

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

June 10, 2004

SUBJECT: Craig Farm 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 Report for the Craig Farm Superfund Site in Armstrong County, Pennsylvania. The remedy at the Craig Farm Site is protective in the short term of human health and the environment because physical construct on is complete but institutional controls have not been implemented. The institutional control: required by the ROD include utilizing deed notices to inform property owners about contaminants at the Site. The EPA attorney is working to implement the institutional controls.

There is no risk to exposure because a RCRA Landfill has been built to contain the wastes an l a seep interceptor system collects contaminated groundwater and is treated offsite. However, in order for the remedy to be protective in the long-term, the institutional controls alerting site owners of the contaminants on Site and prohibiting landfill use and groundwater use on Site will have to be put in place to ensure long-term protectiveness.

Second Five-Year Review Report

for

Craig Farm Drum
Superfund Site

Perry Township
Armstrong County, PA

2004

Prepared By:
Environmental Protection Agency
Philadelphia, PA

Table of Contents
Five Year Review
Craig Farm Drum Super fund Site

I.	Introduction.....	1
II.	Site Chronology.....	2
III.	Background.....	3
	Physical Characteristics.....	3
	Land and Resource Use.....	3
	History of Contamination.....	4
	Initial Response.....	4
	Basis for Taking Action.....	5
IV.	Remedial Actions.....	5
	Remedy Selection.....	5
	Remedy Implementation.....	6
	System Operation/Operation and Maintenance.....	8
V.	Progress Since Last Five Year Review.....	9
VI.	Five Year Review Process.....	9
	Administrative Components.....	9
	Community Involvement.....	9
	Document Review.....	10
	Data Review.....	10
	Site Inspection.....	11
	Interviews.....	11
VII.	Technical Assessment.....	11
VIII.	Issues.....	13
IX.	Recommendations and Follow-up Actions.....	13
X.	Protectiveness Statement.....	17
XI.	Next Review.....	17

Tables

Table 1 - Chronology of Site Events.....	2
Table 2 - Issues 15	
Table 3 - Recommendations and Follow-up Actions.....	16

Attachments

Attachment 1 - Site Location	
Attachment 2 - Summary of Analytical Data for Migration Monitoring Wells	
Attachment 3 - Concentration Trend Graphs of Migration Monitoring Wells	
Attachment 4 - Summary Analytical Data of Surface Water	

Table of Contents
Five Year Review
Craig Farm Drum Superfund Site

- Attachment 5 - Concentration Trend Graphs of Surface Water
- Attachment 6 - Analytical Data for Landfill Monitoring Wells
- Attachment 7 - Concentration Trend Graphs for Landfill Monitoring Wells
- Attachment 8- ARAR Table

List of Acronyms

ARARs	Applicable or relevant and appropriate requirements
BMDSA	Benzene Meta Disulfonic Acid
BSA	Benzene Sulfonic Acid
COC	Contaminants of Concern
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EA	Environmental Assessment
EPA	Environmental Protection Agency
GCL	Geosynthetic Clay Liner
HOPE	High Density Polyethylene
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operations and Maintenance
OU	Operable Unit
PADEP	Pennsylvania Department of Environmental Protection
PADER	Pennsylvania Department of Environmental Resources
PRP	Potentially Responsible Party
P-PSA	Para-Phenolsulfonic Acid
PSA	Phenolsulfonic Acid
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
THD	Trihydroxydiphenyl

Executive Summary

The remedy for the Craig Farm Drum Superfund Site in Armstrong County, Pennsylvania included the excavation of 32,000 cubic yards of soil from the two disposal pits and surrounding areas followed by on site treatment using solidification. An onsite Resource Conservation Recovery Act (RCRA) equivalent landfill was constructed for deposition of the treated waste and the contaminated soils from the two pit areas. This disposal unit was capped, and then seeded to produce a vegetative cover. A fence was required to be placed around the perimeter of the disposal unit. The selected remedy also included the collection and treatment of the ground water via a seep interceptor system. This collection and treatment of the contaminated water was required to continue indefinitely until the remediation is judged to be complete. The completeness of the remedy will be determined by using a bioassay testing procedure that is approved by the EPA. In addition, a one acre wetlands was built onsite to replace a smaller area of wetlands lost in building the onsite landfill. Institutional controls include utilizing deed notices to inform property owners about contaminants at the site. The site achieved construction completion with the signing of a report titled, "Final Close Out Report" on December 27, 1995. The report titled, "Final Close Out Report" was equivalent to the current Preliminary Closeout Report (PCOR). The trigger for this Five Year Review was the previous Five Year Review on April 6, 1999.

The assessment of this Five Year Review found that the physical construction of the remedy is in accordance with the requirements of the ROD for OU1, OU2, and OU3 dated September 29, 1989. The remedy is functioning as designed, but one issue has been identified. Deed restrictions need to be placed on the property, which would inform property owners about contaminants at the site.

Five Year Review Summary Form

SITE IDENTIFICATION		
Site name: Craig Farm Drum Superfund Site		
EPA ID: PAD980508527		
Region: 3	State: PA	City/County: Perry Township, Armstrong
SITE STATUS		
NPL status: <input checked="" type="checkbox"/> Final <input type="checkbox"/> Deleted <input type="checkbox"/> Other (specify) _____		
Remediation Status (choose all that apply): <input type="checkbox"/> Under Construction <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Complete		
Multiple OUs?* <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Construction completion date: December 27, 1995	
Has site been put into reuse? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NA		
REVIEW STATUS		
Lead agency: <input checked="" type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency _____		
Author name: Rashmi Mathur		
Author title: Remedial Project Manager	Author Affiliation: U.S. EPA - Region 3	
Review period:*** February 01, 2004 - June, 2004		
Date(s) of site inspection: 03/04/2004		
Type of review: <input checked="" type="checkbox"/> Post-SARA <input type="checkbox"/> Pre-SARA <input type="checkbox"/> NPL-Removal only <input type="checkbox"/> Non-NPL Remedial Action Site <input type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion		
Review number: <input type="checkbox"/> 1 (first) <input checked="" type="checkbox"/> 2 (second) <input type="checkbox"/> 3 (third) <input type="checkbox"/> Other(specify) _____		
Triggering action: <input type="checkbox"/> Actual RA Onsite Construction at OU #1, #2,#3 <input type="checkbox"/> Actual RA Start at OU# _____ <input type="checkbox"/> Construction Completion <input checked="" type="checkbox"/> Previous Five Year Review Report <input type="checkbox"/> Other (specify) <u>Informed public review would be conducted</u>		
Triggering action date: April 6, 1999		
Due date (five years after triggering action date): April 6, 2004		

* ("OU" refers to operable unit.)

** (If a contractor writes the report, the author name should be written as, "RPM w/ (contractor name) assistance.)

*** (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/Recommendations and Follow-up Actions

- Locks and caps on numerous monitoring wells were found broken during the Site inspection./***These locks and caps were repaired.***
- Institutional controls discussed in the Record of Decision (ROD) have not been implemented at the Site./***Institutional controls must be established by Beazer East Inc. These institutional controls should address land- use and restriction of ground water use.***
- Two fifty-five gallon drums located near the groundwater collection tank and one fifty-five gallon drum located near the wetland area were identified during the Site inspection./***The content in the drums was characterized and disposed of properly.***
- The seep collection tank indicator was not functioning./***A repair was made to the seep collection tank indicator, so it is functioning properly.***

Protectiveness Statements

The remedy at the Craig Farm Drum Site is protective in the short term of human health and the environment because physical construction is complete but institutional controls have not been implemented. There is no risk to exposure because a RCRA Landfill has been built to contain the wastes and a seep interceptor system collects contaminated groundwater which is treated offsite. Additionally, the remedy is protective in the short term with little exposure to risk because the Site is in a rural steep area, unlikely to be reused. However, in order for the remedy to be protective in the long-term, the institutional controls alerting site owners of the contaminants on Site and prohibiting landfill and groundwater use will have to be put in place.

Other Comments

None

**U.S. Environmental Protection Agency Region III
Five - Year Review Report
Craig Farm Drum
Superfund Site
Perry Township,
Armstrong County, Pennsylvania**

I. Introduction

The purpose of five year reviews 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 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 judgement 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 CFR §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 actions implemented at the Craig Farm Drum Superfund Site in Perry Township, Armstrong County, Pennsylvania. This review was conducted for the entire site by the Remedial Project Manager (RPM) from February 2004 through June 2004. This report documents the results of the review.

This is the second Five Year Review for the Craig Farm Drum site. The triggering date for this review is the first Five Year Review on April 6, 1999. The Five Year Review is required due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

Table 1 lists the chronology of events for the Craig Farm Drum site.

Table 1: Chronology of Site Events

Event	Date
Site was operating as an open dump disposal of resorcinol in two abandoned mine pits	1958-1963
Koppers Chemical purchased the entire Craig Farm Property	1985
Proposed on National Priorities List (NPL) NPL Listing	December 1982, September 8, 1983
Koppers undertook an investigation to determine the approximate extent and condition of the still bottom residue drums at the site.	April 23-24 1984
EPA and PADER offered joint comments on the EA report.	September 8, 1983
PADER requested Koppers to perform a Remedial Investigation and Feasibility Study (RI/FS) of the Craig Farm Drum Site	August 2, 1985
Keystone Environmental Resources Inc. began working on the RI/FS for Koppers	February 1986
Koppers signed a Consent Order and Agreement with PADER to perform a RI/FS of the site	February 10, 1987
Koppers Chemical was changed to Beazer Materials and Services Inc.	January 20, 1989
Beazer submitted the final RI/FS Report to EPA and PADER	August 1989
A Special Notice Letter granting Beazer the opportunity to make a good faith offer was sent by EPA to Beazer	August 24, 1989
PADER conducted a public meeting to announce the start of the RI/FS at the Craig Farm Drum Site	April 7, 1987
The RI/FS and the Proposed Plan for the Craig Farm Drum Site were released to the public with a public comment period from August 25, 1989 through September 13, 1989	August 1989
Public Meeting for the Proposed Plan was held	September 13, 1989
EPA issued a Record of Decision (ROD)	September 29, 1989
On site mobilization for the remedial action Operable Unit 1	May 5, 1994
The construction of the remedial action for Operable Unit 1 (OU-1), OU-2, and OU-3 was completed	December 1995
The first Five Year Review was completed	April 6, 1999
Koppers submitted an environmental assessment (EA) of the site to Pennsylvania Department of Environmental Resources (PADER) which included a hydrogeological study, a surface water sampling study, stream biological study and an air quality survey	October 31, 1983

III. Background

Physical Characteristics

The Craig Farm Site covers approximately 117 acres, and is located near the village of Fredericksburg, just inside the western border of Armstrong County, Pennsylvania. The borough of Petrolia lies approximately two miles to the west, and the town of Parker, on the Allegheny River, is about four miles to the north. The area around the site is a rural, isolated area dominated by farmland, and has a population density of approximately 120 persons per square mile. Surface water on the site consists of several seepage ditches emanating from the former pits, and the Unnamed Creek. Drainage, via hillside runoff and the seepage ditches, flows from the site into the Unnamed Creek, which in turn flows southeast and discharges into Valley Run, approximately one mile from the site. Valley Run flows northeast for approximately one and a half miles and discharges into the Allegheny River. The seepage ditches are actually small erosion channels which have formed via hillside runoff. The seeps drain into one of these two channels.

Land and Resource Use

Statistics show that twenty eight percent of Armstrong County is farmland, 52 percent is forest, and twenty percent other. The area around the site, including the village of Fredericksburg, is dominated by farmland. Strip mining is also conducted in the surrounding area.

The site is not used for any commercial or residential purposes. The steepness of the topography of the site and the remoteness of the site limits future commercial or residential development.

The site was originally two abandoned strip mine pits which had worked the Upper Freeport coal seam. As with most strip mines in the area, the pits were cut into a hillside beginning where the coal outcropped or subcropped. The pit walls were formed by the working face (highwall) of the mine and the spoil piles were deposited away from the working face.

From 1958 to 1963 the two mine pits were used for the disposal of distillation residue. The residue was still bottoms from the production of resorcinol at the Koppers Chemical plant in Petrolia, PA. Resorcinol, an organic compound, is used as an adhesive enhancer in commercial products such as automobile tires and pharmaceuticals.

The area is in an isolated, rural, non-residential area where water is not used for drinking purposes. Surface water on the site consists of several seepage ditches emanating from the former pits, and the Unnamed Creek. Drainage, via hillside runoff and the seepage ditches, flows from the site into the Unnamed Creek, which in turn flows southeast and discharges into Valley Run, approximately one mile from the site. Valley Run flows northeast for approximately one and a half miles and discharges into the Allegheny River.

History of Contamination

At the time when the source material was placed onsite, the land was owned by Mr. Paul Craig. His brother, Mr. Herman Craig, hauled the distillation residue from the plant and placed it into the two pits from 1958-1963. Approximately 2,500 tons of residue, contained in 55 gallon drums, were deposited at the site. Near the end of 1971, Koppers purchased 100 of the 117 acre Craig property, which included the pits. In 1985, Koppers acquired the remaining portion of the Craig property.

In 1994, pursuant to CERCLA, EPA undertook a remedial action at the landfill to ensure that landfill-related materials were not transported off of the property by storm water. EPA then divided the remedial work for the landfill into three operable units. OU1 and OU2 address the landfill and OU3 addresses the seeps and groundwater.

Contaminants in the leachate and groundwater include resorcinol, trihydroxydiphenyl (THD), benzene metadisulfonic acid (BMDSA), benzene monosulfonic acid (BSA), p-phenol sulfonic acid (p-PSA), m-PSA, lead, zinc, cadmium, chromium, and copper. Soils contain resorcinol, THD, PSA, p-PSA, and cadmium. The apparent source of contamination was the waste buried and dumped on the soil in the mine pits.

Initial Response

In December of 1982, the EPA proposed the Craig Farm Drum Site for the NPL and was finalized on September 8, 1983. On February 25, 1983 Koppers proposed an Environmental Assessment incorporating a hydrogeological study, surface water sampling study, a stream biological study, and air quality survey. On April 23-24, 1984, Koppers undertook an investigation to determine the approximate extent and condition of the still bottom residue drums at the site. The results indicated that the drums were butted against the highwall of both strip mine cuts, and then covered. The majority of the drums were broken or crushed and were without lids. This resulted in the contamination of soil and groundwater at the site. On August 2, 1985, the PADER requested Koppers to perform a complete RI/FS of the Craig Farm Drum Site. In February of 1986, Keystone Environmental Resources, began work on the Craig Farm Drum Site RI/FS for Koppers. From December 1986 through November 1987, Keystone performed four rounds of sampling to characterize the ground water at the site. On February 10, 1987, Koppers Inc. signed a Consent Order and Agreement with PADER to perform an RI/FS of the site. On January 26, 1989, the name of Koppers was changed to Beazer Materials and Services, Inc. Beazer Materials and Services Lie. submitted a final RI/FS Report in August 1989. A ROD was issued on September 29, 1989 for OU1, OU2, andOU3.

Basis for Taking Action

Contaminants in the leachate and groundwater include resorcinol, THD, BMDSA, BSA, p-PSA, PSA, lead, zinc, cadmium, chromium, and copper. Soils contain resorcinol, THD, m-PSA, p-PSA, and cadmium. The apparent source of contamination was the waste buried and dumped on the soil in the mine pits.

Before implementation of the landfill remedy, the risks posed by the contaminated on-site soils, surface water and sediments from Unnamed Creek and sediments in Valley Run provided potential environmental exposure pathways. Wildlife could be exposed to site-related contamination by coming in contact with the seeps on the hillside down gradient from the two pits. Terrestrial species inhabiting the site, which is primarily wooded, include deer, rabbits, squirrels and other mammalian species. Amphibious species also inhabit areas of the site. Aquatic organisms that could inhabit Valley Run and Unnamed Creek include invertebrates and fish. The lack of benthic macro invertebrates and fish in the Unnamed Creek indicates that contaminants of concern in the stream are impacting aquatic life.

In conclusion, the site was having an impact on the Unnamed Creek and the onsite wetlands as well as the organisms living in these communities. Thus, the selection of the remedy was based on the site's impact on the environment rather than on a risk to human health.

IV. Remedial Actions

Remedy Selection

The ROD for the Site was signed on September 29, 1989.

The OU's are defined as follows:

- OU1: is the distillation residue material in each pit area and the adjacent contaminated soils. Contaminated soils are defined as those soils determined to contain detectable amount of resorcinol.
- OU2: is the remaining portion of each pit area not defined as OU1, soils that are determined to be analytically clean.
- OU3: includes two down gradient location seeps. These seeps are points where contaminated ground water are discharging.

The ROD specified the following remedy components:

- Excavation of 32,000 cubic yards of soil from the two disposal pits and surrounding area with onsite solidification.
- Placement of the solidified soils in a RCRA equivalent double lined onsite landfill surrounded by a fence.
- Wetland delineation subsequently, construction of a one acre wetland onsite to replace a smaller area of wetlands lost in building the onsite landfill.
- Implementation of institutional controls by utilizing deed notices to inform property owners about contaminants at the site, not disturbing the landfill, and not using the groundwater on site for drinking purposes.
- Passive collection of ground water using a seep interceptor system with offsite treatment until the remediation is judged to be complete by analyzing water quality and toxicity of wastewater using a bioassay test for resorcinol.
- Sampling surface water, from the Unnamed Creek and the water collected in the seep collection tank semiannually.
- Monitoring of both onsite and offsite groundwater.

The Remedial Action Objectives (RAOs) were:

- Control contaminant migration off-site by containment of contaminated landfill soil and waste material.
- Prevent site contaminants from migrating offsite and/or impacting a small creek and living organisms on site that cross the southern portion of the site.
- Prevent continued leaching of precipitation and surface waters through the contaminated landfill material.
- Eliminate exposure to contaminated groundwater.
- Minimize risk to human health and the environment by eliminating direct contact with contamination.

Remedy Implementation

On February 10, 1987, Koppers Company, Inc., signed a Consent Order and Agreement with PADER to perform an RI/FS of the site. On January 20, 1989, BNS Acquisitions merged with Koppers, and on January 26, 1989, the name of Koppers was changed to Beazer Materials and Services, hie. Beazer Materials and Services, Inc. submitted a final RI/FS Report in August, 1989. Special Notice letters were issued in September 1989 for OU1. EPA issued a ROD on September 29, 1989.

The Remedial Action (RA) site work for OUI began in April 1998. The major components of the RA included the following:

- A total of 29,200 tons of waste were excavated and then solidified from the source area, and two disposal pits. After the pits were excavated, they were filled with clean soil, and seeded to produce a vegetative cover.
- The solidified soils were placed in a two- acre onsite double- lined RCRA- equivalent landfill, and then seeded to produce a vegetative cover.
- The double lined disposal unit consists of the following components from bottom to top: six inch compacted clay sub-base; geosynthetic clay liner (GCL); 60-mil High Density Polyethylene (HOPE) (secondary geomembrane); PN-3000 Geonet (leak detection zone); four ounce per square yard non woven needle punched geotextile; GCL, 60-mil HDPE (primary geomembrane); PN-3000 Geonet (collection zone); and a sixteen ounce per square yard non woven needle punched geotextile. The additional geosynthetic clay liner below the primary geomembrane was added as an additional protective measure to minimize the potential for leachate migration. The second layer of Geonet in the leachate collection zone was included for additional drainage and acts as a protective layer for the primary liner during remediated material placement.
- Four landfill monitoring wells were installed around the perimeter of the landfill to detect any migration of contaminants. A fence was placed around the perimeter of the disposal unit to prohibit any disturbance.
- Collection trenches were installed perpendicular to the slope above the location where the seeps appear on the hillside. The trenches were sloped to one side and a conducting zone composed of gravel and perforated pipe was placed in the trenches to collect the groundwater and channel it to the sump located on the low side of the trench. A sump pump with level control pumps the water to a 40,000 gallon tank providing a ten day storage capacity. A pump truck collects the water once each week and delivers it to an offsite treatment plant. The groundwater is collected via this seep interceptor system.
- Landfill monitoring wells and groundwater monitoring wells will be sampled twice a year until four consecutive sampling events report levels below detection limits for COCs.
- A one acre wetland was built to replace the smaller area of wetland lost during the construction of the onsite landfill in 1994.
- A fence has been placed around the perimeter of the site boundary.

The report titled, "Final Close Out Report" which is equivalent to the current Preliminary Close Out Report was completed December 27, 1995. The contractor conducted the remedial activities as designed. EPA and PADEP approved the operation & maintenance plan for the site on July 14, 1993.

System Operation/Operation and Maintenance

The RPs are conducting long-term monitoring and maintenance activities at the site in accordance with the Operations and Maintenance (O&M) Plan approved by EPA and developed on July 14, 1993. The primary activities associated with O&M include an inspection twice a year of the following:

- Inspection of the cap with regard to vegetative cover, settlement, stability, erosion gullies on the sideslopes and any need for corrective action.

- Inspection of the seep collection tank and seep collection piping to ensure serviceability. This includes clean out of caps and locks, visual inspection of collection trench surfaces to correct any erosion and vegetation problems.
- Inspection of sediment basin areas to verify that adequate capacity is available in the basin.
- Inspection of the condition of the groundwater monitoring wells.
- Biannual groundwater monitoring, which includes monitoring of the landfill wells; and groundwater migration wells. The groundwater migration wells will be sampled biannually until four consecutive sampling events report levels below detection limits for COCs. Wells will then be sampled once every five years.
- Surface water monitoring will involve monitoring the Unnamed Creek and seep collection tank during each five year review.
- Engineered wetlands inspection and assessment: Inspections are conducted primarily for the purposes of assessing both weed control needs and the survival of plantings. Assessments are performed to determine if engineered wetlands are meeting the performance standards regarding the survival and density of the desired wetlands species.

The O&M for the landfill (OU1) has proceeded without major issues. The biannual inspections have determined that the integrity of the cap has been maintained and the fence is in good condition.

The O&M for OU3, which consists of long-term sampling, is conducted on a biannual basis on the landfill disposal unit wells and the migration monitoring wells. All the wells will be sampled biannually until four consecutive sampling events report levels below detection limits for contaminants of concern. Wells will then be sampled once every five years. The sampling which began in 1999, is conducted by the PRP's contractor, RETEC.

The four landfill disposal unit wells were constructed around the perimeter of the landfill to detect any contamination migration from the landfill. The sampling conducted on the four landfill disposal unit wells establishes that the landfill is functioning properly. Monitoring well LF-1 monitors background groundwater conditions while wells LF-2, LF-3, and LF-4 monitor the down gradient groundwater conditions (See Attachment 1). All landfill disposal wells show a downward trend from 1999-2003 (See Attachments 6 & 7).

The migration monitoring wells were installed to verify that the impacted water is not migrating offsite. Migration monitoring wells MW-3A, MW-3B, MW-5A and MW-5B provide monitoring closest to the pit areas and migration monitoring wells MW-14B, MW-15B, MW-15C, MW-19B, and MW-19C are located down gradient from the pit areas to provide monitoring coverage with the upper aquifer and the lower sandstone aquifer (See Attachment 1). EPA has determined that, with the possible exception of THD in MW-19C, the groundwater analytical data graphs for the site from 1999-2003 demonstrate an downward trend in groundwater and surface water contamination (See Attachments 2-5). The migration monitoring well MW-19C is the only deep well downgradient of the former waste disposal area.

A passive collection of groundwater, using a seep interceptor system with offsite treatment will be used until the remediation is judged to be complete. By analyzing water quality and toxicity of wastewater using a bioassay test for resorcinol, EPA will determine when the remediation is complete.

The engineered replacement wetlands were constructed in 1994. PADEP inspected the wetland in 2000, 2001, 2002, and the end of 2003. The biological field notes from these inspections indicate that the wetland mitigation area's general condition ranged from good to excellent. The hydrophytic vegetation is diverse and hydrology has been very good to excellent during the last five years. Additionally, muskrat, ducks, bullfrogs, spring peepers, red-winged blackbirds, deer, herons and various songbirds have been observed in the mitigated wetland.

The ROD estimates that the annual cost for O&M is approximately \$49,000/year. The total present worth of this alternative is about \$3,807,000 assuming a thirty year period and a five percent interest rate. The RP has not furnished actual cost documentation.

V. Progress Since Last Five Year Review

The last Five Year Review Report dated April 6, 1999 recommended replacement of well locks and caps along with continued maintenance of the vegetative cap, the fence, the seep interceptor system and the monitoring well system. The protectiveness statement from the First Five Year Review stated that the remedy selected for the Site remains protective of human health and the environment with all physical aspects of the remedial action being implemented and conforming to remedial objectives.

Currently, all monitoring wells locks and caps remain intact. The cap on the landfill, seep interceptor system and the monitoring wells are still regularly inspected and maintained. The seeps are still collected in the seep collection tank and taken to an offsite waste water treatment facility. In the future, the seep collection system may be shut off based on EPA approved toxicity studies of biological organisms. Additionally, the responsible party is working with a biologist to investigate bioremediation treatment options for the waste water collected in the seep collection tank. The maintenance inspections concluded the restored wetland is functioning properly, and that deed restrictions will have to be enforced. The EPA has checked and found that the deed restrictions are not in place. The EPA is working with the responsible parties to ensure deed restrictions are placed on the property. The deed restrictions will ensure that all property owners are aware of the contaminants present on site, and that all property owners do not cause damage to the landfill or use the groundwater on site for any purposes.

VI. Five Year Review Process

Administrative Components

The Craig Farm Five Year Review team was led by Rashmi Mathur of EPA, RPM for the Craig Farm Drum Superfund Site. Mindi Snoparsky, EPA Hydrologist, Jim Shack, Section Chief for the Hazardous Site Clean Up Division at PADEP, Barbara Gunther, and Chuck Tordella the Project Officers for PADEP composed the remainder of the team.

The site inspection occurred on March 4, 2004 and was conducted by the team with Mike Helbling, a responsible party representative from Beazer Incorporation.

Community Involvement

The EPA RPM conducted community interviews door to door and by telephone with residents in the immediate vicinity of the Craig Farm Drum Site. These interviews revealed that PADEP was investigating another area called the Bear Creek Chemical Site, which had also been contaminated by Beazer. Based on the initial results of this State investigation, Beazer will be providing a permanent drinking water supply to residents in the immediate vicinity of the Craig Farm Drum site because of contamination created from the Bear Creek Chemical Site.

An advertisement appeared on March 22, 2004 in the Butler Eagle Newspaper. The advertisement explained the Five Year Review process, provided point of contact information, and identified the location of the information repositories for the site. Another notice will be sent to the same newspaper to announce that the Five Year Review report for the Craig Farm Drum Site has been completed. Information on the results of the review and the report availability will be part of the announcement.

Additionally, the EPA RPM was interviewed by a reporter from the Butler Eagle. The RPM summarized the Craig Farm Drum Site and results of the Five Year Review inspection. An article in the Butler Eagle appeared in March for the weekend edition.

No comments from the community concerning the Craig Farm Drum Site were received as a result of either the interviews or advertisement.

Document Review

The Five Year Review consisted of a review of relevant documents including the ROD, the Preliminary Closeout Report, the previous Five Year Review, the Operations and Maintenance Plan for the Craig Farm Remediation Site, a Wetland Mitigation Assessment Status Report from PADEP, and as well as the Quarterly Groundwater Monitoring Reports for OU3. A review of deed restrictions was also conducted.

Data Review

The O&M for the landfill (OU1) has proceeded without major issues. The integrity of the cap has been maintained. The O&M for the landfill (OU1) has proceeded without major issues. The biannual inspections have determined that the integrity of the cap has been maintained and the fence is in good condition.

The O&M which consists of long-term sampling for OU3, is conducted on a biannual basis on the landfill disposal unit wells and the migration monitoring wells. All the wells will be sampled biannually until four consecutive sampling events report levels below detection limits for contaminants of concern. Wells will then be sampled once every five years. The sampling which began in 1999, is conducted by the PRP's contractor, RETEC.

The four landfill disposal unit wells were constructed around the perimeter of the landfill to detect any contamination migration from the landfill. The sampling conducted on the four landfill disposal unit wells establishes that the landfill is functioning properly. Monitoring well LF-1 monitors background groundwater conditions while wells LF-2, LF-3, and LF-4 monitor the down gradient groundwater conditions (See Attachment 1). All landfill disposal wells show a downward trend from 1999-2003 (See Attachment 6&7).

The migration monitoring wells were installed to verify that the impact water is not migrating offsite. Migration monitoring wells MW-3A, MW-3B, MW-5A and MW-5B provide monitoring closest to the pit areas and migration monitoring wells MW-14B, MW-15B, MW-15C, MW-19B, and MW-19C are located down gradient from the pit areas to provide monitoring coverage with the upper aquifer and the lower sandstone aquifer (See Attachment 1). The EPA Hydrogeologist has determined that, with the possible exception of THD in MW-19C, the Groundwater Analytical Data Graphs for the site from 1999-2003 demonstrate an apparent downward trend in groundwater and surface water contamination (See Attachments 2 - 5). The migration monitoring well MW-19C is the only deep well down gradient of the former waste disposal area.

The ROD required deed notices to be placed in the deeds of the land within the site boundaries informing property owners about contaminants at the site. The EPA has found that the

institutional controls were not put into place. The EPA is working with the responsible parties to get the institutional controls in place. The EPA is recommending that a clause stating that no property owners can use the contaminated groundwater on site or disturb the landfill area be included as part of the institutional controls. The potential for reuse is low for this Site because the area is very rural, the topography is very steep and the access is restricted.

Site Inspection

The Craig Farm Five Year Review team was led by Rashmi Mathur of EPA, RPM for the Craig Farm Drum Superfund Site. Mindi Snoparsky, EPA Hydrologist, Jim Shack, Section Chief for the Hazardous Site Clean Up Division at PADEP, Barbara Gunther, and Chuck Tordella the Project Officers for PADEP composed the remainder of the team.

The site inspection occurred on March 4, 2004 and was conducted by the team with Mike Helbling, a responsible party representative from Beazer Incorporation.

Interviews

The EPA RPM conducted community interviews door to door and by telephone with residents in the immediate vicinity of the Craig Farm Drum Site. These interviews revealed that PADEP was investigating another area called the Bear Creek Chemical Site, which had also been contaminated by Beazer. Based on the initial results of this State investigation, Beazer will be providing a permanent drinking water supply to residents in the immediate vicinity of the Craig Farm Drum site because of contamination created from the Bear Creek Chemical Site.

An advertisement appeared on March 22, 2004 in the Butler Eagle Newspaper. The advertisement explained the Five Year Review process, provided point of contact information, and identified the location of the information repositories for the site. Another notice will be sent to the same newspaper to announce that the Five Year Review report for the Craig Farm Drum Site has been completed. Information on the results of the review and the report availability will be part of the announcement.

Additionally, the EPA RPM was interviewed by a reporter from the Butler Eagle. The RPM summarized the Craig Farm Drum Site and results of the Five Year Review inspection. An article in the Butler Eagle appeared in March for the weekend edition.

No comments from the community concerning the Craig Farm Drum Site were received as a result of either the interviews or advertisement.

VII. Technical Assessment

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

No. A review of documents, ARARs, and the results of the site inspection indicates that the physical remedy is functioning as intended by the ROD but for long-term protectiveness the institutional controls identifying contaminants present on Site and restricting the use of the landfill and groundwater, have not been put in place. The capping of the landfill has achieved the remedial objectives to control contaminant migration off-site to prevent impacting the Unnamed Creek and living organisms on site, and to prevent continued leaching of precipitation and surface water on site through the contaminated landfill material. The passive collection of seeps in the seep collection tank with subsequent off-site treatment has prevented exposure to, or ingestion of, contaminated groundwater, as outlined in the ROD. The seep interceptor system will continue until a bioassay and water quality tests determine that collection with off-site treatment is not needed.

O&M of the landfill cap, seep collection system, and replacement wetlands has been effective. The site inspection did not identify any issues which would compromise the integrity of the landfill cap or the physical protectiveness of the remedy. O&M annual costs are consistent with the original estimates when corrected for inflation.

Optimization Opportunities:

The responsible parties are examining bioremediation techniques to treat the wastewater collected from the seep interceptor system instead of treating the wastewater off-site. The responsible parties will inform EPA of their progress in the future.

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

The applicable or relevant and appropriate requirements (ARARs) that were included in the ROD for OU1 have been met and continue to be met through the remedial action. The ARARs include the Pennsylvania Water Quality Criteria, Clean Streams Law, Wetlands Management Act, Pennsylvania Solid Waste Management Act, and the Clean Water Act.

The ARARs for OU3 are being met and are still appropriate. The ARARs include the National Primary Drinking Water Standards, National Secondary Drinking Water Standards, Water Quality Criteria, and Executive Order on Protection of Wetlands.

See Attachment 8

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

There are no changes to note.

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

No, for the long-term protectiveness, the institutional controls, which alert property owners that contaminants are on the site and prohibit property owners from disturbing the landfill or using the groundwater on site, are not in place.

VIII. Issues

Issue	Currently Affects Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Institutional controls are not in place	N	Y
Minor inadequacies were found in the lock and caps of the monitoring wells.	N	N
An unidentified drum was found in the wetland area	N	N
The seep collection tank indicator was not functioning	N	N
Two unidentified drums were found by the seep collection tank	N	N

IX. Recommendations and Follow-Up Actions

Issue	Recommendations/Follow-Up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Current Protectiveness	Affects Future Protectiveness
Minor inadequacies were found in the lock and caps of the monitoring wells.	Repair broken locks and caps on monitoring wells	Beazer Inc. (Responsible Party)	EPA	This was addressed and completed 3/04	N	N
Institutional Controls are not in place	Responsible Parties attorney is currently putting them in place with model language provided by EPA	Beazer Inc. (Responsible Party)	EPA	Currently underway, EPA will check on 12/6/04 if they are in place	N	Y
An unidentified drum was found in the wetland area	Characterize and dispose of drum content off site	Beazer Inc. (Responsible Party)	EPA	This was addressed and completed, 3/04	N	N
The seep collection tank indicator was not functioning	Repair seep collection tank indicator so that it is functioning properly	Beazer Inc. (Responsible Party)	EPA	This was addressed and completed, 3/04	N	N
Two unidentified drums were found by the seep collection tank	Characterize and dispose of drum content off site	Beazer Inc. (Responsible Party)	EPA	This was addressed and completed, 3/04	N	N

X. Protectiveness Statement

The remedy at the Craig Farm Drum Site is protective in the short term of human health and the environment because physical construction is complete but institutional controls have not been implemented. There is no risk to exposure because a RCRA Equivalent Landfill has been built to contain the wastes and a seep interceptor system collects contaminated groundwater which is treated offsite. Additionally, the remedy is protective in the short term with little exposure to risk because the Site is in a rural steep area, unlikely to be reused. However, in order for the remedy to be protective in the long-term, the institutional controls alerting site owners of the contaminants on Site and prohibiting landfill and groundwater use will have to be put in place.

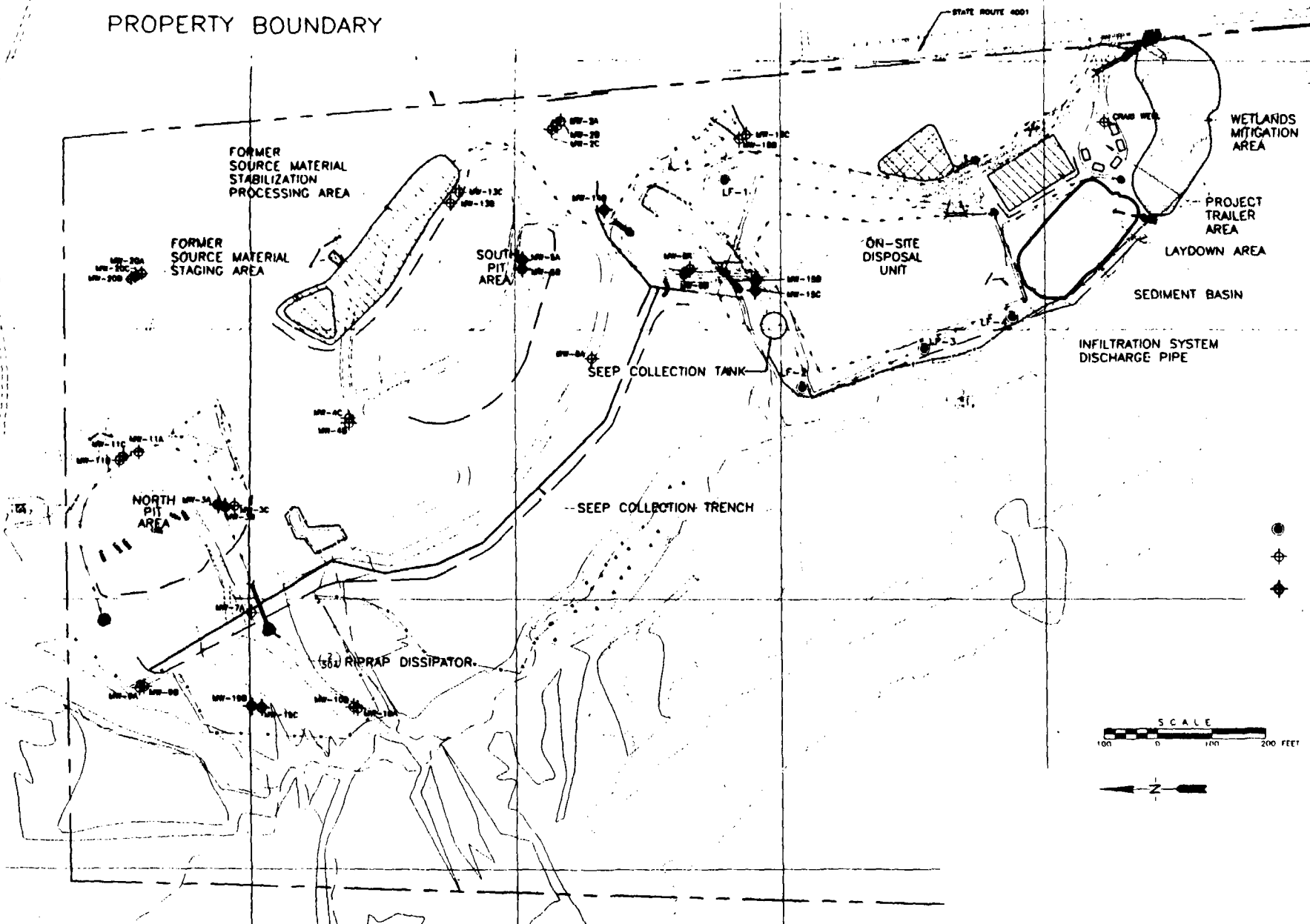
XI. Next Review

The next Five Year Review for the Craig Farm Drum Superfund Site is required by June 2009, five years from the date of this review.

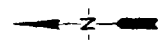
Attachment 1 Site Location

AR301530

PROPERTY BOUNDARY



- LEGEND**
- DISPOSAL UNIT WELLS (SAMPLED)
 - ⊕ MIGRATION WELLS (NOT SAMPLED)
 - ◆ MIGRATION WELLS (SAMPLED)



BEAZER EAST, INC. PETROLIA, PENNSYLVANIA BEAZ7-03805-103		CRAIG FARM FACILITY LAYOUT WELL LOCATIONS	
DATE: 02/13/02	Drawn: Bcy/COM	FILE: 03805502	LAYOUT: MW-LOC
			FIGURE 1

Attachment 2-Summary of Analytical Data for Migration Monitoring Wells,
1999 through 2003
Craig Farm Site

Sample Location:		M-03B	M-03B	M-03B - DUP	M-03B	M-03B - DUP	M-03B	M-03B	M-03B	M-03B	M-03B	M-03B	M-03B	M-03B-DUP
Sample Date:		2/10/99	8/1/99	8/1/99	3/1/00	3/1/00	7/25/00	4/17/01	11/15/01	4/18/02	11/13/02	4/16/03	12/18/03	12/18/03
BENZENE	UG/L	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 UJ	0.066 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	10 U	10 U	0.95	0.981	0.355 U	0.916	0.637	0.188	0.460	0.409	0.376	0.362
RESORCINOL	MG/L	300 U	300 U	300 U	41.9	40.3	34.3	26.7	29	17.9	36.1	25.1	21.9	22.2
TRIHYDROXYDIPHENYL	MG/L	600 D	610 D	560 D	384	389	290	270	249	191 J	327	272	318	306

Sample Location:		M-05A	M-05A - DUP	M-05A	M-05A	M-05A	M-05A	M-05A	M-05A	M-05A
Sample Date:		8/1/99	8/1/99	3/1/00	7/26/00	4/18/01	11/15/01	4/17/02	4/16/03	12/18/03
BENZENE	UG/L	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	0.05 U	0.05 U	0.05 U	0.056	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	2500 U	0.05 U	0.261	0.167	0.512	0.05 U	0.082	0.05 U
RESORCINOL	MG/L	300 U	300 U	6.79	15.7	7.93	38.9	1.03	0.632	2.37
TRIHYDROXYDIPHENYL	MG/L	390 D	360 D	121	287	161	811	28 J	52.5	104

Sample Location:		M-14B	M-14B DUP	M-14B	M-14B	M-14B	M-14B	M-14B	M-14B	M-14B	M-14B
Sample Date:		2/10/1999	2/10/1999	8/1/1999	03/02/00	07/26/00	04/18/01	11/16/01	4/18/02	11/14/02	17-Apr
BENZENE	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 U	0.48	0.442	0.21	0.05 U	0.05 U	0.05 U
RESORCINOL	MG/L	3.9	3.9	1.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TRIHYDROXYDIPHENYL	MG/L	23 D	23 D	4.3	0.372	0.05 U	0.337	0.05 U	0.05 U J	0.058	0.1

Sample Location:		M-15B	M-15B	M-15B	M-15B	M-15B - DUP	M-15B	M-15B	M-15B	M-15B	M-15B	M-15B
Sample Date:		2/10/99	8/1/99	3/2/00	7/26/00	7/26/00	4/18/01	11/16/01	4/18/02	11/14/02	4/17/03	12/18/03
BENZENE	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	0.05 U	0.05 U	0.055 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	10 U	0.201	0.117 J	0.123 J	0.081	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
RESORCINOL	MG/L	1.2 U	1.2 U	0.126	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TRIHYDROXYDIPHENYL	MG/L	1.8	1.2	0.95	0.05 U	0.05 U	0.101	0.05 U	0.159 J	0.05 U	0.116	0.05 U

Sample Location:		M-15C	M-15C	M-15C	M-15C	M-15C	M-15C	M-15C - DUP	M-15C	M-15C	M-15C - DUP	M-15C	M-15C
Sample Date:		2/10/99	8/1/99	3/2/00	7/26/00	4/18/01	11/16/01	11/16/01	4/18/02	11/14/02	11/14/02	4/17/03	12/17/03
BENZENE	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	10 U	0.099 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.084	0.05 U
RESORCINOL	MG/L	1.2 U	1.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TRIHYDROXYDIPHENYL	MG/L	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.117	0.05 U

AR301531

Attachment 2-Summary of Analytical Data for Migration Monitoring Wells,
1999 through 2003
Craig Farm Site

Sample Location:		M-19B	M-19B DUP	M-19B	M-19B	M-19B	M-19B	M-19B	M-19B	M-19B	M-19B	M-19B
Sample Date:		2/10/99	2/10/99	8/1/99	3/1/00	7/25/00	4/17/01	11/15/01	4/18/02	11/13/02	4/16/03	12/15/03
BENZENE	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	10 U	10 U	0.174	0.05 U	0.169	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
RESORCINOL	MG/L	1.2 U	1.2 U	1.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
TRIHYDROXYDIPHENYL	MG/L	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.079	0.05 U	0.05 U

Sample Location:		M-19C	M-19C DUP	M-19C	M-19C DUP	M-19C	M-19C	M-19C	M-19C	M-19C	M-19C	M-19C	M-19C
Sample Date:		2/10/1999	2/10/1999	8/1/1999	8/1/1999	02/29/00	07/25/00	04/17/01	11/15/01	4/18/02	11/13/2002	4/16/2003	12/15/2003
BENZENE	UG/L	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	10 U	10 U	10 U	0.07	0.295	0.059	0.063	0.05 U	0.05	0.068	0.055
BENZENE MONOSULFONIC ACID	MG/L	10 U	10 U	10 U	10 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	10 U	10 U	2500 U	1.7	0.489	2.2	2.13	0.751	2.09	1.59	0.638
RESORCINOL	MG/L	300 U	300 U	300 U	300 U	50.6	34.8	36.4	31.5	26.4	41.1	34.3	33.1
TRIHYDROXYDIPHENYL	MG/L	550 D	570 D	620 D	550 D	443	311	343	247	213 J	399	375	501

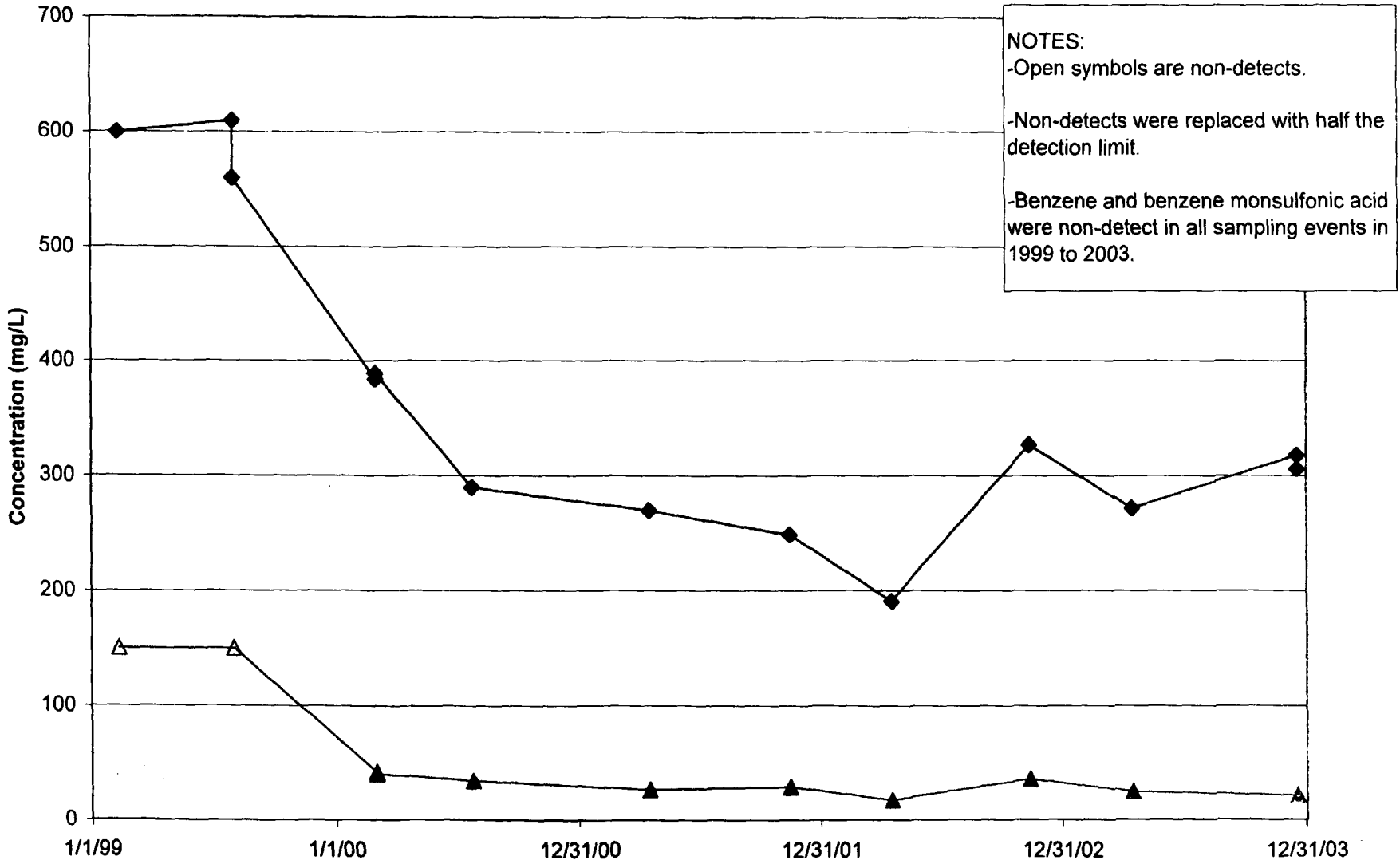
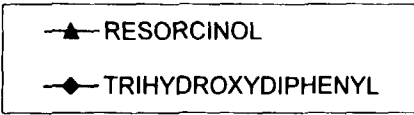
U - Indicates non-detect

J - Indicates estimate

D - Indicates result is from analysis of a secondary dilution

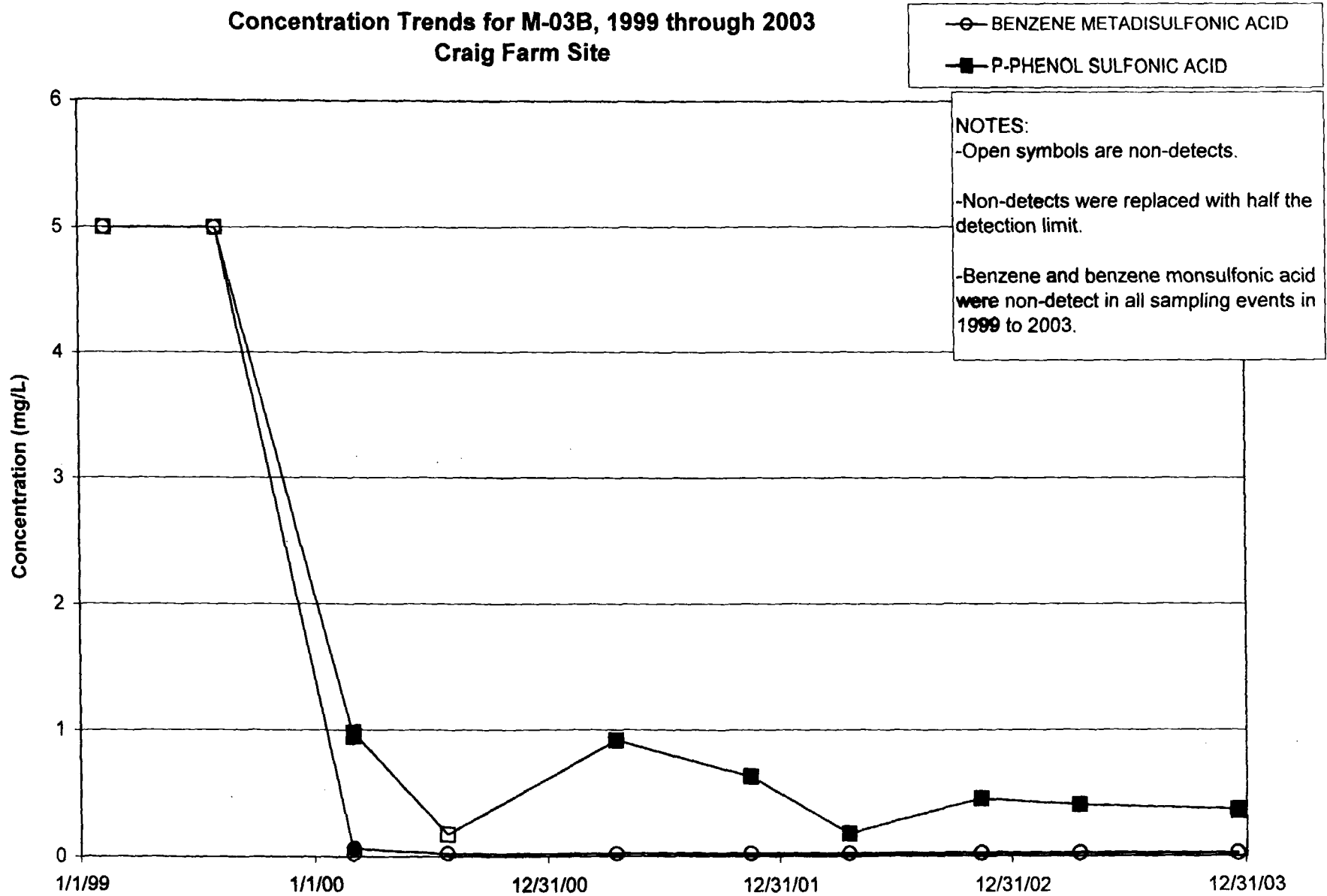
AR301532

**Concentration Trends for M-03B, 1999 through 2003
Craig Farm Site**



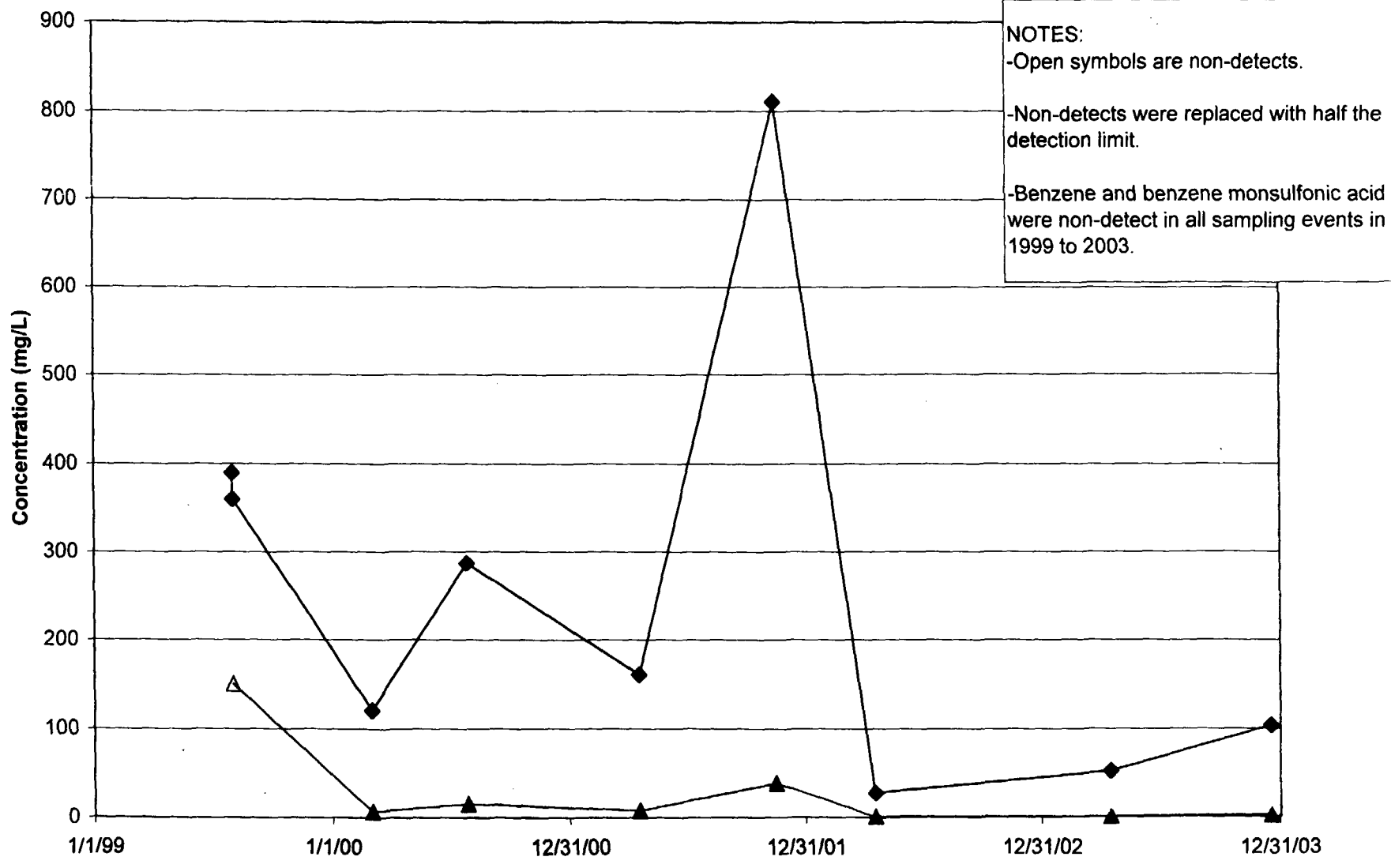
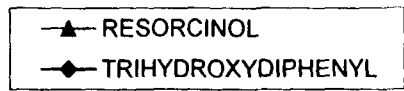
NOTES:
 -Open symbols are non-detects.
 -Non-detects were replaced with half the detection limit.
 -Benzene and benzene monosulfonic acid were non-detect in all sampling events in 1999 to 2003.

Concentration Trends for M-03B, 1999 through 2003 Craig Farm Site



NOTES:
 -Open symbols are non-detects.
 -Non-detects were replaced with half the detection limit.
 -Benzene and benzene monosulfonic acid were non-detect in all sampling events in 1999 to 2003.

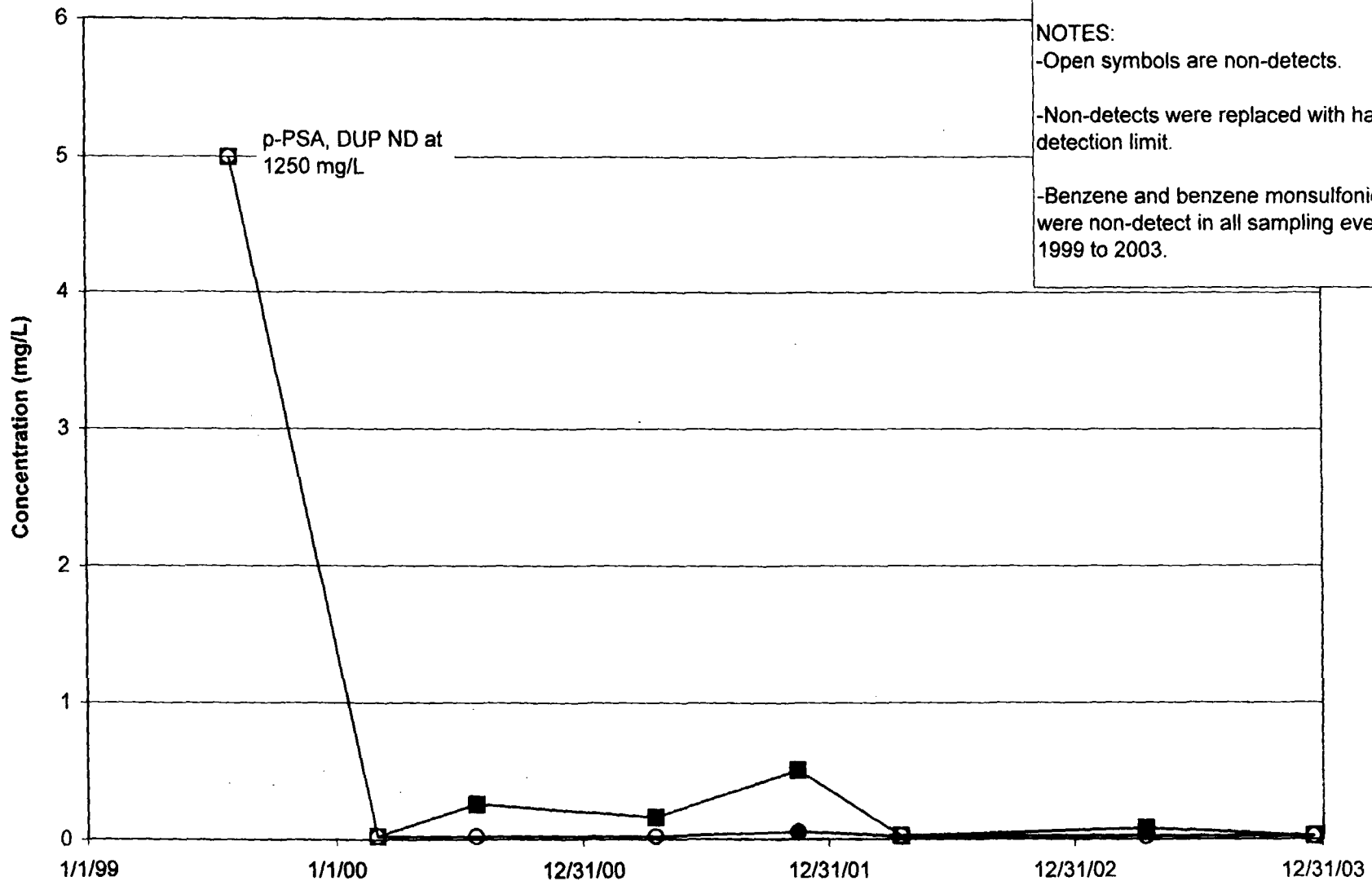
Concentration Trends for M-05A, 1999 through 2003 Craig Farm Site



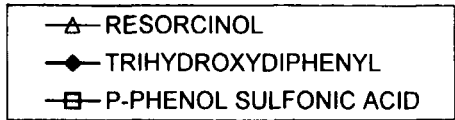
**Concentration Trends for M-05A, 1999 through 2003
Craig Farm Site**

○ BENZENE METADISULFONIC ACID
■ P-PHENOL SULFONIC ACID

NOTES:
 -Open symbols are non-detects.
 -Non-detects were replaced with half the detection limit.
 -Benzene and benzene monosulfonic acid were non-detect in all sampling events in 1999 to 2003.



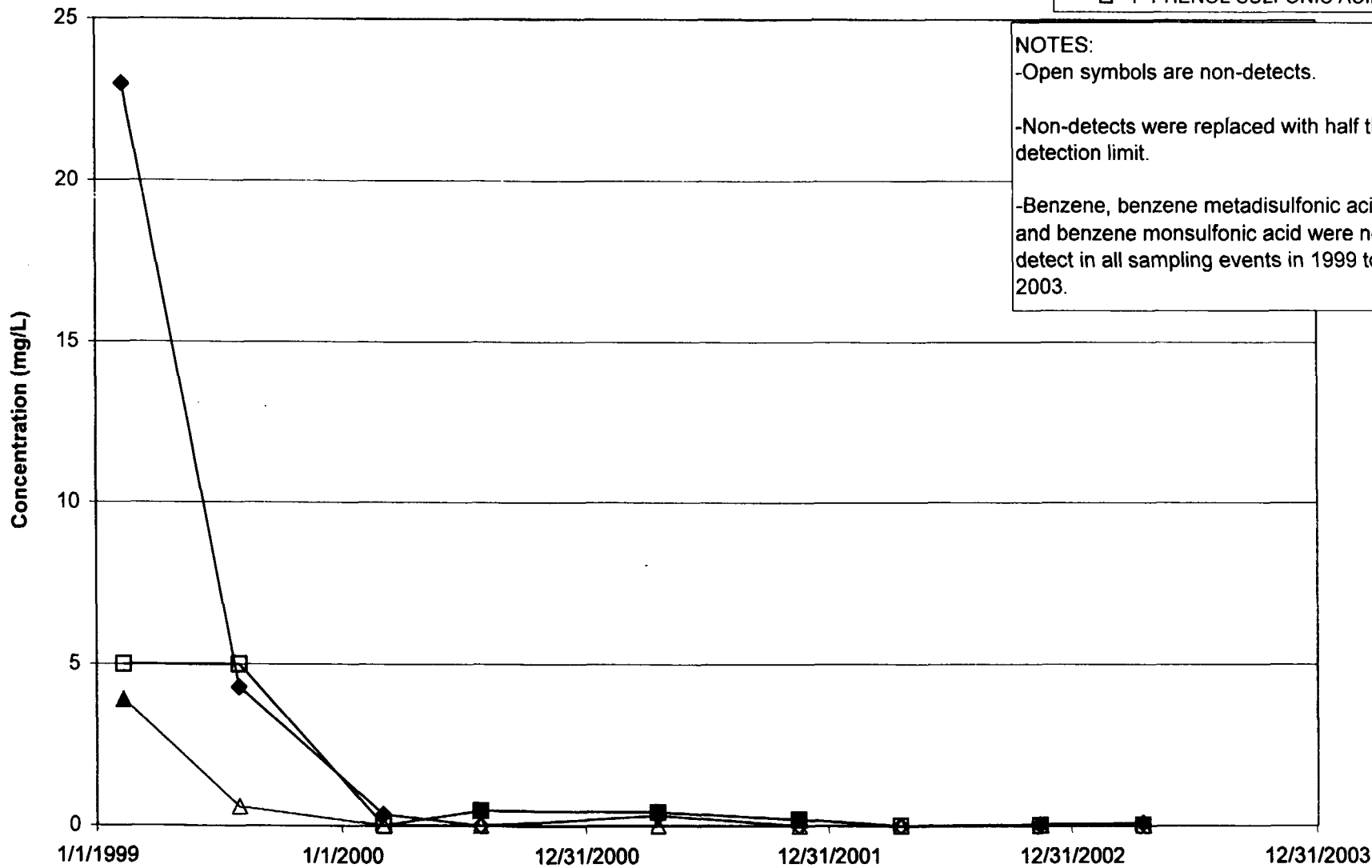
Concentration Trends for M-14B, 1999 through 2003 Craig Farm Site



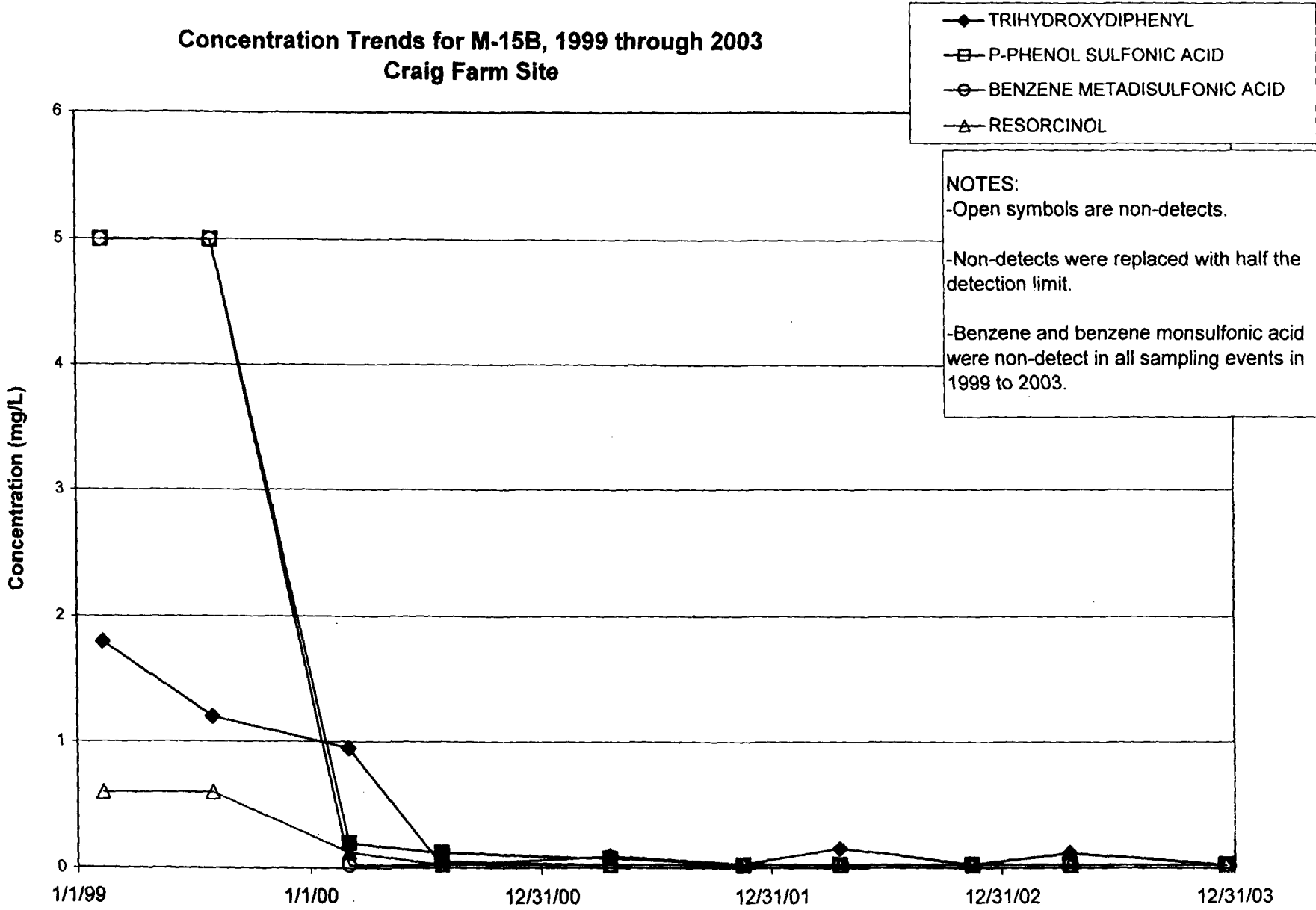
NOTES:
-Open symbols are non-detects.

-Non-detects were replaced with half the detection limit.

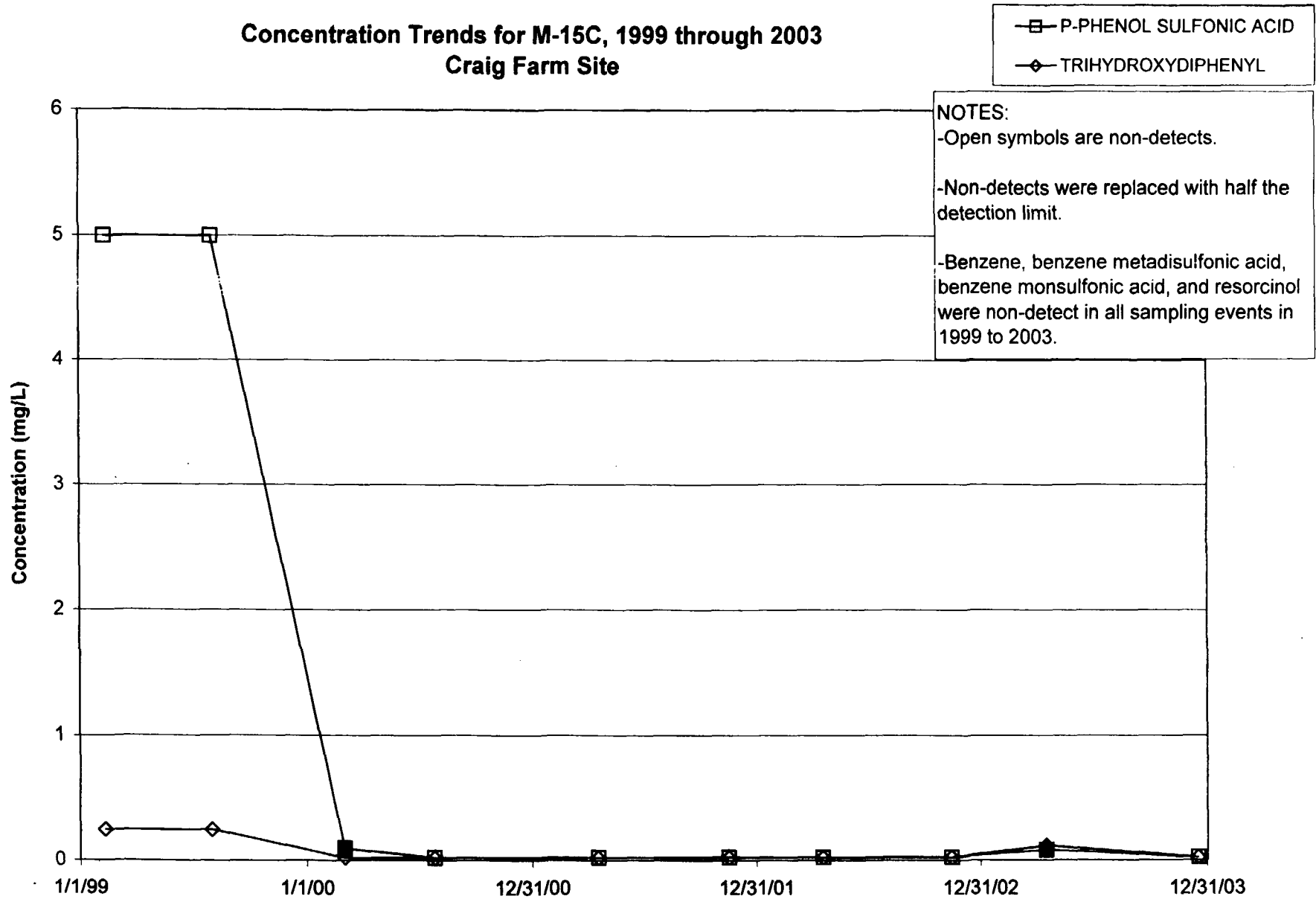
-Benzene, benzene metadisulfonic acid, and benzene monosulfonic acid were non-detect in all sampling events in 1999 to 2003.



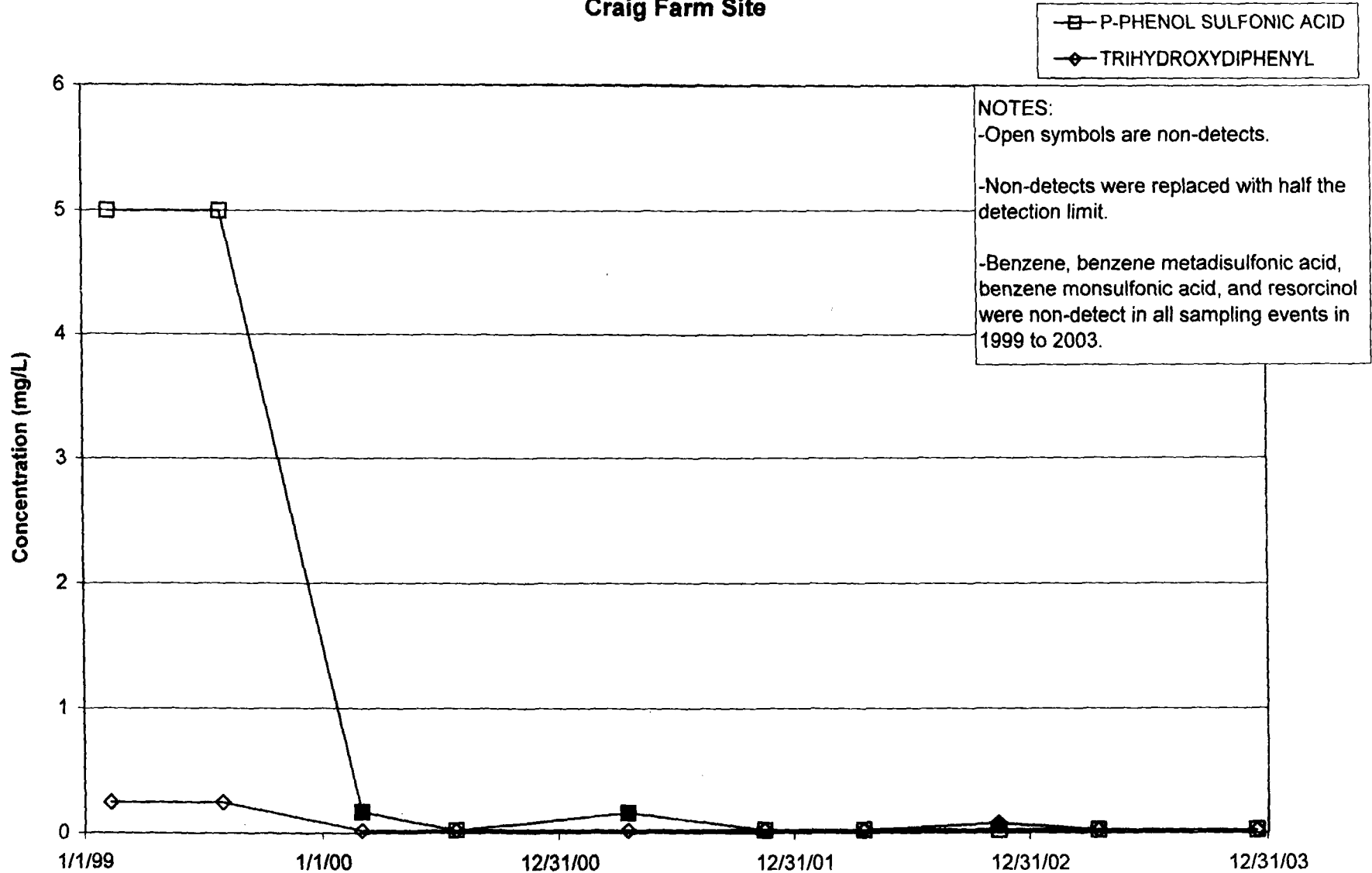
Concentration Trends for M-15B, 1999 through 2003 Craig Farm Site



Concentration Trends for M-15C, 1999 through 2003 Craig Farm Site

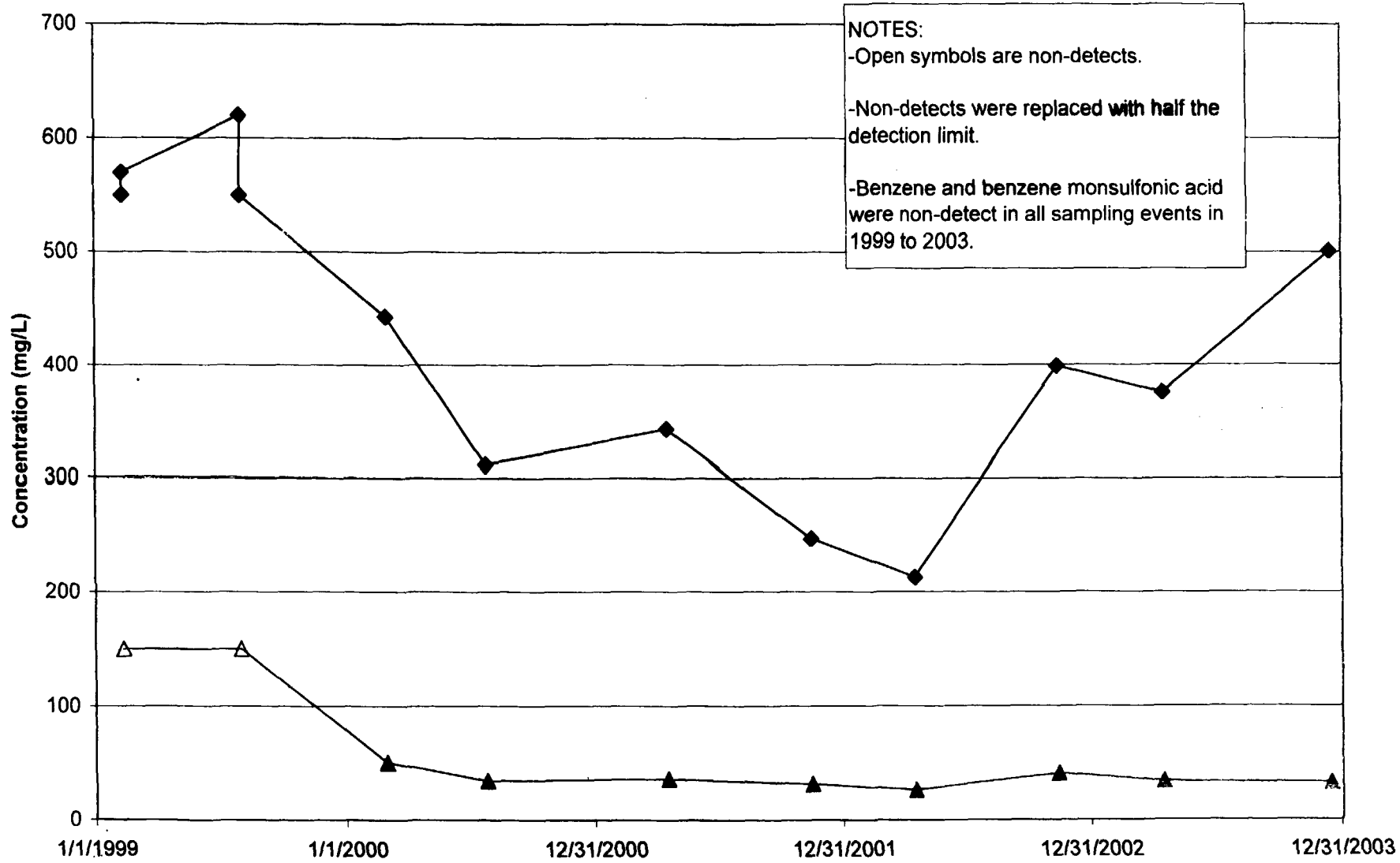


Concentration Trends for M-19B, 1999 through 2003
Craig Farm Site



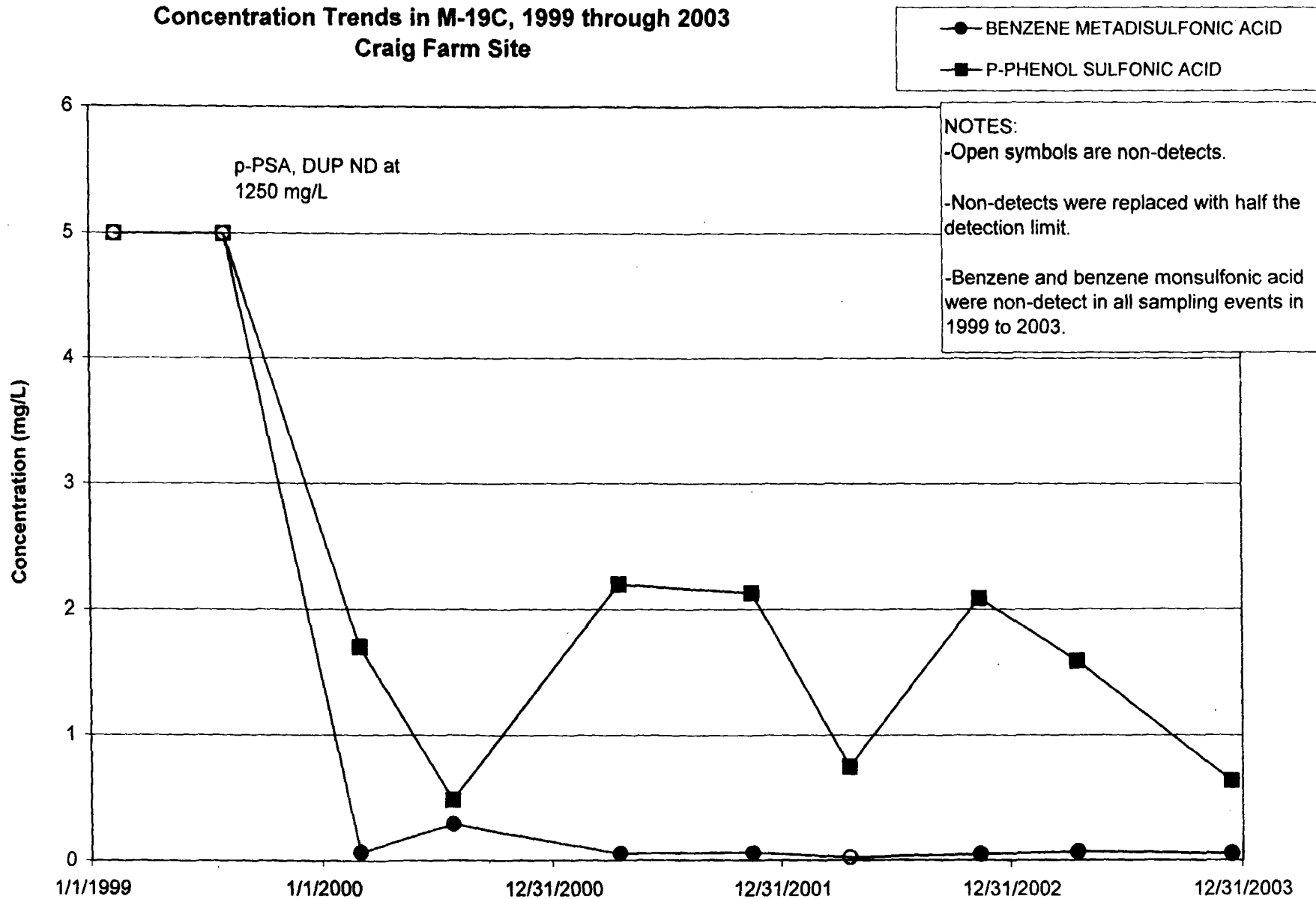
Concentration Trends in M-19C, 1999 through 2003 Craig Farm Site

▲ RESORCINOL
◆ TRIHYDROXYDIPHENYL



NOTES:
-Open symbols are non-detects.
-Non-detects were replaced with half the detection limit.
-Benzene and benzene monosulfonic acid were non-detect in all sampling events in 1999 to 2003.

Concentration Trends in M-19C, 1999 through 2003 Craig Farm Site



**Summary Analytical Data
Attachment 4
Surface Water Sampling, 1999 through 2003
Craig Farm Site**

AR301543

Surface Water

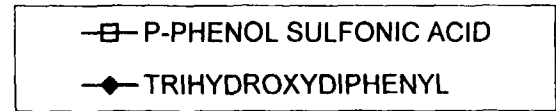
Quarter Sample Date	Units	1st Q1999 2/9/1999	1st Q2000 2/29/2000	3rd Q2000 7/26/2000	4th Q 2001 11/16/2001	4th Q 2003 12/17/2003
BENZENE	UG/L	1 U	1.0 U	1.0 U	1.0 U	1.0 U
BENZENE METADISULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U
P-PHENOL SULFONIC ACID	MG/L	10 U	0.052	0.050 U	0.050 U	0.050 U
RESORCINOL	MG/L	1.2 U	0.050 U	0.050 U	0.050 U	0.050 U
TRIHYDROXYDIPHENYL	MG/L	0.67	0.383	0.050 U	0.050 U	0.050 U

U indicates compound was analyzed for, but not detected.

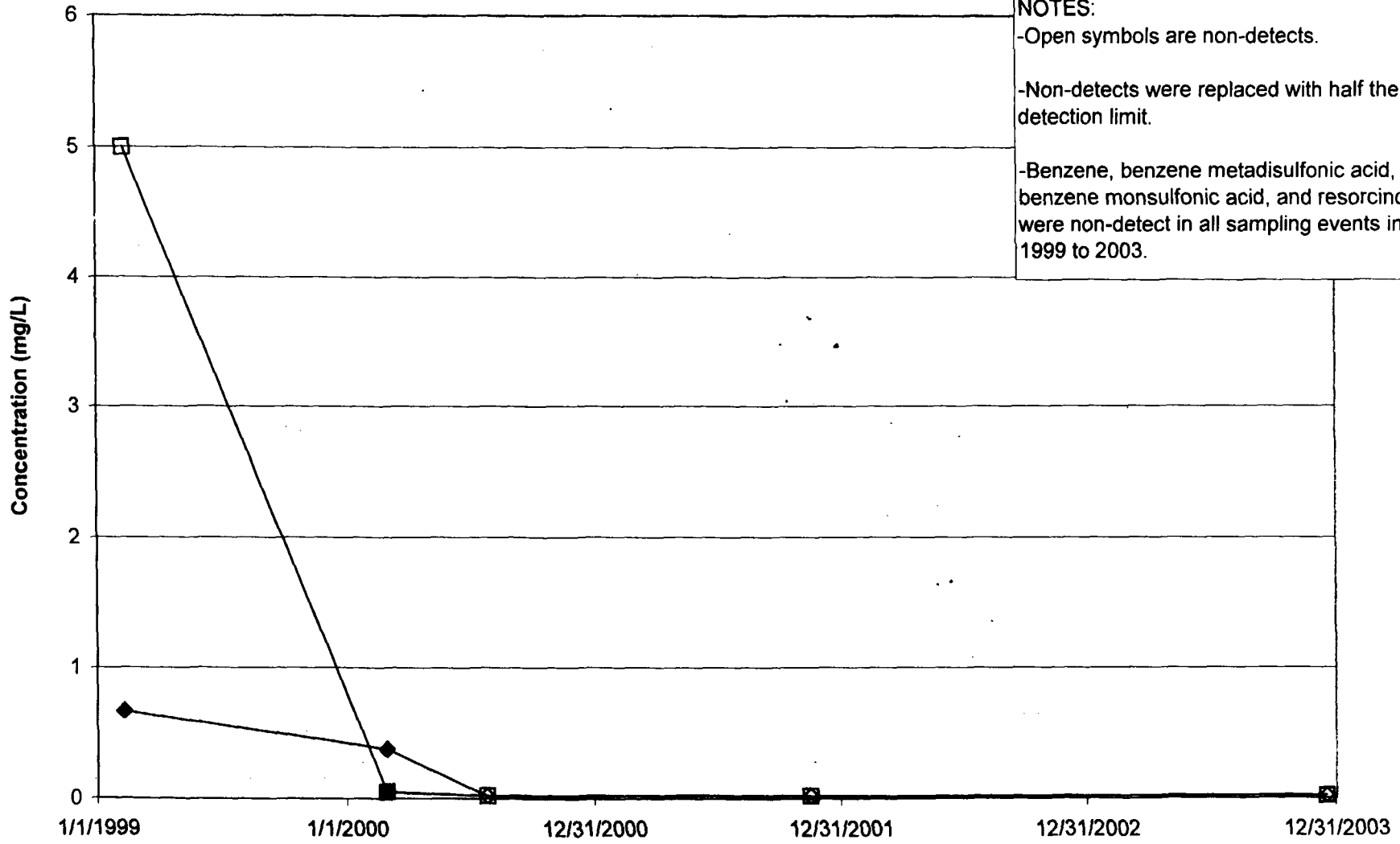
J indicates estimated value

NS - not sampled

**Concentration Trends for the Surface Water Sampling
of Unnamed Creek, 1999 though 2003
Craig Farm Site**



NOTES:
 -Open symbols are non-detects.
 -Non-detects were replaced with half the detection limit.
 -Benzene, benzene metadisulfonic acid, benzene monosulfonic acid, and resorcinol were non-detect in all sampling events in 1999 to 2003.



Attachment 6-Analytical Data for Landfill Monitoring Wells

LF-01, LF-02, LF-03 and LF-04

1999 through 2003

Craig Farm Site

Sample Location:		LF-01	LF-01	LF-01 - DUP	LF-01	LF-01 - DUP	LF-01	LF-01 - DUP	LF-01	LF-01 - DUP	LF-01	LF-01	LF-01 - DUP	LF-01	LF-01	LF-01 - DUP	LF-01
Sample Date:		05/12/99	10/01/99	10/01/99	05/25/00	05/25/00	11/30/00	11/30/00	04/16/01	04/16/01	11/14/01	04/17/02	04/17/02	11/12/02	04/15/03	04/15/03	12/18/03
BENZENE	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.058
RESORCINOL	MG/L	1.2 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,4,3-TRIHYOXYDIPHENYL	MG/L	0.95	0.075	0.050	0.050	0.050	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U

Sample Location:		LF-02	LF-02	LF-02	LF-02	LF-02	LF-02	LF-02	LF-02	LF-02	LF-02
Sample Date:		05/12/99	10/01/99	05/25/00	11/30/00	04/16/01	11/14/01	04/17/02	11/12/02	04/15/03	12/17/03
BENZENE	UG/L	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
RESORCINOL	MG/L	1.2 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
2,4,3-TRIHYOXYDIPHENYL	MG/L	0.95	0.050 U	0.050 U	0.050 U	0.050 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U

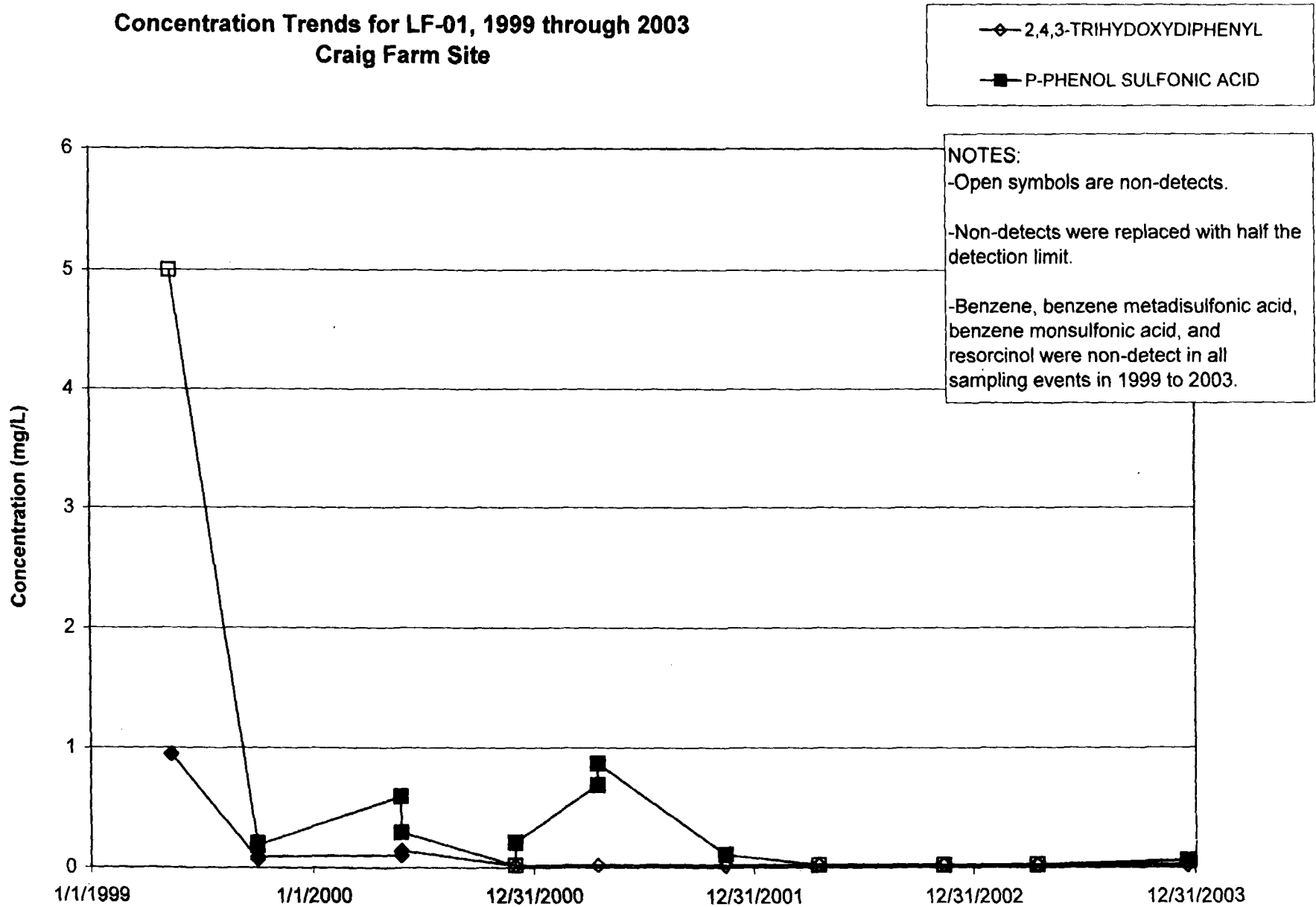
Sample Location:		LF-03	LF-03	LF-03	LF-03	LF-03	LF-03	LF-03	LF-03	LF-03	LF-03
Sample Date:		05/12/99	10/01/99	05/25/00	11/30/00	04/16/01	11/14/01	04/17/02	11/12/02	04/15/03	12/17/03
BENZENE	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
RESORCINOL	MG/L	1.2 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
2,4,3-TRIHYOXYDIPHENYL	MG/L	0.50 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 UJ	0.05 U	0.05 U	0.05 U

Sample Location:		LF-04	LF-04	LF-04	LF-04	LF-04	LF-04	LF-04	LF-04	LF-04	LF-04
Sample Date:		05/12/99	10/01/99	05/25/00	11/30/00	04/16/01	11/14/01	04/17/02	11/12/02	04/15/03	12/17/03
BENZENE	UG/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U
BENZENE METADISULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
BENZENE MONOSULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
P-PHENOL SULFONIC ACID	MG/L	10 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.052
RESORCINOL	MG/L	1.2 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U
2,4,3-TRIHYOXYDIPHENYL	MG/L	2.1	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U

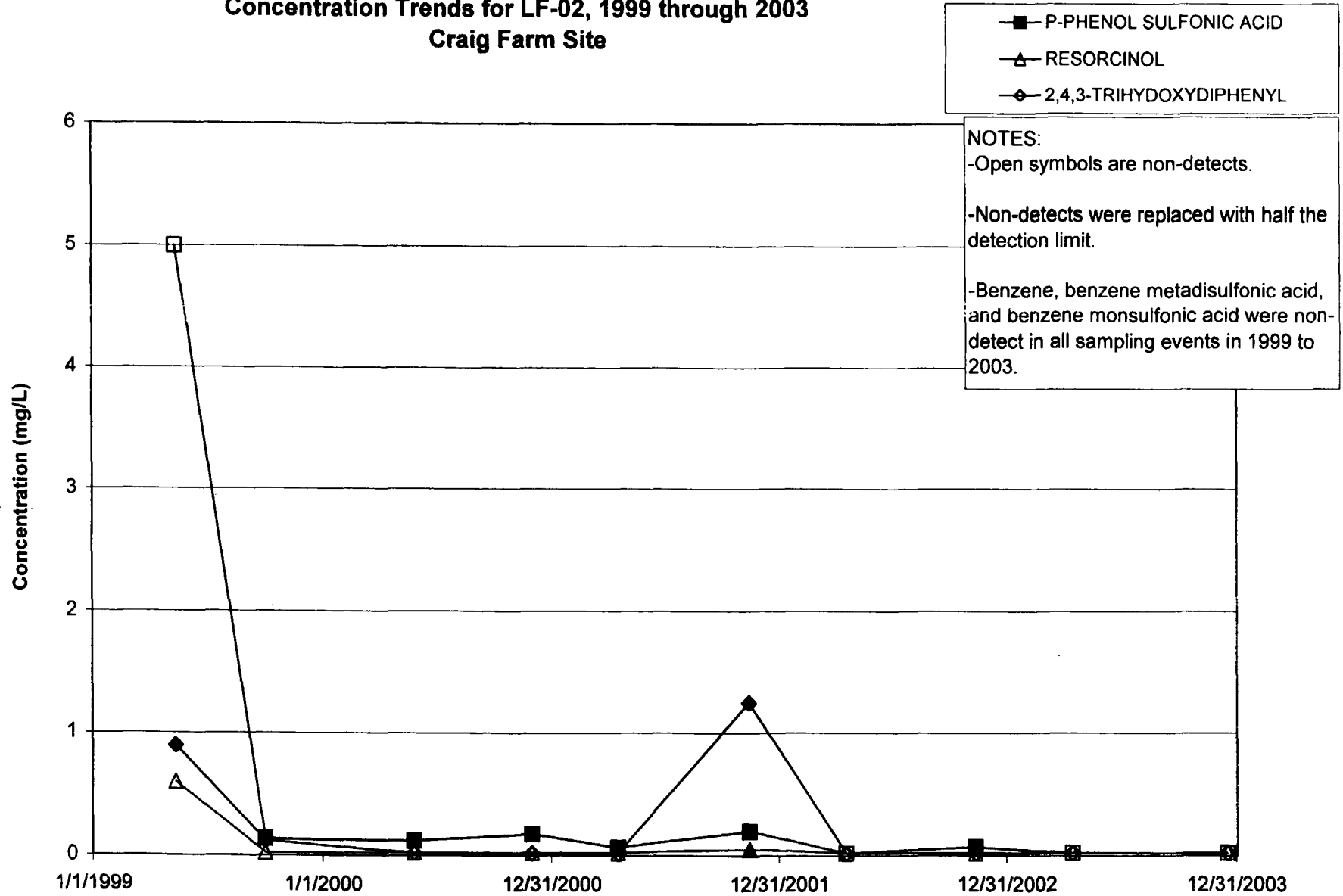
U - Indicates result was non-detect
 J - Indicates result is estimate
 Highlighted results are above
 detection limits

AR301545

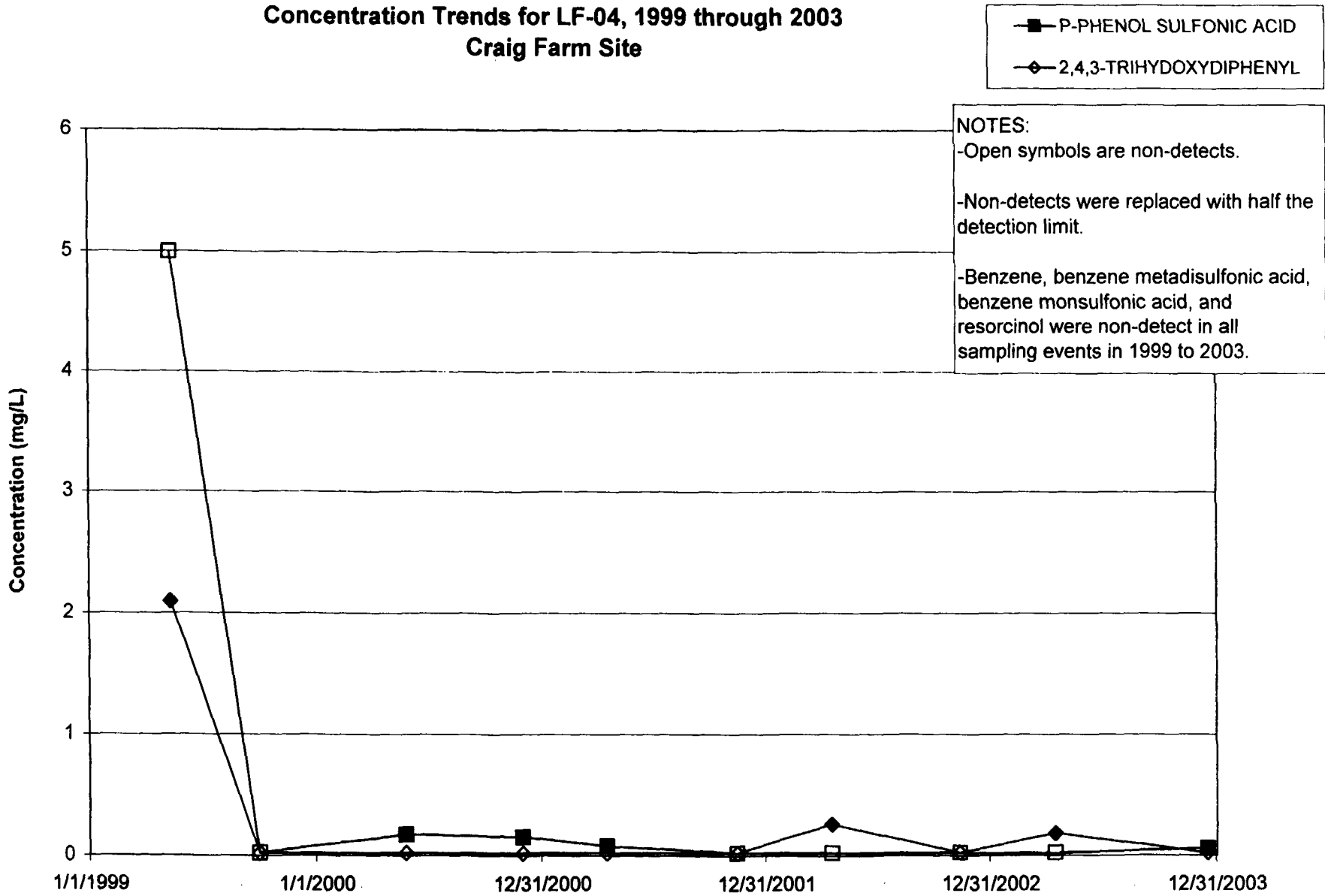
**Concentration Trends for LF-01, 1999 through 2003
Craig Farm Site**



Concentration Trends for LF-02, 1999 through 2003 Craig Farm Site



Concentration Trends for LF-04, 1999 through 2003 Craig Farm Site



ATTACHMENT 8
Applicable or Relevant and Appropriate
Requirements (ARARs)

Medium/Authority	ARAR (Citation)	Status	Requirement Synopsis	Action to be taken to Attain ARAR
Surface Water/PA Water Quality Criteria	25 PA Code Chapter 93.1 <u>et. seq.</u>	Applicable	Establishes water quality criteria for protection of freshwater aquatic life, human health, fish consumption	ARAR being met. Beazer is collecting seeps and treating offsite.
Water Pollution Prevention and Control (Clean Water Act)	33 U.S.C.A. §§1251	Applicable or Relevant and Appropriate	The objective of this regulation is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.	These non-enforceable toxicity values have been considered while developing site-specific cleanup standards for each remedial alternative. The process of risk assessment and development of cleanup standards was documented in the 1989 ROD. The surface water is being collected and treated to ensure that these requirements are being met.
Pennsylvania Clean Streams Law	25 PA Code §§ 91.1 <u>et seq.</u> 16.1 <u>et seq.</u> 93.7	Applicable or Relevant and Appropriate	Sets forth general provisions for administration and enforcement of Pennsylvania's water pollution control program, and establishes specific application requirements and conditions for the approval and permitting of the construction and operation of waste treatment projects, including concentrated animal feeding operations.	The MCLs for PCOCs set in the 1989 ROD are relevant and appropriate for groundwater used for drinking purposes
National Primary Drinking Water Regulations	40 C.F.R. §§142	Applicable or Relevant and Appropriate	This part sets forth, pursuant to sections 1413 through 1416, 1445, and 1450 of the Public Health Service Act, as amended by the Safe Drinking Water Act, Public Law 93-523, regulations for the implementation and enforcement of the national primary drinking water regulations contained in part 141 of this chapter.	ARAR met during remedial activities
Worker Safety/OSHA	29 CFR Parts 1904, 1910, and 1926	Applicable	Establishes standards for worker's protection	

National Secondary Drinking Water Regulations	40 C.F.R. §§143	Applicable or Relevant and Appropriate	These regulations control contaminants in drinking water that primarily affect the aesthetic qualities relating to the public acceptance of drinking water. At considerably higher concentrations of these contaminants, health implications may also exist as well as aesthetic degradation. The regulations are not Federally enforceable but are intended as guidelines for the States.	The MCLs for PCOCs set in the 1989 ROD are relevant and appropriate for groundwater used for drinking purposes
Water Quality Criteria	40 C.F.R. §§131	Applicable or Relevant and Appropriate	Sets criteria for water quality based on toxicity to aquatic organisms and human health	AWQCs for PCOCs stated in the ROD meet this criteria. The seeps are being collected in a seep interceptor system and treated off site. The system will be shut off with toxicity criteria to organisms.
Management Act Wetlands	25 PA Code §§105.1	Applicable or Relevant and Appropriate	Establishes criteria for wetlands	The wetland built on site had to meet this criteria
Executive Order on Protection of Wetlands	40 C.F.R. Part 6 Appendix A	Applicable or Relevant and Appropriate	Requires Federal agencies to avoid to the extent possible, the adverse impacts associated with the destruction or loss of wetlands and to avoid support of new construction in wetlands if a practical alternative exists	Applicable because there were wetlands which had to be replaced on site.
Solid Waste Management Act	25 PA Code Chapter 75	Applicable or Relevant and Appropriate	Established criteria for siting and operating solid waste disposal facilities	ARAR met during remedial activities and in operation and maintenance

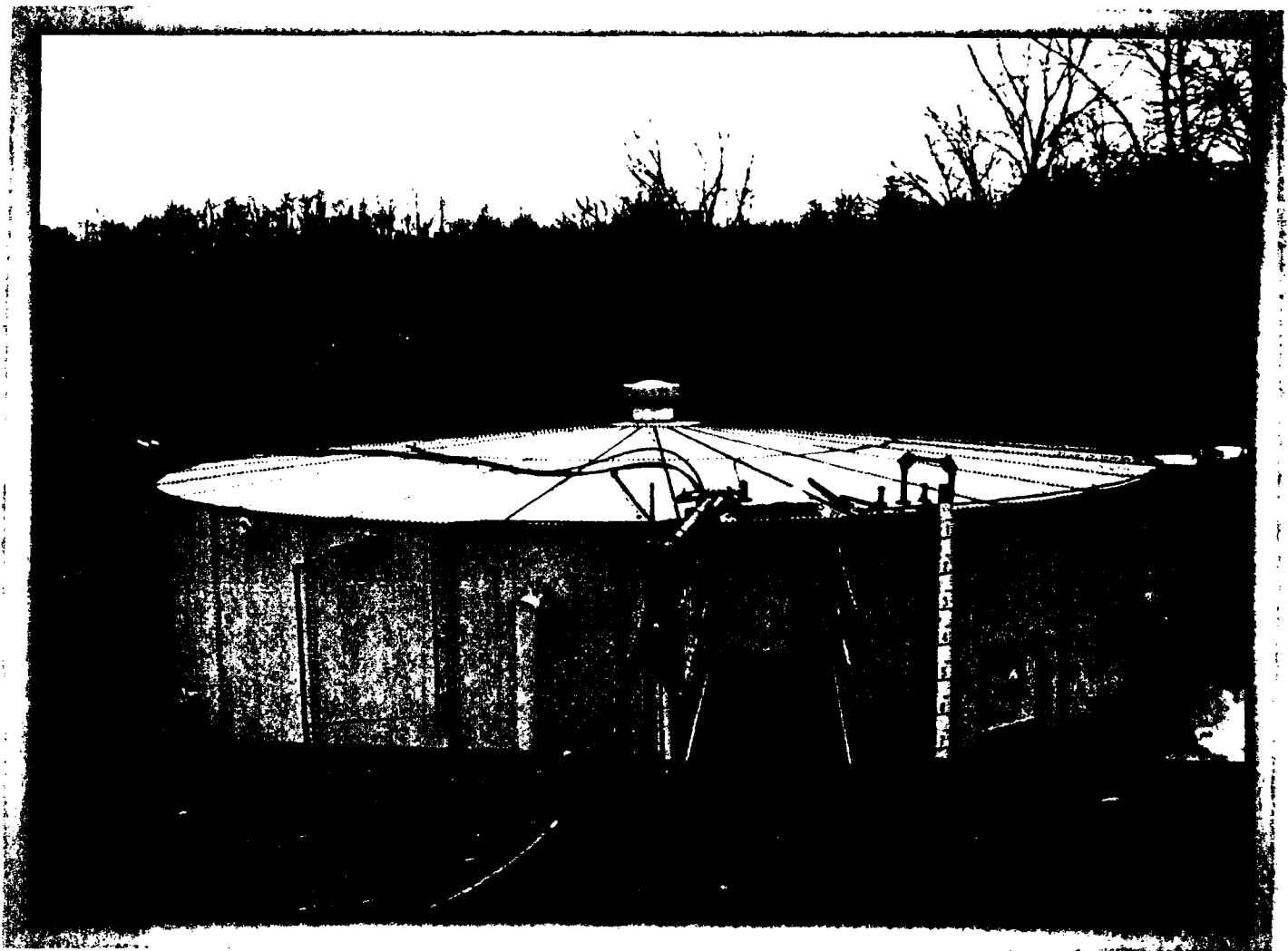
Criteria for Classification of Solid Waste Disposal Facilities and Practices	40 C.F.R. Part 257	Applicable or Relevant and Appropriate	Establishes criteria for use in determining which solid waste disposal facilities and practices possess a reasonable probability of adverse effects on public health or the environment and thereby constitute prohibited open dumps	ARAR met during remedial activities
Standards Applicable to Transporters of Hazardous Waste	40 C.F.R. Part 263	Applicable or Relevant and Appropriate	Establishes standards which apply to transporters of hazardous waste within the U.S.	ARAR met during remedial activities
Standards for Owners and Operators of Hazardous Waste	40 C.F.R. Part 264	Applicable or Relevant and Appropriate	Establishes minimum requirements which define the acceptable management of hazardous wastes for owners and operators of facilities which treat, store or dispose of hazardous wastes	ARAR met during remedial activities
Standards Applicable to Generators of Hazardous Waste	40 C.F.R. Part 262	Relevant and Appropriate	Establishes standards for generators of hazardous waste	ARAR met during remedial activities

Attachment 9
Pictures of Craig Farm
Superfund Site



Craig Farm Landfill.JPG
3/4/2004 9:57:36 AM

AR301553



3/4/2004 9:58:50 AM
Seep Collection Tank

AR301554



3/4/ 2004 , 9:50:50 AM



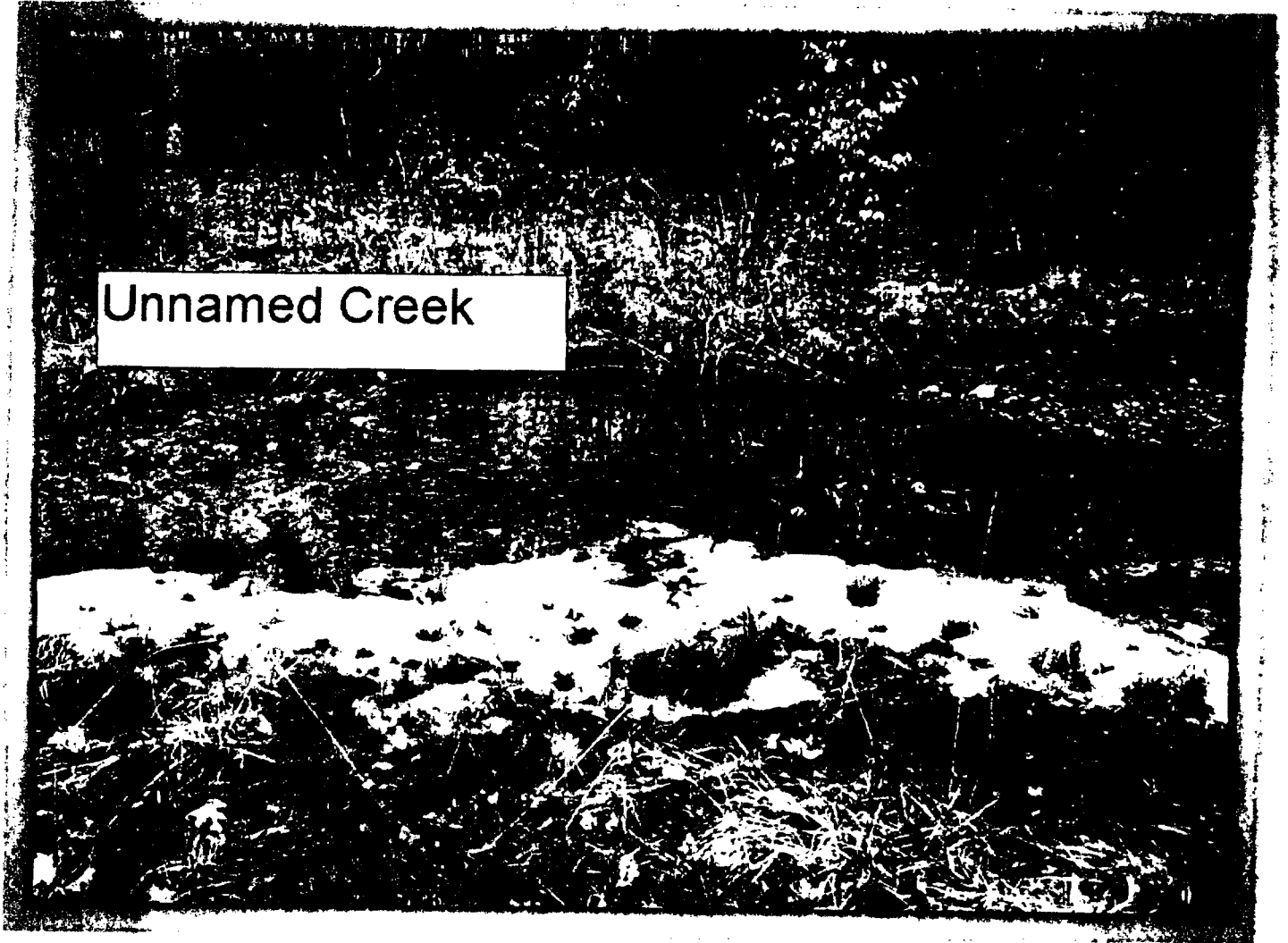
3/4/2004 11:04:08 AM
Pumping Out Waste from Seep
Collection System

AR301555



North Pit.JPG
3/4/2004 10:05:12 AM

AR301556



Unnamed Creek on
Craig Farm
3/4/2004

AR301557

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

SUBJECT: Addendum to Craig Farm Five Year Review

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

TO: Craig Farm Drum Site File, Armstrong County, PA

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

The June 2004 Five Year Review for the Craig Farm 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 institutional controls were put into place September 23, 2004
- Minor inadequacies were fixed on the caps and monitoring wells on March 4, 2004
- The unidentified drums found in the wetland area and the two unidentified drums near the seep collection tank were characterized and disposed off site on March 4, 2004.
- The seep collection tank indicator was fixed so it was functioning properly on March 4, 2004.

SECTION II

No items are needed in Section II

SECTION III

I have attached the deed notice recorded for the Craig Farm Site

cc: Raphael Gonzales, OSRTI
David Lopez, OSRTI



DECLARATION OF RESTRICTIONS

THIS DECLARATION OF RESTRICTIONS is made this 23rd day of September 2004 by Beazer East, Inc. (formerly known as Koppers Company, Inc.), a Delaware corporation, having an address of One Oxford Centre, Suite 3000, Pittsburgh, PA 15219-6401 (the "Declarant").

WITNESSTH:

WHEREAS, Koppers Company, Inc. acquired in three separate transactions property located in Perry Township, Armstrong County, Pennsylvania more particularly described in Exhibit A attached hereto and made a part hereof (such real property being hereinafter referred to as the "Site") by: (1) deed of January 5, 1972 from Herman G. Craig and Betty L. Craig to Declarant and recorded in the Office of the Recorder of Deeds of Armstrong County, Pennsylvania, in Deed Book Volume 538 beginning at Page 244; (2) deed of February 27, 1985 from Herman G. Craig to Declarant and recorded in the Office of the Recorder of Deeds of Armstrong County, Pennsylvania, in Deed Book Volume 653 beginning at Page 31; and (3) deed of June 13, 1985 from Carl E. Switzer and Charlene Switzer to Declarant and recorded in the Office of the Recorder of Deeds of Armstrong County, Pennsylvania, in Deed Book Volume 669 beginning at Page 215;

WHEREAS, beginning in 1958 a waste hauler for Koppers used the Site to dispose of industrial waste from Koppers' manufacturing plant in Petrolia, Pennsylvania, including hazardous waste from the production of resourcinol and constituents thereof;

WHEREAS, in 1989, Koppers Company, Inc. changed its name to Beazer Materials and Services, Inc. and in 1990, Beazer Materials and Services, Inc. changed its name to Beazer East, Inc.;

WHEREAS, in May of 1990, a Consent Decree was signed and entered with the United States District Court for the Western District of Pennsylvania addressing implementation of a Remedial Design and Remedial Action ("RD/RA") at the Site and payment of certain response costs;

WHEREAS, pursuant to the Consent Decree, Declarant has implemented the RD/RA at the Site, and as part of the remedial action Declarant created a landfill to contain the hazardous waste that was disposed on-site ("the Landfill");

WHEREAS, the Consent Decree for the Site requires implementation of institutional controls restricting future use of the Site, which controls may include restrictive covenants; and

WHEREAS, it is in the intention of Declarant to create restrictions on the Site that will run with the land and bind future owners, tenants, subtenants, licensees or other users of any and all portions of the Site.

NOW, THEREFORE, Declarant hereby imposes the following restrictions on the Site, which shall be enforceable by Declarant and its successors and assigns, the Environmental Protection Agency, the Pennsylvania Department of Environmental Protection Agency and all other governmental agencies with jurisdiction over the environmental conditions on the Site.

1. **Purposes**

The purpose of this Declaration is to restrict certain use and development activities at the Site so as to prevent any uses of the Site which would be inconsistent with the RD/RA for the Site and create a risk to human health or the environment and to fulfill Declarant's commitments under the Consent Decree.

2. **Specific Prohibitions**

- (a) No groundwater underneath the Site may be used for human consumption, irrigation or other purposes that might bring it into contact with humans (except for testing purposes required by law, the RD/RA or the terms of the Consent Decree) and neither the owner, occupant nor any other user of the Site shall drill or install any wells on the Site for the purpose of extracting groundwater underneath the Site for human consumption, irrigation, or other purposes that might bring it into contact with humans (except for testing purposes as required by law, the RD/RA or the terms of the Consent Decree).
- (b) No building, structure or other object shall be built or placed on the Site that would disturb the cap or stabilized contents of the Landfill or would otherwise disturb any component of the RD/RA at the Site without the prior written approval of Declarant or its successors and assigns and the Environmental Protection Agency.
- (c) The Site shall not be used for the purposes of personal living, dwelling, or overnight accommodations, whether such uses are in single family residences, apartments, duplexes or other multiple residential dwellings, trailers, trailer parks, camping sites, hotels, motels, or any other dwelling use of any kind, or for child care, schools, parks or other nonindustrial uses, by the owner or occupant of the Site, or anyone occupying the Site with the permission of the owner of the Site.
- (d) No action shall be taken at the Site to interfere with, obstruct, disturb the performance, support or supervisions of any remedial response actions taken or to be taken at the Site, including any operation or maintenance activities.
- (e) Any subsequent owner of the Site shall provide a purchaser with notice of the terms of the Consent Decree prior to transferring any interest in the Site.

3. **Access**

The employees, agents and contractors of the Declarant and its successors and assigns shall have the right of ingress and egress from and movement on the Site sufficient to conduct, maintain, monitor and secure the integrity of the remedy set forth in the RD/RA, to take other actions required or authorized under applicable federal and state laws and to monitor and enforce compliance with the terms of this Declaration. Declarant acknowledges that, notwithstanding any other provision of this Declaration, the Environmental Protection Agency retains all of its access authorities and rights, as well as its right to require land/water use restrictions, including enforcement authorities related thereto, under applicable statutes and/or regulations.

4. **Enforceability**

- (a) The covenants, conditions and restrictions of this Declaration shall be enforceable by Declarant and its successors and assigns.
- (b) Such covenants, conditions and restrictions shall run with the land, shall be binding upon any and all successors in interests, and all assignees, lessees, sub-lessees, operators, tenants, licensees, agents and any and all persons who acquire any interest in the Site.
- (c) Violation of covenants, conditions and restrictions contained herein shall give Declarant and its successors and assigns in addition to all other remedies, the right to enter upon the land upon or as to which such violation exists and summarily to abate and remove, at the expense of the owner thereof, any structure, thing or condition that may be or exist thereon contrary to the intent and meaning of the provision of this Declaration.
- (d) Declarant and its successors and assigns shall be entitled to enforce the terms of this Declaration by specific performance or legal process. All remedies available hereunder shall be in addition to any other remedies at law or in equity. Enforcement of the terms and conditions of this Declaration shall be at the discretion of Declarant and its successors and assigns and any forbearance, delay or omission to exercise its rights under this Declaration in the event of a breach of any term of this Declaration shall not be deemed to be a waiver by Declarant or its successors and assigns of such term or of any subsequent breach of the same or any other term, or of any of the rights of such parties under this Declaration.

5. **Miscellaneous**

- (a) Modifications. This Declaration may be modified or terminated, in whole or in part by the Declarant or its successors or assigns, provided that a written Modification or Termination Notice in the Office of the Recorder of Deeds

of Armstrong County, Pennsylvania is filed and provided that Declarant or its successors or assigns obtain written approval from the Environmental Protection Agency at least thirty (30) days prior to filing such notice.

- (b) Reservation of Rights. Declarant hereby reserves unto itself, its successors and assigns, all rights and privileges in and to the use of the Site which are not incompatible with the covenants, conditions and restrictions established herein.
- (c) No Public Access. No right of access or use by the general public to any portion of the Site is conveyed by this Declaration.
- (d) Governing Law. The interpretation and performance of this Declaration shall be governed by the law of Pennsylvania.
- (e) Rules of Construction. Any general rule of construction to the contrary, notwithstanding, this instrument shall be liberally construed in favor of the grant to affect the purpose of this Declaration and the policy and purpose the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 *et seq.* If any provision of this Declaration is found to be ambiguous, an interpretation consistent with the purpose of this Declaration that would render the provision valid shall be favored over any interpretation that would render it invalid.
- (f) Severability. If any provision of this Declaration, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this Declaration, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.
- (g) Entire Agreement. This Declaration sets forth the entire undertaking and agreement of Declarant with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating hereto, all of which are merged herein.
- (h) No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of title in any respect.
- (i) Successors. The covenants, terms, conditions and restrictions of this Declaration shall be binding upon, and inure to the benefit of, Declarant and its successors and assigns and shall continue as a servitude running in perpetuity with the Site.
- (j) Termination of Rights and Obligations. The rights and obligations of the owner(s) from time to time of the Site under this Declaration terminate upon

transfer of the party's interest in the Site, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

- (k) Captions. The captions in this Declaration have been inserted solely for convenience of reference and are not a part of this Declaration and shall have no effect upon construction or interpretation.

[SIGNATORIES APPEAR ON FOLLOWING PAGE]

EXHIBIT A

BEGINNING at an iron pin corner on line of land of Earl A. Bailey, formerly M.S. and George Shakley, said point being a Southwest corner and common to land now of W.P. Vance, formerly E.S. Golden, and the herein described tract; thence by land of Earl A. Bailey and G. Pearl Johns, North $7^{\circ} 08' 20''$ East, a distance of 3267.00 feet to a Stone corner on line of land of G. Pearl Johns, and being common to land now of John H. Hood, formerly Jacob Steel, and the herein described tract; thence by land of John H. Hood, South $85^{\circ} 06' 30''$ East, a distance of 1378.77 feet to an iron pin corner on line of land of John H. Hood, and being common to land now of David E. Frazier (Allotment "B"), and the herein described tract, thence by land of David E. Frazier, South $00^{\circ} 39'$ West, a distance of 1014.52 feet to an Iron Pin corner on West line of an improved Public Road passing through the Northeast section of land conveyed herein, and known as Legislative Route 03030 and being common to an area of land to be retained by Grantor and the herein described tract, thence by land to be retained by Herman G. Craig, South $68^{\circ} 30'$ West, a distance of 899.00 feet to an Iron Pin corner; thence by land of same, South $26^{\circ} 57' 30''$ East, a distance of 1312.23 feet to an Iron Pin corner; thence by land of same North $89^{\circ} 00'$ East, a distance of 224.66 feet to an iron pin corner on line of land of David E. Frazier and being along the West line of aforesaid Improved Public Road and being common to land to be retained by Herman G. Craig, and the herein described tract; thence by land of David E. Fraizer, South $00^{\circ} 39'$ West, a distance of 765.45 feet to an iron pin corner on line of land now of W.P. Vance, formerly E.S. Golden, and common to land of David E. Frazier and the herein described tract; thence by land of W.P. Vance, North $85^{\circ} 03'$ West a distance of 1749.00 feet to an iron pin corner, the place of beginning. CONTAINING 99.899 acres, more or less, as surveyed by E.J. Weibel, a registered surveyor, November 26, 1971.

BEGINNING at an iron pin corner on line of land now of David E. Frazier, said point being South $0^{\circ} 39'$ West, a distance of 1014.52 feet from the northeast corner of the land formerly conveyed by Herman G. Craig, et ux., to Koppers Company, Inc. by Deed dated January 5, 1972, and being the northeast corner of the herein described tract; thence by land of David E. Fraizer (formerly Allotment "B"), South $00^{\circ} 39'$ West, a distance of 1495.28 feet to an iron pin corner on line of said land and being common to land conveyed to Koppers Company, Inc., as aforesaid; thence by said land heretofore conveyed to Koppers Company, Inc., by Herman G. Craig, et ux., as aforesaid, South $89^{\circ} 00'$ West, a distance of 224.66 feet to an iron pin corner; thence by same, north $26^{\circ} 57' 30''$ West, a distance of 1312.23 feet to an iron pin corner; thence by same, North $68^{\circ} 30''$ East, a distance of 899.00 feet to an iron pin corner on line of land of David E. Fraizer, the place of beginning. CONTAINING 17.333 acres, more or less, as surveyed by E.J. Weibel, R.S., December 1, 1971.

{DESCRIPTION CONTINUED ON NEXT PAGE}

BEGINNING at an iron pin corner along the edge of the Queenstown-Bruin Road, a Public Road, being known as Legislative Route #03030: Said point being the south-east corner of the herein described tract; thence west, through land of Herman G. Craig and Betty L. Craig, his wife, of which this is a part, a distance of two hundred twenty-five (225) feet to an iron pin corner; thence North through land of same, a distance of two hundred fifty (250) feet to an iron pin corner; thence east, through land of Herman G. Craig and Betty L. Craig, his wife, a distance of two hundred sixty-five (265) feet to an iron pin corner at edge of Legislative Route 03030; thence South; along edge of Legislative Route 03030, a distance of two hundred fifty (250) feet to a point, the place of beginning.

IN WITNESS WHEREOF, BEAZER EAST, INC. has caused its common and corporate seal to be affixed to these presents by the hand of its _____, who is duly authorized to execute this Declaration on behalf of the corporation, and the same being duly attested to by its Secretary on the day and year first above written, intending to be legally bound hereby.

ATTEST:

BEAZER EAST, INC., a Delaware Corporation

[Signature]
Secretary
[CORPORATE SEAL HERE]

By: [Signature]

STATE OF Pennsylvania)
COUNTY OF Allegheny) SS:

On this 23rd day of September, 2004, before me, a Notary Public, the undersigned officer, personally appeared Robert Maxwell, who acknowledged himself to be the Vice-President of BEAZER EAST, INC., a Delaware Corporation, and that he, as such officer, being authorized to do so, executed the foregoing instrument as the Vice-President of BEAZER EAST, INC. for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

[Signature]
Notary Public

My commission expires:

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Maureen M. Stotzer, Notary Public
City Of Pittsburgh, Allegheny County
My Commission Expires July 3, 2008
Member, Pennsylvania Association Of Notaries