UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029


SDMS DocID 2048416

SUBJECT Osborne Superfund Site
Five Year Review Report

FROM Peter W Schaul, Chief
Remedial Branch (3HS20)

TO Abraham Ferdas, Director
Hazardous Site Cleanup Division (3HS00)

Attached for your signature is the second Five Year Review for the Osborne Landfill Superfund Site in Mercer County, Pennsylvania The first Record of Decision (ROD 1), dated September 28, 1990 addressed the solid waste fill material (OU1) and the onsite water table (OU3) Under ROD 1, a slurry wall and clay cap were constructed, extraction wells were installed to collect and treat leachate, institutional controls were established and groundwater monitoring was required The second Record of Decision (ROD 2), dated December 30, 1997, addressed the wetland sediments (OU2), and all Site groundwater (OU4-Clarion Formation and OU5-Homewood Formation) EPA issued a "no action" decision for the wetlands "Natural attenuation with monitoring" was selected for the contaminated Clarion aquifer with groundwater monitoring for the deeper, uncontaminated aquifers at the Site

As determined during the previous Five Year Review, the remedial actions constructed for this site remain protective of human health and the environment The constructed remedies are functioning as intended and there are no current exposure pathways The remedies, which included the landfill leachate collection system, the landfill cap and slurry wall, a fence surrounding the Site, groundwater monitoring, and the institutional controls which are in place and include prohibitions on the use or disturbance of groundwater until cleanup levels are achieved and prohibitions on new wells within the property containing the landfill continue to achieve the Remedial Action Objective for the Site The remedies eliminate contamination leaving the site, minimize migration of contaminants to ground and surface waters and prevent direct contact with, or ingestion of contaminants

SECOND FIVE-YEAR REVIEW REPORT

For

OSBORNE LANDFILL
SUPERFUND SITE

GROVE CITY

PINE TOWNSHIP, MERCER COUNTY
PENNSYLVANIA

AUGUST, 2005

PREPARED BY

U S Environmental Protection Agency
Philadelphia, Pennsylvania

Approved by

Abraham Ferdas, Director
Hazardous Site Cleanup Division
EPA, Region III

Date

9/8/05

Table of Contents

List of Acronyms

AO	Administrative Order
AOC	Administrative Order by Consent
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COA	Consent Order and Agreement
EPA	Environmental Protection Agency
ESD	Explanation of Significant Differences
FS	Feasibility Study
IC	Institutional Controls
MCL	Maximum Contaminant Level
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NPL	National Priorities List
OU	Operable Unit
PADEP	Pennsylvania Department of Environmental Protection
PADER	Pennsylvania Department of Environmental Resources
PAH	Polynuclear Aromatic Hydrocarbons
PCS	Polychlorinated Biphenyls
PCOR	Preliminary Closeout Report
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objectives
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
UAO	Unilateral Administrative Order
VOC	Volatile Organic Contaminants

Executive Summary

The Osborne Landfill Site is located in Pine Township, Mercer County, Pennsylvania. The first Record of Decision (ROD1), dated September 28, 1990, addressed the solid waste fill material (OU1) and the onsite water table (OU3). Under ROD 1, a slurry wall and clay cap were constructed, extraction wells were installed to collect and treat leachate, institutional controls (ICs) were established, and groundwater monitoring was required. The second Record of Decision (ROD2), dated December 30, 1997, addressed the wetland sediments (OU2), and all Site groundwater (OU4-Clanon Formation and OU5-Homewood Formation). EPA issued a "no action" decision for the wetlands. "Natural attenuation with monitoring" was selected for the contaminated Clarion aquifer with groundwater monitoring for the deeper, uncontaminated aquifers at the Site.

The Site achieved construction completion with the signing of the Preliminary Closeout Report (PCOR) on September 21, 1998. The trigger for this Five-Year Review was the signature date of the first five-year review, July 28, 2000.

The assessment of the second Five-Year Review is that the remedies were constructed in accordance with the Records of Decision and are functioning as designed. The immediate threats have been addressed and the remedies are protective in the short term. There is no current exposure to contaminated groundwater because residents are on a public water system, and groundwater monitoring shows that contaminants of concern are approaching Maximum Contaminant Levels (MCLs).

As determined during the previous Five-Year Review, the remedial actions constructed for this site remain protective of human health and the environment. The constructed remedies are functioning as intended and there are no current exposure pathways. The remedies, which included the landfill leachate collection system, the landfill cap and slurry wall, a fence surrounding the Site, groundwater monitoring, and the institutional controls which are in place and include prohibitions on the use or disturbance of groundwater until cleanup levels are achieved and prohibitions on new wells within the property containing the landfill continue to achieve the Remedial Action Objectives (RAOs) for the Site. The remedies eliminate contamination leaving the site, minimize migration of contaminants to ground and surface waters and prevent direct contact with, or ingestion of contaminants.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (*from WasteLAN*): Osborne Landfill		
USEPA ID (*from WasteLAN*): PAD980712673		
Region: 3	**State**: pa	**City/County**: Grove City/Mercer County
SITE STATUS		
NPL status: Final		
Remediation status: OPERATING		
Multiple OUs*? Yes	**Construction completion date**: 09/21/1998	
Has site been put into reuse? No		
REVIEW STATUS		
Lead agency: EPA		
Author's name: Rashmi Mather		
Author's title: Remedial Project Manager	**Author's affiliation**: USEPA Region 03	
Review period:** 03/01/05 to 07/28/05		
Date(s) of site inspection: 04/20/2005		
Type of review: Post-SARA		
Review number: Second		
Triggering action: Previous Five-Year Review Report		
Triggering action date (*from WasteLAN*): 07/28/2000		
Due date (*five years after triggering action date*): 07/28/2005		

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the five-year review in WasteLAN.]

Five-Year Review Summary Form, cont'd

Issues

1. The extraction well shutdown rebound test has been in effect over six months to monitor if there is any rebound of contaminants in the groundwater in response to the shutdown of the treatment of the leachate system.

2. Potential for burrowing animals in the cap

Recommendations

1. EPA recommends keeping the leachate system off but monitoring the on-site, off-site, and one residential well of concern biannually for trichloroethylene, vinyl chloride, pH, water levels and total suspended solids for one year, and then EPA will maintain or reduce the monitoring scheme based on the data results

2. Add and execute once a year the item of checking for burrowing animals in the cap to the Operation and Maintenance Plan

Protectiveness Statement(s)

The remedial actions constructed for this site remain protective of human health and the environment in the short term. The constructed remedies are functioning as intended and there are no current exposure pathways. The remedies, which included the landfill leachate collection system, the landfill cap and slurry wall, groundwater monitoring, and the ICs continue to achieve the Remedial Action Objectives (RAOs) for the Site. The remedies eliminate contamination emanating from the site, minimize migration of contaminants to ground and surface waters and prevent direct contact with, or ingestion of contaminants.

Other Comments

None

Five-Year Review Report
For
Osborne Landfill Superfund Site
Pine Township, Mercer County, Pennsylvania

I. Introduction

The purpose of the Five-Year Review is to determine whether the remedy at a Site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this Five-Year Review report pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action that results in any hazardous substances pollutants or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required the results of all such reviews, and any actions taken as a result of such reviews.*

The Agency interpreted this requirement further in the NCP, 40 Code of Federal Regulations §300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

EPA Region III, has conducted a Five-Year Review of the Remedial Action implemented at the Osborne Landfill Superfund Site in Pine Township, Mercer County, Pennsylvania. This review was conducted for the entire Site by the Remedial Project Manager (RPM) from 03/01/05 through 07/28/05. This report documents the results of the review.

This is the second Five-Year Review for the Osborne Landfill Site. The triggering action for this statutory review is the completion of the first Five-Year Review dated July 28, 2000. The Five-Year Review is required because waste was left in place.

II. Site Chronology

Table 1 Chronology of Osborne Site Events

Event	Date
The Osborne Landfill operated for several years until the Site was closed by PADER for not having a permit to accept wastes.	Late 1950s- April 7, 1978
EPA began assessing conditions at the Site.	Early 1980s
Cooper Industries voluntarily installed a security fence around the Site removed and disposed 83 filled drums 460 empty drums and 45 cubic yards of soil.	1983
NPL listing.	September 1, 1983
Cooper Industries conducted a RI of the Site under a Consent Order with Pennsylvania but was unwilling to comply all the required conditions.	September 23, 1983- approximately June 1984
EPA took over investigation and completed an intensive study of Site conditions and produced the RI FS Remedial Action (RA) reports.	October 22, 1987- August 1989
ROD1 issued for installation of a slurry wall around the perimeter of the site and a clay cap to prevent infiltration into the fill.	September 28, 1990
EPA issued UAO to Cooper Industries to perform RD/RA for ROD1.	March 29, 1991
EPA entered into an AOC with Cooper Industries to conduct Focused RI/FS RA for ROD2.	October 9, 1992
Cooper Cameron extended a public water line to residents at risk near the Site.	1994
ROD1 On-site construction began.	August 5, 1995
ROD2 was issued which addressed all site ground water and wetlands.	December 30, 1997
ROD1 construction complete.	Summer 1997
ESD1 modified the way the inward hydraulic gradient was measured and some institutional controls for the Site. ESD2 modified some of the well locations that would be used to monitor ground water contamination.	August 24, 1998
PCOR prepared.	September 21, 1998
ROD2 sampling to monitor natural attenuation begins.	Spring 1999
First Five-Year Review completed.	July 28, 2000
ESD3 changes cleanup standards with which the ground water portion of the selected remedy must comply.	June 29, 2004

III. Background

Physical Characteristics

The Osborne Landfill Site (the Site) is located in Pine Township, Mercer County, Pennsylvania, less than one mile east of Grove City. The Site encompasses approximately 15 acres along the East Pine Street extension (See Figure 1-2). To the north of the Site are woodlands Farmland is present to the east and southeast across the East Pine Street Extension. A large shallow pond is located just west of the Site and considered to be a federally protected wetland. Another wetland is situated south of the Site on both sides of the East Pine Street Extension.

The immediate Site area is sparsely populated. Most of the residential homes near the Site, are located along Enterprise Road, which is approximately 1/4 mile north of the Site, or are located to the east along Diamond Road.

Land and Resource Use

The Site is an abandoned coal stop mine that operated as a landfill from the late 1950s to 1978. The 15 acre property included an abandoned strip mine, mine spoil piles and highwall areas. Contaminated spent foundry sand and other industrial wastes were disposed of at the Site. In 1978, the State closed the landfill for accepting industrial wastes without a permit. There are no current or projected land uses for the Site.

Residential homes near the Site previously used groundwater. Cooper Cameron Corp., formally Cooper Industries, Inc., a Potentially Responsible Party (PRP), extended the municipal water line around the eastern perimeter of the Site in reaction to high levels of contaminants found in a residential well. In 1994, Cooper Cameron connected any resident, within one hundred and fifty feet of the water line, who was willing to accept the connection. Only one resident refused the connection to public water and this well has been periodically sampled Site contaminants have not been detected.

History of Contamination

Strip mining was conducted at the Site during the 1940s, prior to the disposal of wastes in the strip mine pit. In the late 1950s, the privately owned landfill began accepting various types of industrial wastes. Fill material was deposited into the strip pool at the base of the highwall. The highwall was undisturbed rock and earth that formed the uphill side of the strip mine pit. The earth and rock that was removed to reach the coal was piled downhill and is known as the spoil. This spoil forms the downhill side of the mine pit. After the mine was abandoned, the pit filled with groundwater. Wastes were disposed, in the pit and gradually filled in the strip mine, displacing the water. Approximately 233,000 cubic yards of fill material was disposed of at the former landfill.

Materials disposed of at the Site included spent foundry sand, infilco sludge (settled sludge collected from hydroblast equipment), spent carbide (a byproduct consisting of a lime and water slurry), waste acids from plating and cleaning tanks, spent Sunoco spirits and solvents. Miscellaneous debris including scrap steel, wood, and metal chips were taken to the former disposal area. Solid waste and manufacturing refuse was present on the surface of the Site and within the fill material. The wide array of wastes disposed contained polychlorinated biphenyls (PCBs) (primarily Aroclor 1254), polynuclear aromatic hydrocarbons (PAHs), metals (lead and chromium), and several volatile organic compounds (VOCs).

From the late-1950s until 1963, the site was operated as a waste disposal area by Mr. Samuel Mohoney. Disposal activities continued, from 1963 until 1978, under Mr. James Osborne, the owner of the Site. On April 7, 1978, James Osborne was cited by the Pennsylvania Department of Environmental Resources (PADER), now known as the Pennsylvania Department of Environmental Protection (PADEP), for operating a non-permitted landfill and was ordered to close the landfill. An exception was made allowing the foundry sand disposal to continue for a short time to form a cover for the wastes.

Cooper Industries, Inc. (Cooper), now known as Cooper Cameron, was identified by the EPA as a PRP. The primary waste by volume was foundry sand from Cooper contaminated by co-disposal of other hazardous substances. Records from Cooper indicate the amount and type of industrial wastes disposed of at the Site. General Electric Corporation, also identified as a PRP, disposed of materials at the Site containing hazardous substances between approximately May 1972 and December 1978. General Electric contributed a cash settlement to reimburse EPA for past costs.

The Site was investigated by the EPA and the PADER following its closure as a non-permitted landfill. PADER found high concentrations of oils and phenols in the pond waters at the time of the closure. Site inspections also found over 600 drums on site. Hundreds of drums were present on the surface of the Site and some drums were leaking. In a letter dated January 14, 1983, EPA notified Cooper and other PRPs of the need for immediate action at the Site. Cooper built a security fence around the Site and posted warnings to restrict access, as well as remove and dispose of 83 filled drums, and 45 cubic yards of contaminated soil. On September 1, 1983, the EPA finalized the listing of the Site on the CERCLA National Priorities List (NPL).

Basis for Taking Action

Cooper entered into a Consent Order and Agreement (COA) with PADER on September 23, 1983 to conduct a Remedial Investigation (RI) and Feasibility Study (FS) at the Site. In 1985, EPA also conducted an investigation of the disposal area to determine the contaminants in the waste. However in 1984, Cooper was unwilling to comply with all of the conditions required by the State and the EPA, and stopped work on the RI. EPA and PADER could not come to agreement with Cooper on additional sampling required pursuant to the Superfund Amendments and Reauthorization Act (SARA) and on the implementation of the FS. At the request of the State, EPA notified Cooper in a letter dated October 22, 1987 that EPA had assumed the lead at the Site and would conduct the RI/FS using Superfund monies. The RI/FS was completed by the EPA, from 1988 through 1989, assessed the nature and extent of contamination in all media.

The multiple RIs conducted at the Site focused on the fill area, the wetland to the southwest of the Site, the Clarion Aquifer/Minor Void system, the Homewood Aquifer System, and the deeper Connoquenessing and Burgeon Aquifers. The RIs verified the presence of PCBs, PAHs, heavy metals and chlorinated hydrocarbons in the fill material at the Site above EPA's action levels. Vinyl chloride was also found in the Clarion Formation groundwater above MCLs allowed by the EPA's Safe Drinking Water Act (SDWA).

IV. Remedial Actions

Remedy Selection

The first ROD (ROD1) for the Site was signed on September 28, 1990. ROD1 selected the remedies for the solid waste fill material (OU1) and the onsite water table (OU3). During ROD 1, EPA deferred the selection of a remedy for the wetland sediments (OU2), the Clarion Formation (OU4) and the Homewood Formation (OU5), and determined to address these OUs in the second ROD (ROD2), signed December 30, 1997.

ROD1

Operable Unit 1- Fill material

The ROD1 selected the installation of a slurry wall and a clay cap to prevent infiltration into the fill The installation and operation of extraction wells, treatment of the extracted water and subsequent injection into the onsite mine pool was chosen to prevent leachate from leaving the fill. Also, IC prohibitions on the use or disturbance of groundwater until cleanup levels are achieved and prohibitions on new wells within the property containing the landfill and groundwater monitoring were components of the remedy. ROD 1 also selected pump and treatment as the remedy for contaminated ground water in the Clarion Aquifer. During the design phase, field work showed that it was not possible to remediate the Clarion aquifer as described in ROD 1. Aquifer response tests performed during the Remedial Design indicated that reasonable ground water capture zones could not be created by extraction wells placed in the Clarion Aquifer. Instead, very narrow columns of water would be drawn from the more contaminated mine pool into the Clarion sandstone aquifer. At that time, EPA was also conducting an investigation of the deeper aquifers at the site, which are in communication with the shallow aquifer. Therefore, EPA decided to wait until the investigations were completed, so that an implementable ROD for all site ground water could be issued.

Operable Unit 3- Onsite Water Table

The role of the operable unit for the onsite water table OU3 is to prevent the migration of contamination present in the ground water that is in contact with the fill from leaching into the aquifers that supply drinking water to area residents. The principal threats are dissolved PCBs, metals, and chlorinated hydrocarbons. ROD1 determined that if the slurry wall implementation was effective, no additional action would be required for the onsite water table

ROD 2

Operable Unit 2- Wetland Sediments

EPA entered into an Administrative Order on Consent (AOC) with Cooper on October 9, 1992, which required a focused supplemental RI, FS, and Risk Assessment limited to the wetland sediments southwest of the Site and groundwater in the Homewood, Connoquenessing and Burgoon Aquifers. The RI included sampling of sediments and surface water in the wetlands, bioassay studies and studies of PCB bioaccumulation in earthworms. The studies showed that the wetlands had not been impacted by site contaminants and EPA selected "no action" for OU2.

Operable Unit 4- Clarion Formation

ROD1 originally selected pump and treatment as the remedy for contaminated groundwater in the Clarion Aquifer. However, during the design of remedies selected in ROD1, pump tests showed that it was not possible to remediate OU4 as described in ROD1. It became apparent that due to mine subsidence, the Clarion Aquifer was fractured and that a well placed in the Clarion Formation would preferentially draw mine void water upward in a column through the thin Clarion sandstone layer. Each well would have a tiny lateral capture zone and numerous wells would be needed. An extraction well would also draw contaminated mine water into the Clarion Formation which is used as a drinking water aquifer in the vicinity. The other option would be to attempt to pump and treat a very large volume of mine water to remove relatively small levels of contaminants. EPA changed the remedy, for the Clarion Formation, to Natural Attenuation in an Explanation of Significant Differences issued in June of 2004.

Groundwater samples taken over several years showed that contaminants in the Clarion Aquifer/Mine Pool were declining and were expected to reach MCLs within five years. Therefore, EPA selected "natural attenuation with monitoring" until MCLs are reached and maintained for OU4.

Operable Unit 5- Homewood Formation

The ROD 2 requires sampling of a moderate number of well in the deep aquifers at the Site as part of the Natural Attenuation Remedial Action Decision. The RI/FS data showed a substantial decline in contamination indicating natural attenuation of contaminants. "Natural attenuation with monitoring" was selected for OU5 with three years of groundwater monitoring.

The three Explanations of Significant Differences (ESD1, ESD2, ESD3) issued for the Site are described below,

First Explanation of Significant Differences

On August 24, 1998, ESD1 eliminated most of the ICs called for by ROD1 and clarified the scope of the remaining institutional controls. The modified ICs included reducing a prohibition on new wells from a one half mile radius of the Site to just the property containing the landfill, and clarified that the Commonwealth of Pennsylvania will enforce the prohibition on mineral removal near the Site. ESD1 also eliminated maintaining an inward pressure head gradient for Homewood Aquifer performance wells 3 and 4 because wells 3 and 4 had not shown inward gradients. In summary, even when contamination in the leachate associated with the fill was high, the Homewood Aquifer was not experiencing significant contamination and so there was no need to establish an inward gradient requirement for the Homewood Aquifer. The compliance standards were revised from Method Detection Limits to Practical Quantitation Levels.

Second Explanation of Significant Differences

ESD2 issued on August 24,1998, corrected the list of wells to be monitored. In ROD2, EPA specifically listed the wells that would be monitored as part of the selected remedy. However, two wells on the list were abandoned because their location interfered with the slurry wall and clay cap construction. During construction, two other wells were installed near the abandoned wells, which perform the same functions as the closed wells.

Third Explanation of Significant Differences

ESD3 issued June 29,2004 revised the cleanup standards with which the groundwater portion of the selected remedy must comply. ROD1 required groundwater within the slurry wall in contact with the waste be remediated to background levels. EPA defined background levels as MCLs, with two exceptions made for contaminants with more stringent performance standards under Pennsylvania's Land Recycling Act.

Remedy Implementation

ROD1

Cooper performed the RD and RA under a Unilateral Administrative Order (UAO) issued on March 29, 1991. Cooper's contractor mobilized and began on-sight construction on August 5, 1995. The site was grubbed and graded and a bench cut into the highwall on the northern side of the site. The mine system on the northeast side of the site was completely sealed and bulkheaded with grout. A slurry wall was installed around the perimeter of the fill area and through the bulkheaded mines,

completely surrounding the strip pit and waste. The slurry wall was installed to an approximate depth of forty feet and keyed into the sandstone below the clay layer at the base of the strip pit for structural strength. A multilayered cap was installed over the slurry wall to reduce infiltration. Drainage channels surround the cap to collect storm water runoff which is discharged to a stream adjacent to the landfill. Six nests of performance wells were installed to measure groundwater/leachate levels. These wells are also sampled for contaminants.

The leachate treatment system was constructed concurrently. The onsite leachate ponds were drained as they were filled and the leachate was treated and discharged through injection wells placed in the mine pool to the northeast of the site. The area within the slurry wall was graded and a network of extraction wells and connecting piping was installed in the fill. The extraction wells in the fill lower the water table to produce an inward gradient. Leakage is pulled inward, which produces a pump and treatment remedy, since the extraction wells remove about ten to twenty gallons per minute of contaminated groundwater. The contaminated groundwater comes from the surrounding aquifers. The leachate extraction system began operations in January 1996 and removed infiltrating rain water during cap construction. As of July 1998, the cap has been completely vegetated and the escrowed money due to the contractor was released by Cooper.

The leachate treatment system is comprised of a set of piping and manifolds, sampling ports, computer control systems and the actual treatment units. The collected leachate from each well is combined in an equalization tank. The leachate is then processed through a low profile air stopper to remove volatile contaminants. The manganese, iron and other metals are removed in a green sand filtration system which is regenerated by potassium permanganate as needed, and is then polished through carbon adsorption units. The treated leachate meets all MCLs required by the SDWA. The treated leachate travels through an underground piping system to three injection wells which are located in the mine pool to the northeast of the site.

The gradient between the fill and the Clarion Aquifer is adequate along the wall. The lowered water level in the containment has generally produced an inward gradient between the Homewood Aquifer and the fill, however, two wells have not responded as expected. The performance wells H3 and H4 indicate that there is not an inward gradient at the southern end of the Site along the Pine Street extension. There were several possibilities that could have produced the problem: 1) Remedial Design studies indicated that the clay confining layer was missing at the southern end of the Site. The stop mine pit did not extend to the southern end of the Site, and the extraction well farthest to the south is in natural geological materials of much lower permeability. This lack of clay could reduce the pressure gradient due to pumping. 2) A limited section of the slurry wall near the Pine Street extension was produced in two phases. If the extension was not done properly, water could flow into the containment through windows in the slurry wall and create a gradient across the wall. 3) The yield from the extraction wells at the southern end of the Site are relatively low. During construction, EPA realized that additional extraction wells in this area might be needed and ran piping for these wells. EPA required Cooper Industries to analyze the information and try to determine the cause for the lower gradient along this section of the slurry wall. The report from Cooper Industries suggests that these extraction wells are preferentially drawing water from the Homewood Aquifer rather than the fill due to the lack of clay layer in this area. EPA determined that the inward gradient was sufficient to satisfy the performance standard in the Record of Decision.

Another unexpected occurrence was the decline in well yields. EPA met with Cooper on July 12, 2000 to review the recent groundwater data, including extraction well yields, performance well levels and concentrations and trends over the past several years. It appeared that the decline in well yields was due to a steady decline in the adjacent aquifers, which was documented by computer logs of the pressure levels in both the Homewood and Clarion Aquifers. The hydraulic gradients were still very similar to those observed in previous years.

ROD1 required at least one foot of inward hydraulic gradient. The landfill has achieved a level greater than this gradient with respect to the Clarion Aquifer and with respect to most of the performance wells in the Homewood Aquifer. The six performance well nests installed at even intervals along the perimeter of the slurry wall monitor water levels and are sampled periodically for contaminants of concern. After several years of data, the containment is working as expected and there have been no major releases of contamination through the slurry wall.

The containment system is meeting the Remedial Action Objectives (RAOs) for the onsite water table to prevent migration of contamination into the aquifers that supply drinking water to area residents. An added protection is the presence of a water line, which Cooper extended around the eastern perimeter of the Site in 1994 to provide the residents closest to the Site with municipal water. The residence closest to the Site contained the only contaminated residential well discovered. This water line gave the resident public water and provided protection to other residents located even farther from the Site. In addition, on June 11, 1999, Cooper purchased the twenty-two acres of property containing the landfill. Cooper has complied with the institutional control requirements which include prohibitions on the use or disturbance of groundwater until cleanup levels are achieved and prohibitions on new wells within the property containing the landfill.

As part of the Remedial Action required by ROD 1, Cooper Industries replaced several acres of wetlands which were damaged by the installation of the cap. The wetlands were constructed and are vegetated to such an extent that they are indistinguishable from the adjacent wetlands.

ROD2

ROD2 was issued December 30, 1997 and revised the groundwater remedy for the Clarion Aquifer from pump and treatment to monitored natural attenuation. A description of the Site geology is necessary to understand EPA's decision to revise the selected remedy. The top layer to the east of the Site is about ten to twenty feet of overburden over twenty to thirty feet of sandstone. The sandstone is considered the Clarion Aquifer Underlying the Clarion sandstone was a layer of coal, known as the Brookville coal seam. The coal seam angled downward to the east and the coal seam was deep mined. To the east of the fill area are networks of open mine voids full of groundwater forming a mine pool. Based on numerous monitoring wells, the vinyl chloride contamination was relatively high in the mine voids, but only trace levels of vinyl chloride were present in the Clarion Aquifer. The only exception to this was the one residential well in the Clan on aquifer which did contain 10-15 ppb of vinyl chloride. Underneath the Clarion Formation is a clay layer and then the sandstone Homewood aquifer. With the exception of one well directly adjacent to the slurry wall, vinyl chloride has not been detected in the Homewood Aquifer.

During the design phase, it became apparent that due to mine subsidence, the Clarion Aquifer was fractured and that a well placed in the Clarion Formation would preferentially draw mine void

water upward in a column through the thin Clarion sandstone layer. Each well would have a tiny lateral capture zone and numerous extraction wells would be needed for this first option. An extraction well would also draw contaminated mine water into the Clarion Formation which is used as a drinking water aquifer in the vicinity. The other option would be to attempt to pump and treat a very large volume of mine water to remove relatively small levels of contaminants. An additional consideration was the steady decline in vinyl chloride levels in the mine voids. EPA was concerned that by the time the ROD was issued, negotiations completed, the design approved and the pump and treat system constructed, there might not be contamination left above MCLs. Therefore, in December 1997, EPA changed the remedy for the Clarion Formation to monitored natural attenuation.

The deeper aquifers were of special concern because the municipal wells were within two miles to the northeast of the Site. EPA required the placement of additional deep well nests in both the Connoquenessing Aquifer and the even deeper Burgoon Aquifer between the municipal well location and the Site. These well nests were monitored and did not show contamination.

Recent analytical results from the natural attenuation groundwater monitoring demonstrate the continued decline in vinyl chloride levels over a wide area of the plume. Contaminant levels are approaching MCLs over much of the area. There is one small area around the one contaminated residential well closest to the Site which continues to show gradual decrease for levels of vinyl chloride. It appears this area will be the last section to attenuate to MCLs. The municipal water line is available in this area so residents and future residents are not at risk from the contamination. EPA considers the groundwater remedy to be protective at this time, but will continue to monitor the groundwater concentrations until MCLs are met and afterwards for five years.

System Operation/Operation and Maintenance

The ongoing Site management activities described below are conducted by Cooper Cameron Corp and their consultant Civil Environmental Consultants (CEC).

Leachate Treatment System

Groundwater monitoring has been conducted at the Osborne Site since the late 1990s. The remedy also included the extraction of groundwater from inside the closed landfill using nine Extraction Wells (EX1 through EX9) to develop an inward hydraulic gradient. The extracted water inside the slurry wall was treated by an onsite treatment plant prior to discharge into the mined out Clarion Coal Seam north and east of the Site. Additionally, Performance Wells, treatment plant effluent, and Mine Void Wells monitor the effectiveness of the remedy. The extraction well rebound test was performed November of 2004 to evaluate whether rebound of contaminant levels would occur when the leachate treatment system was shutdown. The extraction well rebound test has been in effect over six months and the recent analytical results from the natural attenuation ground water monitoring demonstrate the continued decline in vinyl chloride levels over a wide area of the plume rather then a rebound of contaminants. Thus, the shut down of the leachate treatment system has not caused a rebound of contaminant levels. Instead the contaminant levels are still approaching MCLs over much of the area. In conclusion, EPA recommends keeping the leachate system off but monitoring the on-site, off-site and one residential well of concern biannually for trichloroethylene, vinyl chloride, pH, water levels and total suspended solids for one year and then EPA will evaluate the data and either maintain or reduce the monitoring scheme.

Site Maintenance

Site maintenance activities include:

- Inspection of the general condition of vegetative cover on the Site landfill, and evidence of unauthorized entry or vandalism Perform routine mowing of the landfill
- Inspection of the condition of the groundwater monitoring wells, treatment facility and security fence
- Biannual monitoring of groundwater monitoring wells

V. Progress Since Last Five-Year Review

In the first Five-Year Review, the remedy was found to be protective of human health and the environment in the short term with the immediate threats addressed by the remedial action cited in the ROD. The groundwater Natural Attenuation remedy will not be fully protective until all monitoring wells meet the MCLs for five years. One of the deficiencies found in the First Five-Year Review for Osborne was the necessity for maintenance of the extraction wells. The maintenance has since been completed and reviewed annually. Additionally, EPA performed a split sampling of groundwater samples as part of the Five-Year Review on Site as a check of analytical procedures by the Responsible Party. The analytical results of the EPA matched past results of the Responsible Party.

VI. Five-Year Review Process

Administrative Components

Members of the Performing Settling Defendants and PADEP were notified of the initiation of the Five-Year Review on January 1, 2005. The Osborne Five-Year Review team was led by Rashmi Mathur of EPA, Remedial Project Manager (RPM) for the Osborne Site, and EPA hydrogeologist, Mindi Snoparsky. Additionally, the PADEP Project Officer, Gary Mechtly, and Hydrogeologist, John O'Hara.

From February 1 to August 1, 2005, the review team established the review schedule whose components included:

- Community Involvement,
- Document Review,
- Data Review,
- Institutional Control Review,
- Site Inspection,
- Local Interviews, and
- Five-Year Review Report Development and Review

Community Involvement

An advertisement appeared in the, "Allied Newspaper," on April 20, 2005 indicating that EPA was conducting a Five-Year Review for the Site. The advertisement provided point of contact information and identified the location of the information repositories for the Site and specified when the results of the Five-Year Review would be in the public repository. EPA conducted community

interviews door-to-door in the immediate vicinity of the Site. None of the residents approached in the immediate vicinity of the Site expressed concerns or complaints about the Osborne Site. The EPA RPM was interviewed multiple times by a reporter from the local Newspaper, "Allied News". The RPM gave a tour of the Site to the newspaper reporter and explained past Site history and the Five-Year Review Process. Additionally, the RPM checked that the public repository near the Site was up to date and visited and summarized the Five-Year Review Process to local public officials. The RPM was approached by Citizens' Environmental Association of the Slippery Rock Area (CEASRA) on Site. The EPA RPM explained the cleanup and contaminants from the Site and gave them a tour of the Site and treatment facility. CEASRA is concerned with the Tri-County Landfill operation down the street. The RPM explained the difference between a Superfund Site and a PADEP permitted landfill to differentiate between the Osborne Superfund Site and the Tri-County Landfill.

Document Review

The Five-Year Review consisted of a review of relevant documents including the following

- The RI and FS reports 1989
- ROD1 signed September 28,1990
- UAO for RD/RA dated March 29, 1991
- AOC dated October 9, 1992 for RI/FS
- ROD2 signed December 30, 1997
- ESD1 dated August 24,1998
- ESD2 dated August 24,1998
- Operation and Maintenance Plan
- PCOR dated September 21, 1998
- Groundwater Monitoring Data (Attachment 1)
- Five-Year Review dated July 28, 2000
- ESD3 dated June 29, 2004
- Report of Findings Extraction Well Rebound Test dated November 12, 2004
- Institutional Control Documentation

Data Review

Groundwater Monitoring

Groundwater monitoring has been conducted at the Osborne Site since the late 1990s. Operable Unit 1 (OU1) of the Site, which includes the landfill, was closed by encapsulating the wastes in the landfill using a slurry wall and a multi-layer cap. The remedy also included the extraction of groundwater from inside the closed landfill using nine Extraction Wells (EX1 through EX9, See Table 6) to develop an inward hydraulic gradient. The extracted water inside the slurry wall was treated by an onsite treatment plant prior to discharge into the mined out Clarion Coal Seam north and east of the Site. The effectiveness of the remedy has been evaluated by monitoring groundwater levels and water quality inside and outside of the slurry wall (Performance Wells C-l through C-6 and H-l through H-6, See Table 7), monitoring water quality outside of the landfill by sampling offsite wells in the Clarion aquifer (MW7, MW8, MW9, MWC2, and MWC4, See Table 3), the mine void system (MWV1, MWV3, MWV4, MWV5, MWV6, MWV7, MWV8, and MWV9, See Table 4) and residential wells (See Table 5), monitoring the constituents in the water being treated from the

extraction wells (EX-1 through EX-9, treated plant influent, See Table 6), and monitoring the treatment plant effluent after treatment. The wells sampled monitor the boundary of the plume and monitor both migration and attenuation of the contamination. Monitoring must continue for five years after MCLs and non-zero MCLGs are reached.

The ROD required that the Clarion and Homewood wells be sampled quarterly during the year following completion of the remedial construction, twice each year until the Five-Year Review and annually thereafter. Seven years of data have been collected during the 19 sampling events performed to date.

In addition to the sampling required for the performance wells, ROD required sampling of a moderate number of wells in the deep aquifers of the Connoquenessing and Burgoon aquifers at the Site as part of the Natural Attenuation Remedial Action Decision. These aquifers were sampled three years after the remedial action was completed to confirm that the aquifers were not contaminated.

Monitoring Well Results

Semi-volatiles have not been detected in the Performance Wells since 1997. Recent EPA sampling in 2005 shows no elevated metals in performance wells (See Table 7). The monitoring program includes sampling of over thirty wells including landfill, offsite and residential wells. Recent analytical results from the natural attenuation ground water monitoring indicate a continued decline in vinyl chloride levels over a wide area of the plume. Contaminant levels are approaching MCLs over much of the area. Out of the thirty wells, two extraction wells, inside the slurry wall, EX-5 and EX-6 (See Table 6) have in the past shown an exceedance for vinyl chloride. The vinyl chloride concentration in EX-5 and EX-6 has exhibited a trend downward in concentrations. In EX-5 there has also been an exceedance in trichloroethene but again there has also been a trend downward in concentrations.

The performance well C-2 (See Table 7), outside the slurry wall close and to EX-5 and EX-6, exhibits an exceedance in vinyl chloride. But once again there is a downward trend in the vinyl chloride in C-2. There are also three monitoring wells, MWV-9, MWV-4 and MWV-3, in the mine void system which have shown an exceedance of the MCL for vinyl chloride (See Table 4). But once again the levels have shown a downward trend and are moving toward the MCL of 2 for vinyl chloride. Additionally, residential wells around the Site have been sampled repeatedly to consistently show results to the residents and demonstrate that the remedy is fully protective. Residents in the immediate vicinity of the Osborne Site have been connected to public water so no residents are at risk. Only one residential well, the one closest to the Site and east of the Osborne Site, has shown an exceedance for the vinyl chloride MCL (See Table 5) but the levels of the latest round of sampling, April of 2004, show that there is a downward trend for vinyl chloride for this resident. The resident with the exceedance for vinyl chloride is connected to public water.

Extraction Well Rebound Test

The extraction well rebound test was performed November of 2004 to evaluate whether rebound of contaminant levels would occur when the leachate treatment system was shutdown.

Only two of the Extraction Wells (EX-5 and EX-6, See Table 6) have ever exhibited concentrations of constituents that exceed MCLs. Extraction Well EX-5 has had exceedances of the vinyl chloride MCL while Extraction Well EX-6 had exceedances of the trichloroethylene prior to shutdown of the system in February 2004. The extraction well rebound test has been in effect over six months and the recent analytical results (See Table) from the natural attenuation ground water monitoring demonstrate the continued decline in vinyl chloride levels over a wide area of the plume rather then a rebound of contaminants. Thus, the shut down of the leachate treatment system has not caused a rebound of contaminant levels. Instead the contaminant levels are still approaching MCLs over much of the area. In conclusion, EPA recommends keeping the leachate system off but monitoring the on site, off site and one residential well of concern biannually for trichloroethylene, vinyl chloride, pH, water levels and total suspended solids for one year and then EPA will evaluate the data and either maintain or reduce the monitoring scheme. At Five-Year Reviews, EPA recommends monitoring the performance wells, mine void wells and one residential well of concern for volatile organic compounds, TSS, pH with water levels. Additionally if trends increase significantly and consistently, EPA can increase monitoring and/or start the leachate treatment system once again.

Site Inspection

The EPA RPM, PADEP Project Officer and PADEP Hydrogeologist, and the Responsible Party conducted a Five-Year Review Inspection of the Osborne Site on April 20, 2005. The physical integrity of the cap, condition of the restored wetlands and monitoring wells were in good condition. The treatment facility at the Osborne Site was in good condition as well. The EPA START Contractor took ground water samples at different aquifers on the Site. During the Site inspection, the EPA RPM was approached by a reporter from the local newspaper, "Allied Newspaper" and a citizen's group. The EPA RPM and Responsible Party gave a tour of the Site to the reporter and the citizen's group and responded to all their questions. Additionally, the EPA RPM checked that the institutional controls were implemented.

Interviews

An advertisement appeared in the enter newspaper on April 20, 2005 indicating that EPA was conducting a Five-Year Review for the Site. The advertisement provided point of contact information and identified the location of the information repositories for the Site and specified when the results of the Five-Year Review would be in the public repository. EPA conducted community interviews door-to-door in the immediate vicinity of the Site. All the residents approached in the immediate vicinity of the Site expressed no concerns or complaints from the Osborne Site. The EPA Remedial Project Manager (RPM) was interviewed multiple times by a reporter from the local Newspaper, "Allied News". The RPM gave a tour of the Site to the newspaper reporter and explained past Site history and the Five-Year Review Process. Additionally, the RPM checked the public repository near the Site was up to date and visited and summarized the Five-Year Review Process to local public officials. The Remedial Project Manager was approached by Citizens' Environmental Association of the Slippery Rock Area (CEASRA) on Site. The EPA RPM explained the cleanup and contaminants from the Site and gave them a tour of the Site and treatment facility. CEASRA is concerned with the Tri-County Landfill operation down the street. The RPM explained the difference between a Superfund Site and a PADEP permitted landfill to differentiate between the Osborne Superfund Site and the Tri-County Landfill.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

Yes. The review of documents, ARARs, risk assumptions, and the results of the site inspection indicates that the remedy is functioning as intended by the ROD, as modified by the ESDs. The slurry wall, clay cap, and leachate treatment system for the fill area with ground water monitoring has achieved the remedial objectives to minimize the migration of contaminants to groundwater and surface water and prevent direct contact with, or ingestion of, contaminants in soil. The effective implementation of institutional controls has prevented exposure to, or ingestion of, contaminated groundwater.

Operation and maintenance of the cap, the replacement wetlands, leachate system and the monitoring well treatment system have been effective.

There is an opportunity for system optimization observed during this review Recent analytical results (see Table) from the natural attenuation ground water monitoring demonstrate the continued decline in vinyl chloride levels over a wide area of the plume. Contamination is approaching MCLs over much of the area. Thus, it makes sense to optimize the ground water monitoring program. The EPA will require annual monitoring of those monitoring wells which have exhibited exceedances in MCLs for those parameters which consistently have been found on the Site.

The Responsible Party performing the Site work purchased the landfill property so that the property would be under its control. The institutional controls that are in place include prohibitions on the use or disturbance of groundwater until cleanup levels are achieved, and prohibitions on new wells from being installed on property containing the landfill. No activities were observed that would have violated the institutional controls. The cap and the surrounding area were undisturbed, and no new use of groundwater was observed. The fence around the site is intact and in good condition.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid?

Yes. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy.

Changes in Standards and To Be Considered

As the remedial work has been completed, 25 PA Code chapter 107 standards for well installation have been met ARARs that still must be met at this time include Maximum Contaminant Levels (MCLs), and MCL Goals (MCLGs). At the present time, groundwater contaminant concentrations at several wells have not yet attained ROD cleanup levels. However, significant progress has been made toward these goals as a result of the slurry wall, cap and leachate treatment system. Long-term monitoring will be conducted on an annual basis to determine when contaminant levels in monitoring wells have reached MCLs ARARs related to wetland protection, and to post-closure monitoring have to be met. There have been no changes in these ARARs and no new standards or TBCs affecting the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

The exposure assumptions used to develop the Human Health Risk Assessment included both current exposures (current child and adult resident) and potential future exposure (future child and adult resident). To EPA's knowledge no residents are currently using contaminated ground water at the Site, since the water line was extended around the perimeter of the Site and the one resident close enough to the contaminant plume is using public water. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. No change to these assumptions or the cleanup levels developed from them is warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. The remediation is progressing and it is expected that all groundwater cleanup levels will be met in the future.

There is a change in the exposure pathway in regards to evaluating if there is or is not a vapor intrusion into indoor air of the resident's house closest to the Osborne Site. As requested, the EPA air modeling expert performed a conservative screening analysis of vapor intrusion into indoor air from groundwater for the Osborne Landfill Site. The EPA lexicologist, using indoor air screening analysis for vapor intrusion from groundwater provided by the EPA air modeler, has estimated the potential risks from vapor intrusion for a residence near the Osborne Landfill Site. The cancer risk from this scenario (6E-6) is within EPA's acceptable range (1E-6 to 1E-4). Also, the Hazard Quotient is less than 1, so adverse non-cancer effects would not be anticipated. The groundwater data used in this analysis were obtained from the 8/21/03 reporting period for one residential well. The most recent groundwater data from this residential well, taken on 8/18/04, were below levels of detection for all contaminant compounds.

Indoor air concentrations were calculated for an EPA default home using the groundwater contaminant concentrations in the residential well. This analysis should be considered to be a conservative screening analysis because the groundwater data were not from the most recent reporting period in which contaminant concentrations were below levels of detection. Also, default values were enlisted for all building parameters. The Johnson & Ettinger groundwater-indoor air screening model was used to calculate the indoor air concentrations. In conclusion, no vapor intrusion issue was identified for the home closest to the Osborne Landfill.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No.

Technical Assessment Summary

According to the data reviewed, the site inspection and the remedy is functioning as intended by the RODs as modified by the ESDs. There have been no changes in the physical condition of the Site that would affect the protectiveness of the remedy. As a result of the cap, slurry wall containment and leachate treatment system, levels of COCs in site groundwater have decreased consistently since the last Five-Year Review, although groundwater performance standards have not yet been met at

some well locations. The slurry wall containment in the cap with long term ground water monitoring is protective of the remedy.

VIII. Issues

Issues	Affects Current Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
The extraction well shutdown rebound test has been in effect over six months to monitor if there is any rebound of contaminants in the groundwater in response to the shutdown	N	N
Check to make sure animals are not burrowing in cap	N	N

IX. Recommendations and Follow-Up Actions

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
The extraction well shutdown rebound test has been in effect over six months to monitor if there is any rebound of contaminants in the groundwater in response to the shutdown	EPA recommends keeping the leachate system off but monitoring the on-site, off-site, and one residential well of concern biannually for trichloroethylene, vinyl chloride, pH, water levels and total suspended solids for one year, and then EPA will maintain or reduce the monitoring scheme based on the data results. Additionally if trends increase significantly and consistently EPA can increase monitoring and or start the leachate treatment system once again	Responsible Party	EPA/ PADEP	8/31/2005	N	N
Potential for burrowing animals in the cap	Add and execute the item of checking for burrowing animals in the cap to the Operation and Maintenance Plan	Responsible Party	EPA/ PADEP	Once a year	N	N

X. Protectiveness Statement

The remedy is protective of human health and the environment in the short term. Exposure pathways that could result in unacceptable risks are being controlled through the slurry wall and clay cap prevents infiltration in the fill. Institutional controls are preventing exposure to or the ingestion of contaminated groundwater. All threats at the Site have been addressed through capping of contaminated soils, the installation of fencing and warning signs, and implementation of institutional controls.

Long term protectiveness of the remedial action will be verified upon attainment of groundwater reaching MCLs through natural attenuation which will be achieved in the future. Current data indicates that the groundwater plume has not migrated and the trend of contaminant levels is decreasing. Additional sampling will be performed to determine the appropriate frequency of sampling. Current monitoring data indicates that the remedy is functioning as required to achieve groundwater cleanup goals.

XI. Next Review

The next Five-Year Review for the Osborne Superfund Site is required by August 5, 2010, five years from the date of this review.

ATTACHMENTS

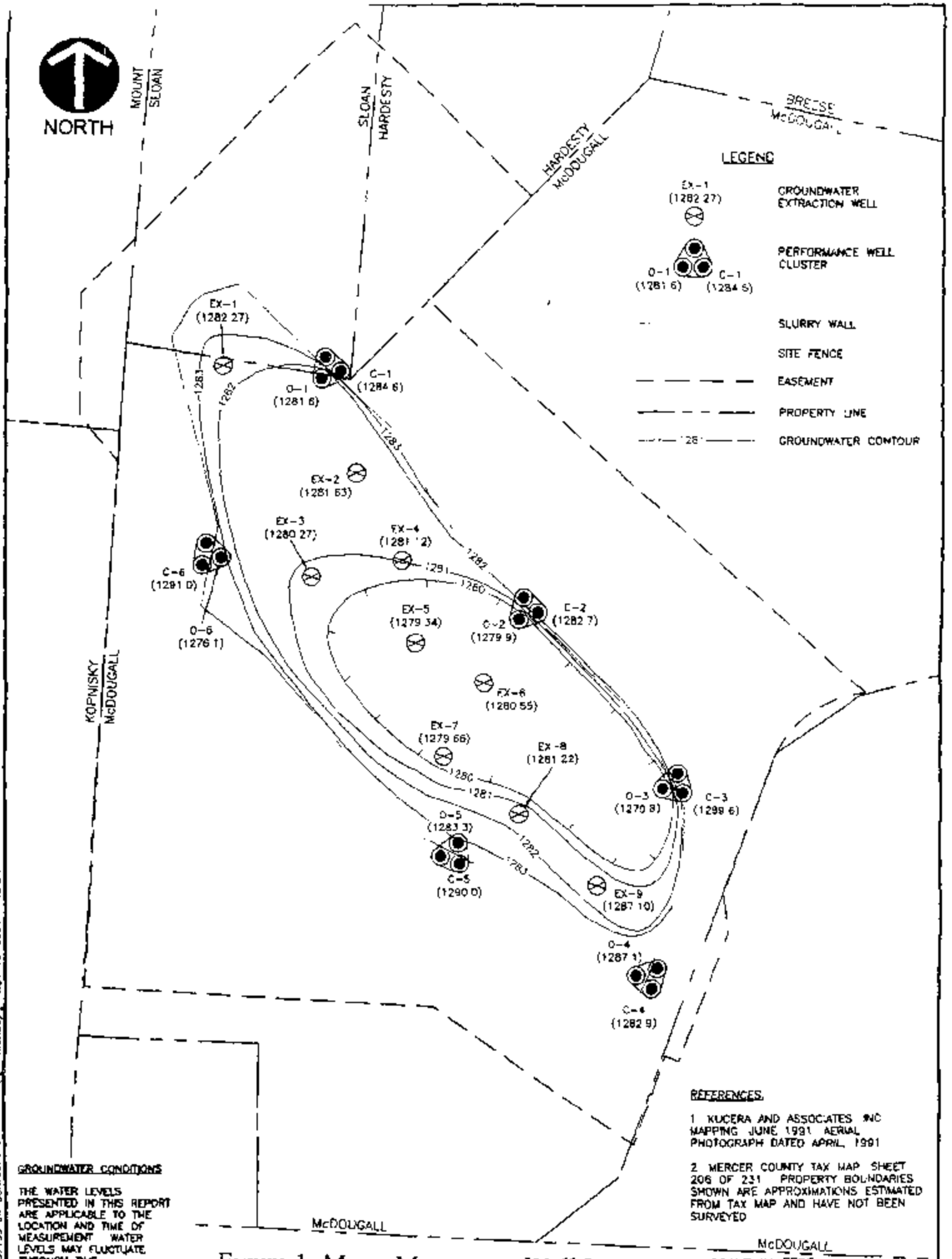
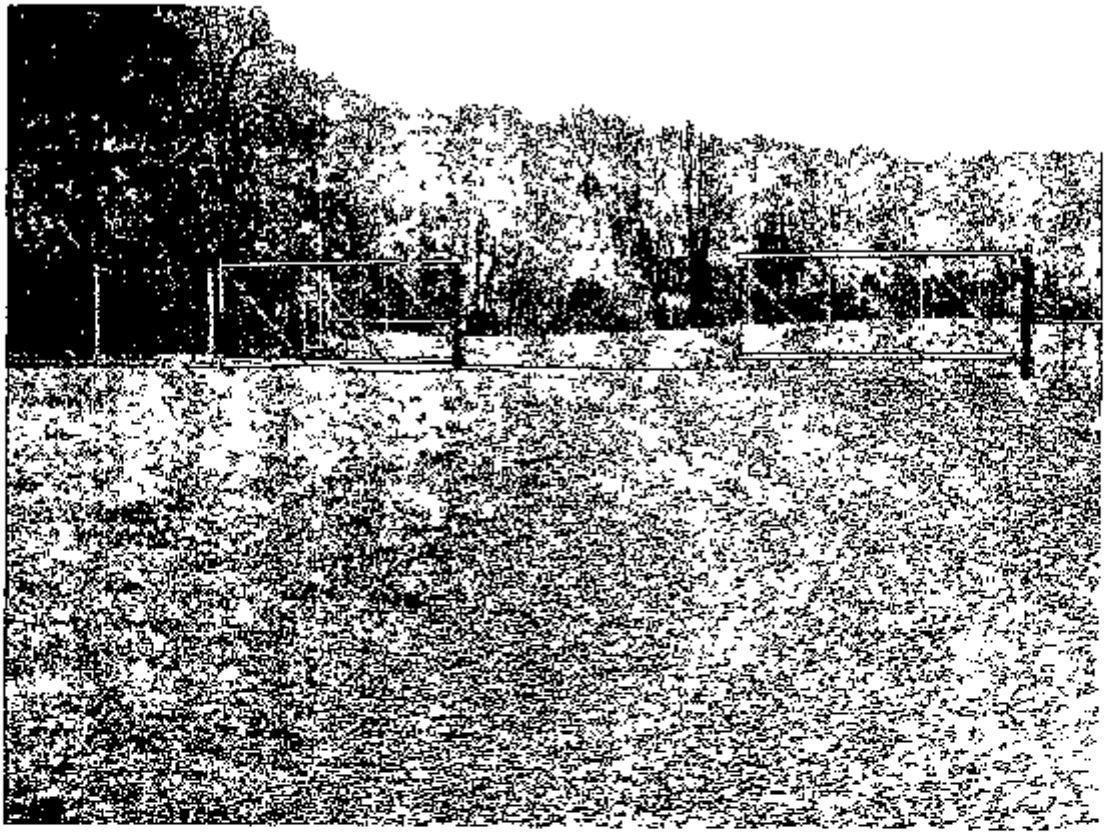
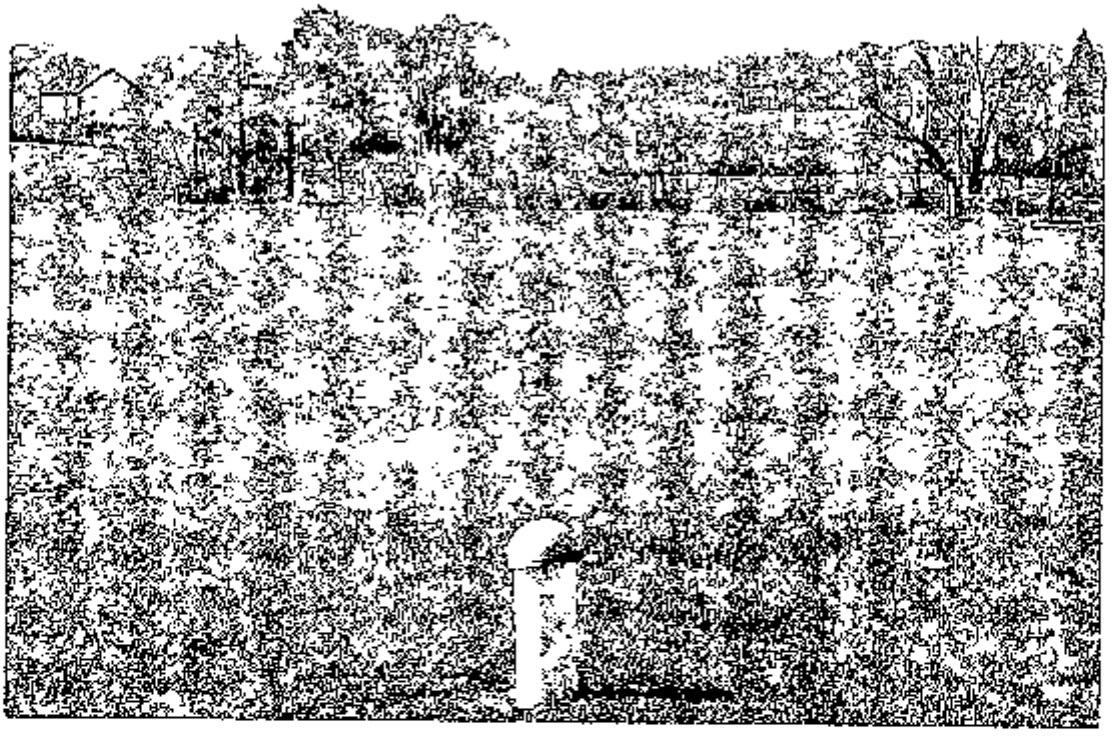


Figure 1 Major Monitoring Well Locations

Osborne Five Year Review
Fenced Entrance onto the Osborne Site



Osborne Five Year Review
Multi-Layer Cap



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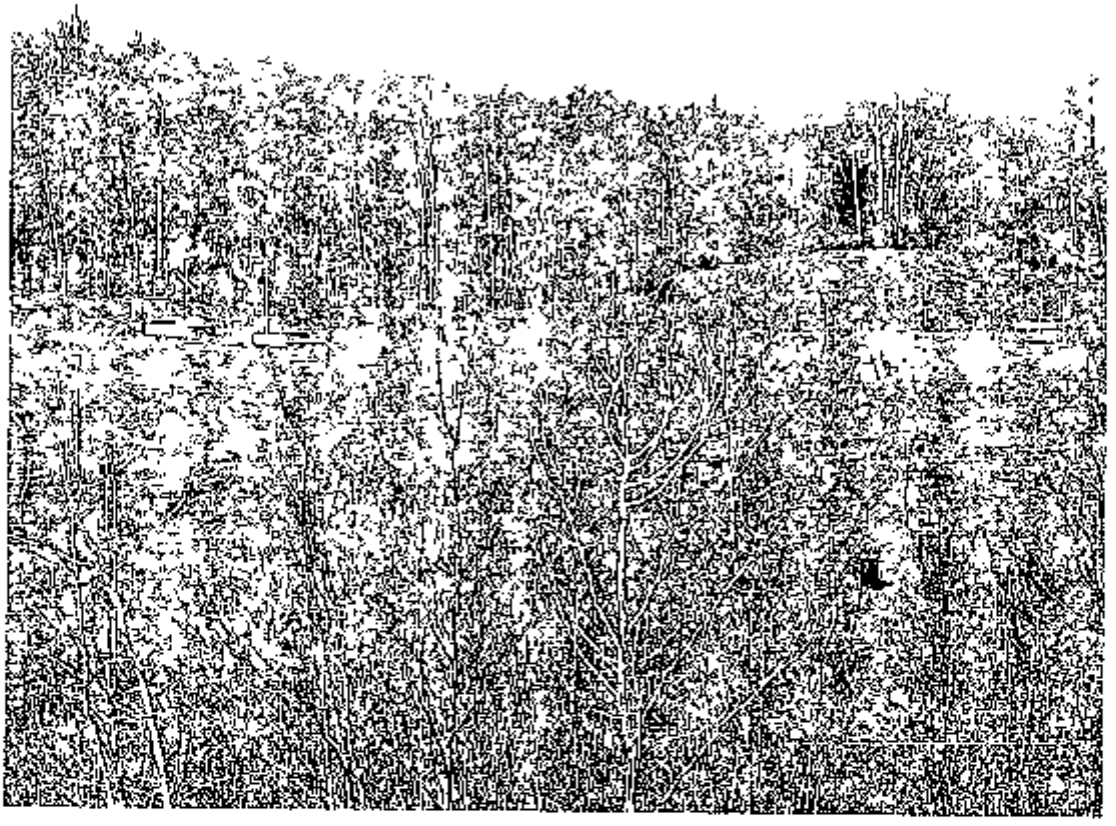
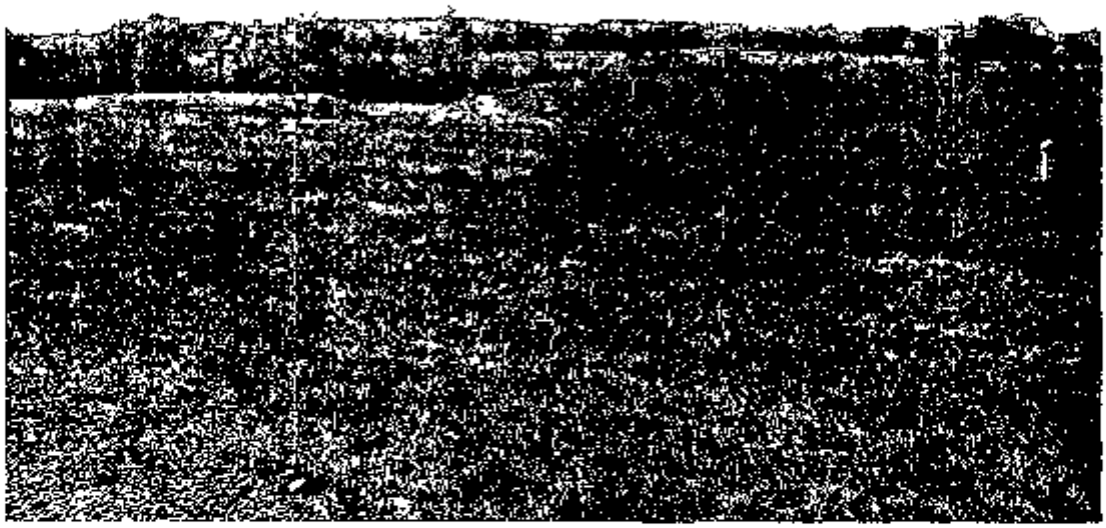
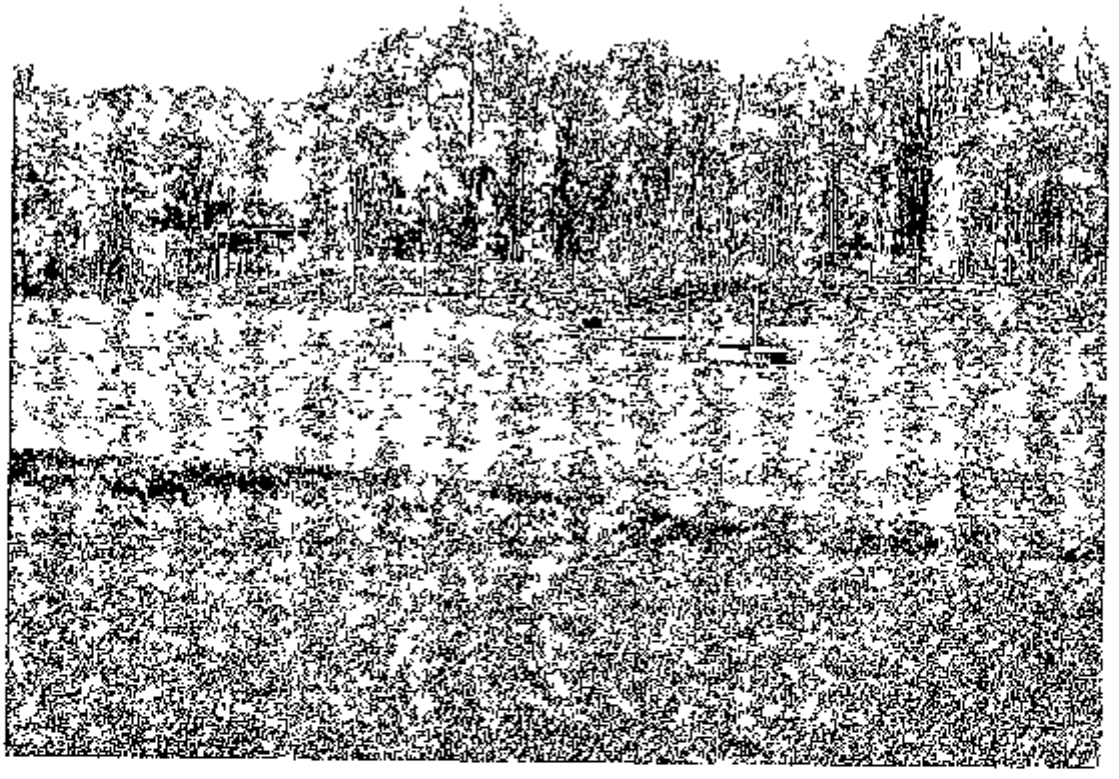
Multi-Layer Cap



Osborne Five Year Review
Osborne Multi-Layer Cap

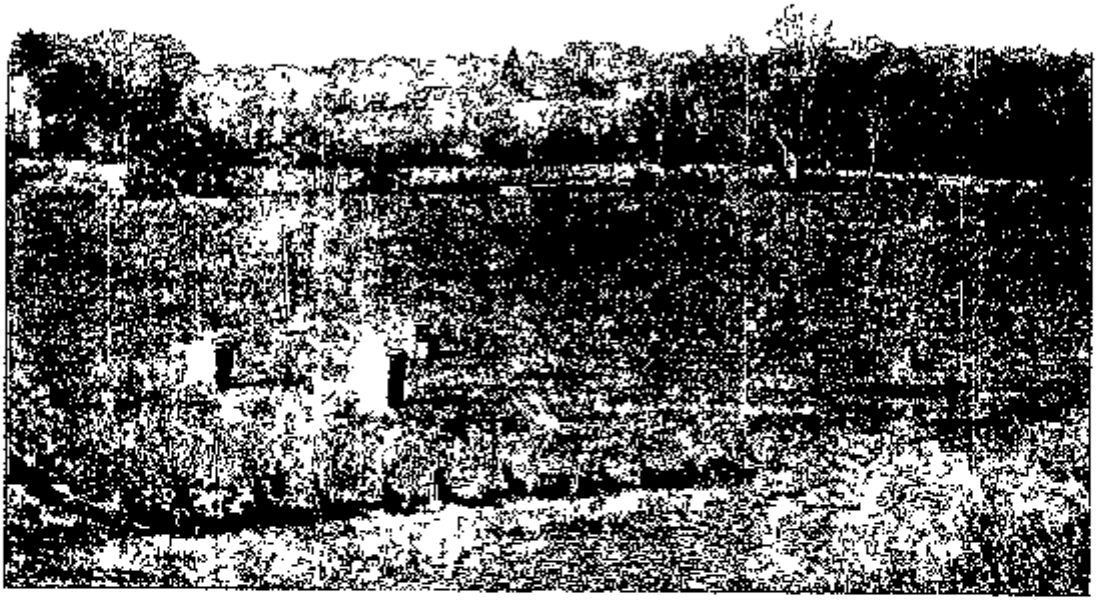


Osborne Five Year Review
Multi-Layer Cap

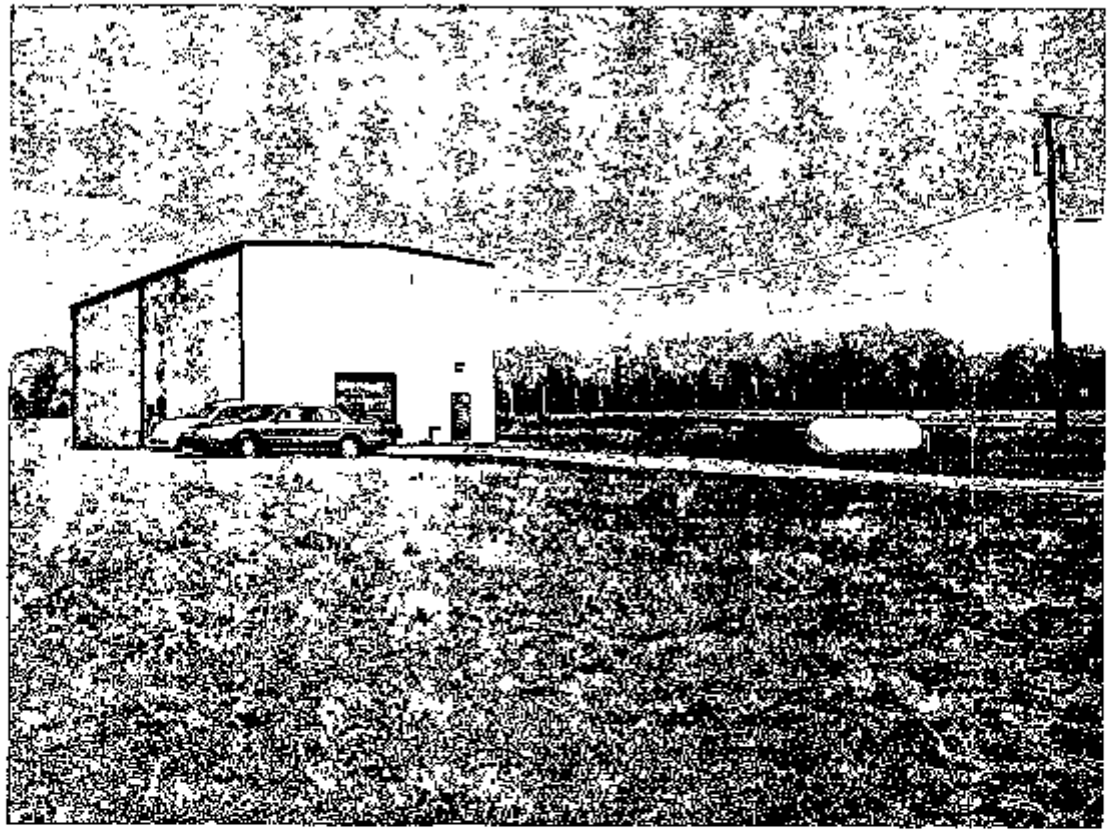


Osborne Five Year Review
EPA Sampling Monitoring Wells

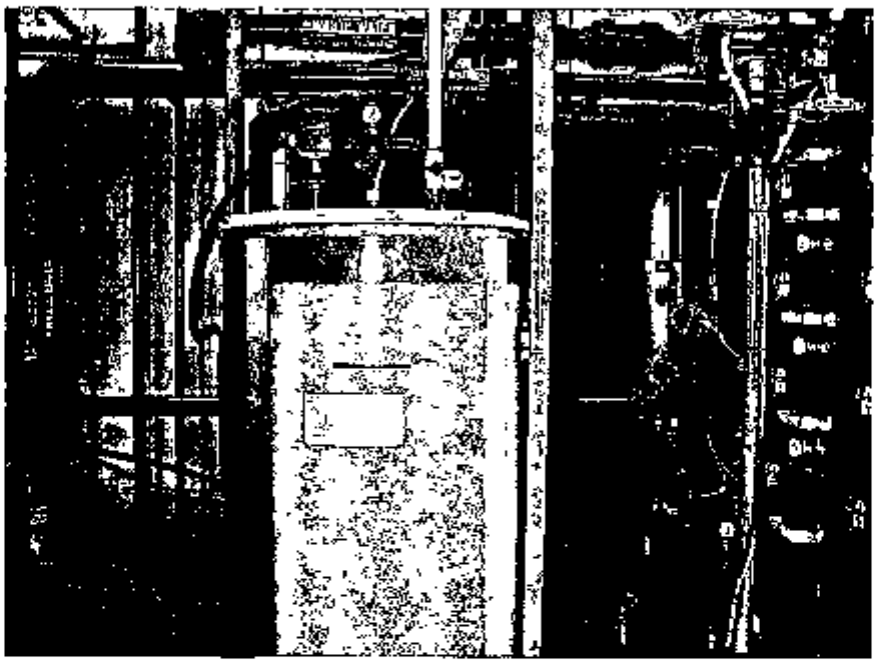
Osborne Five Year Review
Multi-Layer Cap with Monitoring Wells



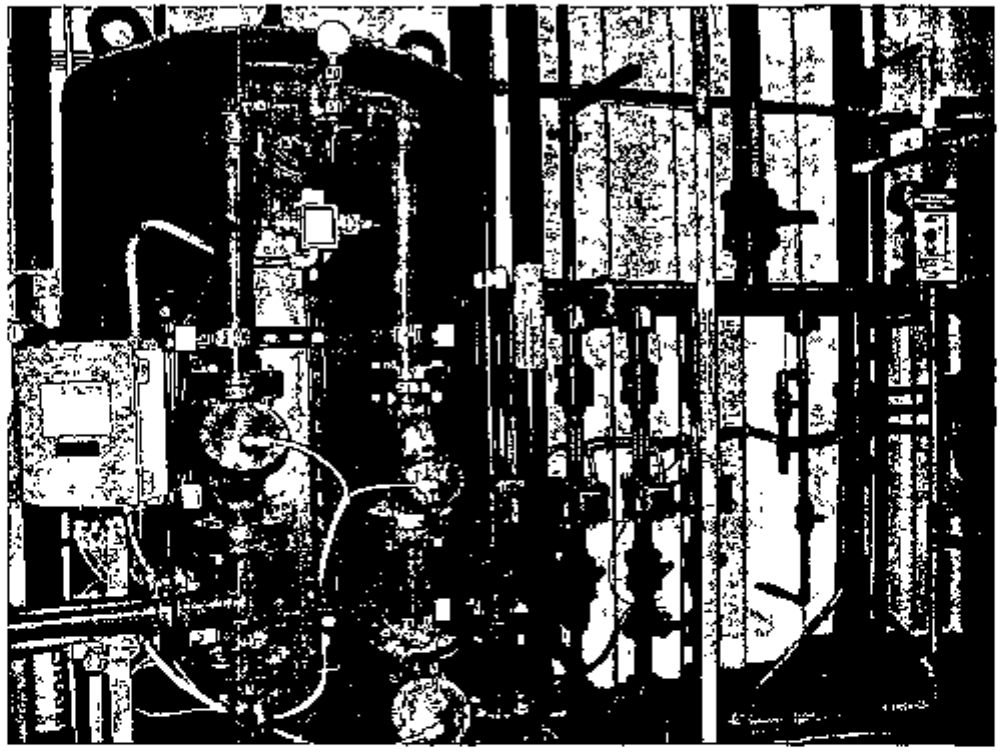
Osborne Five Year Review
Treatment Facility for the Leachate



Osborne Five Year Review
Air Stripping and Carbon Adsorption Treatment System



Osborne Five Year Review
Air Stripping and Carbon Adsorption Treatment System



Osborne Five Year Review
PADEP and Responsible Party in Treatment Facility

TABLES

Contents

BW-1

	12/5/1994	4/11/2000	11/30/2000	5/17/2001	12/5/2001	5/10/2002	11/13/2002	6/4/2003	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)										
1 1 1-Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl 2-Pentanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	0 5 U	0 5 U	0 5 U	--	6 300
Acetone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	5 500
Benzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2 Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 1 Monitoring Wells in the Burgoon Aquifer

Contents

BW-2	12/7/1994	4/11/2000	11/30/2000	5/21/2001	12/5/2001	5/10/2002	11/13/2002	6/4/2003	EPA results 4/24/2005	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)											
1 1 1-Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5 U	5 0 U	5 0 U	5 0 U	2 J	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl-2-Pentanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	8	34	5 0 U	5 0 U	11	5 0 U	5 0 U	2 J	1 8 B	--	5 500
Benzene	*1 U*	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 U	28	0 5 U	0 5 U	3	0 5 U	0 5 U	0 6	0 5 U	--	1 000
Carbon Tetrachloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 27 B	--	4 1
Styrene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 8 J	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	*1 U*	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 1 Monitoring Wells in the Burgoon Aquifer

Contents

BW-3

Volatile Organic Compounds (µg/l)	12/8/1994	4/11/2000	11/30/2000	5/21/2001	12/6/2001	5/10/2002	11/14/2002	6/4/2003	EPA Result 4/24/2005	EPA MCLs	EPA Region 3 RBCs
1 1 1-Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2 Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 UL	--	0 19
1 1 Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5 U	5 0 U	5 0 U	5 0 U	8	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl-2-Pentanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	*5 U*	*1 J*	3 J	5 0 U	25	5 0 U	5 0 U	5 0 U	1 6 B	--	5 500
Benzene	1 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 U	0 5 U	0 5 U	0 5 U	2	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 U	0 5 U	0 5 U	0 5 U	3	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 UL	--	0 44
Dibromochloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 42 B	--	4 1
Styrene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 UL	--	0 44
Trichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 1 Monitoring Wells in the Burgoon Aquifer

Contents

CW-1

Volatile Organic Compounds (µg/l)	12/5/1994	4/11/2000	11/30/2000	5/22/2001	12/5/2001	5/10/2002	11/13/2002	6/4/2003	EPA MCLs	EPA Region 3 RBCs
1 1 1 Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl 2-Pentanone	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	5 U	5	3 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	5 500
Benzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 2 Monitoring Wells in the Connoquenessing Aquifer

Contents

CW-2

Volatile Organic Compounds (µg/l)	12/7/1994	5/2/1995	4/11/2000	12/1/2000	5/22/2001	12/6/2001	5/10/2002	11/13/2002	6/4/2003	EPA MCLs	EPA Region 3 RBCs
1 1 1-Trichloroethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5 U	17	5 0 U	5 0 U	5 0 U	34	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl 2-Pentanone	5 U	3 J	5 0 U	5 0 U	5 0 U	1 J	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	*29*	*150*	1 J	2 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	5 500
Benzene	1 U	1 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 U	1 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachlorde	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 U	1 U	0 5 U	0 5 U	0 5 U	36	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2-Dichloroethene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 U	2 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	2	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2 Dichloroethene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 U	1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 2 Monitoring Wells in the Connoquenessing Aquifer

Contents

CW-3	12/8/1994	5/2/1995	4/11/2000	11/30/2000	5/22/2001	12/6/2001	5/10/2002	11/14/2002	6/4/2003	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)											
1 1 1-Trichloroethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1 Dichloroethene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5 0 U	25 U	5 0 U	5 0 U	5 0 U	9	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	5 0 U	25 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl-2 Pentanone	5 0 U	25 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	5 0 U	25 U	5 0 U	2 J	4 J	5 0 U	5 0 U	5 0 U	2 J	--	5 500
Benzene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	7	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2-Dichloroethene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3 Dichloropropene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 0 U	10 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	4	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 2 Monitoring Wells in the Connoquenessing Aquifer

Contents

MW-7	1/7/1993	4/6/1993	5/9/1995	4/11/2000	12/1/2000	5/16/2001	12/6/2001	5/10/2002	8/8/2002	11/16/2002	6/4/2003	11/24/2003	6/29/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)															
1 1 1-Trichloroethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl-2 Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	3	*5 0 U*	5 0 U	9	2 J	5 0 U	5 0 U	5 0 U	1 J	5 0 U	5 0 U	5 0 U	3 J	--	5 500
Benzene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2-Dichloroethene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2	2 0 U	0 7 B	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3 Dichloropropene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 3 Monitoring Wells in the Clarion Aquifer

Contents

MW-8

Volatile Organic Compounds (µg/l)	1/8/1993	4/6/1993	5/8/1995	4/12/2000	12/1/2000	5/16/2001	12/5/2001	5/10/2002	8/8/2002	11/16/2002	3/17/2003	11/25/2003	6/30/2004	EPA MCLs	EPA Region 3 RBCs
1 1 1-Trichloroethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1 Dichloroethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1 Dichloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	5	5 0 U	5 0 U	5 0 U	5 0 U	2 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl 2-Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	7	5 0 U	5 0 U	1 J	5 0 U	5 0 U	10	5 0 U	1 J	5 0 U	5 0 U	5 0 U	4 J	--	5 500
Benzene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			1 0 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2 Dichloroethene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3 Dichloropropene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2	2 0 U	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Contents

MW-9	1/9/1993	4/6/1993	4/12/2000	12/4/2000	5/22/2001	12/5/2001	5/10/2002	8/8/2002	11/16/2002	6/4/2003	11/24/2003	6/30/2004	EPA Results4/24/2005	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)															
1 1 1 Trichloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2 Trichloroethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2-Dichloropropane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	5	*5 0 U*	5 0 U	1 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	6	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl-2 Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	*20*	*5 0 U*	2 J	2 J	5 0 U	2 J	5 0 U	2 J	5 0 U	5 0 U	10	2 J	4 B	--	5 500
Benzene	1 0 U	2 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2 Dichloroethene			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 3 B	--	4 1
Styrene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 4 J	5	0 1
Toluene	1 0 U	0 3 J	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene			0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	7	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 5 U	0 5 U	2	0 015

Table 3 Monitoring Wells in the Clarion Aquifer

Contents

MWC-2	5/22/2001	12/5/2001	5/10/2002	8/7/2002	11/16/2002	3/17/2003	11/25/2003	6/29/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)										
1 1 1 Trichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2 Trichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	-	0 19
1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	0 5 U	1 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	-	7 000
2-Hexanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl-2-Pentanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	*4 J*	4 J	5 0 U	2 J	5 0 U	5 0 U	3 J	4 J	--	5 500
Benzene	0 5 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2-Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis 1 3-Dichloropropene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 3 Monitoring Wells in the Clarion Aquifer

Contents

MWC-4	12/11/1991	1/7/1993	5/8/1995	4/13/2000	12/4/2000	5/17/2001	12/5/2001	5/10/2002	8/8/2002	11/16/2002	6/4/2003	11/25/2003	6/30/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)															
1 1 1-Trichloroethane	0 1 J	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2-Trichloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1 Dichloroethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1 Dichloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl 2-Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	2 0 U	5	5 0 U	3 J	5 0 U	5 0 U	3 J	5 0 U	2 J	5 0 U	5 0 U	3 J	4 J	--	5 500
Benzene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis-1 2 Dichloroethene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3 Dichloropropene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	1 0 U	2	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	0 2 JB	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 1 J	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	0 2 JB	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3-Dichloropropene			1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	2 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 3 Monitoring Wells in the Clarion Aquifer

Contents

MWV-1	12/11/1991	1/7/1993	12/9/1994	5/8/1995	4/11/2000	12/1/2000	5/22/2001	12/5/2001	5/9/2002	8/7/2002	11/16/2002	6/4/2003	11/25/2003	6/29/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)																
1 1 1 Trichloroethane	0 2 J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2 Trichloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1-Dichloroethane	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1-Dichloroethene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2-Dichloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2-Butanone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 J	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2-Hexanone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4-Methyl-2 Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	4 J	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2 J	5 0 U	4 J	5 0 U	5 0 U	5 0 U	2 J	--	5 500
Benzene	1 0 U	5	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1	1	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	0 2 JB	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2-Dichloroethene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis-1 3-Dichloropropene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	1 0 U	1 0 U	2 0 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	0 1 JB	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 4 J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	8 B	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans 1 2 Dichloroethene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans-1 3 Dichloropropene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	2	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	2 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV-3	12/11/1991	1/7/1993	12/12/1994	5/8/1995	4/12/2000	12/4/2000	5/17/2001	12/5/2001	5/9/2002	8/7/2002	11/14/2002	6/4/2003	11/24/2003	6/29/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)																
1 1 1 Trichloroethane	0 2J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	-	0 053
1 1 2 Trichloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	-	0 19
1 1 Dichloroethane	0 2J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	-	900
1 1 Dichloroethene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	2 0 U	5	5 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl 2 Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	2 0 U	3	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2 J	5 0 U	2 J	5 0 U	5 0 U	5 0 U	5 0 U	--	5 500
Benzene	1 0 U	1 0 U	1 0 U	1 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2 Dichloroethene			1 0 U	0 5 J	0 5 U	0 5 U	1 J	1 J	0 5 U	0 5 U	1	0 6	0 7	0 6	70	61
Cis-1 3 Dichloropropene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	1 0 U	1 0 U	2 0 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	0 1 JB	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 2 J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	7 B	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans 1 2 Dichloroethene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans 1 3 Dichloropropene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	5	4	2	2	2	0 5 U	4	2	4	2	4	3	3	3	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV-4	12/11/1991	1/7/1993	12/13/1995	5/8/1995	4/13/2000	8/11/2000	12/4/2000	3/23/2001	5/16/2001	8/15/2001	12/5/2001	2/14/2002	5/10/2002	8/8/2002	11/16/2002	3/17/2003	6/4/2003	8/19/2003	11/25/2003	2/17/2004	6/30/2004	8/20/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)																								
1 1 1 Trichloroethane	0 1 J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2 Trichloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1 Dichloroethane	0 3 J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	900
1 1 Dichloroethene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	2 0 U	5	5 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	5 0 U	5 0 U	1 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	2 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl 2 Pentanone			5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	*2 0 U*	6	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	2 J	5 0 U	5 0 U	1 J	5 0 U	5 0 U	5 0 U	5 0 U	16	5 0 U	2 J	5 0 U	--	5 500
Benzene	1 0 U	1 0 U	1 0 U	1 0 U	2J	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	5 0 U	0 5 U	0 5 U	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	1 0 U	1 0 U	2	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	*1 0 U*	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane			1 0 U	1 0 U	0 5 U	1	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2 Dichloroethene			1 0 U	0 7J	0 5 U	0 5 U	0 5 U	0 5 U	1 J	2 0 U	1	0 5 U	0 5 U	1 J	1	0 5 U	0 6	0 5	0 7	0 8	0 7	0 5 U	70	61
Cis 1 3 Dichloropropene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	1 0 U	2	2 0 U	0 6J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	0 2 JB	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 2 JB	1 0 U	1 0 U	1 0 U	1J	3	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	6 B	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U		0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans 1 2 Dichloroethene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans 1 3 Dichloropropene			1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	0 9 J	1 0 U	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	2 0 U	2	2	3	1 J	0 5 U	1	2	0 5 U	2	0 5 U	2	3	3	2	2	2	2	3	4	3	0 5 U	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV-5

Volatile Organic Compounds (µg/l)	12/11/1991	1/6/1993	12/5/1994	5/8/1995	4/12/2000	8/11/2000	12/4/2000	5/16/2001	12/6/2001	5/10/2002	8/8/2002	11/14/2002	6/4/2003	11/25/2003	6/29/2004	EPA Results4/23/2005	EPA MCLs	EPA Region 3 RBCs
1 1 1 Trichloroethane	0 2J	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	200	3 200
1 1 2 2 Tetrachloroethane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U		0 053
1 1 2 Trichloroethane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U		0 19
1 1 Dichloroethane	0 2 J	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U		900
1 1 Dichloroethene	1 0U	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	7	350
1 2 Dichloroethane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	5	0 12
1 2 Dichloropropane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	5	0 16
2 Butanone	2 0U	5	5 0U	5 0U	0 5U	0 5U	0 5U	5 0U	0 5U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U		7 000
2 Hexanone	2 0U	5	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U		
4 Methyl 2 Pentanone			5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U		6 300
Acetone	2 0U	5	5 0U	5 0U	5 0U	5 0U	5 0U	5 0U	1 J	5 0U	1 J	1 J	5 0U	5 0U	5 0U	1 8 B		5 500
Benzene	1 0U	1 0U	1 0U	1 0U	5 0U	5 0U	5 0U	0 5U	5 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	5	0 34
Bromodichloromethane	1 0U	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	80	0 17
Bromoform			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	80	8 5
Bromomethane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	--	8 5
Carbon Disulfide			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	--	1 000
Carbon Tetrachloride			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	5	0 16
Chlorobenzene	0 2 JB	*1 0U*	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	--	110
Chloroethane			1 0U	1 0U	0 5U	1	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U		3 6
Chloroform	1 0U	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	80	0 15
Chloromethane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	--	190
Cis 1 2 Dichloroethene			1 0U	0 7 J	0 5U	1	1	1 J	2	1 J	1 J	0 5U	1	1	0 9	0 7	70	61
Cis 1 3 Dichloropropene			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	--	0 44
Dibromochloromethane			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	80	0 13
Ethylbenzene			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	70	1 300
Methylene Chloride	0 2 J	2	2 0U	4	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 41 B		4 1
Styrene	1 0U	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	1 J	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	100	1 600
Tetrachloroethene	0 3 JB	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 35 J	5	0 1
Toluene	0 3 J	1 0U	1 0U	1 0U	0 5U	2	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	1 000	750
Total Xylenes	5 B	1 0U	1 0U	1 0U	0 5U	0 5U		1 J	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	10 000	210
Trans 1 2 Dichloroethene			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	100	110
Trans 1 3 Dichloropropene			1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	--	0 44
Trichloroethene	0 9 J	1 0U	1 0U	1 0U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	0 5U	5	0 026
Vinyl Chloride	17	1 0U	1 0U	5	0 5U	11	3	9	10	0 5U	5	0 5U	5	5	3	0 82	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV 6	12/11/1991	1/7/1993	12/5/1994	5/8/1995	4/12/2000	8/11/2000	12/1/2000	3/23/2001	5/16/2001	8/15/2001	12/6/2001	2/15/2002	5/10/2002	8/8/2002	11/15/2002	3/17/2003	6/4/2003	8/19/2003	11/25/2003	2/17/2004	6/29/2004	8/20/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)																								
1 1 1 Trichloroethane	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	200	3 200
1 1 2 2 Tetrachloroethane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	0 053
1 1 2 Trichloroethane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	0 19
1 1 Dichloroethane	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	900
1 1 Dichloroethene	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	7	350
1 2 Dichloroethane			2	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	5	0 12
1 2 Dichloropropane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	5	0 16
2 Butanone	20 U	5	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	4 J	50 U	50 U	50 U	50 U	50 U	1 J	50 U	50 U	50 U	50 U	50 U	--	7 000
2 Hexanone	20 U	5	50 U	50 U	50 U	50 U	50 U	50 U	2 J	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	--
4 Methyl 2 Pentanone			50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	6 300
Acetone	20 U	9	50 U	50 U	6	50 U	50 U	50 U	50 U	10 U	26	50 U	50 U	1 J	2 J	50 U	50 U	50 U	3 J	50 U	50 U	50 U	--	5 500
Benzene	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	5	0 34
Bromodichloromethane	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	80	0 17
Bromoform			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	80	8 5
Bromomethane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	8 5
Carbon Disulfide			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	1 000
Carbon Tetrachlonde			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	5	0 16
Chlorobenzene	10 U	10 U	10 U	10 U	05 U	1	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	110
Chloroethane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	3 6
Chloroform	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	80	0 15
Chloromethane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	2	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	190
Cis 1 2 Dichloroethene			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	70	61
Cis 1 3 Dichloropropene			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	0 44
Dibromochloromethane			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	80	0 13
Ethylbenzene			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	70	1 300
Methylene Chlonde	10 U	2	20 U	20 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	4 1
Styrene	10 U	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	100	1 600
Tetrachloroethene	2 B	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	5	0 1
Toluene	0 2 J	10 U	10 U	10 U	05 U	2	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	1	05 U	05 U	05 U	05 U	05 U	05 U	05 U	1 000	750
Total Xylenes	6 B	10 U	10 U	10 U	05 U	05 U		05 U	1 J	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	10 000	210
Trans 1 2 Dichloroethene			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	100	110
Trans 1 3 Dichloropropene			10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	--	0 44
Trichloroethene	0 8 J	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05	05 U	05 U	5	0 026
Vinyl Chlonde	0 9 J	10 U	10 U	10 U	05 U	05 U	05 U	05 U	05 U	20 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	05 U	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV-7	5/3/1995	4/13/2000	8/11/2000	12/4/2000	3/23/2001	5/17/2001	8/16/2001	12/5/2001	2/15/2002	5/10/2002	8/8/2002	11/15/2002	3/17/2003	6/4/2003	8/21/2003	11/24/2003	2/17/2004	6/29/2004	8/20/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)																					
1 1 1 Trichloroethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U		0 053
1 1 2 Trichloroethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1 Dichloroethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U		900
1 1 Dichloroethene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	10 U	5 0 U	1 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	10 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl 2 Pentanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	10 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	*5 0 U*	*2 J*	2	1 J	5 0 U	5 0 U	10 U	3 J	5 0 U	5 0 U	2 J	5 0 U	5 0 U	5 0 U	18	4	5 0 U	4 J	5 0 U	--	5 500
Benzene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2 Dichloroethene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis 1 3 Dichloropropene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	1 0 U	0 5 U	1	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 0 U	0 5 U	0 5 U		0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans 1 2 Dichloroethene	1 0 U	*0 5 U*	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans 1 3 Dichloropropene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV-8	12/5/1994	5/10/1995	4/13/2000	8/11/2000	12/1/2000	3/23/2001	5/22/2001	8/15/2001	12/6/2001	2/15/2002	5/10/2002	8/8/2002	11/15/2002	3/17/2003	6/4/2003	8/19/2003	11/25/2003	2/17/2004	6/29/2004	8/20/2004	EPA MCLs	EPA Region 3 RBCs
Volatile Organic Compounds (µg/l)																						
1 1 1 Trichloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2 Tetrachloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 053
1 1 2 Trichloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 19
1 1 Dichloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U		900
1 1 Dichloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	3 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	
4 Methyl 2 Pentanone	5 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	1 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	1 J	5 0 U	4 J	1 0 U	23	1 0 U	5 0 U	1 J	5 0 U	5 0 U	6	5 0 U	4 J	5 0 U	5 0 U	5 0 U	--	5 500
Benzene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	1 000
Carbon Tetrachloride	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	1 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2 Dichloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	61
Cis 1 3 Dichloropropene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	2 0 U	0 6 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	1 0 U	1 0 U	0 5 U	0 5 U		0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans 1 2 Dichloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
Trans 1 3 Dichloropropene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	5	0 026
Vinyl Chloride	1 0 U	1 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	0 015

Table 4 Monitoring Wells in the Mine Void

Contents

MWV-9

Volatile Organic Compounds (µg/l)	4/13/2000	5/3/2000	12/1/2000	3/23/2001	5/22/2001	12/6/2001	5/9/2002	8/7/2002	11/15/2002	6/4/2003	11/25/2003	6/30/2004	EPA MCLs	EPA Region 3 RBCs
1 1 1 Trichloroethane	0 5 U	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	200	3 200
1 1 2 2-Tetrachloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	-	0 053
1 1 2-Trichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	-	0 19
1 1-Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	-	900
1 1 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	7	350
1 2 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	5	0 12
1 2 Dichloropropane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	5	0 16
2 Butanone	5 0 U	5 0 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	5 0 U	25 0 U	5 0 U	5 0 U	5 0 U	--	7 000
2 Hexanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	25 0 U	5 0 U	5 0 U	5 0 U	--	--
4 Methyl 2 Pentanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	25 0 U	5 0 U	5 0 U	5 0 U	--	6 300
Acetone	2	9	5 0 U	5 0 U	5 0 U	1J	5 0 U	1 J	25 0 U	5 0 U	4 J	2 J	--	5 500
Benzene	0 5 U	0 5 U	5 0 U	5 0 U	5 0 U	5 0 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	5	0 34
Bromodichloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	80	0 17
Bromoform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	80	8 5
Bromomethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	8 5
Carbon Disulfide	0 5 U	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 7	0 7	-	1 000
Carbon Tetrachloride	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	5	0 16
Chlorobenzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	110
Chloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	3 6
Chloroform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	80	0 15
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	190
Cis 1 2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	1 J	0 5 U	0 5 U	0 5 U	5 0 U	0 6	0 6	0 6	70	61
Cis 1 3 Dichloropropene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	0 44
Dibromochloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	80	0 13
Ethylbenzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	70	1 300
Methylene Chloride	0 5 U	9	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	4 1
Styrene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	100	1 600
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	5	0 1
Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	1 000	750
Total Xylenes	0 5 U	0 5 U		0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	10 000	210
Trans-1 2-Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	100	110
Trans 1 3-Dichloropropene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	--	0 44
Trichloroethene	0 5 U	6	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5 0 U	0 5 U	0 5 U	0 5 U	5	0 026
Vinyl Chloride	2	1 J	1	0 5 U	4	2	5	4	5 0 U	4	4	4	2	0 015

Table 4 Monitoring Wells in the Mine Void

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1		**Contents**	Residential Well Closet to Osborne Site																													
2		**residential well near site**	**12/5/1994**	**5/1/1997**	**8/12/1997**	**9/9/1997**	**10/7/1997**	**10/7/1997**	**10/29/1997**	**10/29/1997**	**1/13/1998**	**7/6/1998**	**7/6/1998**	**2/1/1999**	**8/2/1999**	**8/2/1999**	**2/7/2000**	**2/7/2000**	**4/14/2000**	**8/10/2000**	**5/17/2001**	**8/14/2001**	**8/14/2001**	**5/17/2002**	**5/17/2002**	**8/8/2002**	**3/17/2003**	**8/21/2003**	**8/18/2004**	**4/23/2005**	**EPA MCLs**	**EPA Region 3 RBCs**
10		**Volatile Organic Compounds (µg/l)**																														
11		1 1 1 Trichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	200	3 200
12		1 1 2 2 Tetrachloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 053
13		1 1 2 Trichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 19
14		1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15 J	–	900
15		1 1 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	7	350
16		1 2 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 12
17		1 2 Dichloropropane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
18		2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	–	7 000
19		2 Hexanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	–	
20		4 Methyl 2 Pentanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	–	6 300
21		Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 9 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	3	3 J	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2 J	5 U	30	5 0 U	1 9 B	–	5 500
22		Benzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 34
23		Bromodichloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 17
24		Bromoform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	8 5
25		Bromomethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	8 5
26		Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	1 000
27		Carbon Tetrachlonde	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 16
28		Chlorobenzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	110
29		Chloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	3 6
30		Chloroform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 15
31		Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	190
32		Cis 1 2 Dichloroethene	0 12 J	0 12 J	1 4	1 1	1 5	1 2	1 1	0 52	0 5 U	0 5 U	0 5 U	1	1 J	1 J	1 J	1 J	1 J	1 J	1 J	0 5 U	0 5 U	0 5 U	1	1	1 J	2	1	0 5 U	0 75	70	61
33		Cis 1 3 Dichloropropene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 44
34		Dibromochloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	80	0 13
35		Ethylbenzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	70	1 300
36		Methylene Chlonde	0 072 J	0 07 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 44 J	0 5 U	0 5 U	0 5 U	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 29 B	–	4 1
37		Styrene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	1 600
38		Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 56	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 1
39		Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 16 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	750
40		Total Xylenes	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	10 000	210
41		Trans 1 2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	100	110
42		Trans 1 3 Dichloropropene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 44
43		Trichloroethene	0 5 U	0 5 U	0 5 U	0 3 J	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	5	0 026
44		Vinyl Chlonde	0 75	0 76	10	4 4	8 8	10	8 8	4 4	2 4	4 2	5 7	3	8	7	8	6	4	6	7	8	11	13	10	10	11	7	0 5 U	4 2	2	0 015

Table 5 Residential Well of Concern Result

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/10/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	4/22/2005	EPA MCLs	EPA Region 3 RBCs
METALS mg/l								not sampled													
Arsenic	0 0065	0 00237	0 00122	0 00244	0 000511	0 000497	0 00397		0 00201	0 00525	0 00057	0 000824	0 00126	0 00086	NA	0 0011	NA	NA	0 00046 J	0 005	0 000045
Beryllium	0 0005	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043		<0 0004	<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 00125 U	0 004	0 073
Chromium	<0 0021	0 00845	0 00291	0 0215	0 00195	0 00424	0 0234		0 00731	0 00995	0 00151	0 00196	0 0087	0 00126	NA	0 00046	NA	NA	0 00027 B	0 1	55
Manganese															NA		NA	NA	0 0102	0 05 (1)	0 73
Nickel	0 0032	0 00547	0 00586	0 0204	0 0026	0 00351	0 0158		0 0101	0 00621	0 00544	0 00415	0 00333	0 00596	NA	0 00233	NA	NA	0 0021	--	0 73
Lead	<0 0011	0 000092	0 00023	0 00293	<0 00023	<0 00023	0 00107		0 000833	0 00329	0 0003	<0 000052	0 00139	0 00117	0 000052	<0 000052	NA	NA	0 00125 UL	0 015	--
PCBs µg/l																					
Arochlor 1016	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 51	<0 69	<0 51	<0 56	<0 51	<0 52		<0 51	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
pH SU		6 89	6 86	6 97	6 87	7 21	7 34		7 03	6 95	6 99	7 26	7 06	6 98	NA	7 44	NA	NA	NA	6 5 8 5(1)	--
Total Dissolved Solids mg/l						432									NA		NA	NA	NA	500 (1)	--
Total Suspended Solids mg/l		13 7	13 7	1 6	16 8	16 2	14 7		20 8	9 3	18 9	22	21 8	11 5	NA	11 2	NA	NA	NA	--	--
ORGANICS µg/l																					
Acetone																	2J	5	1 B	--	5 500
Benzo(a)pyrene	<0 61	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02		<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	5 U	0 2	0 0092
Benzene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	0 5 U	5	0 34
Cis 1 2 Dichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	0 5 U	70	61
Trichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	0 5 U	5	0 026
Vinyl Chloride	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	0 5 U	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)
1 Secondary Maximum Contaminant Level (SMCL)
Shaded areas indicate exceedance of MCL or SMCL
Data qualifier definitions apply only to 2005 sample results

Key

B = Not detected substantially above the level reported in laboratory or field blanks
EPA = United States Environmental Protection Agency
J = Analyte present Reported value may not be accurate or precise
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units
U = Not detected
UL = The listed detection limit may be biased low

Table 6 Extraction Well Results

EX - 1

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	EPA MCLs	EPA Region 3 RBCs
METALS mg/l																				
Arsenic	<0 0009	0 00756	0 00204	0 00139	0 00102	0 00068	0 00832	0 00083	0 00226	0 00155	0 00242	0 00318	0 00157	0 000968	NA	0 0217	NA	NA	0 005	0 000045
Beryllium	0 0006	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043	<0 0004	<0 0004	<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	0 000225	NA	NA	0 004	0 073
Chromium	<0 0021	0 0019	0 00118	0 000911	0 00123	0 00157	0 00273	0 0015	0 00296	0 00292	0 00147	0 0012	0 00457	0 00104	NA	0 00308	NA	NA	0 1	55
Manganese	0 52			[illegible]	[illegible]	0 839	0 858	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	NA	NA	0 05 (1)	0 73
Nickel	<0 0028	0 00365	0 00289	0 0017	0 00141	0 00154	0 00305	0 00453	0 00524	0 00287	0 00295	0 00287	0 0094	0 00447	NA	0 00175	NA	NA	–	0 73
Lead	<0 0011	0 00266	<0 00023	<0 00023	<0 00023	<0 00023	0 000607	<0 0003	<0 0003	<0 0003	0 000644	<0 000052	0 00247	<0 000052	0 000586	0 00376	NA	NA	0 015	–
PCBs µg/l																				
Arochlor 1016	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 51	<0 54	<0 54	<0 52	<0 52	<0 52	<0 57	<0 54	<0 5	<0 5	<0.5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
pH SU		7 23	7 16	7 33	7 24	7 68	7 22	7 35	7 15	7 2	7 13	7 18	7 48	7 22	NA	7 72	NA	NA	6 5 8 5(1)	–
Total Dissolved Solids mg/l		478	482	554	495	236	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	500	[illegible]	[illegible]	NA	[illegible]	NA	NA	500 (1)	–
Total Suspended Solids mg/l		14 8	34 1	6 5	16 2	1 9	24	4 1	26 5	5 9	14 9	18 2	4 4	1 9	NA	67 4	NA	NA	–	–
ORGANICS µg/l																				
Acetone																	2J	<5	–	5 500
Benzo(a)pyrene	<0 61	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	0 2	0 0092
Benzene	0 27	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 34
1 1 Dichloroethane																	1	<0 5		
Cis 1 2 Dichloroethene	1	<0 5	<1	<0 5	1	<0 5	<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	70	61
Trichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 026
Vinyl Chloride	1 8	2	[illegible]	2	1	2	2	2	1	1	<2		<2	1	1J	1J	<0 5	<0 5	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)

1 Secondary Maximum Contaminant Level (SMCL)

Shaded areas indicate exceedance of MCL or SMCL

Key

EPA = United States Environmental Protection Agency

µg/L = Micrograms per liter

mg/L = Milligrams per liter

NA = Not available

PCB = Polychlorinated biphenyl

RBC = Risk based concentrations

SU = Standard units

Table 6 Extraction Well Results

EX-2

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	EPA MCLs	EPA Region 3 RBCs
METALS mg/l									not sampled											
Arsenic	<0 0009	0 00258	0 000905	0 00126	0 00058	<0 00028	0 00155	0 00162		0 00382	0 0051	0 00401	0 00255	0 00119	NA	0 000709	NA	NA	0 005	0 000045
Beryllium	0 0005	<0 00014	<0 00043	<0 00043	<0 0043	<0 00043	<0 00043	<0 0004		<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 0004	NA	NA	0 004	0 073
Chromium	<0 0021	0 00807	0 00128	0 000499	0 00128	0 0019	0 00123	0 00108		0 00839	0 00309	0 00126	0 00028	0 00103	NA	0 00048	NA	NA	0 1	55
Manganese	[redacted]														NA		NA	NA	0 05 (1)	0 73
Nickel	<0 0028	0 00445	0 00322	0 00189	0 00237	0 00241	0 00386	0 0065		0 00803	0 00588	0 134	0 0029	0 0166	NA	0 00195	NA	NA	–	0 73
Lead	0 0018	0 000463	<0 00023	<0 00023	0 000292	0 000483	0 0015	<0 0003		0 0026	0 00303	0 022	0 00246	0 00146	0 00635	0 000377	NA	NA	0 015	–
PCBs µg/l																				
Arochlor 1016	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0.5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0 5	<0.5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 51	<0 56	<0 54		<0 53	<0 52	<0 55		<0 55	<0 5	<0.5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
pH SU		7 06	6 99	7 09	6 99	7 19	7 03	7 01		7 12	7 21	6 75	6 94	7 13	NA	7 45	NA	NA	6 5 8 5(1)	–
Total Dissolved Solids mg/l		465	[redacted]		460										NA		NA	NA	500 (1)	–
Total Suspended Solids mg/l		16 7	11 9	3 2	196	21 2	21 4	17.3		51 9	38.2	34 9	1 7	7	NA	16 8	NA	NA	–	–
ORGANICS µg/l																				
Acetone																	<5	<5	–	5 500
Benzo(a)pyrene	<0 6	<0 1	<0 1	<0 02	<0 02	<11	<0 02	<0 02		<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	0 2	0 0092
Benzene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5			<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 34
Cis 1 2 Dichloroethene	0 51	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2		<2	<2	<2	<2	<0 5	<0 5	70	61
Trichloroethene	0 64	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 026
Vinyl Chloride	0 51	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2		<2	<2	<2	<2	<0 5	<0 5	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)
1 Secondary Maximum Contaminant Level (SMCL)
Shaded areas indicate exceedance of MCL or SMCL

Key

EPA = United States Environmental Protection Agency
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units

Table 6 Extraction Well Results

EX-3

PINE TOWNSHI , MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	4/21/2005	EPA MCLs	EPA Region 3 RBCs
METALS mg/l									not sampled												
Arsenic	0 0026	0 00532	0 00469	0 00385	0 00378	0 00358	0 00486	0 0003		0 0144	0 0263	0 00425	0 00253	0 00633	NA	0 00044	NA	NA	0 00095 J	0 005	0 000045
Beryllium	0 0006	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043	<0 0004		<0 0004	0 000169	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 00125 U	0 004	0 073
Chromium	<0 0021	0 00334	0 000726	0 000412	0 000956	0 00151	0 00118	0 000649		0 00279	0 0017	0 00102	0 00039	0 00052	NA	0 000762	NA	NA	0 00012 B	0 1	55
Manganese	[redacted]			[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NA	[redacted]	NA	NA	0 0044	0 05 (1)	0 73
Nickel	<0 0028	0 00168	0 00112	0 000831	0 000984	0 000925	0 00135	0 00188		0 00358	0 00312	0 0017	0 00122	0 00258	NA	0 000653	NA	NA	0 0037	--	0 73
Lead	<0 0011	<0 000052	<0 00023	<0 00023	0 000336	<0 00023	<0 00023	<0 0003		<0 0003	0 00069	<0 000052	0 00234	<0 000052	0 000052	0 0001	NA	NA	0 00125 UL	0 015	--
PCBs µg/l																					
Arochlor 1016	<0 065	<0 51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0.5	<0.5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0.51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0.51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0 5	<0 5	<0.5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0.51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0.51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0 5	<0 5	<0.5	<0 5	NA	<0.5	NA	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0.51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0 5	<0.5	<0.5	<0 5	NA	<0.5	NA	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0.51	<0 56	<0 51	<0 56	<0 51	<0 52	<0 55		<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
pH SU		7 42	7 5	7 59	7 52	7 65	7 58	7 6		7 64		7 36	7 59	7 06	NA	7 98	NA	NA	NA	6 5 8 5(1)	--
Total Dissolved Solids mg/l		298	309	338	252	366	331	287		497		315	425	374	NA	362	NA	NA	NA	500 (1)	--
Total Suspended Solids mg/l		15 7	6 6	1 6	9 5	41 3	1	1		26 3		6 4	1 7	50 7	NA	5	NA	NA	NA	--	
ORGANICS µg/l																					
Acetone																	4J	6	21 B	--	5 500
Benzo(a)pyrene	<0 61	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02	<0 02		<0 02		<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	5 U	0 2	0 0092
Benzene	0 34	<0.5	<0 5	<0 5	<0 5	<0 5	<0 5			<2			<2	<2	<2	<2	<0 5	<0 5	0 5 U	5	0 34
Cis 1 2 Dichloroethene	0 22	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2			<2	<2	<2	<2	<0 5	<0 5	0 5 U	70	61
Trichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2			<2	<2	<2	<2	<0 5	<0 5	0 5 U	5	0 026
Vinyl Chloride	<0 5	0 6	1	1	<0 5	<0 5	<0 5	<0 5		<2			<2	<2	<2	<2	<0 5	<0 5	0 5 U	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)
1 Secondary Maximum Contaminant Level (SMCL)
Shaded areas indicate exceedance of MCL or SMCL
Data qualifier definitions apply only to 2005 sample results

Key

B = Not detected substantially above the level reported in laboratory or field blanks
EPA = United States Environmental Protection Agency
J = Analyte present Reported value may not be accurate or precise
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units
U = Not detected
UL = The listed detection limit may be biased low

Table 6 Extraction Well Results

Ex- 4

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	4/21/2005	EPA MCLs	EPA Region 3 RBCs
METALS mg/l																					
Arsenic	<0 0009	0 00196	0 00217	0 00118	0 000786	0 0012	0 00149	0 00142	0 00203	<0 0003	0 000746	0 0024	0 00136	0 00101	NA	0 0012	NA	NA	0 0011	0 005	0 000045
Beryllium	0 0006	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043	<0 0004	<0 0004	<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 00125 U	0 004	0 073
Chromium	<0 0021	0 00196	0 000711	0 000485	0 00105	0 00166	0 00109	0 000771	0 00307	0 00325	0 000968	0 00136	0 00864	0 000902	NA	0 00058	NA	NA	0 00011 B	0 1	55
Manganese	[redacted]			[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NA	0 309	NA	NA	0 234	0 05 (1)	0 73
Nickel	<0 0028	0 0029	0 00192	0 00139	0 00189	0 00256	0 0018	0 00362	0 00348	0 00261	0 00244	0 00241	0 0122	0 0032	NA	0 000774	NA	NA	0 0018	--	0 73
Lead	<0 0011	0 00347	0 000918	0 000452	0 000645	0 00527	0 000685	0 00153	0 000994	0 00146	0 000415	0 00178	0 000958	0 000396	0 00158	0 000673	NA	NA	0 00125 UL	0 015	--
PCBs µg/l																					
Arochlor 1016	<0 065	<0 5	<0 56	<0 55	<0 53	<0 52	<0 52	<0 55	<0 53	<0 54	<0 5	<0 5	<0.5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 5	<0 56	<0 55	<0 53	<0 52	<0 52	<0 55	<0 53	<0 54	<0 5	<0 5	<0.5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 5	<0 56	<0 55	<0 53	<0 52	<0 52	<0.55	<0 53	<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0.5	<0 56	<0 55	<0 53	<0 52	<0 52	<0.55	<0 53	<0 54	<0 5	<0.5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 5	<0 56	<0 55	<0 53	<0 52	<0 52	<0 55	<0 53	<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0.5	0 033
Arochlor 1254	<0 065	<0 5	<0 56	<0 55	<0 53	<0 52	<0 52	<0 55	<0 53	<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 5	<0 56	<0 55	<0 53	<0 52	<0 52	<0 55	<0 53	<0 54	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
pH SU		7 38	7 29	7 33	7 33	7 53	7 38	7.31	7 43	7 44	7 48	7 46	7 52	7 03	NA	7 75	NA	NA	NA	6 5 8 5(1)	--
Total Dissolved Solids mg/l		334	325	376	320	93	333	291	234	339	289	327	466	303	NA	300	NA	NA	NA	500 (1)	--
Total Suspended Solids mg/l		40	69 4	<1	23.3	41 1	13	17 1	12	12	19.3	61 1	4 4	2	NA	7 8	NA	NA	NA	--	--
ORGANICS µg/l																					
Acetone																	5	6	2 7 B		5 500
Benzo(a)pyrene	<0 56	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	5 U	0 2	0 0092
Benzene	3 2	2	2	2	2	2	2		2	<2	1		1	1	2	1 J	0 6	<0.5	0 35 J	5	0 34
1 1 Dichloroethane																	<0 5	<0 5	0 5 U		900
1 1 Dichloroethene																	0 5	2	0 5 U		350
Cis 1 2 Dichloroethene	18	5	15	12	22	22	18	31	18	<2	2		11	11	5	12	69	375	0 31 J	70	61
Trans 1 2 Dichloroethene																	7	45	0 32 J		110
Trichloroethene	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	<2	17		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	5	0 026
Vinyl Chloride	[redacted]	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	2	<2	<2		1	1	<2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)
1 Secondary Maximum Contaminant Level (SMCL)
Shaded areas indicate exceedance of MCL or SMCL
Data qualifier definitions apply only to 2005 sample results

Key

B = Not detected substantially above the level reported in laboratory or field blanks
EPA = United States Environmental Protection Agency
J = Analyte present Reported value may not be accurate or precise
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units
U = Not detected
UL = The listed detection limit may be biased low

Table 6 Extraction Well Results

EX-5

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/10/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	4/21/2005	EPA MCLs	EPA Region 3 RBCs
METALS mg/l																					
Arsenic	<0 0009	0 00166	0 00166	0 00132	0 0012	0 00133	0 00283	0 00187	0 00293	0 00105	0 00211	0 000417	0 00226	0 00152	NA	0 00154	NA	NA	0 00029 J	0 005	0 000045
Beryllium	<0 0006	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043	<0 0004	<0 0004	<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 00125 U	0 004	0 073
Chromium	<0 0021	0 00347	0 0017	0 00108	0 0634	0 00289	0 00194	0 00313	0 00393	0 00242	0 00149	0 00176	0 00045	0 00139	NA	0 00106	NA	NA	0 00014 B	0 1	55
Manganese	0 0032			0 [illegible]	0 [illegible]	0 503	0 392	0 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0 24	NA	0 [illegible]	NA	NA	0 0011	0 05 (1)	0 73
Nickel	<0 0028	0 00207	0 00315	0 00165	0 0619	0 00208	0 00236	0 00305	0 003	0 00338	0 00227	0 00173	0 00136	0 00299	NA	<0 0004	NA	NA	0 003	–	0 73
Lead	<0 0011	<0 000052	<0 00023	<0 00023	0 00137	0 000242	0 000354	<0 0003	<0 0003	<0 0003	0 000331	<0 000052	0 00112	0 000143	0 000338	0 000293	NA	NA	0 00125 UL	0 015	–
PCBs µg/l																					
Arochlor 1016	<0 065	<0 51	<0 56	<0 52	<0 53	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 51	<0 56	<0 52	<0 53	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 51	<0 56	<0 52	<0 53	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0 51	<0 56	<0 52	[illegible]	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 51	<0 56	<0 52	<0 53	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0 51	<0 56	<0 52	<0 53	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 51	<0 56	<0 52	<0 53	<0 52	<0 51	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	NA	0 5	0 033
pH SU		8 32	7 98	7 94	7 8	8 12	7 67	8 03	7 88	7 76	8	7 52	7 98	7 87	NA	8 15	NA	NA	NA	6 5 8 5(1)	–
Total Dissolved Solids mg/l		212	212	245	64	152	217	218	301	273	233	229	292	309	NA	229	NA	NA	NA	500 (1)	–
Total Suspended Solids mg/l		12 8	5 8	<1	6 5	<1	1	<1	<1	16 9	2	5	4 9	1 9	NA	5 7	NA	NA	NA	–	–
ORGANICS µg/l																					
Acetone																	21	<5	4 2 B	–	5 500
Benzo(a)pyrene	<0 6	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	5 U	0 2	0 0092
Benzene	0 79	0 8	1	1	<4	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	0 5 U	5	0 34
Cis 1 2 Dichloroethene	39	40	33	21	20	14	16	17	14	10	13		11	16	17	16	2	4	0 5 U	70	61
Trans 1 2 Dichloroethene																	<0 5	0 6	0 5 U		110
Trichloroethene	32	1	2	<0 5	<4	<0 5	1	<0.5	2	2	3		1	2	3	2	<0 5	<0 5	0 5 U	5	0 026
Vinyl Chloride	40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	<0 5	<0 5	0 5 U	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)
1 Secondary Maximum Contaminant Level (SMCL)
Shaded areas indicate exceedance of MCL or SMCL
Data qualifier definitions apply only to 2005 sample results

Key

B	= Not detected substantially above the level reported in laboratory or field blanks
EPA	= United States Environmental Protection Agency
J	= Analyte present Reported value may not be accurate or precise
µg/L	= Micrograms per liter
mg/L	= Milligrams per liter
NA	= Not available
PCB	= Polychlorinated biphenyl
RBCs	= Risk based concentrations
SU	= Standard units
U	= Not detected
UL	= The listed detection limit may be biased low

Table 6 Extraction Well Results

EX-6

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	EPA MCLs	EPA Region 3 RBCs
METALS mg/l									not sampled											
Arsenic	0 0017	0 00322	0 00189	0 0213	0 00219	0 00148	0 00293	0 00416		0 034	0 297	0 00436	0 00462	0 0229	NA	0 00297	NA	NA	0 005	0 000045
Beryllium	<0 0006	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043	<0 0004		<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 004	0 073
Chromium	<0 0021	0 0 15	0 00926	0 00259	0 000985	0 00145	0 00125	0 00135		0 00252	0 00129	0 00136	0 0003	0 00119	NA	0 00156	NA	NA	0 1	55
Manganese	[illegible]			1 83	[illegible]	[illegible]	1 79	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	NA	NA	0 05 (1)	0 73
Nickel	<0 0028	0 0114	0 0121	0 00354	0 00256	0 00205	0 00326	0 0051		<0 0006	0 00389	0 00724	0 00344	0 00912	NA	0 0102	NA	NA	–	0 73
Lead	<0 0011	0 000106	<0 00023	0 000903	<0 00023	<0 00023	<0 00023	<0 0003		0 00212	0 00405	<0 000052	0 00106	0 00133	0 00242	<0 000052	NA	NA	0 015	–
PCBs µg/l																				
Arochlor 1016	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0.5	NA	<0 5	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 5	<0 56	<0 53	<0 53	<0 53	<0 52	<0 54		<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
pH SU		7 04	7 16	7 13	7 13	7 47	7 22	7 13		7 14	7 15	6 94	7 17	7 04	NA	7 2	NA	NA	6 5 8 5(1)	--
Total Dissolved Solids mg/l		494	474	546	598	385	482	474		447	507	[illegible]	[illegible]	[illegible]	NA	[illegible]	NA	NA	500 (1)	
Total Suspended Solids mg/l		16 4	5 9	3 3	13 3	4 4	7	7 3		44 3	34 3	87 4	2 5	21 6	NA	2	NA	NA	–	
ORGANICS µg/l																				
Benzo(a)pyrene	<0 59	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02	<0 02		<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	0 2	0 0092
Benzene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5			<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 34
Cis 1 2 Dichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2		<2	<2	<2	<2	<0 5	2	70	61
Trichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 026
Vinyl Chloride	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2		<2	<2	<2	<2	<0 5	<0 5	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)

1 Secondary Maximum Contaminant Level (SMCL)

Shaded areas indicate exceedance of MCL or SMCL

Key

EPA = United States Environmental Protection Agency
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units

Table 6 Extraction Well Results

EX-7

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	EPA MCLs	EPA Region 3 RBCs
METALS mg/l																				
Arsenic	<0 0009	0 00134	0 00213	0 00377	0 00592	0 00375	0 00284	0 0034	0 00441	0 00647	0 000983	0 00128	0 00303	0 0033	NA	0 0167	NA	NA	0 005	0 000045
Beryllium	<0 0006	<0 00014	<0 00043	<0 00043	<0 00043	<0 00043	<0 00043	<0 0004	<0 0004	<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 004	0 073
Chromium	<0 0021	0 00757	0 000934	0 0034	0 00254	0 00804	0 00164	0 00272	0 00341	0 00107	0 00105	0 00316	0 00179	0 000937	NA	0 0189	NA	NA	0 1	55
Manganese	0 9			0 737	0 751	0 82	0 723	0 797	0 882	1 07	0 953	0 841	0 704	0 994	NA	<0 2	NA	NA	0 05 (1)	0 73
Nickel	<0 0028	0 00397	0 00263	0 00312	0 00329	0 00555	0 00278	0 00474	0 00565	0 00507	0 00319	0 0046	0 0035	0 00465	NA	0 00461	NA	NA	–	0 73
Lead	<0 0011	<0 000052	<0 00023	<0 00023	0 000349	<0 00023	<0 00023	<0 0003	<0 0003	<0 0003	0 00015	<0 000052	0 000684	0 000052	0 000455	0 000204	NA	NA	0 015	
PCBs µg/l																				
Arochlor 1016	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 96
Arochlor 1221	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1232	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1242	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1248	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1254	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1260	<0 65	<0 5	<0 6	<0 53	<0 58	<0 52	<0 53	<0 55	<0 52	<0 5	<0 5	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
pH SU		7 21	7 34	7 35	7 38	7 63	7 51	7 43	7 29	7 3	7 34	7 32	7 36	7 27	NA	7 75	NA	NA	6 5 8 5(1)	
Total Dissolved Solids mg/l		398	283	372	515	326	353	352	455	348	371	367	462	410	NA	376	NA	NA	500 (1)	
Total Suspended Solids mg/l		10	8 9	1 7	15 8	12 6	4	5	4	12 3	5 2	11 2	10 5	5 7	NA	25 4	NA	NA	–	
ORGANICS µg/l																				
Benzo(a)pyrene	<0 6	<0 1	<0 1	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	0 2	0 0092
Benzene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 34
Cis 1 2 Dichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	1	70	61
Trichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 026
Vinyl Chloride	<0 5	0 6	1	<0 5	<0 5	<0 5	<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)
1 Secondary Maximum Contaminant Level (SMCL)
Shaded areas indicate exceedance of MCL or SMCL

Key

EPA = United States Environmental Protection Agency
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units

Table 6 Extraction Well Results

EX-8

PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

	2/23/1997	8/3/1998	2/1/1999	8/2/1999	11/1/1999	2/8/2000	5/1/2000	8/11/2000	11/13/2000	3/20/2001	5/15/2001	8/14/2001	11/13/2001	2/14/2002	8/19/2002	5/21/2003	2/19/2004	5/25/2004	EPA MCLs	EPA Region 3 RBCs
METALS mg/l																				
Arsenic	0 0021	0 00171	0 006	0 00333	0 00118		0 0492	0 000971	0 0059	0 0463	0 00341	0 00595	0 00306	0 00209	NA	0 00845	NA	NA	0 005	0 000045
Beryllium	<0 0006	<0 00014	<0 00043	<0 00043	<0 00043		<0 00043	<0 0004	<0 0004	<0 0004	<0 00014	<0 00014	<0 00014	<0 00014	NA	<0 00014	NA	NA	0 004	0 073
Chromium	<0 0021	0 00541	0 00342	0 000768	0 00575		0 0247	0 000783	0 00455	0 014	0 00155	0 00145	0 000746	0 000927	NA	0 00257	NA	NA	0 1	55
Manganese	0 52			1 58	0 21		0 0455	0 029	0 0479	0 0581	0 514	0 0376	0 0852	0 0381	NA	0 423	NA	NA	0 05 (1)	0 73
Nickel	<0 0057	0 00383	0 00384	0 00201	0 00228		0 00638	0 00308	0 00517	0 00388	0 00312	0 00352	0 00214	0 00399	NA	0 00255	NA	NA	--	0 73
Lead	<0 0011	<0 000052	<0 00023	<0 00023	<0 00023		0 0262	<0 0003	0 000438	0 00616	0 00018	<0 000052	0 00231	0 000052	0 000347	0 000588	NA	NA	0 015	
PCBs µg/l																				
Arochlor 1016	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 96
Arochlor 1221	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1232	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1242	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1248	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1254	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
Arochlor 1260	<0 065	<0 51	<0 6	<0 53	<0 53		<0 51	<0 58	<0 52	<0 55	<0 55	<0 5	<0 5	<0 5	NA	<0 5	NA	NA	0 5	0 033
pH SU		7 45	7 55	7 7	7 57		7 36	7 65	7 38	7 5	7 5	7 52	7 51	7 46	NA	8 02	NA	NA	6 5 8 5(1)	
Total Dissolved Solids mg/l		413	358	456	502		345	331	428	343	366	352	495	383	NA	354	NA	NA	500 (1)	
Total Suspended Solids mg/l		9 8	4 8	1 6	5 8		400	1	9 1	60	13 8	9 2	2 7	3	NA	10 7	NA	NA	--	
ORGANICS µg/l																				
Acetone																	21	<5	--	5 500
Benzo(a)pyrene	<0 59	<0 1	<0 1	<0 02	<0 02		<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	<0 02	NA	NA	0 2	0 0092
Benzene	<0 5	<0 5	<0 5	<0 5	<0 5		<0 5		<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 34
Cis 1 2 Dichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5		<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	1	70	61
Trichloroethene	<0 5	<0 5	<0 5	<0 5	<0 5		<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	5	0 026
Vinyl Chloride	2 2	<0 5	<0 5	<0 5	<0 5		<0 5	<0 5	<2	<2	<2		<2	<2	<2	<2	<0 5	<0 5	2	0 015

Notes

MCLs Maximum Contaminant Levels (unless otherwise noted)

1 Secondary Maximum Contaminant Level (SMCL)

Shaded areas indicate exceedance of MCL or SMCL

Key

EPA = United States Environmental Protection Agency
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NA = Not available
PCB = Polychlorinated biphenyl
RBCs = Risk based concentrations
SU = Standard units

Table 6 Extraction Well Results

EX-9

PERFORMANCE WELL C 1 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP, MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Reg on 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1 1 Dichloroethane	0 49	0 096	0 33	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1 1 Dichloroethene																0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1 2 Dichloropropane																0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U		--
1 1 2 Trichlo oethene																0 5 U	0 5 U	--	
1 1 2 2 Tetrachloroethane																0 5 U	0 5 U	0 053	--
2 Butanone	13	5 U	7 9	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 000	--
2 Hexanone																5 U	5 U		--
4 Methyl 2 pentanone																5 U	5 U	6 300	--
Aceto e	13	5 U	7 1	5 U	5 U	5 U	3	5 U	5 U	*1*	6	5 U	4 J	5 U	1 J	5 U	5 U	5,500	--
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	--	--	--	--				--	--	--		--		0 5 U	0 5 U	0 5 U	0 5 U	8 5	--
Carbo Disulfide	0 42	0 5 U	1 2	0 5 U	2	1	2	4	1	*1*	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	--
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	--
Chloroethane[ca]	0 28	0 5 U	0 23	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 32	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 3	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
c s 1 2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
c s 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1 300	70
Methylene chloride[ca]	0 45	0 5 U	0 5 U	0 35	0 5 U	0 5 U	0 5 U	2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1 600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 11	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 11	0 47	0 25	0 23	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1 2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 29	0 14	1 7	1 1	1 7	1 7	1	0 5 U	1	*1*	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 29	0 5 U	0 23	0 15	0 2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 0 U	1 0 U	210	10 000
Semi olatil Organic Compounds (µg/l)																			
Anthracene	2 3 U	5 U	5 U	5 U	5 U	5 U	0 11 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U		1 800	--
Bis(2 ethylhexyl) phthalate	0 34	5 U	5 U	5 U	0 87	5 U	0 05	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	2 83 B	0 5 U	2	0 5 U		4 8	--
Butyl benzyl phthalate[ca]	0 076	5 U	5 U	0 15	5 U	5 U	0 11 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U		35	--
Di 2 ethylhexylad pate	5 7 U	6 U	6 U	6 1 U	6 U	6 U	--	--		--	--	--		--	--	--		--	400
Di n butyl phthalate	0 26	0 13	5 U	0 19	5 U	5 U	0 11 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U		3,700	--
Diethyl phthalate	2 3 U	5 U	5 U	5 U	5 U	5 U	--	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U		29,000	--
Naphthalene	0 5 U	0 5 U	0 5 U	0 5 U	0 33	0 5 U	0 11 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U		6 5	--
Metals (mg/l)																			
Aluminum	0 14	0 024 U	0 048	0 023	0 042	0 019	0 00223	0 00571	0 00094 U	0 00349	0 00482	0 000936	0 0347	0 00115	0 0058	0 00132		37	--
Ant mony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 02	0 005 U	0 000278	0 000531	0 000467	0 00117	0 000992	0 00207	0 00371	0 000495	0 0004 U	0 0004 U		0 015	0 006
Arsenic[ca]	0 002	0 0015	0 0053	0 001 U	0 003 U	0 002 U	0 000646	0 000402	0 000376	0 00028 U	0 0003 U	0 000906	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 000045	0 005
Barium	0 2	0 11	0 16	0 09	0 093	0 097	0 113	0 122	0 0888	0 083	0 0835	0 0238	0 0476	0 0394	0 0431	0 0343		2 6	2
Beryll um	0 0005	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 073	0 004
Cadm um	0 0009	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	43 8	17 8	12 6	12	23	26 2	38 9	28 1	28 9	65 6	90 1	120	152	170	168	179		--	--
Chromium	*0 0021 U*	*0 005 U*	*0 0013*	*0 018*	*0 0048*	*0 001 U*	*0 000347*	*0 000648*	*0 000246*	*0 00144*	*0 0006 U*	*0 000951*	*0 00103*	*0 00111*	*0 0006 U*	*0 00112*		55	*0 1*
Cobalt	0 00084 U	0 0054 U	0 0014	0 001 U	0 001 U	0 001 U	0 00004 U	0 00419	0 00056	0 000721	0 000952	0 000748	0 000911	0 000855	0 00101	0 00192		0 73	--
Copper	0 0018 U	0 0021	0 0016	0 004	0 002 U	0 002 U	0 00128	0 000809	0 00158	0 0127	0 00366	0 00275	0 00306	0 00455	0 00283	0 00297		1 5	1
Iron	0 65	0 0073	0 025 U	0 14	0 24	0 02 U	0 22	0 22	0 125	0 672	0 554	2 19	3 76	4 65	2 46	4 56		11	--
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0016	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 000989	0 000551	--	0 015
Magnesium	16 1	4 8	2 6	3 7	7 8	8	8 59	13 2	11 9	16 1	19 9	36 6	30 7	41 2	39 4	48 4		--	--
Manganese	0 61	0 024	0 0075	0 022	0 062	0 067	0 0868	0 0771	0 0142	0 163	0 212	0 462	0 529	0 525	0 431	0 591		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 000215	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0033	0 034	0 0028 U	0 0016 U	0 00273	0 00357	0 00217	0 0029	0 00441	0 00552	0 00584	0 00348	0 00521	0 00433		0 73	--
Potassium	51 7	103	83	63	55 5	48 6	33 7	46 9	40 5	26 6	29 5	20	12 8	12 5	15 4	8 28		--	--
Selenium	0 0014 U	0 0021	0 0074	0 0037	0 0043 U	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0006 U	0 000433	0 0003 U	0 000422	0 000307	0 000582		0 18	0 05
Silver	0 0014	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 18	--
Sodium	64 7	71	69 3	59	56 6	50 8	39 5	39 6	39 7	29 7	35 3	17 6	19 2	14 9	15 9	13 2		--	--
Thallium	0 00048 U	0 0024 U	0 0044	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 0002 U	0 000608	0 0002 U	0 0002 U		0 0026	0 002
Vanadium	0 00075 U	0 0022 U	0 0011	0 002 U	0 001 U	0 001 U	0 000106	0 000048 U	0 000139	0 000112 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 022	0 0035 U	0 017	0 018	0 0029	0 0017 U	0 000058 U	0 00415	0 00115	0 00758	0 000539	0 0021	0 00683	0 00276	0 00287	0 00296		11	--

Notes:
Highlighted cell indicates result that exceed one or more of the listed regulatory limits

Key

	Not available.
ca	Carcinogenic effects
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk Based Concentration.

Table 7 Performance Well Results

PERFORMANCE WELL C 2 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2001	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	4/20/2005	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																				
1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	900	–
1 1 Dichloroethene																0 5 U	0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 5 U	0 12	5
1 2 Dichloropropane																0 5 U	0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1 2 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1 2 2 Tetrachloroethane																0 5 U	0 5 U	0 5 U	0 053	–
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	10 0 U	5 0 U	5 0 U	5 0 U	7,000	–
2 Hexanone																5 0 U	5 0 U	5 0 U	–	–
4 Methyl 2-pentanone																5 0 U	5 0 U	5 0 U	6,300	–
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2	5 U	5 U	J	7	5 0 U	4 J	5 0 U	1 J	5 0 U	5 0 U	1 6 B	5,500	–
Benzene	0 5 U	0 5 U	0 5 U	0 13	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane																0 5 U	0 5 U	0 5 U	0 17	80
Bromoform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2 0 U	0 5 U	0 5 U	0 5 U	8 5	–
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	1,000	–
Carbon Tetrachloride																0 5 U	0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	0 5 U	110	–
Chloroethane[ca]	0 55	0 5 U	0 24	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	3 6	–
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	190	–
cis 1 2 Dichloroethene	1 8	0 27	2 5	1 9	2 2	2 2	2	2	2	2	2	J	1 J	2	2	1 J	2	1 2	61	70
cis 1 3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Dibromochloromethane[ca]																0 5 U	0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	46	0 5 U	0 5 U	0 42	0 5 U	0 5 U	0 5 U	3	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 5 U	0 5 U	0 44 B	4 1	–
Styrene																0 5 U	0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 5 U	0 13	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1 2 Dichloroethene																0 5 U	0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Trichloroethene[ca]	0 28	0 5 U	0 41	0 27	0 3	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	3 1	0 35	5 2	1 7	2 5	2	3	4 5	5	5	4	2	4	0 5 U	9	4	13	2 8	0 015	2
Xylenes																1 0 U	1 0 U	0 5 U	210	10,000
Semi volatile Organic Compounds (µg/l)																				
Anthracene	2 1 U	6 2 U	5 0 U	5 2 U	5 0 U	5 0 U	0 11 U	0 5 U	0 5 U	0 6 U	0 55 U	0 55 U	0 55 U	0 5 U	0 5 U	0 5 U		5 0 U	1,800	–
Bis(2-ethylhexyl) phthalate	0 41	6 2 U	5 0 U	5 2 U	1 6	5 0 U	0 11 U	1 73	1 73	1 16	0 55 U	0 55 U	41 BE	0 5 U	0 5 U	0 5 U		5 0 U	4 8	–
Butyl benzyl phthalate[ca]	0 024	6 2 U	5 0 U	5 2 U	5 0 U	5 0 U	0 11 U	0 5 U	0 5 U	0 6 U	0 55 U	0 55 U	0 55 U	0 5 U	0 5 U	0 5 U		5 0 U	35	–
Di 2-ethylhexyladipate	5 3 U	7 4 U	6 0 U	6 2 U	6 0 U	6 0 U	–	–	–	–	–	–	–	–	–	–		–	–	400
Di n-butyl phthalate	0 076	0 21	0 21	0 25	0 13	5 0 U	0 11 U	0 5 U	0 5 U	0 6 U	0 55 U	0 55 U	0 55 U	0 5 U	0 5 U	0 5 U		5 0 U	3,700	–
Diethyl phthalate	2 1 U	0 2	5 0 U	0 25	5 0 U	5 0 U	–	0 5 U	0 5 U	0 6 U	0 55 U	0 55 U	0 55 U	0 5 U	0 5 U	0 5 U		5 0 U	29,000	–
Naphthalene	0 5 U	0 12	0 5 U	0 4	0 5 U	0 5 U	0 11 U	0 5 U	0 5 U	0 6 U	0 55 U	0 55 U	0 55 U	0 5 U	0 5 U	0 5 U		5 0 U	6 5	–
Metals (mg/l)																				
Aluminum	0 2	0 026	0 075	0 021 U	0 041	0 037	0 00195	0 00628	0 00094 U	0 00191	0 000569	0 0005 U	0 0036	0 000969	0 00547	0 00203		–	37	–
Antimony	0 0054 U	0 034 U	0 0075 U	0 0042	0 0052	0 005 U	0 000058	0 0002 U	0 0002 U	0 000607	0 0004 U	0 00054	0 289 L	0 000555	0 0004 U	0 004 U		0 0025 U	0 015	0 006
Arsenic[ca]	0 0009 U	0 0009	0 0037 U	0 0013	0 003 U	0 0023	0 000867	0 000529	0 00028 U	0 000368	0 000613	0 00067	0 00242	0 00107	0 000519	0 000667		0 00042 J	0 000045	0 005
Barium	0 19	0 14	0 15	0 14	0 16	0 17	0 143	0 175	0 133	0 149	0 136	0 135	0 147	0 128	0 136	0 121		0 106	2 6	2
Beryllium	0 0008	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 00125 U	0 073	0 004
Cadmium	0 0008	0 0046 U	0 0005 U	0 001 U	0 0006	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 018	0 005
Calcium	47 8	40 2	44	45	46 6	44 9	47	49	43 3	42 3	49 6	40 2	53 4	51 3	49 6	49		–	–	–
Chromium	0 0021 U	0 005 U	0 001 U	0 001 U	0 0013 U	0 001 U	0 00102	0 000878	0 000209	0 00137	0 0006 U	0 00237	0 000819	0 000989	0 0006 U	0 0008		0 0025 U	55	0 1
Cobalt	0 00084 U	0 0054 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00004 U	0 0059	0 000179	0 000261	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 000567		0 0003 J	0 73	–
Copper	0 0018 U	0 0019 U	0 0012 U	0 0034	0 002 U	0 002 U	0 000256	0 000406	0 000477	0 00367	0 001 U	0 00138	0 0112	0 00104	0 001 U	0 001 U		0 00019 B	1 5	1
Iron	5 1	4 3	6 4	7 4	7 8	8 9	8 99	9 85	0 186	8 71	9 3	5 2	19 3	8 55	7 79	6 53		–	11	–
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0017	0 001 U	0 000052 U	0 00023U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 000995	0 000503		0 00125 UL	–	0 015
Magnesium	10 8	9 4	9 7	11	10 6	10 9	9 8	11 3	10 8	10 8	13	12 1	13 3	12 6	11 8	13 6		–	–	–
Manganese	0 46	0 49	0 58	0 63	0 7	0 8	0 796	0 905	0 814	0 972	1 08	0 765	1 11	1 1	1 04	1 04		1 03	0 73	–
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 000409	0 0002 U	0 0002 U	0 0002 U		0 0002 U	–	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00161	0 00173	0 000656	0 000575	0 00103	0 00195	0 0015	0 00107	0 00133	0 00126		0 0011	0 73	–
Potassium	2 4	0 96	2 3	2 2	1 8	2 2	1 56	1 93	1 72	1 53	1 68	1 57	1 65	1 51	1 28	1 41		–	–	–
Selenium	0 0014 U	0 0012	0 0052 U	0 001 U	0 0043 U	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 000331	0 000793		0 00625	0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 003 U		0 00125 U	0 18	–
Sodium	14 6	9	7 4	7 4	9 5	10 2	6 13	6 88	6 09	5 8	6 73	6 18	6 75	6 81	5 94	7 57		–	–	–
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 00025	0 000261	0 000561	0 0002 U		0 00125 U	0 0026	0 002
Vanadium	0 00075 U	0 0022 U	0 001 U	0 0024	0 001 U	0 0011	0 000249	0 000048 U	0 000112 U	0 000112 U	0 0005 U	0 000771	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 00125 U	0 037	–
Zinc	0 029	0 015	0 01	0 013	0 0016 U	0 0054	0 000327	0 00412	0 000404	0 00206	0 0005 U	0 00169	0 00149	0 00151	0 00593	0 00304		0 00011 B	11	–

Notes:

Highlighted cells indicate result that exceed one or more of the listed regulatory limits.

The listed da qual ifier definitions apply only to sample resul from 2005

Key:

–	Not available.
B	Not detected substantially above the level reported in laboratory or field blanks.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
J	Analyte present. Reported value may not be accurate or precise.
L	Low bias.
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.
U	Not detected at the listed detection limit.
UL	Not detected at the listed detection limi

Table 7 Performance Well Results

PERFORMANCE WELL C 3 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/9/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1 1 Dichloroethene																0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1,2 Dichloropropane																0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U		
1 1 2 Trichloroethene																0 5 U	0 5 U	--	
1 1 2 2 Tetrachloroethane																0 5 U	0 5 U	0 053	
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7,000	--
2 Hexanone																5 0 U	5 0 U	--	--
4 Methyl 2 pentanone																5 0 U	5 0 U	6,300	--
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2	0 5 U	1	5 0 U	5 0 U	5 0 U	5	5 0 U	1 J	5 0 U	5 0 U	5,500	--
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	--	--	--	--		--	--	--	--	--	--	--	--	2	0 5 U	0 5 U	0 5 U	8 5	--
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	--
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	
Chloroethane[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
cis 1,2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
cis 1 3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	6 5	0 5 U	0 5 U	0 29	0 5 U	0 5 U	0 5 U	20	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 5 U	0 5 U	0 5 U	0 12	0 3	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 U	1 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2 1 U	5 2 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U	0 5 U	0 5 U		1,800	--
Bis(2 ethylhexyl) phthalate	0 42	5 2 U	5 0 U	5 0 U	2 7	5 0 U	0 1 U	0 99	0 99	0 55 U	0 55 U	0 5 U	83 BE	1 03	0 5 U	0 5 U		4 8	--
Butyl benzyl phthalate[ca]	5 3 U	5 2 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U	0 5 U	0 5 U		35	--
Di 2 ethylhexyladipate	5 3 U	6 2 U	6 U	6 1 U	6 U	6 U	--	--	--			--	--	--	--	--		--	400
Di n butyl phthalate	0 087	0 15	0 22	0 29	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U	0 5 U	0 5 U		3,700	--
Diethyl phthalate	2 1 U	5 2 U	5 0 U	0 26	5 0 U	5 0 U	--	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U	0 5 U	0 5 U		29,000	--
Naphthalene	0 5 U	0 053	0 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 5 U	0 5 U	0 5 U		6 5	--
Metals (mg/l)																			
Aluminum	0 21	0 024 U	0 044	0 021 U	0 071	0 032	0 0015	0 00366	0 00094 U	0 00577	0 0005 U	0 00102	0 0005 U	0 0012	0 00548	0 0017		37	--
Antimony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 002 U	0 005 U	0 000079	0 0002 U	0 000218	0 0002 U	0 0004 U	0 000488	0 0004 U	0 0004 U	0 0004 U	0 000413		0 015	0 006
Arsenic[ca]	0 0009 U	0 0007 U	0 0037 U	0 001 U	0 003 U	0 002 U	0 000612	0 00028 U	0 00028 U	0 00028 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 000045	0 005
Barium	0 32	0 19	0 22	0 24	0 31	0 24	0 275	0 0304	0 0666	0 22	0 0739	0 031	0 166	0 0846	0 149	0 0275		2 6	2
Beryllium	0 0008	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 004 U	0 0004 U		0 073	0 004
Cadmium	0 0004	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	46 5	43 6	48 4	59	60 7	46 7	56 3	39	43 1	46 3	44 4	31	48 4	58 1	50 9	37 3		--	--
Chromium	0 0021 U	0 005 U	0 001 U	0 001 U	0 0013 U	0 001 U	0 00111	0 00109	0 00114	0 00177	0 0006 U	0 00163	0 00092	0 00119	0 0006 U	0 00145		55	0 1
Cobalt	0 002	0 0054 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00004 U	0 00361	0 000209	0 000633	0 0005 U	0 0005 U	0 000595	0 0005 U	0 000527	0 0005 U		0 73	--
Copper	0 0018 U	0 013	0 0012	0 002 U	0 0021	0 002 U	0 000375	0 00064	0 000636	0 00421	0 001 U	0 00108	0 001 U	0 00111	0 001 U	0 00137		1 5	1
Iron	0 59	1 8	2	2 2	2 5	1 4	2 19	0 098	0 174	0 435	0 301	0 182	0 743	0 365	0 653	0 121		11	--
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0011	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 000531	0 0003 U	0 0003 U	0 0003 U	0 00118	0 000659		--	0 015
Magnesium	9 5	9 6	9 7	13	12 3	9 8	10 7	7 41	8 73	10	11 4	7 08	10 4	10 4	9 89	7 52		--	--
Manganese	1 6	1 4	1 5	2	2	1 7	2 45	0 0319	0 611	1 76	0 924	0 033	2 88	0 868	1 26	0 0177		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 0022	0 0028 U	0 0016 U	0 00226	0 00126	0 000949	0 00121	0 00151	0 00169	0 00244	0 00138	0 00202	0 000872		0 73	--
Potassium	2 5	1 2	3 2	3 4	3 6	2 5	2 9	1 65	2 19	232	2 48	1 74	2 52	2 64	2 25	1 63		--	--
Selenium	0 0014 U	0 0009 U	0 0052 U	0 001 U	0 0043 U	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	0 0003 U	0 0003 U	0 000574	0 0003 U	0 000806		0 18	0 05
Silver	0 0014 U	0 0019	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 18	--
Sodium	15	13 1	13 2	16	20 1	13 8	8 45	9 5	6 34	9 4	8 4	8 17	10 4	11 4	9 4	5 33		--	--
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 000625	0 0002 U		0 0026	0 002
Vanadium	0 00075 U	0 0039	0 001 U	0 0025	0 001 U	0 001 U	0 000288	0 000048 U	0 000264	0 000112 U	0 0005 U	0 000552	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 029	0 023	0 041	0 015	0 029	0 0017 U	0 000809	0 00399	0 000694	0 00327	0 0005 U	0 00158	0 00185	0 00115	0 00319	0 0024		11	--

Notes:

Highlighted cells indicate results that exceed one or more of the listed regulatory limits.

Key:

	Not available.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.

Table 7 Performance Well Results

PERFORMANCE WELL C-4 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/9/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1,1 Dichloroethane	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1,1 Dichloroethene																0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1,2 Dichloropropane																0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U	--	
1 1,2 Trichloroethene																0 5 U	0 5 U	--	--
1,1,2,2 Tetrachloroethane																0 5 U	0 5 U	0 053	
2 Butanone	5 0 U	5 0 U	2 5 U	5 0 U	17	29	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7,000	--
2 Hexanone																5 0 U	5 0 U	--	--
4 Methyl 2 pentanone																5 0 U	5 0 U	6,300	--
Acetone	20	5 0 U	2 5 U	5 0 U	13	17	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5	5 0 U	5 0 U	5 0 U	5 0 U	5,500	--
Benzene[ca]	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	--		--	--	--		--	--	--	--		--	--	2	0 5 U	0 5 U	0 5 U	8 5	--
Carbon Disulfide	3 9	0 5 U	2	0 5 U	1 6	1 9	0 7	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	--
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	--
Chloroethane[ca]	0 5 U	0 5 U	4 2	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 42	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
cis 1,2 Dichloroethene	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	3 4	0 06	2 4	0 5 U	0 5 U	0 5 U	0 5 U	6	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 092	2 5 U	0 5 U	0 12	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 33	0 45	4 1	1 3	3 1	0 92	0 6	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 U	1 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2 2 U	5 4 U	5 0 U	5 0 U	5 3 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 6 U	0 5 U		1,800	--
Bis(2 ethylhexyl) phthalate	0 27	5 4 U	5 0 U	5 0 U	1 4	5 0 U	0 1 U	0 81	0 81	1 6	0 55 U	0 5 U	87 BE	0 55 U	0 6 U	0 5 U		4 8	--
Butyl benzyl phthalate[ca]	5 6 U	5 4 U	5 0 U	5 0 U	5 3 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 6 U	0 5 U		35	--
Di 2-ethylhexyladipate	5 6 U	6 5 U	6 U	5 9 U	6 4 U	6 U	--	--	--	--	--	--	--		--	--		--	400
Di n butyl phthalate	0 4	0 15	0 26	0 43	0 19	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 6 U	0 5 U		3,700	--
Diethyl phthalate	2 2 U	0 12	5 0 U	0 16	5 3 U	5 0 U	--	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 6 U	0 5 U		29,000	--
Naphthalene	0 5 U	0 5 U	2 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 6 U	0 5 U		6 5	--
Metals (mg/l)																			
Aluminum	0 25	0 025	0 058	0 023	0 064	0 032	0 00454	0 00549	0 00094 U	0 00274	0 000887	0 000547	0 0648	0 00214	0 00567	0 00262		37	--
Antimony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 002 U	0 005 U	0 000053 U	0 0002 U	0 0002 U	0 000319	0 000419	0 0004	0 0004 U	0 000604	0 0004 U	0 000812		0 015	0 006
Arsenic[ca]	0 003	0 0017	0 0037 U	0 0013	0 005 U	0 002 U	0 00384	0 0032	0 00111	0 00109	0 00159	0 00215	0 00266	0 00228	0 00187	0 00238		0 000045	0 005
Barium	0 11	0 1	0 11	0 098	0 12	0 11	0 109	0 145	0 111	0 127	0 127	0 123	0 116	0 109	0 133	0 129		2 6	2
Beryllium	0 0008	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 073	0 004
Cadmium	0 00036 U	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	86 9	82 5	88 4	91	89 9	89 5	94 3	98 6	89 4	81 3	96 8	85 3	96 3	96	97 2	95 1		--	--
Chromium	0 0021 U	0 005 U	0 001 U	0 001 U	0 0013 U	0 001 U	0 00104	0 00124	0 00212	0 00181	0 0006 U	0 00297	0 000689	0 0012	0 0006 U	0 00157		55	0 1
Cobalt	0 00084 U	0 0054 U	0 001U	0 001 U	0 001 U	0 001 U	0 00004 U	0 00809	0 00017 U	0 000194	0 0005U	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 73	--
Copper	0 0018 U	0 0054	0 0012 U	0 0028	0 002 U	0 002 U	0 000229	0 000409	0 00084	0 00542	0 001 U	0 00125	0 00337	0 00129	0 00134	0 00119		1 5	1
Iron	0 41	0 24	0 3	0 48	0 37	0 15	0 415	0 33	0 33	2 14	2 47	1 56	4 33	2 11	2 53	1 74		11	--
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0014	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 000779 U	0 000352	0 0003 U	0 00119	0 000614		--	0 015
Magnesium	14 6	14 3	15 2	17	17	16	16 9	20 5	17 9	17 6	25 4	19 8	22	18 8	21 9	22 8		--	--
Manganese	0 88	0 97	1	1	0 9	0 81	0 853	0 895	0 819	0 859	0 871	0 822	0 816	0 731	0 753	0 725		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002U	0 000184 U	0 000388	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 000278	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028U	0 0016 U	0 00321	0 00301	0 00142	0 00128	0 00269	0 00372	0 00318	0 00191	0 00254	0 00259		0 73	--
Potassium	1 3	2 1	1 7	1 5	1 3	1 2	0 892	1 07	0 919	0 915	0 91	0 871	0 852	0 879	0 763	0 84		--	--
Selenium	0 0014 U	0 0009 U	0 0052 U	0 001 U	0 016	0 002 U	0 000453 U	0 00044U	0 00044 U	0 00044 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 000911		0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 18	--
Sodium	34 1	35 5	32 2	28	27 2	23 3	10 7	17 9	12 9	13 2	17 5	12 9	13	13	18 3	15 4		--	--
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 0002U	0 0002 U	0 0002 U	0 0002 U		0 0026	0 002
Vanadium	0 00075 U	0 0029	0 001 U	0 002 U	0 001 U	0 001U	0 000288	0 000048 U	0 00054	0 000112U	0 0005 U	0 000907	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 053	0 0035 U	0 019	0 017	0 0037	0 01	0 000655	0 00311	0 000863	0 00465	0 0012	0 00204	0 00608	0 0005 U	0 00154	0 00528		11	--

Notes:

Highlighted cells indicate result that exceed one or more of the listed regulatory limits.

Key:

--	Not available.
ca	Carcinogenic Effects
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.

Table 7 Performance Well Results

PERFORMANCE WELL C 5 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1,1 Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	900	--
1,1 Dichloroethene																0.5 U	0.5 U	350	7
1,2 Dichloroethane[ca]																0.5 U	0.5 U	0.12	5
1,2 Dichloropropane																0.5 U	0.5 U	0.16	5
1,1,1 Trichloroethene																0.5 U	0.5 U	--	--
1,1,2 Trichloroethene																0.5 U	0.5 U	--	--
1,1,2,2 Tetrachloroethane																0.5 U	0.5 U	0.053	--
2 Butanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	7,000	
2 Hexanone																5.0 U	5.0 U		
4 Methyl 2 pentanone																5.0 U	5.0 U	6,300	--
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	3	5.0 U	4 J	5.0 U	1 J	5.0 U	5.0 U	5,500	
Benzene[ca]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.34	5
Bromodichloromethane[ca]																0.5 U	0.5 U	0.17	80
Bromoform[ca]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	0.5 U	8.5	80
Bromomethane	--	--	--	--	--	--	--	--	--			--	--	1	0.5 U	0.5 U	0.5 U	8.5	--
Carbon Disulfide	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1,000	--
Carbon Tetrachloride[ca]																0.5 U	0.5 U	0.16	5
Chlorobenzene																0.5 U	0.5 U	110	--
Chloroethane[ca]	0.5 U	0.5 U	3.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6	--
Chloroform[ca]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.15	80
Chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	190	--
cis 1,2 Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	61	70
cis 1,3 Dichloropropene																0.5 U	0.5 U	0.44	--
Dibromochloromethane[ca]																0.5 U	0.5 U	0.13	80
Ethylbenzene																0.5 U	0.5 U	1,300	70
Methylene chloride[ca]	0.5 U	0.5 U	0.5 U	0.35	0.5 U	0.5 U	0.5 U	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	0.5 U	4.1	--
Styrene																0.5 U	0.5 U	1,600	100
Tetrachloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1	5
Toluene	0.5 U	0.5 U	0.29	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	750	1,000
trans 1,2 Dichloroethene																0.5 U	0.5 U	110	100
trans 1,3 Dichloropropene																0.5 U	0.5 U	0.44	--
Trichloroethene[ca]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.026	5
Vinyl chloride[ca]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.015	2
Xylenes																1 U	1 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2.2 U	5.1 U	5.0 U	4.9 U	5.0 U	5.1 U	0.12 U	0.5 U	0.5 U	0.5 U	0.6 U	0.55 U	0.7 U	0.55 U	0.55 U	0.55 U		1,800	--
Bis(2-ethylhexyl) phthalate	0.22	5.1 U	5.0 U	4.9 U	2.2	5.1 U	0.12 U	1.2	1.2	0.5 U	0.6 U	0.55 U	1.34 B	2.14	0.55 U	0.55 U		4.8	--
Butyl benzyl phthalate[ca]	0.046	5.1 U	5.0 U	4.9 U	5.0 U	5.1 U	0.12 U	0.5 U	0.5 U	0.5 U	0.6 U	0.55 U	0.7 U	0.55 U	0.55 U	0.55 U		35	--
Di 2-ethylhexyladipate	5.5 U	6.1 U	6 U	5.9 U	6 U	6.1 U	--	--	--	--	--	--	--	--	--	--		--	400
Di n butyl phthalate	0.15	0.26	0.22	0.3	0.11	5.1 U	0.12 U	0.5 U	0.5 U	0.5 U	0.6 U	0.55 U	2.16 U	0.55 U	0.55 U	0.55 U		3,700	--
Diethyl phthalate	2.2 U	0.11	5.0 U	4.9 U	5.0 U	5.1 U	--	0.5 U	0.5 U	0.5 U	0.6 U	0.55 U	0.7 U	0.55 U	0.55 U	0.55 U		29,000	--
Naphthalene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.12 U	0.5 U	0.5 U	0.5 U	0.6 U	0.55 U	0.7 U	0.55 U	0.55 U	0.55 U		6.5	--
Metals (mg/l)																			
Aluminum	0.16	0.024 U	0.038	0.021 U	0.078	0.057	0.00116	0.00255	0.00094 U	0.00531	0.000948	0.0005	0.00775	0.00151	0.0049	0.00307		37	--
Antimony	0.0054 U	0.038	0.0075 U	0.004 U	0.002 U	0.03	0.000053 U	0.0002 U	0.0002 U	0.0002 U	0.00608	0.0004	0.0004 U	0.00056	0.0004 U	0.0004 U		0.015	0.006
Arsenic[ca]	0.0011	0.0014	0.0037 U	0.0015	0.0037	0.002 U	0.00154 U	0.00135	0.000922	0.000946	0.00126	0.00212	0.00118	0.00145	0.00153	0.000992		0.000045	0.005
Barium	0.056	0.041	0.044	0.04	0.052	0.05	0.04637	0.0575	0.0461	0.0529	0.0493	0.0599	0.0552	0.0612	0.0661	0.0634		2.6	2
Beryllium	0.0007	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00014 U	0.00043 U	0.00043 U	0.00043 U	0.0004 U	0.0004	0.0004 U	0.0004 U	0.0004 U	0.0004 U		0.073	0.004
Cadmium	0.00036 U	0.0046 U	0.0005 U	0.001 U	0.0005 U	0.0005 U	0.00035 U	0.00012 U	0.00012 U	0.00012 U	0.0003 U	0.0003	0.0003 U	0.0003 U	0.0003 U	0.0003 U		0.018	0.005
Calcium	122	96.8	96.6	100	107	91.4	98.6	103	95.7	87	108	92.7	108	116	115	114		--	--
Chromium	0.0021 U	0.005 U	0.001 U	0.001 U	0.0013 U	0.001 U	0.00339	0.00117	0.00179	0.00208	0.0006 U	0.0035	0.000838	0.00128	0.0006 U	0.00161		55	0.1
Cobalt	0.00084 U	0.0054 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00004 U	0.000458	0.000429	0.000481	0.000526	0.000606	0.000639	0.00058	0.000582	0.000782		0.73	--
Copper	0.0018 U	0.0033	0.0013	0.0023	0.002 U	0.002 U	0.00342	0.000478	0.000649	0.00514	0.0029	0.00109	0.00173	0.00164	0.001 U	0.001 U		1.5	1
Iron	2.2	1.6	1.7	1.8	1.8	1.8	1.74	2.09	0.567	2.25	2.4	2.34	2.66	2.89	2.3	2.48		11	--
Lead	0.0011 U	0.0019 U	0.0025 U	0.001U	0.0013	0.001 U	0.00053	0.00023 U	0.00023 U	0.00329	0.0003 U	0.0003	0.0003 U	0.0003 U	0.000846	0.000602		--	0.015
Magnesium	24.2	19.5	18.1	21	20.7	17.7	16.8	19.4	17.5	16.7	19.9	19.9	21.7	21	22.5	25		--	--
Manganese	0.35	0.3	0.3	0.32	0.33	0.33	0.314	0.319	0.309	0.34	0.355	0.384	0.38	0.37	0.33	0.352		0.73	--
Mercury	0.0002 U	0.0002 U	0.0002 U	0.2 U	0.0002 U	0.0002 U	0.000184 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002	0.0002 U	0.0002 U	0.0002 U	0.0002 U		--	0.002
Nickel	0.0028 U	0.015 U	0.0012 U	0.002 U	0.0028 U	0.0016 U	0.00356	0.002	0.00158	0.00219	0.00243	0.00431	0.00422	0.00258	0.00276	0.00276		0.73	--
Potassium	0.81	0.49 U	0.74	1.1	0.81	0.66	0.688	0.91	0.735	0.728	0.771	0.748	0.8	0.827	0.7	0.877		--	--
Selenium	0.0014 U	0.0009 U	0.0052 U	0.001 U	0.0043 U	0.002 U	0.000453 U	0.00044 U	0.00044 U	0.00044 U	0.000353	0.0003	0.0003 U	0.0003 U	0.0003 U	0.000663		0.18	0.05
Silver	0.0014 U	0.0018 U	0.001 U	0.002 U	0.002 U	0.002 U	0.000054 U	0.00023 U	0.00023 U	0.00023 U	0.0003 U	0.0003	0.0003 U	0.0003 U	0.0003 U	0.0003 U		0.18	--
Sodium	4.4	2.6	3	2.7	4.4	4.4	2.82	3.06	2.7	2.6	3.07	2.65	2.59	2.77	2.7	3.09		--	--
Thallium	0.00048 U	0.0024 U	0.0036 U	0.003 U	0.0039 U	0.0015 U	0.000029 U	0.000029 U	0.000147 U	0.000147 U	0.00109	0.0002	0.000801	0.0002 U	0.0002 U	0.0002 U		0.0026	0.002
Vanadium	0.00075 U	0.0022 U	0.001 U	0.002 U	0.001 U	0.001 U	0.000048 U	0.00048 U	0.000467	0.000112 U	0.0005 U	0.000113	0.0005 U	0.0005 U	0.0005 U	0.0005 U		0.037	--
Zinc	0.044	0.0035 U	0.014	0.008	0.012	0.013	0.00251	0.00192	0.00097	0.00804	0.00236	0.00168	0.00432	0.00159	0.00349	0.0028		11	--

Notes:

Highlighted cell indicates results that exceed one or more of the listed regulatory limits.

Key:

--	Not available.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk Based Concentration.

F 1

PERFORMANCE WELL C-6 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	4/20/2005	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																				
1 1 Dichlo oethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	–
1,1 D chloroethene																0 5 U	0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 5 U	0 12	5
1 2 D chloropropane																0 5 U	0 5 U	0 5 U	0 16	5
1 1,1 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1 2 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1,2 2 Tetrachloroethane																0 5 U	0 5 U	0 5 U	0 053	–
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7 000	–
2 Hexanone																5 0 U	5 0 U	5 0 U	–	–
4 Methyl 2 pentanone																5 0 U	5 0 U	5 0 U	6,300	–
Acetone	6 9	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	1	3	5 0 U	2 J	5 0 U	1 J	5 0 U	5 0 U	1 6 B	5,500	–
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane																0 5 U	0 5 U	0 5 U	0 17	80
Bromoform	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	–	–	–	–	–	–	–		–	–	–	–	–	1	0 5 U	0 5 U	0 5 U	0 5 U	8 5	–
Carbon Disulfide	0 98	0 5 U	0 26	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1 000	–
Carbon Tetrachloride																0 5 U	0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	0 5 U	110	–
Chloroethane[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	–
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 6	0 5 U	190	–
cis 1 2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 7	0 5 U	61	70
cis 1 3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Dibromochloromethane[ca]																0 5 U	0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	36	0 5 U	0 5 U	0 17	0 5 U	0 54	0.5 U	4	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 5 U	0 5 U	0 18 B	4 1	–
Styrene																0 5 U	0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0.5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 25	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1 2 Dichloroethene																0 5 U	0 5 U	0 5 U	110	100
trans 1 3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Trichloroethene	0 5 U	0 5 U	0 21	0 5 U	0 15	0 5 U	0.5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 U	1 U	0 5 U	210	10,000
Semivolatile Organic Compounds (µg/l)																				
Anthracene	2 1 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U		5 0 U	1,800	–
Bis(2-ethylhexyl) phthalate	0 37	5 0 U	5 0 U	5 0 U	0 73	5 0 U	0 1 U	4 64	4 64	1 25	0 55 U	0 55 U	5 1 B	0 5 U	0 55 U	1 2		5 0 UL	4 8	–
Butyl benzyl phthalate[ca]	0 039	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U		5 0 UL	35	–
Di 2-ethylhexyladipate	5 3 U	6 U	6 U	5 9 U	6 U	6 U	–	–	–	–	–	–	–	–	–	–		–	–	400
D n butyl phthalate	0 093	0 2	0 21	0 37	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U		5 0 UL	3,700	–
Diethyl phthalate	2 1 U	5 0 U	5 0 U	0 18	5 0 U	5 0 U	–	0 5 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U		5 0 UL	29,000	–
Naphthalene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U		5 0 U	6 5	–
Metals (mg/l)																				
Aluminum	0 23	0 024 U	0 025	0 021 U	0 041	0 082	0 00235	0 00232	0 00094 U	0 00403	0 00288	0 000508	0 0355	0 00351	0 00629	0 0027		–	37	–
Antimony	0 0079	0 034 U	0 0075 U	0 0046	0 002 U	0 0069	0 000053 U	0 0002 U	0 0002 U	0 00051	0 000579	0 000626	0 0004 U	0 000563	0 0004 U	0 000404		0 0025 U	0 015	0 006
Arsenic[ca]	0 011	0 0074	0 008	0 0089	0 019	0 01	0 00963	0 0157	0 00549	0 0119	0 0128	0 0182	0.0103	0 00927	0 0144	0 00566		0 0067	0 000045	0 005
Barium	0 16	0 076	0 075	0 074	0 085	0 067	0 0694	0 1	0 0808	0 0887	0 0894	0 0926	0 0866	0 0861	0 0969	0 0875		0 0912	2 6	2
Beryllium	0 0009	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 00125 U	0 073	0 004
Cadmium	0 00036 U	0 0046 U	0 0005 U	0 001 U	0 0041	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 018	0 005
Calcium	88 7	54	54 3	56	62 1	54 6	63 7	67 9	58 7	63 7	63 8	63 3	62 4	72 9	52 3	80 5		–	–	–
Chromium	0 0021 U	0 005 U	0 001 U	0 001 U	0 0013 U	0 001 U	0 000336	0 00155	0 00302	0 00105	0 0006 U	0 00827	0 000713	0 000913	0 0006 U	0 000952		0 000065 B	55	0 1
Cobalt	0 00084 U	0 0054 U	0 0024	0 002	0 0024	0 0034	0 00137	0 000676	0 000357	0 000463	0 000517	0 0005 U	0 000516	0 0005 U	0 000502	0 000555		0 00057 J	0 73	–
Copper	0 0019	0 0019 U	0 0037	0 005	0 0047	0 002 U	0 000332	0 000425	0 000479	0 00521	0 001 U	0 001 U	0 00339	0 00102	0 001 U	0 001 U		0 00026 B	1 5	1
Iron	68 1	76 4	86 2	91	74 9	88 9	71 7	85 2	69 9	53 4	67	64	73 6	58 3	75 5	45 7		–	11	–
Lead	0 0011 U	0 0019 U	0 0038	0 001 U	0 0021	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 00111	0 000591		0 00125 UL	–	0 015
Magnesium	18 9	12 8	12 4	14	14 1	13	11 8	15 2	13 1	15 6	16 7	16 1	15 8	16 8	12 5	20 7		–	–	–
Manganese	7 6	9 7	10	10	9 3	11 2	9 32	7 03	6 85	4 96	5 94	5 76	5 83	4 84	5 27	4 49		5 24	0 73	–
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 000444	0 00338	0 0002 U	0 0002 U	0 0002 U		0 0002 U	–	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00196	0 00128	0 000757	0 000992	0 00138	0 00245	0 00163	0 0015	0 00143	0 00174		0 0013	0 73	–
Potassium	5 2	3 2	3	2 3	4 3	1 5	1 63	1 98	2 66	1 64	2 57	1 95	2 26	1 67	1 74	1 64		–	–	–
Selenium	0 0014 U	0 0033	0 0073	0 001 U	0 007	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	0 0003 U	0 0003 U	0 000314	0 000327	0 000396		0 00625 U	0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 18	–
Sodium	11	7 2	5 5	6 1	10 1	9 3	8 34	14 1	13 7	13 6	17 8	14 4	15 7	13 5	14 2	11 5		–	–	–
Thallium	0 00048 U	0 0024 U	0 0079	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000421	0 000219	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		0 00125 U	0 0026	0 002
Vanadium	0 004	0 0022 U	0 0017	0 012	0 0022	0 0074	0 000149	0 000048 U	0 000878	0 000112 U	0 0005 U	0 00267 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 00125 U	0 037	–
Zinc	0 06	0 016	0 016	0 01	0 013	0 0017 U	0 0022	0 00385	0 000931	0 00714	0 0005 U	0 00197	0 00116	0 00103	0 00122	0 00115		0 0018 B	11	–

Notes

H ghl ghted cells indicate resul the exceed one or more of the listed regulatory limits

The listed da qualifier definitions apply only to sample resul from 2005

Key

	Not available.
B	Not detected substantially above the level reported in laboratory or field blanks.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
J	Analyte present. Reported value may not be accurate or precise.
L	Low bias.
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.
U	Not detected the listed detection limit
UL	Not detected the listed detection limit

Table 7 Performance Well Results

PERFORMANCE WELL H 1 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1 1 Dichloroethene																0 5 U	0 5 U	350	7
1,2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1 2 Dichloropropane																0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U		
1 1 2 Trichloroethene																0 5 U	0 5 U		--
1 1 2,2 Tetrachloroethane																0 5 U	0 5 U	0 053	
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7,000	--
2 Hexanone																5 0 U	5 0 U		--
4 Methyl 2 pentanone																5 0 U	5 0 U	6,300	--
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	3	5 U	5 U	J	6	5	5	5 0 U	1 J	5 0 U	5 0 U	5,500	
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	--	--	--	--	--	--	--	--			--	--	--	0 5 U	0 5 U	0 5 U	0 5 U	8 5	--
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	--
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	--
Chloroethane[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
cis 1,2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	0 5 U	0 5 U	0 5 U	0 36	0 5 U	0 5 U	0 5 U	6	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 045	0 22	0 14	0 18	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1 2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1 3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 5 U	0 077	0 88	0 64	1	1 6	3	0 5 U	0 5 U	0 5 U	6	0 5 U	2	0 5 U	1 J	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 U	1 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2 2 U	5 0 U	5 0 U	0 13	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 55 U		1,800	--
Bis(2 ethylhexyl) phthalate	0 22	5 0 U	5 0 U	5 2 U	1 5	5 0 U	2	0 5 U	0 5 U	2 25	0 5 U	0 55	1 2 B	0 55 U	0 55 U	0 55 U		4 8	--
Butyl benzyl phthalate[ca]	0 038	5 0 U	5 0 U	5 2 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 55 U		35	--
Di 2-ethylhexyladipate	5 6 U	6 U	6 U	6 2 U	6 U	6 U	--	--	--	--	--			--	--	--		--	400
Di n butyl phthalate	0 097	0 18	0 28	0 42	0 1	5 0 U	0 1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 55 U		3,700	--
Diethyl phthalate	2 2 U	5 0 U	5 0 U	5 2 U	5 0 U	5 0 U		0 5 U	0 5 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 55 U		29,000	--
Naphthalene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 5 U	0 5 U	0 55 U	0 6 U	0 55 U	0 55 U	0 55 U		6 5	--
Metals (mg/l)																			
Aluminum	0 25	0 024 U	0 2	0 021 U	0 045	0 04	0 00119	0 00194	0 00094 U	0 00246	0 00104	0 0005 U	0 0015	0 00152	0 00548	0 00236		37	--
Antimony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 0052	0 005 U	0 000128	0 0002 U	0 0002 U	0 000361	0 000434	0 00037	0 000719	0 0004 U	0 0004 U	0 000614		0 015	0 006
Arsenic[ca]	0 0009 U	0 0008	0 0037 U	0 001 U	0 0038	0 002 U	0 00035	0 00028 U	0 000407	0 00028 U	0 0003 U	0 000675	0 0003 U	0 0003 U	0 000477	0 0003 U		0 000045	0 005
Barium	0 071	0 034	0 038	0 033	0 042	0 041	0 0327	0 0328	0 03	0 0323	0 0317	0 0314	0 027	0 0265	0 0358	0 0308		2 6	2
Beryllium	0 0009	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 073	0 004
Cadmium	0 0004	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	114	94 2	102	100	110	102	114	112	105	96 2	112	86 3	101	107	107	98 7		--	--
Chromium	0 0021 U	0 005 U	0 001 U	0 001 U	0 0013 U	0 0021	0 00042	0 00114	0 00223	0 00123	0 0006 U	0 00461	0 00118	0 001	0 0006 U	0 0012		55	0 1
Cobalt	0 001	0 0054 U	0 001 U	0 0016	0 001 U	0 001 U	0 00004 U	0 00519	0 000558	0 00128	0 000772	0 000569	0 0005 U	0 0005 U	0 000534	0 00118		0 73	--
Copper	0 0018 U	0 0021	0 0012 U	0 0037	0 002 U	0 002 U	0 000202	0 000574	0 000697	0 00637	0 001 U	0 0019	0 00171	0 00116	0 001 U	0 00101		1 5	1
Iron	0 36	0 3	0 21	1 9	2 8	3 3	2 83	4 47	1 79	3 28	2 62	2 51	2	5 02	4 08	2 12		11	--
Lead	0 0019	0 0019 U	0 0025 U	0 001 U	0 0011 U	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 0023 U	0 0003 U	0 000796 U	0 0003 U	0 0003 U	0 000566	0 000458		--	0 015
Magnesium	15 1	13 8	13 6	15	14 8	14 3	13 4	13 9	13 9	13 5	15 5	14 1	14 3	14 5	13 5	16		--	--
Manganese	0 5	0 38	0 42	0 55	0 54	0 56	0 52	0 488	0 455	0 51	0 534	3 49	0 198	0 492	0 461	0 29		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00414	0 00314	0 00201	0 00185	0 00304	0 0003 U	0 00431	0 00219	0 00332	0 00307		0 73	--
Potassium	9 5	14 6	15 5	9 3	6 9	4 2	2 49	1 89	2 55	2 07	2 78	2 43	5 74	1 65	1 47	3 51		--	--
Selenium	0 0014 U	0 0015	0 0052 U	0 001 U	0 0043 U	0 003	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	[illegible] 0 55 [illegible]	0 0003 U	0 0003 U	0 0003 U	0 000647		0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 003 U		0 18	--
Sodium	8 5	8 4	7 7	6	7 4	6 9	3 33	2 95	3 56	3 25	4 05	0 00473	5 91	3 53	2 75	5 3		--	--
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		0 0026	0 002
Vanadium	0 0009	0 0022 U	0 001 U	0 0021	0 001U	0 001	0 000104	0 000048 U	0 000595	0 000112 U	0 0005 U	0 00144	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 063	0 014	0 015	0 013	0 0073	0 01	0 000635	0 00194	0 000677	0 0034	0 0005 U	0 00175	0 00416	0 00182	0 00123	0 002		11	--

Notes:
Highlighted cells indicate result that exceed one or more of the listed regulatory limits.

Key

	Not available.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.

Table 7 Performance Well Results

PERFORMANCE WELL H 2 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2002	2/18/2004	4/20/2005	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																				
1,1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	900	–
1,1 Dichloroethene																0 5 U	0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 5 U	0 12	5
1 2 Dichloropropane																0 5 U	0 5 U	0 5 U	0 16	5
1,1,1 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1 2 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1 2,2 Tetrachloroethane																0 5 U	0 5 U	0 5 U	0 053	–
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	10 U	5 0 U	5 0 U	5 0 U	7,000	–
2 Hexanone																5 0 U	5 0 U	5 0 U	–	–
4 Methyl 2-pentanone																5 0 U	5 0 U	5 0 U	6,300	–
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2	5 U	5 U	1	5 0 U	5 0 U	3 J	5 0 U	1 J	5 0 U	5 0 U	1 2 B	5,500	–
Benzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane																0 5 U	0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 66	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2 0 U	0 5 U	0 5 U	0 5 U	8 5	–
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	1,000	–
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	0 5 U	110	–
Chloroethane[ca]	0 5 U	0 05	0 57	0 56	0 24	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	3 6	–
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	190	–
cis 1,2 Dichloroethene	2	0 42	2 5	1 7	2 1	0 89	3	13	6	5	3	1	1 J	1	2 0 U	0 5 U	0 5 U	0 4 J	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Dibromochloromethane[ca]																0 5 U	0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	0 5 U	0 5 U	0 5 U	0 42	0 5 U	0 5 U	0 5 U	5	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 5 U	0 5 U	0 24 B	4 1	–
Styrene																0 5 U	0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 047	0 5 U	0 5 U	0 14	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2 0 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2-Dichloroethene																0 5 U	0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Trichloroethene[ca]	0.64	1 5	19	12	9 9	8 2	13	3	1	0 5 U	0 5 U	1	0 5 U	1 J	1 J	1 J	0 5 U	0 17 J	0 026	5
Vinyl chloride[ca]	0.5 U	0.074	0 41	0 3	0 19	0 5 U	0 5 U	2	11	17	15	3	0 5 U	0 5 U	2 0 U	0 5 U	0 9	2 6	0 015	2
Xylenes																1 0 U	1 0 U	0 5 U	210	10,000
Semivolatile Organic Compounds (µg/l)																				
Anthracene	2.2 U	5 0 U	5 0 U	4 9 U	5 0 U	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U		5 0 U	1,800	–
Bis(2-ethylhexyl) phthalate	0.24	5 0 U	5 0 U	4 9 U	2 3	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	1 3 B	0 55 U	0 55 U	0 5 U		5 0 UL	4 8	–
Butyl benzyl phthalate[ca]	0 043	0 11	5 0 U	4 9 U	5 0 U	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U		5 0 UL	35	–
Di 2-ethylhexyladipate	5.6 U	6 U	6 U	5 9 U	6 0 U	6 0 U	–	–	–	–	–	–	–	–	–	–		–	–	400
Di n-butyl phthalate	0.11	0 24	0 24	0 34	0 14	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U		5 0 UL	3,700	–
Diethyl phthalate	2.2 U	5 0 U	5 0 U	4 9 U	5 0 U	5 0 U	–	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U		5 0 UL	29,000	–
Naphthalene	0 5 U	0 046	0 5 U	0 5 U	0 5 U	0 5 U	0 11 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U		5 0 U	6 5	–
Metals (mg/l)																				
Aluminum	0 22	0 024 U	0 032	0 021 U	0 052	0 018	0 00187	0 00377	0 00094 U	0 00337	0 00486	0 0005 U	0 0005 U	0 00155	0 00751	0 00201		–	37	–
Antimony	0.0054 U	0 034 U	0 0075 U	0 004 U	0 0022	0 005 U	0 000203	0 0002 U	0 00226	0 000385	0 0066	0 00427	0 00361	0 0028	0 0004 U	0 00141		0 0014 B	0 015	0 006
Arsenic[ca]	0.001	0 0011	0 0043	0 0021	0 005	0 002 U	0 00297	0 00382	0 000746	0 00142	0 000476	0 00181	0 0003 U	0 00117	0 000895	0 000391		0 00042 J	0 000045	0 005
Barium	0.14	0 095	0 11	0 1	0 1	0 11	0 102	0 118	0 084	0 0909	0 0821	0 0836	0 0778	0 0819	0 0861	0 0803		0 081	2 6	2
Beryllium	0.0008	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 00125 U	0 073	0 004
Cadmium	0.0004	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 000162	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 018	0 005
Calcium	88 7	83 9	95 5	100	93 9	90 6	101	98 1	80 9	74 9	76	63 2	77 8	87 1	84 3	79 2		–	–	–
Chromium	0.0021 U	0 005 U	0 001 U	0 0012	0 0013 U	0 001 U	0 000237	0 00109	0 0017	0 00163	0 0006 U	0 00245	0 00121	0 00109	0 0006 U	0 00133		0 0025 U	55	0 1
Cobalt	0.00084 U	0.0054 U	0 0035	0 005	0 0027	0 0038	0 00326	0 00361	0 00186	0 00308	0 0005 U	0 00143	0 0005 U	0 000667	0 0005 U	0 00119		0 00072 J	0 73	–
Copper	0 0023	0.0032	0 0012 U	0 003	0 002 U	0 002 U	0 000631	0 000493	0 00264	0 00551	0 001 U	0 00249	0 00117	0 00112	0 00127	0 001 U		0 00059 J	1 5	1
Iron	0.24	0.065	0 78	0 62	0 2	0 84	1 3	1 79	0 433	1 65	0 559	0 655	0 43	0 47	0 502	0 362		–	11	–
Lead	0 0011 U	0.0019 U	0 0025 U	0 001 U	0 0011 U	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003U	0 0003 U	0 0003 U	0 00198	0 00041		0 00125 UL	–	0 015
Magnesium	14 6	14 3	14 9	18	15 9	15 8	14 9	15 2	13 9	13 2	15 7	13 6	17 5	14 4	13 5	15 3		–	–	–
Manganese	0 12	0.49	0 56	0 57	0 38	0 5	0 54	0 522	0 214	0 439	0 0363	0 153	0 0033	0 34	0 000701	0 325		0 0921	0 73	–
Mercury	0 0002U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		0 0002 U	–	0 002
Nickel	0 0031	0.0157 U	0 0036	0 0054	0 0037	0 0042	0 006882	0 00477	0 00791	0 00334	0 00242	0 004	0 00321	0 00425	0 00263	0 00372		0 0029	0 73	–
Potassium	6	2.8	4 9	4 2	4 2	3 4	3 31	3 77	5 38	3 05	7 98	4 63	5 84	3 88	3 16	3 21		–	–	–
Selenium	0 0014 U	0 0009 U	0 0052 U	0 001 U	0 0043U	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 000335	0 000829	0 0003U	0 000422	0 000705	0 000479		0 00625 U	0 18	0 05
Silver	0 0014 U	0.0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 18	–
Sodium	19 5	18.3	18 9	20	21 8	22 1	17 1	15 5	15 9	12 3	17 9	12 6	14 1	12	9 69	11 1		–	–	–
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 00096	0 0002 U	0 000223	0 0002 U		0 00125 U	0 0026	0 002
Vanadium	0 00075 U	0 0022 U	0 001 U	0 002 U	0 001 U	0 001 U	0 000076	0 000048 U	0 000433	0 000112 U	0 0005 U	0 000833	0 0005 U	0 0005 U	0 0005	0 0005 U		0 00125 U	0 037	–
Zinc	0 06	0 0063	0 012	0 01	0 0025	0 0017 U	0 00224	0 00171	0 00242	0 00377	0 00207	0 00345	0 00157	0 00333	0 00324	0 00235		0 0015 B	11	–

Notes:

Highlighted cells indicate result the exceed one or more of the listed regulatory limits.

The listed data qualifier definitions apply only to sample results from 2005.

Key

–	Not available.
B	Not detected substantially above the level reported in laboratory or field blanks.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
J	Analyte present. Reported value may not be accurate or precise.
L	Lose bias.
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.
U	Not detected at the listed detection limit
UL	Not detected the listed detection limit

Table 7 Performance Well Results

PERFORMANCE WELL H 3 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/9/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1 1 Dichloroethene																0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1 2 Dichloropropane																0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U		--
1 1 2 Trichloroethene																0 5 U	0 5 U		--
1 1,2,2 Tetrachloroethane																0 5 U	0 5 U	0 053	
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7,000	--
2 Hexanone																5 0 U	5 0 U	--	--
4 Methyl 2 pentanone																5 0 U	5 0 U	6 300	
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	2 J	5 0 U	1 J	5 0 U	5 0 U	5,500	--
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0 5 U	0 5 U	0 5 U	8 5	
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	--
Chloroethane[ca]	0 5 U	0 5 U	4 5	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
cis 1,2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 52	0 5 U	18	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 2	0 5 U	0 5 U	0 51	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 5 U	0 5 U	0 24	0 14	0 18	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	0 26	0 18	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 0 U	1 0 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2 1 U	5 2 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 55 U		1,800	--
Bis(2 ethylhexyl) phthalate	0 2	5 2 U	5 0 U	5 0 U	4 5	5 0 U	0 1 U	2 1	2 1	0 55 U	0 71	0 55 U	17 BE	5 01	0 55 U	1		4 8	--
Butyl benzyl phthalate[ca]	0 033	5 2 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 55 U		35	--
Di 2 ethylhexyladipate	5 2 U	6 2 U	6 0 U	6 1 U	6 0 U	6 0 U	--	--	--	--	--	--	--	--	--	--		--	400
Di n butyl phthalate	0 071	5 2 U	0 23	0 32	0 11	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	2 16	0 55 U	0 55 U	0 55 U		3 700	--
Diethyl phthalate	2 1 U	5 2 U	5 0 U	0 18	5 0 U	5 0 U	--	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 55 U		29,000	--
Naphthalene	0 5 U	0 051	0 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 55 J	0 55 U	0 55 U	0 5 U	0 55 U	0 55 U	0 55 U		6 5	
Metals (mg/l)																			
Aluminum	0 23	0 024 U	0 055	0 021 U	0 057	0 059	0 00134	0 0179	0 00094 U	0 00375	0 00517	0 0005 U	0 00767	0 000923	0 00824	0 0018		37	--
Antimony	0 0054 U	0 034 U	0 0075 U	0 009 U	0 002 U	0 005 U	0 000053 U	0 0002 U	0 0002 U	0 0002 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 015	0 006
Arsenic[ca]	0 0009 U	0 0007 U	0 0037 U	0 001 U	0 003 U	0 002 U	0 000329	0 00028 U	0 00028 U	0 00028 U	0 000674	0 0003 U	0 000801	0 0003 U	0 0003 U	0 0003 U		0 000045	0 005
Barium	0 058	0 037	0 038	0 035	0 043	0 047	0 0385	0 0436	0 0359	0 0373	0 0381	0 0357	0 0431	0 0372	0 037	0 0361		2 6	2
Beryllium	0 0008	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 0043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 073	0 004
Cadmium	0 0014	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	97 1	76 1	74 3	81	80 1	79	87 2	81 6	73 7	65 8	82 2	71 3	90	90 9	96 6	88 8		--	--
Chromium	0 0021 U	0 005 U	0 001 U	0 001 U	0 0013 U	0 001 U	0 00127	0 00107	0 000931	0 0018	0 0006 U	0 00246	0 0006 U	0 0011	0 0006 U	0 00195		55	0 1
Cobalt	0 00084 U	0 0054 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00004 U	0 000397	0 000314	0 000464	0 0005 U	0 0005U	0 00072	0 000595	0 000854	0 00132		0 73	--
Copper	0 0018 U	0 0022	0 0012 U	0 002 U	0 002 U	0 002 U	0 000189	0 000644	0 000561	0 00905	0 13	0 00101	0 00112	0 00168	0 001 U	0 00104		1 5	1
Iron	1 7	0 36	1 2	1 3	1 4	1 2	1 65	1 61	0 287	1 63	4 49	0 535	13 8	2 46	2 1	0 885		11	--
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0017	0 001U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 00698	0 0003 U	0 0003 U	0 0003 U	0 00152	0 000546		--	0 015
Magnesium	21 9	17 6	16	19	17 9	17 9	16 9	17 3	16 1	15 2	21 2	15 7	20 8	20	20 7	22 2		--	--
Manganese	0 42	0 33	0 32	0 34	0 34	0 39	0 369	0 331	0 313	0 345	0 447	0 34	0 465	0 422	0 421	0 393		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 000633	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00328	0 00189	0 00144	0 00123	0 00267	0 00311	0 00312	0 0022	0 00314	0 00252		0 73	--
Potassium	2 1	1 5	2 1	2 1	1 9	2 8	1 74	2 13	1 78	1 67	1 81	1 59	1 96	1 91	1 69	2 2		--	--
Selenium	0 0014 U	0 0009 U	0 0052 U	0 001 U	0 0043 U	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 000371	0 000514		0 18	0 05
Silver	0 0014 U	0 0024	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 18	--
Sodium	6	3 9	4	3 9	6	6 8	4 1	4 78	4 32	4 13	4 36	4 28	5 01	5 51	5 19	5 96		--	--
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 00025	0 0002 U		0 0026	0 002
Vanadium	0 00075 U	0 0022 U	0 001 U	0 002 U	0 001 U	0 001 U	0 000321	0 000044 U	0 000204	0 000112 U	0 0005 U	0 000827	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 028	0 019	0 011	0 006 U	0 0031	0 0025	0 000677	0 00322	0 000471	0 0043	0 0854	0 00109	0 00156	0 00166	0 00174	0 0017		11	--

Notes:

Highlighted cells indicate results that exceed one or more of the listed regulatory limits.

Key:

--	Not available.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk Based Concentration.

Table 7 Performance Well Results

PERFORMANCE WELL H-4 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/9/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1,1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1,1 Dichloroethene																0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1,2 Dichloropropane																0 5 U	0 5 U	0 16	5
1,1 1 Trichloroethene																0 5 U	0 5 U		--
1 1,2 Trichloroethene																0 5 U	0 5 U		
1,1,2,2 Tetrachloroethane																0 5 U	0 5 U	0 053	--
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7,000	
2 Hexanone																5 0 U	5 0 U		
4 Methyl 2 pentanone																5 0 U	5 0 U	6,300	
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	2	5 U	5 U	5 0 U	5 0 U	5 0 U	5	5 0 U	1 J	5 0 U	5 0 U	5,500	--
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	8 5	80
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--		3	0 5 U	0 5 U	0 5 U	8 5	--
Carbon Disulfide	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 8	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	--
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	--
Chloroethane[ca]	0 5 U	0 5 U	0 29	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
cis 1,2 Dichloroethene	0 5 U	0 5 U	2 4	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	17	0 5 U	0 5 U	0 28	0 5 U	0 5 U	0 5 U	3	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 5 U	0 099	0 39	0 25	1 8	1 5	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	3	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 0 U	1 0 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2 0 U	5 1 U	5 0 U	4 9 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U		1,800	--
Bis(2-ethylhexyl) phthalate	0 64	5 1 U	5 0 U	4 9 U	1 5	5 0 U	0 1 U	3 13	3 13	0 55 U	0 86	0 55 U	0 61 B	0 55 U	0 7	0 94		4 8	--
Butyl benzyl phthalate[ca]	0 058	5 1 U	5 0 U	4 9 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U		35	--
Di 2-ethylhexyladipate	5 0 U	6 1 U	6 0 U	5 9 U	6 0 U	6 0 U	--	--	--	--	--	--	--	--	--	--		--	400
Di n butyl phthalate	0 14	0 2	0 22	4 9 U	0 11	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U		3,700	--
Diethyl phthalate	2 0 U	5 1 U	5 0 U	4 9 U	5 0 U	5 0 U	--	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U		29,000	--
Naphthalene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U		6 5	--
Metals (mg/l)																			
Aluminum	0 21	0 024 U	0 033	0 028	0 051	0 022	0 000909	0 00456	0 00094 U	0 0024	0 0005 U	0 0005 U	0 026	0 00176	0 00524	0 00285		37	--
Antimony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 002 U	0 005 U	0 000511	0 000325	0 000208	0 000224	0 00051	0 000493	0 0004 U	0 000937	0 0004 U	0 00267		0 015	0 006
Arsenic[ca]	0 0009 U	0 0007 U	0 0037 U	0 001 U	0 003 U	0 002 U	0 000152 U	0 00028 U	0 00028 U	0 00028 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 000045	0 005
Barium	0 13	0 081	0 074	0 068	0 082	0 086	0 0701	0 081	0 0742	0 0616	0 0638	0 0983	0 0979	0 12	0 119	0 113		2 6	2
Beryllium	0 0008	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 073	0 004
Cadmium	0 00036 U	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	102	63 6	56 1	57	57 4	57 7	57	59 4	60 8	39 6	41 9	49 6	51 1	52 6	45 7	51 3		--	--
Chromium	0 0021 U	0 005 U	0 001 U	0 0012	0 0013 U	0 001 U	0 000924	0 00105	0 0016	0 00207	0 0006 U	0 00207	0 00118	0 0012	0 0006 U	0 00118		55	0 1
Cobalt	0 0017	0 0054 U	0 001 U	0 0016	0 0012	0 001 U	0 000454	0 00702	0 00104	0 002	0 00226	0 00173	0 00177	0 00153	0 00208	0 00224		0 73	--
Copper	0 0018 U	0 0021	0 0012 U	0 004	0 002 U	0 0021	0 00156	0 000649	0 000451	0 00378	0 00117	0 00112	0 00286	0 00154	0 001 U	0 00114		1 5	1
Iron	0 35	0 061	0 063	0 064	0 041	0 02 U	0 214	0 467	0 232	0 316	0 241	0 282	0 583	0 358	0 274	0 225		11	--
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0016	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 00147	0 0003 U	0 0003 U	0 0003 U	0 00153	0 000457		--	0 015
Magnesium	21 4	16 7	13 5	15	13 5	13 7	12 9	13 7	12 9	10 2	13	12 1	12 7	12 4	11 7	13 8		--	--
Manganese	0 41	0 32	0 26	0 26	0 26	0 3	0 249	0 282	0 278	0 203	0 239	0 23	0 268	0 241	0 185	0 226		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00235	0 00253	0 00126	0 00171	0 0022 U	0 00269	0 00277	0 00178	0 00216	0 00208		0 73	--
Potassium	0 75	23 5	24 6	26	31 4	23 9	19	11 4	2 18	19 2	14 1	9 85	9 75	10 2	12 4	10 7		--	--
Selenium	0 0014 U	0 0039	0 0052 U	0 001 U	0 0053	0 002 U	0 000453 U	0 0004 U	0 00044 U	0 00044 U	0 000465	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 001		0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 18	--
Sodium	7 1	13 5	12 7	15	20 4	17 9	15 1	12 1	5 61	18 5	15 1	12 8	13 6	13 9	17 7	16 3		--	--
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 000731	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		0 0026	0 002
Vanadium	0 0012	0 0022 U	0 001 U	0 002 U	0 001 U	0 001 U	0 000229	0 000048 U	0 000446	0 000112 U	0 0005 U	0 00065 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 056	0 015	0 016	0 007	0 012	0 0017 U	0 000696	0 00249	0 000659	0 0037	0 0126	0 000763	0 0028	0 00138	0 000861	0 00173		11	--

Notes.
H ghlighted cells nd cate results that exceed one or more of the listed regulatory limits.

Key

	Not vailable.
ca	Carcinogenic ffects.
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk Based Concentration.

Table 7 Performance Well Results

PERFORMANCE WELL H 5 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY, PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2000	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																			
1 1 Dichloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	--
1 1 Dichloroethene																0 5 U	0 5 U	350	7
1 2 Dichloroethane[ca]																0 5 U	0 5 U	0 12	5
1 2 Dichloropropane																0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U		
1 1 2 Trichloroethene																0 5 U	0 5 U		--
1,1 2,2 Tetrachloroethane																0 5 U	0 5 U	0 053	--
2 Butanone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7 000	--
2 Hexanone																5 0 U	5 0 U	--	--
4 Methyl 2 pentanone																5 0 U	5 0 U	6,300	
Acetone	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	5 0 U	3	5 0 U	5	5 0 U	1 J	5 0 U	5 0 U	5,500	--
Benzene[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
Bromodichloromethane[ca]																0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	--	--			--	--			--	--	--		--	6	0 5 U	0 5 U	0 5 U	8 5	--
Carbon Disulfide	0 5 U	0 5 U	0 27	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	--
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	110	--
Chloroethane[ca]	0 5 U	0 5 U	5 4	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	--
Chloroform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	--
cis 1,2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 44	--
Dibromochloromethane[ca]																0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	1	0 5 U	0 5 U	0 31	0 5 U	0 5 U	0 5 U	6	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	--	0 5 U	0 5 U	4 1	--
Styrene																0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 34	0 049	0 46	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2 Dichloroethene																0 5 U	0 5 U	110	100
trans 1 3 Dichloropropene																0 5 U	0 5 U	0 44	--
Trichloroethene[ca]	0 29	0 073	0 54	0 25	0 61	0 5	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 0 U	1 0 U	210	10,000
Semivolatile Organic Compounds (µg/l)																			
Anthracene	2 2 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U		1,800	--
Bis(2 ethylhexyl) phthalate	3 2	5 0 U	5 0 U	5 0 U	1 4	5 0 U	0 1 U	1 21	1 21	3 87	0 55 U	0 55 U	2 92 B	6 57	0 5 U	0 55 U		4 8	--
Butyl benzyl phthalate[ca]	0 041	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U		35	--
Di 2 ethylhexyladipate	0 46	6 1 U	6 0 U	6 1 U	6 0 U	6 0 U	--	--	--	--	--	--	--	--	--	--		--	400
Di n butyl phthalate	0 17	0 18	0 3	0 19	5 0 U	5 0 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U		3,700	--
Diethyl phthalate	2 2 U	5 0 U	5 0 U	0 11	5 0 U	5 0 U	--	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U		29,000	--
Naphthalene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1 U	0 5 U	0 5 U	0 55 U	0 55 U	0 55 U	0 55 U	0 55 U	0 5 U	0 55 U		6 5	--
Metals (mg/l)																			
Aluminum	0 19	0 033	0 05	0 023	0 063	0 044	0 00144	0 0093	0 00094 U	0 0036	0 000884	0 000704	0 00401	0 00224	0 0059	0 00228		37	--
Antimony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 002 U	0 005 U	0 000055	0 0002 U	0 0002 U	0 0002 U	0 000425	0 00126	0 0004 U	0 000449	0 0004 U	0 0011		0 015	0 006
Arsenic[ca]	0 0017	0 0015	0 0037 U	0 001 U	0 0033	0 002 U	0 0013	0 000543	0 000815	0 00028 U	0 000717	0 00133	0 0003 U	0 000609	0 000674	0 000398		0 000045	0 005
Barium	0 057	0 034	0 038	0 033	0 042	0 039	0 0368	0 0426	0 034	0 0406	0 0371	0 0408	0 0408	0 0422	0 0454	0 0405		2 6	2
Beryllium	*0 0008*	*0 0005*	*0 001 U*	*0 001 U*	*0 001 U*	*0 001 U*	*0 00014 U*	*0 00043 U*	*0 00043 U*	*0 00043 U*	*0 00043 U*	*0 0004 U*	*0 0004 U*	*0 0004 U*	*0 0004 U*	*0 0004 U*		*0 073*	*0 004*
Cadmium	0 00036 U	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 018	0 005
Calcium	118	96 2	95 8	100	104	90 6	95 1	101	90 8	86 2	96 9	97 2	110	116	115	105		--	--
Chromium	0 0021 U	0 005 U	0 0014	0 001 U	0 0013 U	0 001 U	0 000453	0 00123	0 00201	0 00155	0 0006 U	0 00348	0 000872	0 00121	0 0006 U	0 00162		55	0 1
Cobalt	0 00084 U	0 0054 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00004 U	0 00388	0 000217	0 000467	0 0005 U	0 000529	0 000806	0 000739	0 00121	0 00142		0 73	--
Copper	0 0018 U	0 0019 U	0 0023	0 003	0 002 U	0 0022	0 000262	0 000369	0 000963	0 00471	0 001U	0 00139	0 001 U	0 00214	0 001 U	0 001 U		1 5	1
Iron	3 1	1 4	1 2	1 2	1 2	1 3	2 27	2 34	0 351	2 21	2 75	2 15	2 77	2 82	2 58	2 05		11	--
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0013	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 00217	0 000561		--	0 015
Magnesium	26 1	21 4	19 5	22	21 9	19 4	18 1	21 8	18 5	17 9	21	20 1	22 2	23	22 5	25 3		--	--
Manganese	0 85	0 64	0 57	0 57	0 59	0 6	0 548	0 622	0 533	0 63	0 596	0 536	0 683	0 671	0 737	0 538		0 73	--
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		--	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00311	0 00217	0 0014	0 00108	0 00234	0 00404	0 00373	0 00213	0 00313	0 00267		0 73	--
Potassium	1 1	0 49 U	1 1	1 2	0 85	0 93	0 755	0 996	0 799	0 76	0 813	0 786	0 838	0 944	0 744	0 923		--	--
Selenium	0 0014 U	0 0009 U	0 0052 U	0 001 U	0 0051	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	0 0003U	0 0003 U	0 0003 U	0 0003 U	0 00106		0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 18	--
Sodium	6 1	3 8	3 5	3 1	5	4 7	2 82	3 22	3	2 92	3 38	2 97	3 28	3 32	3 02	3 75		--	--
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 00039	0 0002 U	0 00026	0 000476	0 0002 U	0 0002 U		0 0026	0 002
Vanadium	0 00075 U	0 0022 U	0 001 U	0 002	0 001 U	0 001 U	0 00007	0 000048 U	0 000497	0 000112 U	0 0005 U	0 0011	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 037	--
Zinc	0 018	0 0035 U	0 038	0 0066	0 0016 U	0 0017 U	0 000589	0 0052	0 000689	0 00361	0 0005 U	0 00146	0 00301	0 00182	0 00103	0 0023		11	--

Notes:
Highlighted cell indicates results that exceed one or more of the l ted regulatory limits

Key

	Not available.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk Based Concentration.

Table 7 Performance Well Results

TABLE
PERFORMANCE WELL H-6 SUMMARY OF HISTORIC SAMPLE RESULTS
OSBORNE LANDFILL
PINE TOWNSHIP MERCER COUNTY PENNSYLVANIA

Date Sampled	2/25/1997	5/1/1997	8/12/1997	9/11/1997	11/17/1997	3/4/1998	8/5/1998	2/1/1999	8/16/1999	2/8/2000	8/10/2001	3/20/2001	8/14/2001	2/15/2002	8/9/2002	3/14/2003	2/18/2004	4/21/2005	EPA Region 3 RBCs	EPA MCLs
Volatile Organic Compounds (µg/l)																				
1 1 D chloroethane	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	900	–
1,1 Dichloroethene																0 5 U	0 5 U	0 5 U	350	7
1 2 Dichloroethane[c]																0 5 U	0 5 U	0 5 U	0 12	5
1,2 Dichloropropane																0 5 U	0 5 U	0 5 U	0 16	5
1 1 1 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1 2 Trichloroethene																0 5 U	0 5 U	0 5 U	–	–
1 1,2 2 Tetrachloroethane																0 5 U	0 5 U	0 5 U	0 053	–
2 B tanone	5 0 U	5 0 U	3	5 0 U	5 0 U	5 0 U	5 0 U	0 5 U	0 5 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	7,000	–
2 Hexanone																5 0 U	5 0 U	5 0 U	–	–
4 Methyl 2 pentanone																5 0 U	5 0 U	5 0 U	6 300	–
Acetone	5 0 U	5 0 U	7 2	5 0 U	5 0 U	5 0 U	5 0 U	5 U	5 U	2	4	5 0 U	4 J	5 0 U	5 0 U	5 0 U	5 0 U	1 3 B	5,500	–
Benzene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 34	5
B romodichloromethane[ca]																0 5 U	0 5 U	0 5 U	0 17	80
Bromoform[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	8 5	80
Bromomethane	–	–	–	–	–	–	–	–	–	–	–	–	–	6	0 5 U	0 5 U	0 5 U	0 5 U	8 5	–
Carbon Disulfide	0 44	0 5 U	1 2	0 5 U	0 35	0 5 U	0 7	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1,000	–
Carbon Tetrachloride[ca]																0 5 U	0 5 U	0 5 U	0 16	5
Chlorobenzene																0 5 U	0 5 U	0 5 U	110	–
Chloroethane[ca]	0 5 U	0 5 U	3 1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	3 6	–
Chloroform[ca]	0 59	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 15	80
Chloromethane	0 39	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	190	–
cis 1,2 Dichloroethene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	2	1 J	1 J	0 7	0 5 U	61	70
cis 1,3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Dibromochloromethane[ca]																0 5 U	0 5 U	0 5 U	0 13	80
Ethylbenzene																0 5 U	0 5 U	0 5 U	1,300	70
Methylene chloride[ca]	0 67	0 1	0 5 U	0 24	0 5 U	0 5 U	0 5 U	4	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	–	0 5 U	0 5 U	0 46 B	4 1	–
Styrene																0 5 U	0 5 U	0 5 U	1,600	100
Tetrachloroethene	0 5 U	0 04	0 23	0 15	0 22	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 1	5
Toluene	0 5 U	0 099	1	0 36	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	750	1,000
trans 1,2 Dichloroethene																0 5 U	0 5 U	0 5 U	110	100
trans 1 3 Dichloropropene																0 5 U	0 5 U	0 5 U	0 44	–
Trichloroethene[ca]	0 5 U	0 75	3 6	2 2	4 5	[illegible]	[illegible]	1	1	J	3	0 5 U	2	0 5 U	1 J	0 5 U	0 5 U	0 17 J	0 026	5
Vinyl chloride[ca]	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	1	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 015	2
Xylenes																1 0 U	1 0 U	0 5 U	210	10,000
Semivolatile Organic Compounds (µg/l)																				
Anthracene	2 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 55 U		5 0 U	1,800	–
Bis(2-ethylhexyl) phthalate	0 39	5 0 U	5 0 U	5 0 U	1	5 0 U	0 11 U	1 71	1 71	1 31	3 66	0 55 U	1 62 B	0 5 U	0 6 U	0 85		5 0 U	4 8	–
Butyl benzyl phthalate[ca]	0 032	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 55 U		5 0 U	35	–
Di 2-ethylhexyladipate	0 057	6 0 U	6 0 U	5 9 U	6 0 U	6 0 U	–	–	–	–	–	–	–	–	–	–		–	–	400
Di n butyl phthalate	0 29	5 0 U	0 18	0 37	0 11	5 0 U	0 11 U	0 5 U	0 5 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 55 U		5 0 U	3,700	–
Diethyl phthalate	0 055	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	–	0 5 U	0 5 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 55 U		5 0 U	29 000	–
Naphthalene	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 5 U	0 11 U	0 5 U	0 5 U	0 55 U	0 5 U	0 55 U	0 55 U	0 5 U	0 6 U	0 55 U		5 0 U	6 5	–
Metals (mg/l)																				
Aluminum	0 096	0 029	0 043	0 021 U	0 064	0 039	0 00256	0 00373	0 00094 U	0 00477	0 00121	0 0005 U	0 0005 U	0 00076	0 00571	0 00233		–	37	–
Antimony	0 0054 U	0 034 U	0 0075 U	0 004 U	0 002 U	0 005 U	0 000519	0 000275	0 0002 U	0 000642	0 000904	0 000631	0 000764	0 000561	0 0004 U	0 000541		0 0025 U	0 015	0 006
Arsenic[ca]	0 0062	0 0048	0 0044	0 0035	0 0082	0 0053	0 00294	0 00528	0 00371	0 00335	0 00092	0 00299	0 0003 U	0 00054	0 000747	0 0003 U		0 00065 J	0 000045	0 005
Barium	0 21	0 14	0 15	0 13	0 16	0 15	0 135	0 131	0 097	0 103	0 104	0 104	0 856	0 0867	0 0904	0 0836		0 0773	2 6	2
Beryllium	0 0004	0 0005 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00014 U	0 00043 U	0 00043 U	0 00043 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U	0 0004 U		0 00125 U	0 073	0 004
Cadmium	0 00036 U	0 0046 U	0 0005 U	0 001 U	0 0005 U	0 0005 U	0 000035 U	0 00012 U	0 00012 U	0 00012 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 018	0 005
Calcium	105	108	96 4	99	109	105	113	117	109	95 1	104	93 3	98 5	103	106	99 8		–	–	–
Chromium	0 0021 U	0 005 U	0 001 U	0 0017	0 0013 U	0 001 U	0 00157	0 00139	0 00304	0 00143	0 0006 U	0 58	0 00092	0 00171	0 0006 U	0 00202		0 0025 U	55	0 1
Cobalt	0 00084 U	0 0054 U	0 001 U	0 001 U	0 001 U	0 001 U	0 00004 U	0 00612	0 00017 U	0 000259	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 0005 U	0 000513		0 00025 J	0 73	–
Copper	0 0018 U	0 0032	0 0012 U	0 005	0 002 U	0 002 U	0 000429	0 00039	0 000503	0 00524	0 001 U	0 00136	0 0018	0 001 U	0 001 U	0 001 U		0 00039 B	1 5	1
Iron	4 8	0 056	0 071	0 11	0 046	1 6	1 76	3 55	0 845	3 34	1 42	2 53	0 998	1 87	1 19	1 97		–	11	–
Lead	0 0011 U	0 0019 U	0 0025 U	0 001 U	0 0013	0 001 U	0 000052 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 00164	0 00136		0 00125 UL	–	0 015
Magnesium	23 5	24 6	20 8	23	24 6	24 1	22 8	26 2	24	22 2	25 7	22 6	23 1	24 5	24	27 8		–	–	–
Manganese	1 4	1	1	1	1	1 2	0 924	0 685	0 57	0 555	0 648	0 604	0 474	0 486	0 414	0 457		0 455	0 73	–
Mercury	0 0002 U	0 0002 U	0 0002 U	0 2 U	0 0002 U	0 0002 U	0 000184 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U	0 0002 U		0 000040 J	–	0 002
Nickel	0 0028 U	0 015 U	0 0012 U	0 002 U	0 0028 U	0 0016 U	0 00364	0 00307	0 00162	0 00148	0 00243	0 00399	0 00376	0 00198	0 00301	0 00235		0 0024	0 73	–
Potassium	3 1	1 9	3 6	3	3 3	2 7	2 88	2 85	2 44	2 25	4 38	2 96	3 98	3 06	2 85	2 92		–	–	–
Selenium	0 0014 U	0 0009	0 0052 U	0 001 U	0 0043	0 002 U	0 000453 U	0 00044 U	0 00044 U	0 00044 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 00102		0 00625 U	0 18	0 05
Silver	0 0014 U	0 0018 U	0 001 U	0 002 U	0 002 U	0 002 U	0 000054 U	0 00023 U	0 00023 U	0 00023 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U	0 0003 U		0 00125 U	0 18	–
Sodium	27 2	15 1	19 6	19	23	19 1	16 5	13 3	8 86	9 58	16 3	12 5	14 2	11 8	10 2	11		–	–	–
Thallium	0 00048 U	0 0024 U	0 0036 U	0 003 U	0 0039 U	0 0015 U	0 000029 U	0 000029 U	0 000147 U	0 000147 U	0 0002 U	0 0002 U	0 0002	0 0002 U	0 0002 U	0 0002 U		0 00125 U	0 0026	0 002
Vanadium	0 00075 U	0 0039	0 001U	0 002 U	0 001 U	0 001	0 000434	0 000048 U	0 000846	0 000112 U	0 0005 U	0 00173	0 0005 U	0 0005 U	0 0005 U	0 0005 U		0 000045 B	0 037	–
Zinc	0 11	0 005	0 0081	0 008	0 0032	0 0017 U	0 00028	0 00247	0 000357 U	0 00249	0 0005 U	0 00171	0 00146	0 000826	0 00374	0 0023		0 00017 B	11	–

Notes:

Highlighted cells indicate result that exceed one or more of the listed regulatory limits.

The listed data qualifier definitions apply only to sample results from 2005

Key:

	Not available.
B	Not detected substantially above the level reported in laboratory or field blanks.
ca	Carcinogenic effects.
EPA	United States Environmental Protection Agency
J	Analyte present. Reported value may not be accurate or precise.
L	Low bias.
MCL	USEPA Maximum Contaminant Level
µg/L	Micrograms per liter
mg/L	Milligrams per liter
RBC	Risk-Based Concentration.
U	Not detected at the listed detection limit
UL	Not detected at the listed detection limit

Table 7 Performance Well Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Addendum to Osborne Landfill Five-Year Review

FROM: Rashmi Mathur, Remedial Project Manager
Hazardous Site Cleanup Division

TO: Osborne Site File, Mercer County, PA

THRU: Peter W. Schaul, Director,
Office of Superfund Site Remediation (3HS20)

The August 2005 Five-Year Review for the Osborne Landfill Superfund Site identified certain issues and/or deficiencies requiring follow-up action. The following documents the current status of those issues.

SECTION I
The following identified issues have been addressed and/or resolved:

- The EPA recommends keeping the leachate system off but monitoring the on-site, off-site and one residential well of concern twice a year for trichloroethylene, vinyl chloride, pH, water levels and total suspended solids for one year and then EPA will maintain or reduce the monitoring scheme based on the data results. The first round of monitoring was completed in November 2005 and the second round of sampling will be collected in May 2006. The Responsible Party will submit the validated data in a report with both rounds of data in August 2006 and EPA will either maintain or reduce the monitoring scheme based on the validated data results by September 2006.
- The EPA also recommended checking for burrowing animals in the cap and adding this item to the Operation and Maintenance Plan annually. The Responsible Parties already have Section 5.3, Inspection of the Operation and Maintenance Plan which requires biannual inspections of the cap in the spring and fall including signs of burrowing animals.

SECTION II
No items are needed in Section II.

SECTION III
I have attached the Operation and Maintenance Plan with section stating that the cap will be inspected for animal burrows for the Osborne Landfill Superfund Site.

cc: Raphael Gonzales, OSRTI
David Lopez, OSRTI

ATTACHMENT 1

SECTION 5.3 OPERATION & MAINTENANCE PLAN
MARCH 15, 1995

SECTION 5.0 - CAP MAINTENANCE

5.1 WORK INCLUDED

A cap was placed over the regraded waste to reduce infiltration of water into the fill and prevent waste contact with the environment. The cap was constructed using one layer of a geocomposite clay 1iner, over1ain by 12 inches of sand, a 1ayer of geotextile, and 24 inches of topsoil. During the first year following construction, the cap will be inspected monthly, and mowed monthly between May and October. The cap will be inspected twice a year in subsequent years.

5.2 MOWING

The cap will be mowed monthly between May and October. Mowing will not be performed if there is a risk of rutting from equipment due to wet conditions. Vegetation shall be cut no closer than 6 inches. The operator must be familiar with the site and location of structures such as extraction well protective casings. It will not be necessary for the operator to meet OSHA 1910.120 training or medical monitoring requirements. Mowing will continue monthly until the five-year review, at which time a revised schedule will be considered.

5.3 INSPECTION

Inspection of the cap will be performed monthly during the first year after construction and twice a year thereafter. Inspections should occur in the spring prior to mowing and in the fall after mowing. The inspections will be performed by walking the entire cap area. The inspections shall, as a minimum, note the following damage:

- Areas void of vegetation
- Stressed vegetation
- Erosion damage
- Signs of borrowing animals
- Amount of settlement

During inspection, the cap infiltration drainage pipes wi1l a1so be inspected for damage or blockage. If stressed vegetation, settlement, or burrowing animals are observed, contact the Grove City Plant operator. The cause of the problems must be investigated prior to repairs. If erosion is observed, make appropriate repairs when weather permits.

5.4 SETTLEMENT MONITORING

Settlement monitors will be surveyed monthly during the first year after cap construction and every six months thereafter. If the rate of settlement at any monitor exceeds 1/2 inch per year, monitoring frequency may be increased. If excessive settlement continues, procedures out1ined in the Contingency Plan will be implemented.

5.5 RECORDING OF INSPECTION DATA

Information regarding cap inspections will be entered into the Site Inspection Logbook maintained at the treatment plant building. During each inspection, the following information shall be recorded:

Date:
Employee's Name:
Weather:
Damage to the Cap (Erosion, Settlement, Distressed Vegetation, etc.):

The source of the damage will be investigated and a method of repair implemented. The inspection reports will be maintained at the site.