doylestown, PA 18901
Your Letter Date-Stamped Feb 4, 2011*

Dear Mr. Goldman:

Some fifty years ago, Manfred DeRewal began covertly dumping waste chromic acid and organic solvents into a toilet at what was then known as 300 Broad Street. The toilet was directly connected to the septic tank, and from there through the effluent sewer pipe to the septic field located on the larger adjacent property to the rear. This adjacent property was titled in the name of his son-in-law, although it too was owned by the same Manfred DeRewal.

Public sewers came to serve these properties, and the septic tank was meant to be disconnected from the toilet, but was not. In or about 1985, the EPA obtained access to 300 Broad Street, but never investigated the septic tank, although the EPA removed many stored drums of chemicals, and nearly 10,000 gallons of waste chromic acid. After spending some \$350,000, the EPA, having completed their removal of hazardous chemicals, declared that the site had been cleaned up.

In 1999, shortly after the tax sale of the Chem-Fab property, PADEP entered and began their examination and testing, including drilling test holes and wells. PADEP drilled

through the septic tank, and analyzed the contents found therein, perhaps unaware that their drilling caused the former contents of the septic tank to escape to the surrounding soil. PADEP declared the septic tank a "hot spot", but never excavated the septic tank, nor removed the chemicals therefrom. Later, PADEP drilled a grid of multiple bore holes through the concrete floor of 300-330 Broad Street comprising 11,000 sf of interior area, and tested all of the resultant soil borings. Their testing results were published, and disclosed the presence of sub-slab VOC's. PADEP did not note that their drilling caused the organic solvents to escape and pollute the sub-slab soil. PADEP has tested the indoor air in each of the seven tenanted spaces at 300-330 Broad, I believe twice in recent years, and declared them not to exceed the threshold for VOC's.

After PADEP drilled their multiple testing holes through the concrete slab, patched the resulting holes and declared the indoor air to be non-hazardous, the owner renovated the former factory/warehouse building and converted it into high-end retail/professional offices. The owner and/or the tenants installed finish floors throughout the 11,000 sf building, costing in the tens of thousands of dollars. Naturally, drilling test holes through the finish floors is undesirable from the point of view of the owner and tenants. There are, in almost all of the tenanted spaces, small storage closets or utility rooms without finish floors which could be drilled without ruining the same, but neither the owner, nor the tenants wish to have them drilled either. Instead, EPA could slant drill from the exterior of the building reaching the same sub-slab loci as you have proposed by means of interior drilling.

Emptying each of their storage closets, and having drilling crews then intrude into their offices, and/or treatment rooms would be extremely disruptive and costly for each of these small business people. I know all too well what being open for business on each and every day means to them, for the ice and snow of this winter's storms had to be immediately removed, or else it would be my head!

I believe removal of the "hot spot", the abandoned septic tank underneath the concrete pad at the rear of 300 Broad should be the first order of business, for it is the source of the sub-slab VOC's. Removal of the underground tank and its contents, thus removing

the source of the VOC contamination, rather than re-exploring and re-testing, would seem to be the most expeditious route to protecting the environment, but I understand that the EPA has its own well-developed protocols.

The owner fears that the EPA, according to information received [which hopefully are just erroneous rumors] wishes to order evictions after finding the inevitable sub-slab VOC's which unfortunately resulted from PADEP's penetration of the septic tank, which was the storage container and source of the VOC's. As PADEP has determined that the interior VOC vapor levels do not exceed the standards for interior air, we question why re-investigate the known and published sub-slab conditions, rather than immediately remove the known source of the VOC's? The proposed interior drilling is excessively intrusive to the tenants, and may well be more costly than the removal of the septic tank and the surrounding soil.

Your proposed form for our consent for access is inapplicable to two out of the three buildings on the site, for they do not have basements. However, I am willing to sign the said form for that single building with a basement, known as 340 Broad Street, and consent to access the other two buildings by exterior slant drilling. The one basement is readily accessible from the exterior through a door. The majority of the footprint is a basement, with the balance, under the circa 1910 addition, an accessible crawl space. Of course, interior air testing for all of the tenant spaces at the site is supported by the owner, and consent therefore will be granted as per your request.

Yours truly,

Heywood Becker

On September 11, 2019, I was designated to serve as the neutral EPA official for purposes of this CERCLA Lien Proceeding.¹ (LHAR Exhibit 2 – Attachment 1).

This CERCLA lien proceeding has been conducted in accordance with the requirements of EPA's *Supplemental Guidance on Federal Superfund Liens*, OSWER Directive No. 9832.12-1a, issued July 29, 1993 (*Supplemental Guidance*). An Administrative Record (LHAR) for this proceeding has been compiled and an Index of the LHAR is attached to this Recommended Decision. (Appendix A). On December 12, 2019, a meeting was held by telephone conference call during which representatives of Magnate and EPA presented their arguments and positions concerning EPA's intention to perfect a CERCLA lien on the Site. The following persons participated in the December 2019 meeting:

- Joseph J. Lisa – Regional Judicial and Presiding Officer, EPA Region 3;
- Bradley G. Pollack, Esq. - Counsel for Magnate;
- Darryl Bates - Member Manager and authorized representative of Magnate;
- Andrew S. Goldman - Senior Assistant Regional Counsel, EPA Region 3's Office of Regional Counsel - Counsel for EPA;
- Maria Goodine - EPA Compliance Officer;
- Bevin Esposito - EPA Region 3 Regional Hearing Clerk (RHC); and
- Vicki Mengel - court reporter.

A transcript of the December 12, 2019 meeting was prepared, served on the parties, and added to the LHAR.² (LHAR Exhibit 17).

Having reviewed the LHAR and for the reasons discussed below, I find that EPA has a reasonable basis in law and fact to conclude that the statutory elements for perfecting a lien under CERCLA Section 107(I), 42 U.S.C. § 9607(I), have been satisfied with regard to the removal action performed by the Agency at the Site.

¹ According to the *Supplemental Guidance*, the neutral EPA official selected to conduct a CERCLA lien hearing must be an Agency attorney who has not performed any prosecutorial, investigative, or supervisory functions in connection with the case or site involved. (*Supplemental Guidance* at 7). An EPA Regional Judicial and Presiding Officer can serve as the neutral. (*Id.*) I am an Agency attorney and currently serve as EPA Region 3's Regional Judicial and Presiding Officer. I have not performed any prosecutorial, investigative, or supervisory functions in connection with this case or the Site. The use of an RJO for purposes of a CERCLA lien hearing has been upheld by the federal courts. See, e.g., *United States v. 150 Acres of Land*, 204 F.3d 698, 710 (6th Cir. 2000). (See also Rule 22.4(b) of EPA's *Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits (CROP)*, 40 C.F.R. Part 22, concerning the impartiality and neutrality requirements for Regional Judicial and Presiding Officers. (40 C.F.R. § 22.4(b) and (c)).

² On January 8, 2020, EPA filed a letter brief with the RHC identifying errors in the transcript and proposing corrections for those errors. (LHAR Exhibit 19). By email dated January 16, 2020, I notified the parties that I also had identified an error in the transcript. (LHAR Exhibit 20). More specifically, I noted that that the answer to a question I asked at the meeting (Question – Transcript 38:10-25; Answer 39:1-4) should have been attributed to Mr. Bates, but incorrectly was attributed to Mr. Goldman, counsel for EPA. (*Id.*). By email dated January 21, 2020, Magnate agreed that the aforementioned answer should have been attributed to Mr. Bates (on behalf of Magnate). (LHAR Exhibit 21). Additionally, Magnate accepted all of the errors and proposed corrections identified by EPA. (*Id.*). Therefore, I amend the official transcript for this proceeding to incorporate the errors and corrections identified by EPA in its January 8, 2020 letter brief and in my email of January 16, 2020.

II. DUE PROCESS REQUIREMENTS

During this lien proceeding, Magnate has asserted that it has been denied due process by EPA. (See e.g., LHAR Exhibit 10 at 6; LHAR Exhibit 2 – Attachment 2 at 4; and Transcript 21:2-16). As previously noted, for purposes of this CERCLA lien proceeding, EPA has utilized the procedures set forth in the *Supplemental Guidance*; procedures that are utilized by the Agency in connection with all CERCLA lien hearings.

The procedures set forth in the *Supplemental Guidance* were implemented by the Agency after the issuance of the federal court decision, Reardon v. United States, 947 F.2d 1509 (1st Cir. 1991). In Reardon, the U.S. Court of Appeals for the First Circuit held that, when EPA seeks to place a lien on property pursuant to CERCLA Section 107(I), due process considerations, at a minimum, require that the property owner be provided notice of the Agency's intent to file (i.e., perfect) a lien and an opportunity for a hearing to challenge the perfection. 947 F.2d at 1522-1524. The *Supplemental Guidance* instituted these due process standards by requiring that EPA provide notice to property owners, who are potentially responsible parties (PRPs) under CERCLA, that the Agency intends to perfect a lien on their property prior to the filing of papers to perfect the lien. (*Supplemental Guidance* at 1). Additionally, EPA is required to give such property owners the opportunity to be heard through their submission of documentation or through appearing before a neutral EPA official, or both. (*Id.*).³

The record of this case indicates that the Agency has complied with the requirements of the *Supplemental Guidance* and that Magnate has been provided due process in connection with this proceeding. By letter dated July 1, 2019, EPA provided notice to Magnate of the Agency's intention to perfect a CERCLA lien on the Site and informed Magnate of its ability to request a hearing before a neutral EPA official. A meeting was held before a neutral EPA official on December 12, 2019 during which Magnate presented its arguments and evidence in support of its position that a CERCLA lien should not be perfected on the Site. This Recommended Decision has been issued after a careful review of and is based upon the evidence contained in the LHAR of this proceeding.

III. STANDARD OF REVIEW AND FACTORS TO BE CONSIDERED

For purposes of issuing a Recommended Decision and determining whether EPA has a reasonable basis in law and fact to conclude that the statutory requirements under CERCLA Section 107(I) for perfecting a lien have been satisfied, a neutral EPA official is required under the *Supplemental Guidance* to consider the following five (5) factors:

- 1) *Notice* - Was the property owner sent by certified mail notice of potential liability;

³ The *Supplemental Guidance* requires that the "neutral official should conduct the meeting as an informal exchange of information, not bound by judicial or administrative rules of evidence" and must ensure that a record of the meeting is made and that the record be included as part of the administrative record of the matter (*Supplemental Guidance* at 8).

- 2) *Potentially Liable Party* - Is the property owned by a person who is potentially liable under CERCLA;
- 3) *Removal/Remedial Action* - Is the property subject to or has the property been affected by a removal or remedial action;
- 4) *Response Costs Incurred* - Has the United States incurred costs with respect to a response action under CERCLA; and
- 5) *Other Information Considered* - Does the record contain any other information which is sufficient to show that the lien notice should not be filed.

(*Supplemental Guidance* at 7). Additionally, the *Supplemental Guidance* requires that an EPA neutral must “consider all facts in the Lien Filing Record established for the perfection of a lien and all presentations made at the meeting, which will be made part of the Lien Filing Record.” (*Id.* at 8).

IV. FACTUAL BACKGROUND

The following discussion of the factual background of this matter is based upon the materials in the LHAR.

The Site is located off of Aileen Road in Edinburg, Shenandoah County, Virginia. (LHAR Exhibit 3 - Attachments 1 and 2). Magnate, LLC is registered as a limited liability company with the Commonwealth of Virginia. Magnate acquired legal title to the Site as part of two transactions that occurred in September 2007 and March 2009. (*Id.*). Subsequent to its purchase, Magnate sub-divided the Site into six (6) parcels. (LHAR Exhibit 3 - Attachment 3). According to Magnate, the previous owners of the Site “left the property in very good environmental condition.” (LHAR Exhibit 4 – Attachment 11 at 3).

In early 2011, Magnate decided to demolish a “large low ceiling building (approximately 100,000 s.f)” and a “building with Tectum roof panels & asbestos floor tiles” in order to make room for a new tenant at the Site. (LHAR Exhibit 4 – Attachment 11 at 4; and Transcript – 31:1-3; 32:8-13; and 33:2-4). In February and March of 2011, an inspector with Virginia Department of Labor and Industry (VADOL) visited the Site “in response to concerns that asbestos material was being improperly scrapped from the facility.” (LHAR Exhibit 4 – Attachment 8 at 1). The inspector “discovered asbestos-containing material (ACM) debris, including pipe insulation and floor tile that were not in compliance with state and federal regulations.” (*Id.*). In order for the demolition to proceed forward, Magnate needed to address the findings of VADOL and have an asbestos abatement action performed at the Site. (LHAR Exhibit 4 – Attachment 11 at 4)

Magnate retained the services of an asbestos abatement contractor, Winchester Environmental Consultants, Inc. (WECI). (*Id.*) WECI identified large piles of damaged asbestos floor tile and pipe insulation, and asbestos-containing debris at various locations throughout the Site. (LHAR Exhibit 4 – Attachment 8 at 1-2). At the completion of WECI’s abatement in September of 2011, approximately 40,000 cubic feet of asbestos-containing debris had been removed from the Site for disposal. (*Id.*) In its final report, WECI noted that a significant amount of asbestos material remained at the Site.

1. There remains a significant amount of asbestos material in the facility that was not removed due to time and budget constraints, as well the materials not being damaged. These materials consist primarily of any non-fiberglass pipe insulation in the building, and all floor tiles remaining in the building. In the future, and material found in the facility that were not tested by WECI in their inspection report dated 3/25/11 will need to be tested by a VA licensed asbestos inspector prior to any work that may disturb it.
2. The basement of the facility (under section 3, refer to attached map) still contains small amounts of damaged asbestos material mixed in with the significant amount of debris in the area. Due to flooding, and current disuse of the area along with budget concerns this area was not abated. However, poly barriers and signage were posted to prohibit access to this area. These barriers should remain in place until the area can be properly abated.

(*Id.* at 2).

Magnate was then issued a permit from Virginia state and county governmental authorities to demolish the buildings on the Site. (LHAR Exhibit 4 – Attachment 11 at 4). Debris from the demolition of the buildings was placed into piles on the Site. (Transcript 33:5-15). An inspector with VADOL then toured the Site and discovered evidence of “friable asbestos pipe wrap” on the property. (LHAR Exhibit 4 – Attachment 11 at 5). Mr. Bates of Magnate then began to look for the “least expensive way to remove [the] debris (consisting mostly of Tectum roofing panels)” from the property. (*Id.*)

In 2015, the Virginia Department of Environmental Quality (VADEQ) and VADOL jointly requested that EPA Region 3 “conduct an ACM investigation of debris piles [at the Site] resulting from the demolition of a former warehouse building.” (LHAR Exhibit 3 – Attachment 11 at 4). In February of 2016, representatives of EPA conducted an initial walkthrough of the Site. At that time, the Site consisted of a facility with numerous buildings (some in dilapidated or partially demolished states), a fuel oil aboveground storage tank (AST), other ASTs and multiple debris piles. (LHAR Exhibit 3 – Attachment 8 at 1). The EPA representatives observed, among other things, suspect asbestos-containing material in more than a dozen debris piles around the Site. (LHAR Exhibit 4 – Attachment 9 at 1).

In May of 2016, an EPA On-Scene Coordinator (OSC) conducted an initial removal assessment of the Site and found that the conditions on the property presented, among other things: “actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances

or pollutants or contaminants”; “high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate”; and “conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.” (LHAR Exhibit 3 – Attachment 8 at 16). In November of 2016, EPA conducted sampling at the Site. (LHAR Exhibit 3 – Attachment 7 at 12). The sampling activities revealed the presence of hazardous substances (polychlorinated biphenyls (PCBs) and friable asbestos) at the following locations:

Debris Pile 3 – located sixty feet east of a brick office building on the Site and adjacent to a toilet storage area. Debris pile was found by EPA to included multiple types of roofing material, wood, red floor tile, mastic, pipe wrap, pipe insulation, PVC pipe and trash. Analytical results indicated friable asbestos in the pipe insulation. (Id.)

Area 5 – located along the north side of Site and adjacent to Pile 5. EPA found damaged asbestos containing pipe insulation wrapped in plastic in the area. Sampling revealed friable asbestos (concentration 40% amosite and 10% chrysotile). (Id.)

The OSC determined that the asbestos in Debris Pile 3 and Area 5 was potentially subject to migration either due to weather conditions or actions of trespassers. The OSC observed that the Site was not gated, locked or otherwise monitored or controlled. (Id. at 13-14).

Area 10 – consists of a basement area and underground tunnel. Two piles of insulation and approximately ten (10) trash bags of insulation were discovered by the OSC in the basement in May of 2016. Several holes were observed in the ceiling of the basement directly above the piles and trash bags of insulation. Sampling of sediment and water in the basement revealed PCBs in the sediment and water, and friable asbestos in the water in the basement area. (Id. at 13).

The OSC noted that the basement area in Area 10 was subject to flooding likely due to a degraded roof on the building, underground conveyances (tunnels) and open portholes. Water in the basement area was observed to recede indicating that it could be spreading PCB and asbestos contamination throughout the Site. (Id. at 13-14).

By letter dated February 13, 2018, EPA notified Magnate of its potential liability under CERCLA for the clean-up of hazardous substances at the Site and provided Magnate the opportunity to enter into an Administrative Settlement Agreement and Order on Consent for Removal Action and perform the response action subject to EPA oversight. (LHAR Exhibit 3 – Attachments 10-12).⁴ Magnate declined the opportunity to enter into the agreement.

⁴ The Notice of Potential Liability originally was sent by EPA to Magnate on February 13, 2018 via Overnight Mail. EPA re-transmitted the Notice to Magnate via certified mail, return receipt requested on June 5, 2019. (LHAR Exhibit 3 - Attachment 11).

On May 31, 2018, the Director of the Hazardous Site Cleanup Division, EPA Region 3, determined that there had been a “release or threatened release of hazardous substances at and/or from the Site” and that the conditions at the Site presented or could present “an imminent and substantial endangerment to the public health or welfare or to the environment.” (LHAR Exhibit 3 – Attachment 6 at 11). Based upon these findings, the Director approved the implementation of a removal action to address friable asbestos and PCBs on the Site in Areas 5 and 10, and Debris Pile 3. (LHAR Exhibit 3 – Attachment 6 at 6-8).

Between April and June of 2018, EPA and Magnate engaged in discussions concerning EPA’s access to the Site to implement the selected removal action. (LHAR Exhibit 4 at 5). On Oct 11, 2018, the U.S. Department of Justice, on behalf of EPA, filed a complaint in the U.S. District Court for the Western District of Virginia seeking access to the Site. (LHAR Exhibit 3 – Attachment 17). On February 12, 2019, Magnate and the U.S. reach a settlement under which the company agreed to provide EPA with access to the Site. The settlement was approved by the District Court as part of a Stipulation and Order. (LHAR Exhibit 3 – Attachment 18).

Between February and May of 2019, EPA undertook the clean-up of hazardous substances at the Site, including, removing: six drums containing spent carbon, one drum containing PCBs and 379.94 cubic yards of debris containing friable asbestos. (LHAR Exhibit 4 at 6). As of May 23, 2019, EPA had incurred \$381,252.66 in response costs in connection with the performance of the removal action at the Site. (LHAR Exhibit 3 – Attachment 9).

By letter dated July 1, 2019, EPA provided notice to Magnate of the Agency’s intention to perfect a CERCLA lien on the Site for the aforementioned response costs. Although EPA conducted response actions on all six parcels of the Site (e.g., assessment work to determine the presence of hazardous substances on each of the parcels), EPA elected to seek to perfect the CERCLA lien solely on Parcel Nos. 071 01 001B and 071 01 001G, the two parcels containing the hazardous substances removed from the Site during the removal action.

Map Number	Subject to Lien Proceeding
071 01 001	No
071 01 001B	Yes
071 01 001D	No
071 01 001E	No
071 01 001F	No
071 01 001G	Yes

(LHAR Exhibit 4 at 6 and n.5).

V. ANALYSIS OF SUPPLEMENTAL GUIDANCE FACTORS

A. Notice of Potential Liability

Magnate does not dispute and the record is clear that EPA provided Magnate with notice of its potential liability under CERCLA. (Transcript at 9:25-10:6; and LHAR Exhibit 3 – Attachment 11). More specifically, on February 13, 2018, EPA via overnight mail notified Magnate of its potential liability under CERCLA Section 107(a), 42 U.S.C. § 9607(a), with regard to the Site. (LHAR Exhibit 3 – Attachment 10). For statutory consistency purposes, on June 5, 2019, EPA re-transmitted the notice of potential liability to Magnate by sending it certified mail to the attention of Mr. Darryl Bates, Managing Member of Magnate. (LHAR Exhibit 3 – Attachment 11). According to the signed return receipt (i.e., green card), the notice was received by Magnate on June 8, 2019. (LHAR Exhibit 3 - Tab 11a).

B. Site Owned by a Potentially Liable Party under CERCLA Section 107

CERCLA Section 107(a)(1), 42 U.S.C. § 9607(a)(1), provides, in pertinent part, “the owner and operator of a vessel or a facility . . . from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable for . . . all costs of removal or remedial action incurred by the United States Government . . . not inconsistent with the national contingency plan.”

The term “owner or operator” is defined under CERCLA as “any person owning or operating a facility.” CERCLA Section 101(20)(A), 42 U.S.C. § 9601(20)(A). For purposes of liability under CERCLA Section 107(a)(1), federal courts have held that a person need only qualify as either an “owner” or an “operator.” See United States v. Fleet Factors Corp., 901 F.2d 1550, 1554 n.3 (11th Cir. 1990), cert. denied, 498 U.S. 1046 (1991); State of N.Y. v. Shore Realty Corp., 759 F.2d 1032, 1043-44 (2d. Cir. 1985); and State of N.Y. v. Solvent Chemical Co., Inc., 875 F. Supp. 1015, 1019 (W.D.N.Y. 1995) (“It is generally agreed that ‘owner’ liability and ‘operator’ liability are two distinct concepts.”). As previously noted, Magnate currently holds legal title to the Site, having purchased the property in 2007 and 2009, and, therefore, qualifies as the current “owner” of the Site for purposes of CERCLA Sections 101(20)(A) and 107(a)(1), 42 U.S.C. §§ 9601(20)(A) and 9607(a)(1). (LHAR Exhibit 3 – Attachments 1-3; and Transcript 10:7-15).

The term “facility” is defined, in relevant part, as “any site or area where a hazardous substance, has been deposited, stored, disposed of, or place or otherwise come to be located. CERCLA Section 101(9), 42 U.S.C. § 9601(9). A “release” is defined under CERCLA to mean “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping to disposing in to the environment.” CERCLA Section 101(22), 42 U.S.C. § 9601(22). In 2016, an EPA On-Scene Coordinator noted that conditions at the Site indicated that a release into the environment of hazardous substances had occurred and that an on-going threat of additional releases was present. More specifically, the OSC observed:

Friable asbestos, that is not part of a structure, is present at two locations on the ground at the Site, Pile 3 and Area 5. This asbestos is subject to migration via weather or the action of the owner or trespassers. In addition, friable asbestos and PCBs have also been detected in the basement of a building at the Site. Currently, during heavy rain events, water infiltrates this basement causing it to flood. This is likely due to degraded roofing, underground conveyances (tunnels), and open portholes in the ground level floor that lead to the basement. The waters, which may contain PCBs and asbestos fibers, eventually recede from the basement after the rain event and may potentially spread contamination.

(LHAR Exhibit 3 – Attachment 6 at 3-4. See also LHAR Exhibit 3 – Attachment 7 at 12-14). PCBs and friable asbestos both qualify as “hazardous substances” within the meaning of Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and are listed as “hazardous substances” at 40 C.F.R. § 302.4. As a result, the information set forth in the LHAR indicates that a “release” of hazardous substances has occurred at the Site (i.e., a “facility”) for purposes of CERCLA Sections 101(9) and (22), and 107(a)(1), 42 U.S.C. §§ 9601(9) and (22), and 9607(a)(1).

Therefore, based upon the information in the LHAR, EPA clearly has a reasonable basis in law and fact to conclude that Magnate is a potentially liable party (i.e., the “current owner” of the Site) for purposes of CERCLA Section 107(a)(1), 42 U.S.C. § 9607(a)(1).

In its defense, Magnate has raised the statutory Third-Party Defense set forth in CERCLA Section 107(b)(3), 42 U.S.C. § 9607(b)(3), that provides, in pertinent part:

There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat of a release of a hazardous substance and the damages resulting therefrom were caused solely by -- (3) an act or omission of a third party other than an employee or agent of the defendant, or than one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the defendant . . . if the defendant establishes by a preponderance of the evidence that (a) he exercised due care with respect to the hazardous substances concerned, taking into consideration the characteristics of such hazardous substances, in light of all relevant facts and circumstances, and (b) he took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions. . .”.

The Third-Party Defense has been characterized as an affirmative defense under which a defendant bears the burden of proving each element of the defense by a preponderance of the evidence. Foster v. U.S., 922 F. Supp. 642, 654 (D.C.D.C. 1996) (citing, City of New York v. Exxon Corp., 766 F. Supp. 177, 195 (S.D.N.Y. 1991) and U.S. v. Price, 577 F. Supp. 1103, 1114 (D.N.J. 1983)). “A defendant’s failure to meet its burden on any one of the required elements precludes the application of the defense.” U.S. v. A & N. Cleaners and Launderers, Inc., 854 F. Supp. 229, 239 (S.D.N.Y. 1994).

Thus, in order to successfully assert the Third Party Defense, a defendant must establish that:

- 1) A release of a hazardous substance was solely caused by a third party;
- 2) The third party is not an employee or agent of the defendant, nor does the third party have a contractual relationship with the defendant;
- 3) The defendant exercised due care with respect to the hazardous substance; and
- 4) The defendant took precautions against acts or omission of third parties concerning the hazardous substances.

In the Matter of Lawrence Aviation Industries, Inc. Superfund Site, CERCLA Lien Recommended Decision at 12 (EPA Region 2, 2005); and In the Matter of Far Star Superfund Site, CERCLA Lien Recommended Decision at 6-7 (EPA Region 4, 2004).

1. Third party as sole cause of release or threat of release of hazardous substances

Magnate has made allegations that various third parties were responsible for the hazardous substances discovered by EPA at the Site in 2016. However, as explained below, Magnate has not been able to provide proof establishing by a preponderance of the evidence that a specific third party (not related to Magnate by employment, agency or contractual relationship) solely caused a release or threat of release of the hazardous substances at the Site. Rather, the information set forth in the LHAR indicates that Magnate caused the release and created the conditions for possible future releases of hazardous substances when it demolished buildings and created debris piles of ACM at the Site.

a. Allegation #1 - Virginia government agents were responsible for contamination

In its July 4, 2019 letter to EPA, Magnate asserted that “government agents” were responsible for the hazardous substances EPA found at the Site in 2016.

Magnate, LLC will be exercising the “Third Party Defense” also found in CERCLA 107. It is the same defense that Magnate has been offering since the first day that the OSC, Myles Bartos, first visited the site. At that time, Magnate initiated the Third Party Defense by informing the OSC that Magnate had an abatement of the property that should have rendered the property free of asbestos & PCBs. We also informed the OSC that the agents that summoned the OSC to the property, were the same agents that signed off on the previous abatement and were responsible for the debris remaining on site.

(LHAR Exhibit 2 – Attachment 2 at 2) (emphasis added).

During the December 12, 2019 meeting, Mr. Bates clarified this assertion by testifying that the government “agents” responsible for the debris were agents with VADEQ and VADOL. (Transcript at

29:21-30:14). Mr. Bates also made clear that Magnate was not alleging that these governmental agents actually brought hazardous substances onto the Site. (Transcript 30:20-32:7 and 36:16-22). Rather, he argued that, since VADEQ and VADOL issued a demolition permit and subsequently denied Magnate permission to dispose of the resulting debris at a local landfill, the Virginia government, thereby, was responsible for the hazardous substance contamination of the Site (Transcript 33:17-21).

However, the argument raised by Magnate concerning Virginia government agents does not satisfy the standard of establishing by a preponderance of the evidence that these agents solely caused the release of friable asbestos at the Site. Indeed, no evidence has been introduced that any Virginia government agent took any type of action that caused a hazardous substance to be released into the environment. The actions of government officials undertaking their regulatory duties, in terms of issuing permits and overseeing the proper disposal of demolition debris, do not constitute actions causing a release of hazardous substances into the environment for purposes of the Third Party Defense.

Furthermore, the statements made by Mr. Bates during the meeting clearly indicate that it was Magnate's actions in demolishing buildings at the Site that caused the release of friable asbestos containing material. Mr. Bates stated that the hazardous substances EPA observed at the Site in 2016, specifically the friable asbestos discovered in Debris Pile 3 and Area 5, were generated by Magnate when it demolished a building located on the property in 2011.

JUDICIAL OFFICER LISA: So in terms of the year, the year when you took the building down.

MR. BATES: 2011

JUDICIAL OFFICER LISA: Am I understanding you correctly that you're saying that when the OSC from EPA showed up at the site and saw piles of debris at the site that those piles of debris were still there left over from when the building was taken down?

MR. BATES: Yep.

(Transcript – 33:2-11). (See also, Transcript 38:10-39:4⁵ and 34:5-9; and LHAR Exhibit 14 at 3 (“The only solid waste on the property is the residue of the abated buildings that were legally demoed.”)).

As a result, it is reasonable for EPA to conclude that Magnate cannot establish by a preponderance of the evidence that agents with the Virginia government solely caused the release of hazardous substances (friable asbestos) at the Site.

⁵ As previously discussed, supra n. 2, the transcript incorrectly identifies the answer on page 39 as having been said by Mr. Goldman. The answer was provided by Mr. Bates.

b. Allegation # 2 - Hazardous substances at the Site were “planted”

Magnate also has asserted that “any contamination found [at the Site] would have had to be planted.” (LHAR Exhibit 2 – Attachment 2 at 2). However, when questioned during the December 2019 meeting about this assertion, Mr. Bates was unable to identify a specific third party who planted any hazardous substances at the Site.

JUDICIAL OFFICER LISA: I just want to nail this down. Did you ever see anybody plant, bring contaminated material onto your property or is it just that you’re drawing that conclusion based upon what’s going on.”

MR. BATES: Well I’m making that presumption.

(Transcript – 36:16-22).

Speculation or the raising of “presumptions” is insufficient for purposes of establishing by a preponderance of the evidence that a third party solely caused a release. As a result, it is reasonable for EPA to conclude that Magnate cannot establish by a preponderance of the evidence that a third party “planted” friable asbestos on the Site and was solely responsible for the release of friable asbestos at the Site.

c. Allegation # 3 - ATF sting operation may have caused contamination of Site

Magnate has alleged that the release of friable asbestos at the Site may have been caused by “an illegal ATF/Sheriff’s Office ‘tobacco sting’ operation” that had taken place on the property. (LHAR Exhibit 2 – Attachment 2 at 2). However, when asked at the December 2019 meeting to provide more detailed information about this allegation, Magnate was not able to identify any specific person associated with the “sting operation” who was in any manner responsible for the hazardous substances discovered by EPA on the Site in 2016.

JUDICIAL OFFICER LISA: Is Magnate claiming in any way that the AFT tobacco sting was in any way responsible for causing the contamination of the property?

MR. BATES: We don’t know that. Well, we don’t know that, but we wanted an investigation to determine that.

(Transcript 40:18-24).

As a result, it is reasonable for EPA to conclude that Magnate cannot establish by a preponderance of the evidence that a third person associated with an “ATF sting operation” solely caused a release of hazardous substances (friable asbestos) at the Site.

d. Allegation # 4 - Environmental company previously hired by Magnate caused contamination of the Site

At the December 2019 meeting, Mr. Bates alleged that the environmental company he hired in 2011 to perform an asbestos abatement at the Site should be deemed to be the party responsible for the asbestos contamination. (Transcript 33:22-24 (“Shouldn’t my environment company that oversaw it and signed off that it was done, shouldn’t they be the responsible party?”)). However, no further information was provided by Magnate to explain what actions the environmental company had taken that caused the release of the friable asbestos at the Site. Indeed, the environmental company Magnate hired for the abatement clearly noted in its final report that, despite removing approximately 40,000 cubic feet of asbestos-containing debris from the Site, “a significant amount of asbestos material” remained at the Site and was “not removed due to time and budget constraints, as well the materials not being damaged.” (LHAR Exhibit 4 – Attachment 8 at 2). Furthermore, later during the December 2019 meeting Mr. Bates stated that “[t]here was no reason to think that the abatement that I had previously done wasn’t sufficient.” (Transcript 35:17-19).

As a result, it is reasonable for EPA to conclude that Magnate cannot establish by a preponderance of the evidence that its environmental contractor solely caused the release of a hazardous substance (friable asbestos) at the Site.

e. Allegation # 5 - Contamination existed prior to Magnate’s purchase of the Site

At the December 2019 meeting, Magnate’s attorney raised the Innocent Purchaser Defense⁶ by stating that the PCB and asbestos contamination on the Site existed prior to Magnate’s purchase of the property and that Magnate had not contributed to the contamination in any manner.

MR. POLLACK: Now, moving to their factors, in no way, shape or form is Magnate a responsible party here. Okay? This property was I believe a blue jean factory many, many years ago, and it was up and operating. And at some point, it stopped operating, and the owner went bankrupt, I believe. And it went up for a tax auction, I believe, and Magnate purchased it lock, stock and barrel with all of its faults and problems and apparently PCBs and then supposedly friable asbestos. And what we have here is purchaser who’s done nothing but tried to abate any problems there. He has no [sic] continued with the problems. He has not continued to operate this factory. He has contributed no asbestos. He’s contributed no PCBs.

(Transcript 22:16-23:5).

⁶ The Innocent Purchaser Defense is a variant of the Third Party defense under CERCLA Section 107(b)(3), 42 U.S.C. § 9607(b)(3). (See also CERCLA Section 101(35)(A), 42 U.S.C. § 9601(35)(A)).

This assertion, however, was directly contradicted by other statements made during the December 2019 meeting by Mr. Bates that the contamination discovered by EPA in 2016 was the result of Magnate's demolition of buildings. Additionally, the assertion is directly contradicted by representations made by Magnate in its December 18, 2017 letter to EPA Administrator Scott Pruitt. In this letter, Magnate represented that the previous owners of the Site "left the property in very good environmental condition." (LHAR Exhibit 4 – Attachment 11 at 3). Finally, Magnate has provided no information to establish that it had undertaken, prior to its purchase of the Site, any type of environmental due diligence (e.g., all appropriate inquiry).

As a result, it is reasonable for EPA to conclude that Magnate cannot satisfy its burden of proof under the Innocent Purchaser Defense to CERCLA liability.

2. Exercise of Due Care and Taking of Precautions

As previously noted, a defendant seeking to utilize the Third Party Defense also bears the burden of proving by a preponderance of the evidence that he or she "exercised due care with respect to the hazardous substances concerned, taking into consideration the characteristics of such hazardous substances, in light of all relevant facts and circumstances" and "took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions." CERCLA Section 107(b)(3), 42 U.S.C. § 9607(b)(3). The aforementioned "due care" and "precautions" requirements are not defined by the statute. However, courts have consulted CERCLA's legislative history for guidance on how to interpret these terms. "[T]he defendant must demonstrate that he took all precautions with respect to the particular waste that a similarly situated reasonable and prudent person would have taken in light of all relevant facts and circumstances. State of N.Y. v. Lashins Arcade Co., 91 F.3d 353, 361-62 (2d. Cir. 1996) (quoting, H. R. Rep. No. 1016, 96th Cong., 2d Sess., pt. 1, at 34 (1980), reprinted in 1980 U.S.C.C.A.N. 6119, 6137). "Further, 'due care' would include those steps necessary to protect the public from a health or environmental threat." U.S. v. A & N Cleaners and Launderers, Inc. 854 F. Supp. 229, 238 (S.D.N.Y. 1994) (quoting H.R. Rep. No. 253, 99th Cong., 2d Sess. 187 (1986) U.S. Code Cong. & Admin. News 1986, 2835). See also Kerr-McGee Chem. Corp. v. Lefton Iron & Metal Co., 14 F.3d 321, 325 & n.3 (due care not established when no affirmative measures taken to control site).

The information set forth in the LHAR indicates that Magnate did not exercise due care with regard to the friable asbestos and PCBs located on the Site and failed to take precautions against foreseeable acts or omissions by third parties concerning these hazardous substances.

As previously discussed, Mr. Bates represented at the December 2019 meeting that the debris that EPA observed at the Site in 2016 had been generated by a demolition that Magnate had conducted in 2011. As a result, Magnate allowed asbestos contaminated demolition debris to remain on the Site exposed to the elements, without any type of cover and potentially subject to migration on and off of the Site for approximately 5 years. Additionally, despite being placed on notice by WECI in 2011 that the Site contained significant amounts of asbestos-containing materials, Magnate took no steps to control

access to or to prevent trespassers from coming onto the Site. Magnate also failed to take any actions to prevent the flooding of the basement of the building in Area 10 that was found by EPA to contain PCBs and friable asbestos. EPA's OSC observed that the building had degraded roofing and open portholes that permitted water to enter the basement and potentially spread asbestos and PCB contamination throughout the Site.

As a result, based upon an analysis of the information contained in the LHAR, it clearly is reasonable for EPA to conclude that Magnate cannot satisfying its burden with regard to establishing either the Third Party Defense or Innocent Purchaser Defense to liability under CERCLA and, therefore, Magnate is a potentially liable party (i.e., the current owner) under CERCLA Section 107(a)(1), 42 U.S.C. § 9607(a)(1).

C. Property Subject to Removal or Remedial Action

Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), provides, in pertinent part, that:

(1) Whenever

(A) any hazardous substance is released or there is a substantial threat of such a release into the environment, or

(B) there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to public health or welfare,

the President is authorized to act, consistent with the national contingency plan, to removal or arrange for the removal of, and provide for remedial action relating to such hazardous substance, pollutant or contaminant at any time (including its removal from any contaminated natural resource), or take any other response measure consistent with the national contingency plan which the President deems necessary to protect the public health or welfare or the environment.”

Response actions under CERCLA Section 104(a) can take the form of either a removal action⁷ or a remedial action. “Removal actions are generally immediate or interim responses, and remedial actions generally are permanent responses.” In the Matter of Bell Petroleum Services, Inc., 3 F.3d 889, 894 (5th Cir. 1993). (See also New York State Elec. & Gas Corp. v. FirstEnergy Corp., 766 F.3d 212, 230 and

⁷ The term “removal action” is defined under CERCLA to mean “the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat or release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 9604(b) of this title, and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act [42 U.S.S. Section 5121 et seq.]” Section 101(23) of CERCLA, 42 U.S.C. § 9601(23).

233 (2d Cir. 2014) (“Removal actions are generally clean-up measures taken in response to immediate threats to public health and safety.”)).

On May 31, 2018, the Director of the Hazardous Site Cleanup Division, EPA Region 3, determined that there had been a “release or threatened release of hazardous substances at and/or from the Site” and that these conditions presented or could present “an imminent and substantial endangerment to the public health or welfare or to the environment.” (LHAR Exhibit 3 – Attachment 6). Based upon these findings, the Director approved the implementation of a “removal action” at the Site. (Id.).⁸

In its letter brief of September 26, 2019, EPA noted that the removal action at the Site is ongoing as of the date of this lien proceeding. Additionally, the Agency identified a number of activities that had been completed at the Site as part of the removal action and a number of additional actions that would be needed in the future, including, but not limited to:

- Removal site evaluation activities, including sampling events (May and November 2016);
- Selection of a removal action for implementation (May 2018);
- Attempts to secure voluntary access from Magnate to implement the selected removal action (April through June 2018);
- Judicial action in the U.S. District Court for the Western District of Virginia seeking court-ordered access to permit EPA to implement selected removal action (October 2018);
- Filing of Stipulation and Order by District Court resolving access matter (February 2019);
- Additional removal site evaluation activities (February 2019);
- Implementation of selected removal action (February through July of 2019)⁹;
- Issuance of Lien Notice Letter (July 1, 2019);
- Lien Hearing Process; and
- Future actions to secure and recover EPA’s costs.

(LHAR Exhibit 4 at 18-19).

Magnate has challenged the legal basis for EPA’s decision to conduct a removal action at the Site and the process by which EPA undertook the removal action at the Site. In addition to being beyond the scope of and not relevant to the issue of this lien proceeding (whether the statutory requirements for the perfection of a CERCLA Section 107(l) lien have been satisfied), the arguments raised by Magnate are incorrect as a matter of law and contradicted by the information in the LHAR.

First, Magnate has argued that a removal action at the Site was never authorized under CERCLA because “there was ‘never’ a substantial release or threat of release to the environment of any pollutant

⁸ See also March 13, 2019 “Request for Additional Funding and change of Scope for a Removal Action at the Magnate LLC Site, Edinburg, Shenandoah County, Virginia.” (LHAR Exhibit 3 – Attachment 7 at 7).

⁹ During the response action, EPA removed for off-site disposal six drums containing spent carbon, one drum containing PCBs and 379.94 cubic yards of debris containing friable asbestos. (LHAR Exhibit 4 – Attachment 2).

or contaminant which may present an imminent and substantial danger to the public health or welfare.” (LHAR Exhibit 10 at 4). However, this argument does not accurately set forth the legal prerequisites for a response action under Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). More specifically, CERCLA does not require a finding that a release of hazardous substances is “substantial” in nature in order for a response action, like a removal action, to be authorized. Rather, Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), only requires that a release of a hazardous substance into the environment has occurred, irrespective of quantity or nature.

Second, Magnate has argued that EPA failed to make a “determination of threat” posed by the Site in order to conduct its clean-up. (LHAR Exhibit 10 at 5). However, this argument is contradicted by the LHAR. In both May of 2018 and March of 2019, the Director of the EPA Region 3 division responsible for implementing CERCLA made a determination that the conditions at the Site presented an “imminent and substantial endangerment to the public health or welfare or to the environment.”

Third, Magnate has asserted that EPA never determined the cause of the environmental contamination at the Site and, therefore, the resulting removal action was improper, if not unauthorized by law. (Transcript 24:15-21 and 28:11-13). However, neither CERCLA, nor the regulations implementing the National Contingency Plan require that EPA identify a “cause” of an actual or threatened release of hazardous substances in order to undertake clean-up activities and recover response costs. See also United States v. Alcan Aluminum Corp., 964 F.2d 252, 264 (3rd Cir. 1992); and State of N.Y. v. Shore Realty Corp., 759 F.2d 1032, 1043-44 (2d. Cir. 1985) (Section 9607(a)(1) unequivocally imposes strict liability on the current owner of a facility from which there is a release or threat of release, without regard to causation).

Therefore, it is reasonable for EPA to conclude that a removal action has occurred at the Site for purposes of the lien requirements of CERCLA Section 107(l).

D. United States has Incurred Costs

EPA has presented evidence indicating that, through May 23, 2019, EPA has incurred response costs in the amount of \$381,252.66 in connection with the Site. (LHAR Exhibit 3 – Attachment 9).

Magnate has raised a number of arguments concerning the Agency’s incurrence of response costs. In addition to not being relevant to and beyond the scope of this proceeding, these arguments are contradicted by the LHAR and are incorrect as a matter of law.

Magnate has argued that EPA has failed to quantify its costs at the Site and that “until the costs are quantified, we think a lien is premature.” (Transcript 9:15-20). However, neither the *Supplemental Guidance* nor the statute require that an exact sum of costs be specified as a pre-requisite to the perfection of a lien. This is based upon the fact that a lien under CERCLA Section 9607(l), 42 U.S.C. § 9607(l), includes the costs of on-going response work at a site. As noted in one Recommended Decision, “it was anticipated that CERCLA liens would often be filed early in the history of a response

action, at a point where EPA would not know the full costs of its response action.” In the Matter of Iron Mountain Mine, Inc., CERCLA Lien Recommended Decision at 12 (EPA Region 9, 2000).

Additionally, CERCLA Section 9607(l), 42 U.S.C. § 9607(l), clearly provides that a lien on a site “shall continue until liability for the costs ... is satisfied” or becomes unenforceable through the applicable statute of limitations. Finally, even if the statute required EPA to quantify its costs, EPA clearly met such a burden by introducing into the LHAR an itemized summary (“Itemized Cost Summary Verification”) of costs it has incurred at the Site through May 23, 2019. (LHAR Exhibit 3 – Attachment 9).

Magnate also has challenged EPA’s presentation of incurred response costs by asserting that the Agency has failed to produce bids or contracts for the work performed at the property. (Transcript 11:2-14). However, once again, nothing in the CERCLA statute requires EPA to produce bids for purposes of perfecting a federal lien on the Site. Additionally, the case law is consistent in holding that consideration of the appropriateness of costs incurred by EPA is not a subject of review for purposes of this proceeding. “Our only inquiry is whether the LFR shows that costs have in fact been incurred.” In the Matter of Herculaneum Lead Smelter Site, CERCLA Lien Recommended Decision (EPA Region 7, 2003); In the Matter of Rogers Fibre Mill Superfund Site, CERCLA Lien Recommended Decision (EPA Region 1, 2001).

E. Other Potential Reasons not to perfect lien

Magnate has asserted that EPA cannot perfect the CERCLA Lien for the Site because the lien does not satisfy the requirements of Virginia lien law, Va. Code § 43-4.01. (LHAR Exhibit 16 at 2 (“EPA has no reasonable basis to perfect the lien, due to Virginia state statute 43-25 that requires three basic elements to perfect a lien within its jurisdiction: amount certain, stated compensation for amount certain and 90 days to file from completion of work to be compensated for.”)). However, the Virginia law cited by Magnate is inapplicable to this case. The Virginia lien law that Magnate cites concerns mechanics liens that arise in connection with the construction of one- or two-family residential buildings. Second, the requirements of Va. Code § 43-4.01 stand in direct contradiction to CERCLA Section 107(l) in which Congress expressly provided that a CERCLA Lien covers “all costs and damages for which a person is liable to the United States under CERCLA Section 107(a)” and that the lien “shall continue until the liability for the costs ... is satisfied or becomes unenforceable through operation of the statute of limitations.” CERCLA Section 107(l)(1) and (2), 42 U.S.C. § 107(l)(1) and (2).

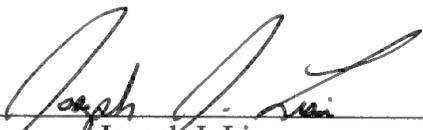
The LHAR does not contain any other information which is sufficient to show that the lien notice should not be filed/perfected.

VI. CONCLUSION

Based upon my review of the information set forth in the LHAR, I find that EPA has a reasonable basis in law and in fact to conclude that the statutory requirements for perfecting a lien on the Site under CERCLA Section 107(l), 42 U.S.C. § 9607(l), have been satisfied.

The scope of this proceeding is narrowly limited to the issue of whether or not EPA has a reasonable basis to perfect its lien. This Recommended Decision does not compel the perfection of the CERCLA lien on the Site; it merely establishes that there is a reasonable basis in law and fact for doing so. This Recommended Decision does not preclude EPA or the Property Owner Magnate from raising any claims or defenses in any later proceedings. This Recommended Decision is not a binding determination of liability, has no preclusive effect and shall not be given any deference in any future proceedings. This Recommended Decision shall not otherwise constitute evidence in any subsequent proceedings.

Date: Feb. 12, 2020



Joseph J. Lisa
Regional Judicial and Presiding Officer
U.S. EPA Region III

APPENDIX A

**MAGNATE, LLC SITE
EDINBURG, SHENANDOAH COUNTY, VIRGINIA
LIEN HEARING ADMINISTRATIVE RECORD (LHAR)
DOCKET NO. CERCLA-03-2019-0120LL**

1. Notice of Intent to Perfect Federal Superfund Lien; Opportunity To Be Heard (with attachments) Letter from Cecil Rodrigues, Acting Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, (July 1, 2019).
2. Certificate of Service (with attachments) - Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, certifying that copies of the following documents were provided to Bradley Pollack, Esq. and Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III:

Attachment

1. Order of Assignment (September 11, 2019);
 2. Email from Bradley Pollack, Esq., to Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate LLC, Site, Notice of Intent to Perfect CERCLA 107(I) Lien (July 28, 2019), with attached unsigned letter from Darryl W. Bates to Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Letter of Response to Notice of Intent to Perfect Federal Superfund Lien (July 4, 2019); and
 3. EPA's "Supplemental Guidance on Federal Superfund Liens" (OSWER Directive No. 9832.12-1a (July 29, 1993).
3. EPA Lien Filing Record and Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (September 12, 2019).

Attachment

1. Deed between Donald D. Litten, Special Commissioner, in the Civil Action of County of Shenandoah v. John van der Velde, et. al., Grantor, and Magnate, LLC, Grantee, dated September 20, 2007, and recorded in the Shenandoah County, Virginia land records in Book 1385, Page 94;
2. Trustee's Deed between Bradley G. Pollack, Substitute Trustee, Grantor, and Magnate, LLC, Grantee, dated March 9, 2009, and recorded in the Shenandoah County, Virginia land records in Book 1442, Page 648;
3. Subdivision Plan recorded in Shenandoah County, Virginia Plat Book 1516, Page 135;

4. Printout from Shenandoah County, Virginia website for Parcel no. 0701001G (searched/printed June 5, 2019);
 5. Printout from Shenandoah County, Virginia website for Parcel No. 0701001G (searched/printed June 5, 2019);
 6. Memorandum from Myles Bartos, On Scene Coordinator, to Karen Melvin, Director, Hazardous Site Cleanup Division, re: "Request for Approval and Funding for a Removal Action at the Magnate, LLC Site, Edinburg, Shenandoah County, Virginia," approved May 31, 2018;
 7. Memorandum from Myles Bartos, On Scene Coordinator, to Paul Leonard, Acting Director, Hazardous Site Cleanup Division, re: "Request for Additional Funding and change of Scope for a Removal Action at the Magnate, LLC Site, Edinburg, Shenandoah County, Virginia," approved March 13, 2019.
 8. Pollution Reports Nos. 1-13 (February, 2016 to May 4, 2019);
 9. Report of Response Costs from February 7, 2016 through May 23, 2019 for the Magnate, LLC Site (June 3, 2019) (reconciliation pending);
 10. Letter from Joan Armstrong, Office of Enforcement, Hazardous Site Cleanup Division, EPA Region 3, to Magnate, LLC/Darryl Bates, Managing Member, re "Notice of Potential Liability" (February 13, 2018) (overnight mail);
 11. Letter from Peter Ludzia, Branch Chief, Program Support & Cost Recovery Branch, Superfund & Emergency Management Division, EPA Region 3, to Magnate, LLC/Darryl Bates, Managing Member, re: "re-Transmittal of Notice of Potential Liability" (June 5, 2019); 11.a – PS Form 3811 Domestic Return Receipt for Article Number 7017 1450 0000 2079 2210 signed by Darryl Bates (undated)
 12. Letter from Myles Bartos to Magnate, LLC (April 3, 2018);
 13. Unsigned Letter from Magnate, LLC to USEPA (April 10, 2018);
 14. Letter from Andrew S. Goldman, Sr. Assistant Regional Counsel, to Magnate, LLC (April 19, 2018);
 15. Email from Darryl Bates to Myles Bartos (May 10, 2018);
 16. Memorandum to File (Myles Bartos) (June 8, 2018)
 17. Complaint filed by United States in *United States v. Magnate, LLC*, No. 5:18-cv-00127 (W.D. Va.) (October 11, 2018);
 18. Stipulation and Order in Aid of Access filed in *United States v. Magnate, LLC*, No. 5:18-cv-00127 (W.D. Va.) (February 12, 2019).
4. EPA's Rebuttal to Arguments presented by Magnate, LLC in its July 4 and July 28, 2019 Objection to EPA's Perfection of a CERCLA 107(l) Lien (with attached Index, EPA's Rebuttal, and Certificate of Service) - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (September 26, 2019).

Attachment

1. "Supplemental Guidance on Federal Superfund Liens" (OSWER Directive No. 9832.12-1a (July 29, 1993);
 2. Email from Myles Bartos to Andrew Goldman, Esq., re: "Disposal Reports for Magnate" (August 28, 2019);
 3. Letter from Cecil Rodrigues, Acting Regional Counsel, to Brad Pollack, Esq., re "Notice of Intent to Perfect Federal Superfund Lien; Opportunity to be Heard" (July 1, 2019);
 4. Email from Brad Pollack, Esq. to Andrew Goldman, Esq., re "Notice of Intent to Perfect CERCLA 107(l) Lien" (July 28, 2019);
 5. Letter from Darryl W. Bates, to Andrew Goldman, Esq., re "Letter of Response to Notice of Intent to Perfect Federal Superfund Lien" (July 4, 2019);
 6. Order of Assignment (September 11, 2019);
 7. Email from Carlyn Prisk to Andrew Goldman, Esq., re "Magnate-Ownership Research" (September 5, 2019);
 8. Letter from James C. Sigurdson to Darryl Bates, re "Final Report/Asbestos Abatement/523 Aileen Road, Edinburg, VA" (September 8, 2011);
 9. Memorandum from Myles Bartos to Bonnie Gross, re "Recommendation for Determination of Imminent and Substantial Endangerment at the Magnate LLC Site" (approved January 18, 2018);
 10. UPS Track Sheet from Internet (June 6, 2018); and
 11. Email from Darryl Bates to Myles Bartos, re "Conference Call" (June 8, 2018).
5. Corrected attachments to EPA's Rebuttal to Arguments presented by Magnate, LLC in its July 4 and July 28, 2019 Objection to EPA's Perfection of a CERCLA 107(l) Lien, with corrected attachments and Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (October 2, 2019).
 6. Order of Assignment and Initial Case Status Conference Call – Scheduling Notice, with attached Order of Assignment - Letter from Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, to Bradley Pollack, Esq., and Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate, LLC Site, (October 3, 2019).
 7. Scheduling Letter - Letter from Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, to Bradley Pollack, Esq., and Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate, LLC Site, (October 18, 2019).

8. Confirmation of Mailing Procedure - Letter from Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, to Bradley Pollack, Esq., and Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate, LLC Site, (November 6, 2019).
9. Resending of Corrected Exhibits to EPA's Rebuttal to Arguments presented by Magnate, LLC, with attached Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (November 6, 2019).
10. Magnate's Response to EPA Rebuttal of September 26, 2019 - Email from Bradley Pollack, Esq., to Bevin Esposito, Regional Hearing Clerk, EPA Region III (November 14, 2019).
11. Lien Hearing Scheduling Notice - Letter from Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, to Bradley Pollack, Esq., and Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate, LLC Site, (November 21, 2019).
12. EPA's Response to Arguments Presented by Magnate, LLC in its November 14, 2019 Submission Regarding EPA's Perfection of a CERCLA 107(l) Lien, with attached Index, EPA's Response, and Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (November 26, 2019).
13. Lien Hearing Follow-Up Letter to Joseph Lisa and Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, re: Magnate, LLC Site, Lien Proceeding, (December 13, 2019).
14. Response to EPA Letter of December 13, 2019 - Email from Bradley Pollack, Esq., to Bevin Esposito, Regional Hearing Clerk, EPA Region III, attaching Magnate's Letter to Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, re: (December 23, 2019).
15. Response to Magnate's December 23, 2019 email and letter, with Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, re: Magnate, LLC Site, Lien Proceeding, (December 26, 2019).
16. Summation of Magnate - Email from Bradley Pollack, Esq., to Bevin Esposito, Regional Hearing Clerk, EPA Region III, attaching Letter to Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, re: Magnate, LLC Site, (January 4, 2020).

17. Original Transcript of Magnate, LLC Site Meeting, CERCLA Lien Hearing, Docket No. CERCLA-03-2019-0120LL (December 12, 2019).
18. Post Lien Hearing Scheduling Notice - Letter from Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, to Bradley Pollack, Esq., and Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate, LLC Site, (January 8, 2020).
19. Transcript Errata, with attached Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (January 8, 2020).
20. CERCLA Lien Hearing – Transcript Error - Email from Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, to Bradley Pollack, Esq., and Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, re: Magnate, LLC Site, (January 16, 2020).
21. CERCLA Lien Hearing – Transcript Error, attaching EPA Inspector General Complaint - Email from Bradley Pollack, Esq., to Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III, re: Magnate, LLC Site, (January 21, 2020).
22. Post-Hearing Brief, with attachments and Certificate of Service - Letter from Andrew Goldman, Senior Assistant Regional Counsel, EPA Region III, to Bradley Pollack, Esq., re: Magnate, LLC Site, Lien Proceeding, (January 28, 2020).
23. Letter from Darryl Bates, re: Magnate’s Response to EPA’s Hearing Response January 28, 2020 - attached to Email from Bradley Pollack, Esq., to Joseph J. Lisa, Regional Judicial and Presiding Officer, EPA Region III (February 3, 2020).

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that, on the date provided below, I caused to be served the aforesaid Recommended Decision upon the following persons in the manner designated:

By Regular Mail and Email:

Bradley Pollack, Esq.
753 South Main Street
Woodstock, VA 22664
bpollack@gmail.com

By Hand Delivery and Email:

Andrew S. Goldman, Esq.
U.S. EPA Region III
1650 Arch Street
Mail Code 3RC10
Philadelphia, PA 19103
goldman.andrew@epa.gov

By Hand Delivery:

Cecil Rodrigues
Regional Counsel
U.S. EPA Region III
1650 Arch Street
Mail Code 3RC00
Philadelphia, PA 19103

FEB 12 2020

Date



Bevin Esposito
Regional Hearing Clerk
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
215-814-2637
esposito.bevin@epa.gov



U.S. Department of Justice

Environment and Natural Resources Division

90-11-2-12124

*Environmental Enforcement Section
4 Constitution Square
150 M Street, NE
Suite 2.900
Washington, DC 20002*

Telephone (202) 514-1461

November 20, 2019

Via E-Mail and Federal Express

Mr. Heywood Becker
and
Turog Properties, Ltd.
5382 Wismer Road
Pipersville, PA 18947
(Email: yalephd1970@gmail.com)

**Re: Potential Litigation Under the Comprehensive Environmental Response,
Compensation, and Liability Act of 1980, 42 U.S.C. Sections 9606(a) and
9604(e)**

Dear Mr. Becker:

Pursuant to Executive Order No. 12988 (February 5, 1996), this letter officially notifies you and Turog Properties Ltd. (“Turog”) that the United States Department of Justice, at the request of the United States Environmental Protection Agency (“EPA”), is considering initiating a civil judicial action against you and Turog under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”), 42 U.S.C. §§ 9601-9657, in connection with the Chem-Fab Superfund Site located at 300-360 Broad Street, Doylestown, Pennsylvania (“Site”). We want to extend to you and Turog an opportunity to begin settlement negotiations before any litigation is commenced.

The United States believes that there are compelling grounds for a civil action against Turog under CERCLA for failing to comply with the administrative order EPA issued to Turog on May 31, 2017 (“2017 Order”) under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).¹ The 2017 Order directed Turog to operate and maintain a vapor mitigation system at the Site under EPA oversight. Specifically, Turog violated the 2017 Order when it failed to (1) submit for EPA approval a draft notice for filing in the appropriate land records as required by Paragraph 31.a of the 2017 Order, (2) submit to EPA a written certification regarding records and documents as required by Paragraph 40 of the 2017 Order, and (3) submit to EPA, every 90 days, a progress report detailing, among other things, actions taken by Turog to comply with the 2017 Order

¹ CERCLA authorizes EPA to issue orders as may be necessary to protect public health and welfare and the environment. *See* 42 U.S.C. § 9606.

(including Turog's efforts to operate and maintain the vapor mitigation system) as required by Paragraph 25 of the 2017 Order. Pursuant to Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1), each one of these violations carries the possibility of civil penalties of up to \$55,907 per day for each day of violation.² Turog failed to comply with the 2017 Order for well over two years and, as of the date of this letter, these violations continue.

On several occasions EPA notified Turog (through you as its sole representative) that Turog has not complied with these provisions of the 2017 Order. After EPA issued the 2017 Order but before it became effective, you informed EPA that Turog could not comply due to its inability to pay for the annual indoor air sampling required by the 2017 Order. As a result, EPA amended the 2017 Order to remove the annual indoor air sampling requirement pending EPA's review of Turog's finances. To complete this review, EPA issued Turog two CERCLA Information Requests (dated July 10, 2017 and November 8, 2017) seeking information about Turog's ability to pay.³ The November 8, 2017 Information Request sought information about the property located at 991 Bushkill Drive in Easton, Pennsylvania ("Bushkill Property") which was identified as an asset of Turog in Pennsylvania property records. Turog's partial response (drafted by you on February 7, 2018) indicated that you personally were the owner of the Bushkill Property, but that title to the Bushkill Property was subsequently transferred to Turog, that Turog had recently sold the Bushkill Property, and that you received funds from the sale. EPA then sought information from you personally about the proceeds from this sale through an Information Request issued on March 19, 2018 pursuant to Section 104(e)(2) of CERCLA, 42 U.S.C. § 9604(e)(2) (the "2018 Information Request"). The 2018 Information Request sought information about the Bushkill Property and information about your sequestration of funds from Turog in connection with the 2017 sale of the Bushkill Property. You did not provide the required information.

Therefore, the United States believes that there are compelling grounds for a civil action against you personally for failing to comply with the 2018 Information Request. Over twenty months after EPA issued the 2018 Information Request and despite many inquiries, notices and reminders from EPA about your obligation to reply to the 2018 Information Request, you have not provided the requested information. Pursuant to section 104(e)(5)(B) of CERCLA, 42 U.S.C. § 9604(e)(5)(b), your failure to respond to the 2018 Information Request subjects you to penalties of up to \$55,907 per day for each day of violation.⁴ As of date of this letter, your failure to comply with the 2018 Information Request is ongoing.

EPA's records indicate that it has met and corresponded with you numerous times since 2012 about the Site, including several attempts by EPA to secure Turog's performance under the 2017 Order and to secure your responses to the 2018 Information Request. In light of Turog's failure to comply with the 2017 Order and your failure to comply with the 2018 Information

² This figure represents the CERCLA penalty amount as modified by 40 C.F.R. Part 19.

³ EPA issued these Information Requests pursuant to Section 104(e) of CERCLA, 42 U.S.C. § 9606(e) which, among other things, authorizes EPA to require any person who has or may have relevant information to provide EPA with information or documents relating to the ability of a person to pay for or to perform a superfund cleanup.

⁴ This figure represents the CERCLA penalty amount as modified by 40 C.F.R. Part 19.

Request, the United States Department of Justice is considering commencing a civil action on behalf of EPA against Turog and you under CERCLA for court-ordered injunctive relief and the imposition of penalties. The United States invites Turog and you to resolve the above-described claims through settlement. Any settlement negotiated by the parties must be embodied in a consent decree that would be subject to public comment and review and approval of the federal district court, following notice and comment procedures under 42 U.S.C. § 9622 and 28 U.S.C. § 50.7. At a minimum, any settlement will need to include appropriate injunctive measures to address ongoing noncompliance with the 2017 Order and the 2018 Information Request. Further, we plan to seek a settlement that would include a civil penalty that suitably reflects the nature and gravity of these violations.

My understanding is that you are the sole representative of Turog and that you are not currently represented by counsel. Please email or call me by December 4, 2019 if you have questions or wish to schedule a discussion. EPA counsel Andrew Goldman and I are available to meet with you in December. I may be reached by email at "leigh.rende@usdoj.gov" or by telephone at (202) 514-1461. Thank you for your prompt attention to this matter.

Sincerely,



Leigh P. Rendé
Trial Attorney

cc Andrew Goldman (EPA Sr. Assistant Regional Counsel)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

January 28, 2020

VIA FIRST CLASS MAIL & EMAIL

Turog Properties Limited
c/o Heywood Becker
5382 Wismer Road
Pipersville, PA 18947

**Re: Chem-Fab Corporation Superfund Site: Order
No. CERC-03-2017-0140-DC Amendment #3**

Dear Mr. Becker:

Enclosed please find Amendment No. 3 to Administrative Order No. CERC-03-2017-0140-DC. Among other things, this amendment:

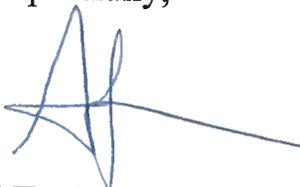
- Synchronizes the frequency of gauge and fan inspections between the Order and the EPA-approved Work Plan;
- Requires that Turog prepare and sign weekly inspection reports for gauge and fan inspections;
- Establishes nomenclature for referring to specific fans and gauges in reports;
- Clarifies that the On Scene Coordinator (“OSC”) may make changes to the weekly inspection requirements without the need to further modify the Order;
- Formally adopts Turog’s proposal for deadlines for submission of Progress Reports and specifies content; and
- Makes clear that the OSC may make changes to the progress report requirements without the need to further modify the Order.

Under the revised language, Turog is required to inspect fans and gauges no less often than once every 7 days and prepare and sign a report containing specific information identified in Amendment No. 3. These weekly reports need not be submitted to EPA until the next quarterly Progress Report, which is due in accordance with the schedule you proposed. Amendment No. 3 additionally specifies the required content of these Progress Reports. Please read the amendment to familiarize yourself with these new requirements.

The effective date of Amendment No. 3 is January 27, 2020.

Please contact OSC Eduardo Rovira at (215) 814- 3436 if you have any technical questions regarding the Order or me at (215) 814-2487 with any legal questions.

Respectfully,

A handwritten signature in blue ink, appearing to read 'A. Goldman', with a long horizontal line extending to the right.

ANDREW S. GOLDMAN
Sr. Assistant Regional Counsel

Enclosure

cc: Eduardo Rovira (3HS31)

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III**

IN THE MATTER OF: :
 :
CHEM-FAB SITE :
Doylestown, Pennsylvania : **EPA Docket No. CERC-03-2017-0140-DC**
 :
Turog Properties Limited, :
 :
Respondent :
 :
Proceeding Under Section 106(a) :
of the Comprehensive Environmental :
Response, Compensation, and :
Liability Act of 1980, as amended :
42 U.S.C. § 9606(a) :
 :

**AMENDMENT NO. 3 TO ADMINISTRATIVE ORDER
FOR REMOVAL RESPONSE ACTION**

WHEREAS, on May 31, 2017, the U.S. Environmental Protection Agency (“EPA”) issued an Administrative Order for Removal Response Action (“Order”) pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”), 42 U.S.C. § 9606(a), to Turog Properties Limited (“Respondent”) in connection with the Chem-Fab Superfund Site (“Site”);

WHEREAS, on July 19, 2017, EPA issued Amendment No. 1 to the Order which removed certain obligations relating to collection and analysis of samples;

WHEREAS, on November 15, 2017, EPA issued Amendment No. 2 to the Order which adjusted a schedule in the Order and modified the docket number;

WHEREAS, by letter to Respondent dated December 17, 2019, EPA specified requirements for the content, and modified the schedule for submission, of Progress Reports required by the Order;

WHEREAS, a conflict exists between the Order and the EPA-approved Workplan regarding the frequency of gauge/fan inspections which, under the definition of “Order” in the Order, results in an inspection frequency that is unacceptable to EPA;

WHEREAS, Paragraph 52 of the Order authorizes modification of the Order by written signature of the Hazardous Sites Cleanup Division (now the Superfund & Emergency Management Division), EPA Region III;

NOW THEREFORE, IT IS ORDERED AS FOLLOWS:

1. Paragraph 18.b.1 of the Order is struck and replaced with the following:

“No less frequently than once every seven (7) days, check each magnehelic gauge installed in the Depressurization System, including those installed by EPA and those that may be installed by EPA or Respondent in the future, to determine whether the gauge reads within 25% of its initial vacuum reading which is posted on or near each gauge.

- A. The results of each inspection shall be recorded in a written Gauge Weekly Report.
- B. Each Gauge Weekly Report shall:
 - i. note the date of the inspection;
 - ii. identify the pressure observed and the stated target for each gauge, using the gauge/fan numbers established in Attachment 5 to this Order; and
 - iii. be signed by the person conducting the inspection.
- C. The ten gauges installed by EPA as of the Effective Date of this Amendment No. 3 are depicted in Attachment 5 to the Order.
- D. In the event one or more gauges are found to read outside its/their initial vacuum reading by 25% or more, Respondent shall notify the EPA On Scene Coordinator within 48 hours of such finding(s). Respondent shall comply with all requests from EPA for additional information/ inspections for each gauge so identified.
- E. The Gauge Weekly Report may be combined with the Fan Weekly Report described in Paragraph 18.b.2 unless otherwise directed by the EPA On Scene Coordinator.
- F. The EPA On Scene Coordinator may modify the requirements of this Paragraph 18.b.1 in writing. The effective date of any such modification shall be the date of the letter notifying Respondent of any such change.”

2. Paragraph 18.b.2 of the Order is struck and replaced with the following:

“No less frequently than once every seven (7) days, check each of the fans installed in the Depressurization System, including those installed by EPA and those that may be installed by EPA or Respondent in the future.

- A. The results of each inspection shall be recorded in a written Fan Weekly Report.
- B. Each Fan Weekly Report shall:
 - i. note the date of the inspection;
 - ii. identify each fan found to be in working order using the gauge/fan numbers established in Attachment 5 to this Order;
 - iii. identify each fan believed to not be in proper working order, including a description of conditions leading Respondent to believe that a fan is not in proper working order (*e.g.*, noises, damage, apparent leaks, etc.); and
 - iv. be signed by the person conducting the inspection.
- C. The ten (10) fans installed by EPA are depicted in Attachment 5 to the Order.
- D. In the event one or more fans ceases operation completely, operates in a manner that does not keep its magnehelic gauge reading within 25% of the initial reading, or operates in a manner that evidences imminent failure (*e.g.*, noisy operation), Respondent shall, within fifteen (15) business days of becoming aware of such condition, replace such fan with a unit that has specifications that are substantially identical to those described for the fans in Attachment 2 of the Order and shall notify the EPA On Scene Coordinator within 48 hours after such replacement. Respondent shall comply with all requests from EPA for additional information/inspections for each fan so identified.
- E. The EPA On Scene Coordinator may modify the requirements of this Paragraph 18.b.2 in writing. The effective date of any such modification shall be the date of the letter notifying Respondent of any such change.”

3. Attachment 5 to the Order shall be the diagram attached as Exhibit 1 to this Amendment No. 3.

4. Paragraph 25 of the Order is struck and replaced with the following:

“25. Progress Reports. Respondent shall submit written progress reports to EPA concerning actions undertaken pursuant to this Order.

- a. Such reports shall be due each year on January 1, April 1, July 1, and October 1, unless otherwise directed in writing by the EPA On Scene Coordinator.
- b. Respondent shall submit such Progress Reports until EPA issues a Notice of Completion of Work pursuant to Section XXIV of the Order, unless otherwise directed in writing by the EPA On Scene Coordinator.
- c. Each Progress Report shall:
 1. Contain the EPA Docket Number of the Order (CERC-03-2017-0140-DC);
 2. Include a signed copy of each Gauge Weekly Report and Fan Weekly Report (or combination report) prepared during the reporting period; and
 3. Describe all significant developments during the preceding reporting period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.
 4. Reserved.”

5. No provisions, requirements, or obligations of the Order other than those expressly referred to in Paragraphs 1-4 of this Amendment No. 3 shall be modified or amended hereby and all other such provisions, requirements, and obligations remain in full force and effect.

6. The effective date of this Amendment No. 3 shall be the date it is signed by EPA.

IT IS SO ORDERED.



Paul Leonard, Acting Director
Superfund & Emergency Management Division
U.S. Environmental Protection Agency

Date: JAN 27 2020

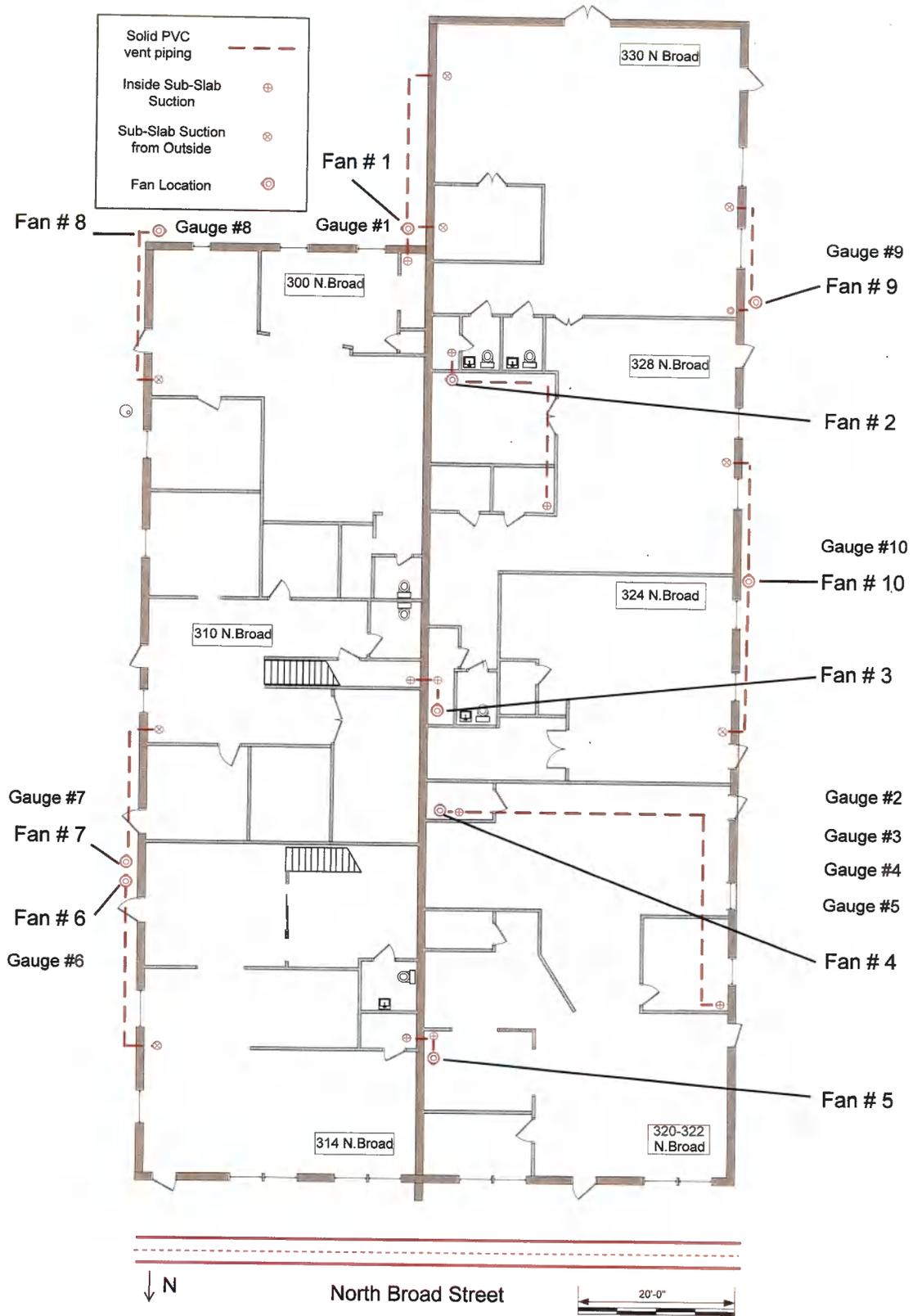
Region III

Administrative Order No. CERC-03-2017-0140

Amendment No. 3

Exhibit 1 (Order Attachment 5)

CERC-03-2017-0140-DC
Attachment 5



Mitigation System as built Layout / Fans and Gauges



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

December 17, 2019

VIA EMAIL & FIRST CLASS MAIL

Turog Properties, Ltd.
c/o Heywood Becker
Box 180
Carversville, PA 18913-0180

**Re: Chem Fab Superfund Site, Doylestown, Bucks County, PA:
Order No. CERC-03-2017-0140-DC: Progress Reports**

Dear Mr. Becker:

I have reviewed the progress reports submitted on behalf of Turog under the above-referenced Order by letter from you to Sr. Assistant Regional Counsel Andrew Goldman dated December 2, 2019. Your letter included progress reports dated:

- February 14, 2018
- May 15, 2018
- August 13, 2018
- November 11, 2018
- February 9, 2019
- May 1, 2019
- July 27, 2019
- October 25, 2019

These reports do not contain the date the inspections were made supporting the submitted information. I will assume that you made the necessary inspections supporting each report at or before the time each report was due.

Paragraph 25 of the Order requires that each progress report “describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.” Please include these fields in subsequent progress reports.

000305

In addition, please place the following information on each subsequent progress report:

- The date of the inspection(s) supporting information in the progress report,
- The docket number of the Order (CERC-03-2017-0140-DC).

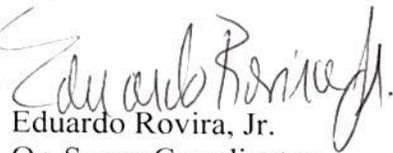
Regarding the timing for submission of progress reports, I agree that your proposal simplifies the scheduling of report submissions. Paragraph 25 of the Order provides that “Turog shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order on a quarterly basis (every ninety (90) days) or as otherwise requested by EPA.” By this letter, EPA requests that the schedule for submission of progress reports be as follows:

- The next progress report shall be due on December 31, 2019
- Starting in February 2020, the annual schedule of due dates for submission of progress reports each year shall be:
 - o January 1
 - o April 1
 - o July 1
 - o October 1

This letter revises only the timing of progress report submissions. All other requirements pertaining to progress reports (*e.g.*, content, period of time during which they must be submitted, etc.) remain the same. This revised schedule shall be enforceable under the Order.

Should you have any questions, feel free to contact me at 215.514.6887 or by email (rovira.eduardo@epa.gov).

Sincerely,



Eduardo Rovira, Jr.
On-Scene Coordinator
Eastern Response Section
Preparedness and Response Branch
Superfund & Emergency Management Division
EPA Region 3

cc: Andrew Goldman (3RC10)

Goldman, Andrew

From: Rovira, Eduardo
Sent: Wednesday, July 1, 2020 8:38 PM
To: Heywood Becker
Subject: Re: Quarterly Report

Mr. Becker,

As I have stated before, we do not have access to our office and/or mail. I was told to ask you to email it or at least send a copy of it by email, if you still want to mail a hard copy.

Thanks in advance for your cooperation and understanding.

Eduardo

On Jul 1, 2020, at 8:18 PM, Heywood Becker <yalephd1970@gmail.com> wrote:

Counsel advises that order says mail.

Sent from my iPhone

On Jul 1, 2020, at 3:01 PM, Heywood Becker <yalephd1970@gmail.com> wrote:

T

On Wed, Jul 1, 2020 at 2:17 PM Rovira, Eduardo <Rovira.Eduardo@epa.gov> wrote:

Hello Mr. Becker,

Please remember to submit the quarterly report by email.

Thanks in advance for your help!

Eduardo Rovira, Jr.

On-Scene Coordinator

Eastern Response Section

Superfund and Emergency Management Division

EPA Mid-Atlantic Region

Goldman, Andrew

From: Heywood Becker <yalephd1970@gmail.com>
Sent: Friday, July 3, 2020 12:57 PM
To: Rovira, Eduardo; Rovira, Eduardo; Goldman, Andrew
Subject: Reports April-June 2020
Attachments: Reports.PDF

Attached.



Virus-free. www.avast.com

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED:

4/3/2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

[The Depressurization System Gauges To Read Within 25% Of Stated Target]

1.5 Number 5 As Compared To: 1.3

8.5 Number 4 As Compared To: 7.5

1.5 Number 3 As Compared To: 1.3

4.5 Number 2 As Compared To: 9.0

4.5 Number 10 As Compared To: 5.0

1.8 Number 9 As Compared To: 2.0

1.4 Number 1 As Compared To: 1.3

4.5 Number 8 As Compared To: 3.5

5.0 Number 7 As Compared To: 4.0

3.5 Number 6 As Compared To: 4.2

The Depressurization System fans:

Numbers 1-10 Appear To Be Operating Normally, With The Exception of

Number(s) #2

TUROG PROPERTIES, LTD.



By: Heywood Becker

President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: APRIL 10, 2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

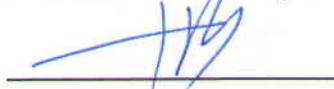
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<u>1.4</u>	Number 1 As Compared To: 1.3
<u>4.5</u>	Number 8 As Compared To: 3.5
<u>5.0</u>	Number 7 As Compared To: 4.0
<u>3.5</u>	Number 6 As Compared To: 4.2

The Depressurization System fans:

Numbers 1-10 Appear To Be Operating Normally, With The Exception of
Number(s) # 2.

TUROG PROPERTIES, LTD.



By: Heywood Becker
President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED:

4/17/2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

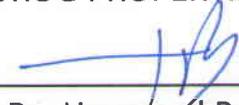
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TUROG PROPERTIES, LTD.



By: Heywood Becker

President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: 4/24/2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

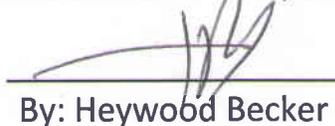
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The Depressurization System fans:

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By: Heywood Becker
President of the General Partner

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APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: MAY 1, 2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA

CHEM-FAB SUPERFUND SITE

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<u>1.6</u>	Number 3 As Compared To: 1.3
<u>3.5</u>	Number 2 As Compared To: 9.0
<u>3.5</u>	Number 10 As Compared To: 5.0
<u>2.0</u>	Number 9 As Compared To: 2.0
<u>1.4</u>	Number 1 As Compared To: 1.3
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[Signature]

By: Heywood Becker
President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED:

5/8/2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

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<u>3.4</u>	Number 8 As Compared To: 3.5
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<u>3.5</u>	Number 6 As Compared To: 4.2

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Numbers 1-10 Appear To Be Operating Normally, With The Exception of
Number(s) #2.

TUROG PROPERTIES, LTD.



By: Heywood Becker
President of the General Partner

000315

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: MAY 15

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

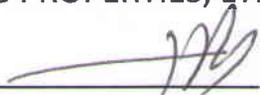
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<u>3.5</u>	Number 6 As Compared To: 4.2

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TUROG PROPERTIES, LTD.



By: Heywood Becker

President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: May 22, 2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

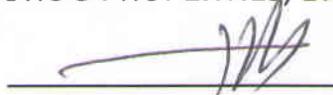
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TUROG PROPERTIES, LTD.



By: Heywood Becker

President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: 5/19/2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

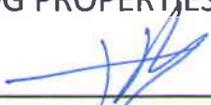
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<u>3.5</u>	Number 6 As Compared To: 4.2

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TUROG PROPERTIES, LTD.


By: Heywood Becker

President of the General Partner

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: 6/5

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

[The Depressurization System Gauges To Read Within 25% Of Stated Target]

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<u>1.4</u>	Number 1 As Compared To: 1.3
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<u>3.5</u>	Number 6 As Compared To: 4.2

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Number(s) 2.

TUROG PROPERTIES, LTD.

[Signature]
By: Heywood Becker

President of the General Partner

000319

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: JUNE 12

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

[The Depressurization System Gauges To Read Within 25% Of Stated Target]

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<u>2.0</u>	Number 9 As Compared To: 2.0
<u>1.4</u>	Number 1 As Compared To: 1.3
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<u>3.5</u>	Number 6 As Compared To: 4.2

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TUROG PROPERTIES, LTD.


By: Heywood Becker

President of the General Partner

000320

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: JUNE 12

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

[The Depressurization System Gauges To Read Within 25% Of Stated Target]

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<u>3.5</u>	Number 6 As Compared To: 4.2

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TUROG PROPERTIES, LTD.


By: Heywood Becker

President of the General Partner

000321

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: 6/19/2020

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA

CHEM-FAB SUPERFUND SITE

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TUROG PROPERTIES, LTD.



By: Heywood Becker

President of the General Partner

000322

APRIL-JUNE, 2020

WEEKLY PROGRESS REPORT DATED: 6/26

DOCKET NUMBER: CERC-03-2017-0140-DC

300 NORTH BROAD STREET, DOYLESTOWN, BUCKS COUNTY, PA
CHEM-FAB SUPERFUND SITE

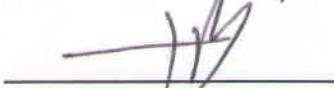
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<u>3.5</u>	Number 6 As Compared To: 4.2

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TUROG PROPERTIES, LTD.



By: Heywood Becker

President of the General Partner

18

United States
Environmental Protection
Agency

Office of
Solid Waste and
Emergency Response



DIRECTIVE NUMBER: 98329120

TITLE: Guidance on Federal Superfund Liens

APPROVAL DATE: September 22, 1987

EFFECTIVE DATE: September 22, 1987

ORIGINATING OFFICE: OECM

- FINAL
- DRAFT

LEVEL OF DRAFT

- A — Signed by AA or DAA
- B — Signed by Office Director
- C — Review & Comment

REFERENCE (other documents):

Received

DEC 02 1999

Enforcement & Compliance Div
& Information Center

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 22 1987

OFFICE OF
ENFORCEMENT AND
COMPLIANCE MONITORING

MEMORANDUM

SUBJECT: Guidance on Federal Superfund Liens

FROM: Thomas L. Adams, Jr.
Assistant Administrator

A handwritten signature in black ink, appearing to read "Thomas L. Adams, Jr.", with a long, sweeping flourish extending to the right.

TO: Regional Administrators, Regions I-X
Regional Counsels, Regions I-X
Directors, Waste Management Division,
Regions I-X

The purpose of this memorandum is to establish guidance on the use of federal liens to enhance Superfund cost recovery. Section 107(f) of the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), adds a new Section 107(1) to CERCLA, which provides for the establishment of a federal lien in favor of the United States upon property which is the subject of a removal or remedial action.

This guidance provides: (1) analysis of statutory issues regarding the nature and scope of the lien, (2) policy on filing a federal lien to support a cost recovery action, and (3) procedures for filing a notice of lien and taking an in rem action to recover the costs of a lien. Attached to the guidance is an example of a notice of a Superfund lien.

I. STATUTORY BACKGROUND AND ISSUES

A. Property Covered by Lien

Section 107(1) of CERCLA provides that all costs and damages for which a person is liable to the United States in a cost recovery action shall constitute a lien in favor of the United States upon all real property and rights to such property which (1) belong to such person and (2) are subject to or affected by a removal or remedial action. The lien applies to all property owned by the PRP upon which response action has been taken, not just the portion of the property directly affected by cleanup activities. The House Judiciary Committee Report on the lien

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provision in H.R. 2817 (p. 18), which was enacted as part of SARA, states that "the lien should apply to the title to the entire property on which the response action was taken." At the same time, the Report notes that "it is not intended to extend the lien to the title of other property held by the responsible party." Id.

The lien provision is designed to facilitate the United States' recovery of response costs and prevent windfalls. "A statutory lien would allow the Federal Government to recover the enhanced value of the property and thus prevent the owner from realizing a windfall from fund cleanup and restoration activities." 131 Cong. Rec. S11580 (Statement of Sen. Stafford) (September 17, 1985). See also House Energy and Commerce Report on H.R. 2817, p. 140, indicating that one of Congress' primary purposes in enacting the lien provision was to prevent unjust enrichment.

B. Duration and Effect of Lien

The federal lien arises "at the later of the following: (A) the time costs are first incurred by the United States with respect to a response action under [SARA, or] (B) the time that the person is provided (by certified or registered mail) written notice of potential liability." (Emphasis added) (§107(1)(2)). EPA may send out two different types of notice letters to PRPs. The first, a general notice letter, will be sent early in the process notifying the recipient that he or she has been identified as a party who may be responsible for cleanup of the site or for the costs of cleanup. In addition, the Agency may send a subsequent "special" notice which will invoke and commence the settlement procedures in Section 122 of SARA. The first of those letters will satisfy the notice of potential liability required for the federal lien to arise, assuming that it does give the PRP notice of potential liability for cleanup of costs, and is forwarded by certified or registered mail.

It is EPA's position that the lien provision applies to costs incurred prior to and after passage of SARA. The lien also applies to all future costs incurred at the site. The lien continues "until the liability for the costs (or a judgment against the person arising out of such liability) is satisfied or becomes unenforceable through operation of the statute of limitations provided in section 113." (§107(1)(2))

C. Priority of Federal Lien In Relation to Other Property Liens

The federal lien is "subject to the rights of any purchaser, holder of a security interest, or judgment lien creditor whose interest is perfected under applicable State law before notice of

the federal lien has been filed [by EPA]." (§107(1)(3)) Thus, the unfiled federal lien is subordinate to rights that are perfected under applicable State law before EPA files notice of its federal Superfund lien. After EPA files notice of the federal lien, the United States establishes its priority ahead of known and potential purchasers, holders of security interests, and judgment lien creditors whose interests have not been perfected.

During deliberation on the Superfund amendments, Congress considered a provision in H.R. 2005 [S. 51] which provided for constructive notice of an EPA lien. Under that provision, if EPA failed to file its notice of lien in a timely fashion, the EPA lien would nonetheless have had priority over a third party lien which was filed prior in time if the third party had or reasonably should have had actual knowledge that EPA had incurred costs which would have given rise to a lien. See Environment and Public Works Report on S. 51, p. 45. Thus, since this provision was ultimately deleted from the Act, EPA must file its lien in order to achieve priority over any other secured parties, and cannot rely on constructive notice.

D. State Superfund Liens

Most States have passed "Superfund" statutes similar to the federal law. However, a State Superfund lien only applies to response work paid for by a State. Some of the State statutes, such as those in Massachusetts, New Hampshire, New Jersey, Arkansas and Tennessee, contain "superlien" provisions which provide that any expenditures made pursuant to the statute constitute a first priority lien upon the real property of a hazardous waste discharger. Several other States provide that expenditures from the hazardous waste fund will constitute a lien in favor of the State, although not a first-priority lien.

II. POLICY ON FILING FEDERAL LIENS IN COST-RECOVERY ACTIONS

EPA has the authority to file notice of a lien on any real property where Superfund expenditures have been made. Regional offices should carefully evaluate the value of filing notice of a lien whenever the Agency has identified a landowner as a potentially liable party under Section 107. Filing of notice of the federal lien will be particularly beneficial to the government's efforts to recover costs in a subsequent Section 107 action in the following situations:

- (1) the property is the chief or the substantial asset of the PRP;
- (2) the property has substantial monetary value;

- (3) there is a likelihood that the defendant owner may file for bankruptcy. See Revised Hazardous Waste Bankruptcy Guidance, Office of Enforcement and Compliance Monitoring, May 23, 1986;
- (4) the value of the property will increase significantly as a result of the removal or remedial work; or
- (5) the PRP plans to sell the property.

Regional offices should not file notice where it appears that the defendant satisfies the elements of the innocent landowner defense pursuant to Section 107(b)(3).

Where existing perfected non-Superfund liens on the property equal or exceed the value of the property as enhanced by the Superfund expenditures, it may not be worthwhile to file notice of the federal lien. However, in some cases, a foreclosing party, such as a bank, may take over the property, and EPA may believe that the foreclosing party is liable under Section 107. See United States v. Maryland Bank and Trust Co., 632 F. Supp. 573 (D. Md. 1986). In such cases, EPA should file a lien as to the foreclosing party after foreclosure and after other acts creating liability have taken place.

Pursuant to Section 545(2) of the Bankruptcy Code, a lien unperfected as of the time of filing of the bankruptcy petition will be invalidated by the bankruptcy trustee. Thus, where there is a likelihood of a bankruptcy filing, notice of the Superfund lien should be filed as early as possible. Finally, note that filing notice of the lien is not subject to pre-enforcement review of the liability of the landowner for the response costs.^{1/}

III. PROCEDURES FOR FILING LIENS

Notice of the federal lien should be filed at the time that the owner is provided notice of potential liability. By this time, the lien will have arisen since EPA will have incurred costs, e.g.,

^{1/} Courts have rejected claims that owners are entitled to notice and hearing prior to filing of the lien. In Spielman Fond, Inc. v. Hanson's Inc., 379 F. Supp. 997 (D. Ariz.) (3 judge court), summarily aff'd, 417 U.S. 901 (1974), the court held that filing of a mechanic's lien did not amount to a taking of significant property without due process, since it did not prohibit the transfer of title. Subsequent court decisions have followed this holding. See, e.g., B & P Development v. Walker, 420 F. Supp. 704 (W.D. Pa. 1976).

in conducting a PRP search. The government's priority will relate back to the date that the notice of the lien was filed. See Uniform Commercial Code, §9-312(5)(a). Unlike some State Superfund lien provisions, Section 107 does not establish a deadline by which notice must be filed.

A. Preparing the Notice

Regional enforcement personnel should refer to State requirements for filing notice of the lien. We encourage the Regions to work with State Attorney General Offices to assure that the Regions accurately interpret State law, and to consult with OECM and DOJ in determining whether to file notice of the lien.

Notice should generally include: (1) the name of the property owner, (2) a precise legal description of the property on which the lien will arise, (3) an explanation by the Regional official of the basis for the lien, (4) the address of the Regional Administrator or other Regional official delegated authority to sign notices of liens, and (5) a provision that the lien shall remain until all liability is satisfied. The notice should cite CERCLA Section 107(1) and be notarized with the Agency seal.

Notice may also include such information as: (1) the amount of fund expenditures upon which the lien is claimed and (2) a description of labor performed and materials supplied, including dates. However, since the statute does not require specification of costs, the notice should clarify that, where response work is ongoing, the amount of the lien will increase as the costs incurred increase. The property description to be included in the notice of the lien should be the legal description (i.e., metes and bounds, or lot, block and subdivision) rather than a general post office or street address. We have attached an example of a notice of a federal lien.

Under the recent SARA delegation, the Regional Administrator has been delegated authority to sign the notice of filed lien. The Regional Administrator may redelegate this authority at his/her discretion.

B. Where to File

To establish its priority among other secured parties and creditors, EPA must file notice of the lien "in the appropriate office within the State (or county or other governmental subdivision), as designated by State law, in which the real property subject to the lien is located." (§107(1)(3))

Where the State has designated an office, such as a County recording office, the lien should be filed in that office. This will likely be the same office where State Superfund liens are filed or where general real property liens, e.g. mechanic's liens, are filed. "If the State has not by law designated one office for the receipt of such notices of liens, the notice shall be filed in the office of the clerk of the United States district court for the district in which the real property is located." (§107(1)(3))

Where there is any doubt as to the designated State office, the lien should be filed both in the office of the clerk of the United States district court for the district in which the real property is located and in the most appropriate local office for recording property interests. Filing in the appropriate local office is important, since parties with an interest in the property are more likely to review liens in the local office than in federal district court.

IV. IN REM ACTIONS FOR RECOVERING COSTS CONSTITUTING THE LIEN

Under Section 107(1)(4), "[t]he costs constituting the lien may be recovered in an action in rem in the United States district court for the district in which the removal or remedial action is occurring or has occurred." An in rem action is an action against the property of the PRP. In order to institute a proceeding in rem, the property must "be actually or constructively within the reach of the court." 36 Am. Jur. 2d Forfeitures and Penalties §28 (1968). By contrast, the typical cost recovery action is an in personam action against the PRP.

In rem actions should be considered where the litigation team believes that an action to recover costs covered by the lien will enhance its efforts to recover all costs incurred in a response action. Such actions will be particularly useful where the property constitutes a significant asset of the PRP, and where the government is having difficulty reaching an expeditious cost recovery settlement. The in rem action, which will seek an order directing sale of the property,^{2/} should generally be combined with an in personam action for costs. Before bringing an in rem action, the regional office should consider the amount of the claim, the

^{2/} An in rem action may be delayed by an automatic stay, obtained in a bankruptcy proceeding, which serves to stay "any act to create, perfect, or enforce any lien against property of the estate." (Emphasis added) 11 U.S.C. §362(a)(4). The automatic stay also prohibits perfection of a lien, through filing notice of the lien, against a bankruptcy debtor.

condition of the site after the response action and the likely marketability of the site. Note that an in rem action will require the same elements of proof as any cost recovery action.

Section 107(1)(4) further states that "[n]othing in this subsection shall affect the right of the United States to bring an action against any person to recover all costs and damages for which such person is liable under subsection (a) of this section." Thus, where the government seeks to enforce the federal lien, it is not precluded from recovering the balance of its response costs directly from the landowner or any other liable party.^{3/}

DISCLAIMER

This memorandum and any internal procedures adopted for its implementation are intended solely as guidance for employees of the U.S. Environmental Protection Agency. They do not constitute rulemaking by the Agency and may not be relied upon to create a right or a benefit, substantive or procedural, enforceable at law or in equity, by any person. The Agency may take action at variance with this memorandum or its internal implementing procedures.

Attachment

^{3/} Moreover, after EPA obtains a judgment, it should consider using state judgment lien provisions, which may cover all real property of the debtor.

NOTICE OF FEDERAL LIEN

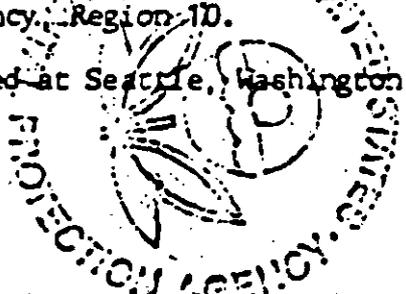
NOTICE IS HEREBY GIVEN by the United States of America that it holds a lien on the Lands and premises described below situated in the State of Washington, as provided by Section 107(f) of the Superfund Amendments and Reauthorization Act of 1986 (SARA), Public Law No. 99-499, amending the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §9601 et seq., to secure the payment to the United States of all costs and damages covered by that Section for which Western Processing Company, Inc. and Garnt J. Nieuwenhuis (and the marital community composed of himself and his wife) are liable to the United States under Section 107(a) of CERCLA as amended. The lien for which this instrument gives notice exists in favor of the United States upon all real property and rights to such property which belong to said persons and are, have been, or will be, subject to, or affected by, removal and remedial actions as defined by federal law, at or near 7215 South 196th in the City of Kent, County of King, State of Washington, including the following described land:

That portion of the Southeast Quarter (S.E. 1/4) of the Northwest Quarter (N.W. 1/4) of Section One (1), Township Twenty-Two (22) North, Range Four (4) East, Willamette Meridian, lying Westerly of the Puget Sound Electric right-of-way less than North Thirty (30) feet of Drainage Ditch No. One (1), containing 12.9 acres more or less.

This statutory lien exists and continues until the liability for such costs and damages (or for any decree or judgement against such persons arising out of such liability) is satisfied or becomes unenforceable through the operation of the statute of limitations as provided by Section 113 of Public Law 99-499.

IN WITNESS WHEREOF, the United States has caused this instrument to be executed through the United States Environmental Protection Agency, and its attorney, in his official capacity as Regional Counsel of the United States Environmental Protection Agency, Region 10.

Dated at Seattle, Washington, this 23^d day of JANUARY, 1987.

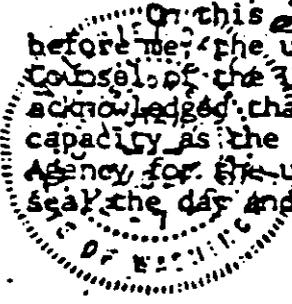


UNITED STATES OF AMERICA and
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY

By: John T. Hamill, Acting
James R. Moore
Regional Counsel
U.S. EPA, Region 10

United States Of America)
State of Washington) ss
County of King)

On this 23^d day of JANUARY, 1987, there appeared personally before me, the undersigned Notary, James R. Moore, known to me to be the Regional Counsel of the United States Environmental Protection Agency, Region 10, and he acknowledged that he signed the foregoing NOTICE OF FEDERAL LIEN in a representative capacity as the free and voluntary act and deed of the United States and its said Agency for the uses and purposes therein mentioned. GIVEN under my hand and official seal the day and year first stated above.



Valerie D. Bader
NOTARY PUBLIC in and for the State
of Washington residing at Seattle

My Commission Expires: 12/7/90