

OVERSIZE PAGES

LOCATED AT

END OF

DOCUMENT

3005-0605040012

CH2M HILL Mound, Inc.

1075 Mound Road

P.O. Box 750

Miamisburg, OH 45343-0750



**CH2MHILL**

SMO-164/06  
March 9, 2006

Mr. Don Pfister, Director  
Miamisburg Closure Project  
U. S. Department of Energy  
175 Tri-County Parkway  
Springdale, OH 45246

ATTENTION: Paul Lucas

**SUBJECT:** Contract No. DE-AC24-03OH20152: Section C.2.2 Utility Systems; Water  
Distribution System Leasing Data Package, Final

Dear Mr. Pfister:

Attached is the following Final document for your records:

- Water Distribution System Leasing Data Package, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Ebben".

Michael D. Ebben  
Site Manager

JL/jg

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments  
B. Nickel, OEPA, (1) w/attachments  
R. Vandegrift, ODH, (1) w/attachments  
J. Webb, ODH, (1) w/attachments  
M. Wojciechowski, Tetra Tech, (1) w/attach  
G. Gorsuch, DOE/MCP, (1) w/attachments  
R. Tormey, DOE/OH, (1) w/attachments  
G. Desai, DOE/HQ, (1) w/attachments  
F. Bullock, MMCIC, (3) w/attachments  
Public Reading Room, (1) w/attachments  
Admin Record, (2) w/attachments

ER Records, CH2M Hill, (1) w/attachs  
DCC (1) w/attachments  
M. Ebben, CH2M Hill, w/o attachments  
K. Armstrong, CH2M Hill, w/o attachments  
D. Rakel, CH2M Hill, w/o attachments  
D. Kramer, CH2M Hill, w/o attachments  
A. Upshaw, CH2M Hill, w/o attachments  
MOAT Coordinator, CH2M Hill, w/o attachs  
S. Barr, CH2M Hill, w/o attachments  
M. McDougal, CH2M Hill, w/o attachments  
file, CH2M Hill, w/o attachments

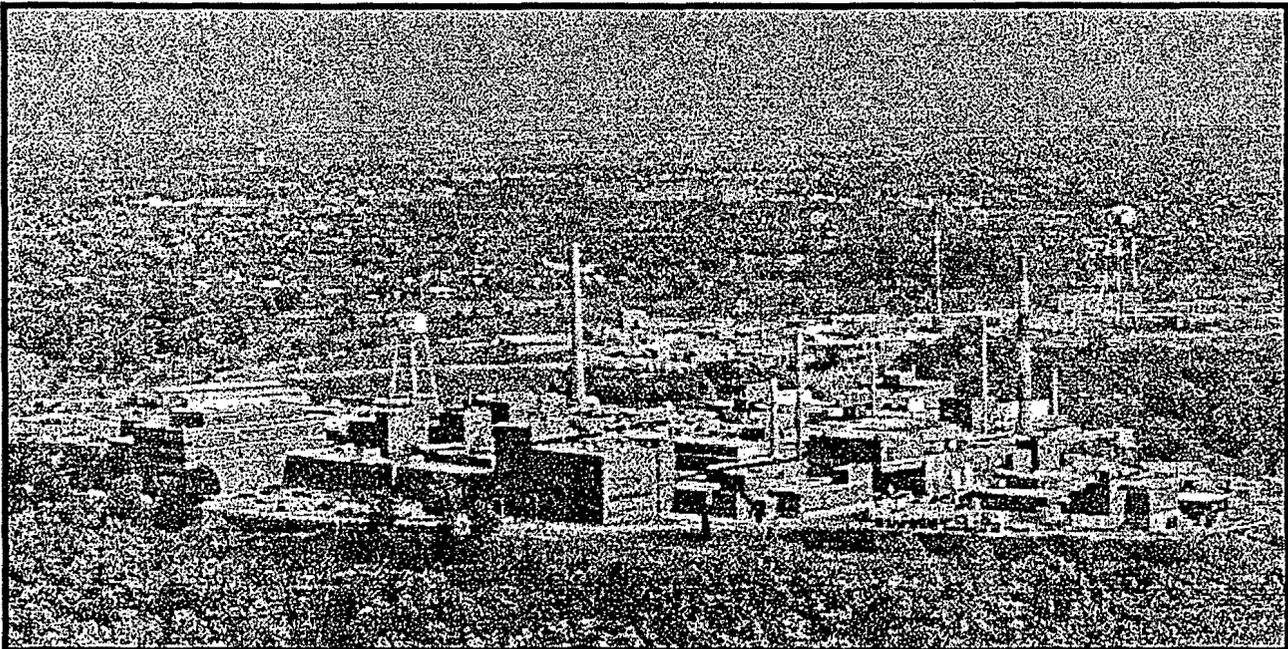


Environmental  
Restoration  
Program



# Miamisburg Closure Project LEASING DATA PACKAGE Water Distribution System

FINAL  
December 2004





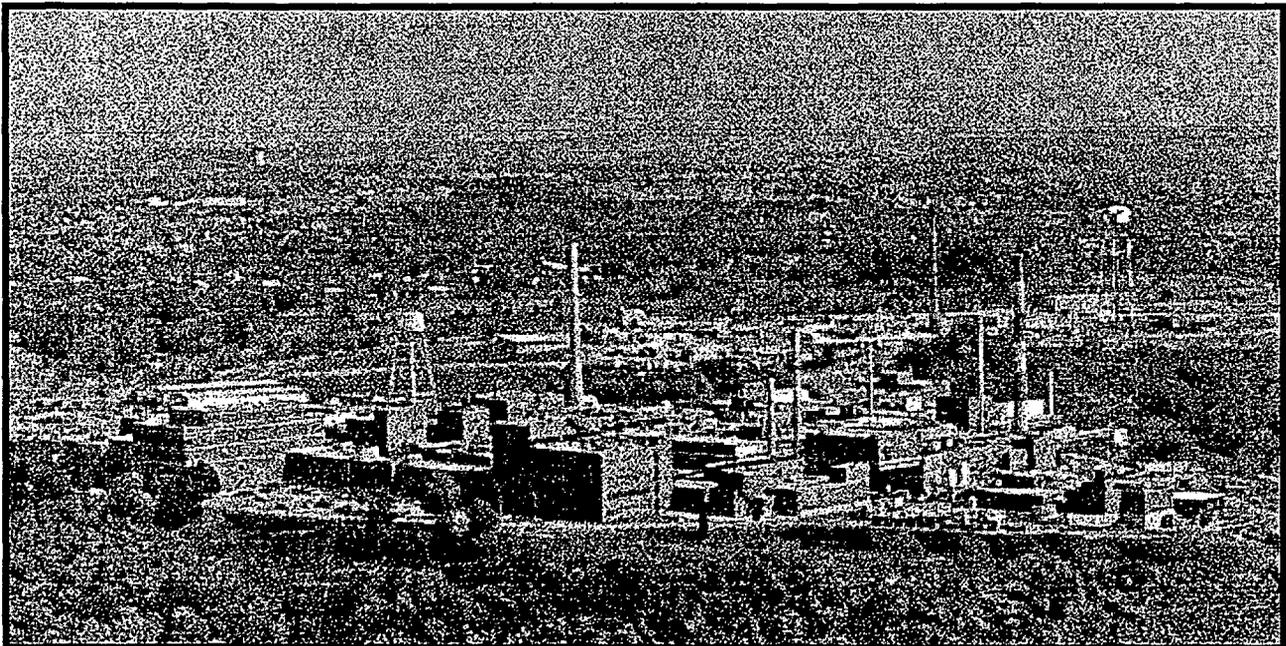
Environmental  
Restoration  
Program



OhioEPA

# Miamisburg Closure Project LEASING DATA PACKAGE Water Distribution System

FINAL  
December 2004





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

NOV 18 2004

REPLY TO THE ATTENTION OF:

R-191

Ms. Margaret Marks, Director  
Miamisburg Closure Project  
U.S. Department of Energy  
1075 Mound Road  
Miamisburg, OH 45342

RE: U.S. DOE Mound Plant  
Potable Water Distribution System  
Request for Concurrence to Lease

Dear Ms. Marks:

Thank you for your letter dated October 29, 2004, requesting concurrence to lease the Mound Potable Water Distribution System at the United States Department of Energy (U.S. DOE) Mound Plant in Miamisburg, Ohio.

The United States Environmental Protection Agency (U.S. EPA) has reviewed your request as required by Sections 3154 (e)(1) and (e)(2) of the National Defense Authorization Act (The Act), which amended Section 646 of the Department of Energy Organization Act (42 U.S.C. 7256). This amendment is commonly referred to as the "Hall Amendment". The Act requires that U.S. DOE obtain concurrence from the Administrator of the U.S. EPA with respect to leasing property on the National Priorities List. This concurrence review is required to determine whether the conditions of the property are such that leasing the property is consistent with the safety and the protection of public health and the environment.

Based upon a thorough review of all of the information provided by the Department of Energy associated with the Mound Water Distribution System, U.S. EPA hereby concurs that the leasing of the Mound Water Distribution System is protective of public health and the environment.

The U.S. EPA fully supports redevelopment and reuse of the structures and other property available at the Mound Plant. However, assurances must be provided that all property and building leases and transfers will be protective of public health and the environment. If you have any questions or concerns about this or future economic development issues at the site, please contact Timothy Fischer, of my staff, at (312) 886-5787.

Sincerely yours,



for Richard C. Karl, Director  
Superfund Division  
U.S. EPA, Region 5

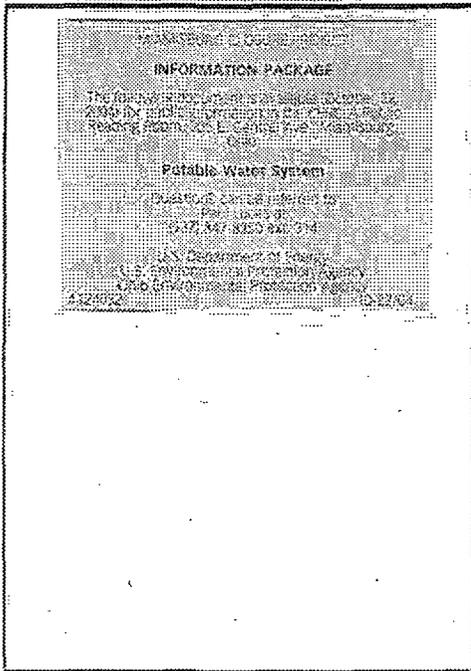
cc: Gary Schafer, SR-6J  
Brian Nickel, Ohio EPA  
Tim Thurlow, ORC

# AFFIDAVIT OF PUBLICATION

State of Ohio

SS: CH2MHILL

Montgomery County



Before me, the undersigned, a Notary public in and for said County, personally came Tina Sears, who being first duly sworn says she is the Legal Advertising Agent of the DAYTON DAILY NEWS, which she says is a newspaper of general circulation in Montgomery, Clark, Warren, Butler, Clinton, Greene, Preble, Miami, Darke, Mercer, Shelby, Fayette, Logan, Auglaize, and Champaign Counties, and State of Ohio, and she further says that the Legal Advertisement, a copy of which is hereunto attached, has been published in the said DAYTON DAILY NEWS:

19 Lines, 1 Time(s), last day of publication

being 10/22/04 and he/she further says

that the bona fide daily paid circulation of the said DAYTON DAILY NEWS was over Twenty-five Thousand (25,000) at the time the said advertisement was published, and that the price charged for same does not exceed the rates charged on annual contract for the like amount of space to other advertisers in the general display advertising columns.

Signed

*Tina Sears*

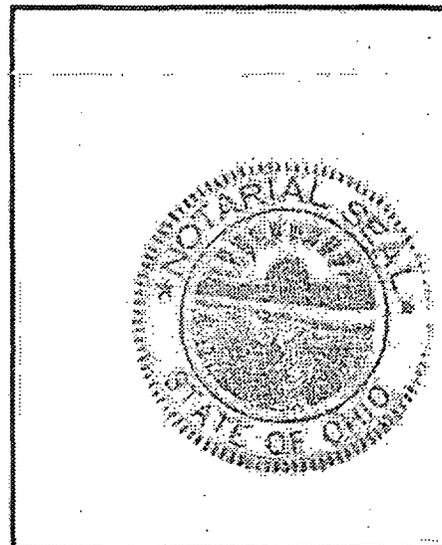
Sworn or affirmed to, and subscribed before me, this

22 day of October 2004

In Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

*Kevin Johnson*

Notary Public in and for the State of Ohio



# TABLE OF CONTENTS

---

---

Section	Page
<u>1.0</u> <u>PURPOSE</u> .....	1
<u>2.0</u> <u>COMPLIANCE WITH THE 'HALL AMENDMENT'</u> .....	1
<u>3.0</u> <u>POTENTIAL ENVIRONMENTAL CONTAMINATION</u> .....	2
<u>4.0</u> <u>DESCRIPTION OF AREA TO BE LEASED</u> .....	3
<u>5.0</u> <u>RESPONSIBILITIES OF THE LEASE</u> .....	4
<u>6.0</u> <u>REVIEW OF AVAILABLE DATA</u> .....	4
<u>6.1</u> <u>EVALUATION PROCESS</u> .....	4
<u>6.2</u> <u>DATA SET</u> .....	5
<u>6.3</u> <u>DATA EVALUATION</u> .....	5
<u>7.0</u> <u>PROTECTIVE CONDITIONS</u> .....	5
<u>8.0</u> <u>RECOMMENDATIONS WITH CONCLUSIONS</u> .....	5

## Appendices

### Appendix A Attachments

- Attachment 1: Draft Lease of Mound Water Distribution System
- Attachment 2: Letter Request for Core Team Involvement
- Attachment 3: CD with Soil Data within 15 feet of Drinking Water Lines

### Appendix B Tables

- Table 1: Soil Data Exceeding 10-5 RBGV
- Table 2: Core Team Evaluation of Data in Table 1

### Appendix C Figures

- Figure 1: Sampling results within 15 feet on drinking water lines

# TABLE OF CONTENTS

## RECOMMENDATION

### Potable Water System

#### Background:

A portion of the potable water system at the Mound facility will be isolated from the main potable water system so it can be leased from DOE to MMCIC. Previously, these lines had been used by DOE to distribute drinking and process water to the site from onsite wells, treatment facility, and storage tanks. Following transition, MMCIC plans to use the transitioned lines to provide potable water to the facilities from the Miamisburg municipal water system.

To evaluate the transition of these lines, the Core Team used the same process as they use to evaluate buildings or Potential Release Sites (PRSs).

The Potable Water System Information Package provides the evaluation of all existing soil data collected from within 15 feet of the center-line of the drinking water lines to be transitioned. Of the 6,721 analytical results that were evaluated, no results exceeded the hazard index equals 1 value, and seven results exceeded the  $10^{-5}$  Risk-Based Guideline Value (RBGV). Each of the seven elevated results were further evaluated; Based on this evaluation the Core Team determined that the transfer of the potable water system is protective of human health and the environment. The elevated results will be left in place, and the data included in the residual risk evaluation for each parcel during transition.

#### Recommendation:

After thorough review of the environmental data provided in the Potable Water System Information Package, the Core Team agrees that all existing environmental issues associated with the potable water system have been resolved. Future use of the potable water system will be restricted to commercial/industrial use and will only be used to supply facilities located on the former DOE Mound property (as owned in 1998). This recommendation applies to the CERCLA processes only and is separate and distinct from the Drinking Water Plan Review and all other functions of the Ohio EPA Division of Drinking and Ground Waters. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA for final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

DOE/MCP:	<u>Paul Lucas</u>	<u>10/26/04</u>
	Paul Lucas, Remedial Project Manager	Date
USEPA:	<u>David P. Seely</u>	<u>10/25/04</u>
	David P. Seely, Remedial Project Manager	Date
OEPA:	<u>Brian K. Nickel</u>	<u>10/25/04</u>
	Brian K. Nickel, Project Manager	Date

## 1.0 PURPOSE

Plans to transition the Department of Energy (DOE) Miamisburg Mound Site to the Mound Advanced Technology Center (MATC) include the lease of certain portions of the existing water distribution system from DOE to the Miamisburg Mound Community Improvement Corporation (MMCIC). The leased sections of the potable water system will be isolated from the remaining Mound system by cutting the water lines and capping the pipe. Modifications to the system will be made at the building level to provide for both fire protection and potable water service.

This Leasing Data Package is being submitted to the Core Team to comply with the 'Hall Amendment' that provides the framework for U.S. EPA to concur with DOE that the terms and conditions of a lease agreement are consistent with safety and protection of public health and the environment. The draft lease agreement is included as Appendix A, Attachment 1 in this document.

DOE has provided drinking and process water to the site from a system consisting of onsite wells, treatment facility, storage tanks, and water distribution system. Upon the initiation of the lease, MMCIC will provide water to the site from the Miamisburg municipal water production and distribution system. The Miamisburg municipal water distribution system will then serve the leased sections of the Mound water distribution system.

DOE is currently conducting a cleanup program of the Mound Site under the Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) via the Mound 2000 process. The Mound 2000 process is led by a Core Team composed of representatives of DOE, United States Environmental Protection Agency (USEPA), and Ohio Environmental Protection Agency (OEPA). The cleanup program and transfer of site ownership are scheduled to be complete in 2006. To enable an orderly transfer of operations, MMCIC plans to take responsibility for the leased sections of the potable water distribution system prior to the completion of the cleanup program and transfer of ownership of the entire Mound site.

Prior use of the land and facilities of the Mound site involved radiological operations. The City of Miamisburg (Appendix A, Attachment 2) has asked the Core Team to assess the protectiveness for its workers and subcontractors when performing routine maintenance or making repairs to the water system. This document provides the data and process followed by the Core Team for this evaluation.

It should be noted that other regulatory and oversight bodies (Ohio Department of Health and OEPA) are active participants in this process. This evaluation is focused on the purview of the CERCLA Core Team.

## 2.0 COMPLIANCE WITH THE 'HALL AMENDMENT'

To comply with the conditions of the U.S. EPA Federal Facilities Restoration and Reuse Memorandum of June 30, 1998 entitled "Joint DOE/EPA Interim Policy Statement on

Leasing Under the 'Hall Amendment'," this Leasing Data Package identifies the following factors associated with the lease and where they are addressed in the Package:

- Potential environmental contamination of the property (Section 3.0)
- Responsibilities in the lease relating to environmental contamination (Section 5.0)
- Review of available data to assess the risks of any environmental contamination (Section 6.0)
- Protective assurances and conditions of the property to mitigate any environmental contamination (Section 7.0)

### 3.0 POTENTIAL ENVIRONMENTAL CONTAMINATION

The Mound Water System is considered to be part of a parcel that is in the process of being assessed and cleaned up. Therefore, it falls under the conditions of Section 5.d. of the Joint DOE/EPA Interim Policy Statement on Leasing Under the 'Hall Amendment.' Consequently, the following conditions are to be addressed:

- i. Leasing Data Package. In submitting this Leasing Data Package the requirements of the Hall Amendment are met in that this document includes the available technical data to assess whether or not the conditions of the lease are consistent with safety and the protection of public health and the environment.
- ii. Identification of pathways to be evaluated for the purpose of the lease. For the purposes of the lease of the Mound water distribution system, the primary pathway of concern is through both surface and subsurface soil that would be encountered in the event that workers need to repair a portion of the potable water distribution system. This Leasing Data Package includes the available data to assess these pathways.
- iii. Assembly of all relevant sampling data for pathways of concern. In order to assess the relevant sampling of the soils that surround the water distribution system lines, a search of the Mound Environmental Information Management System (MEIMS) was conducted within 15 feet of the lines. The search queried all sample locations to specifically identify where the contamination of the soil exceeded the Risk Based Guideline Value. The assembly of this data and the resulting study is described in Section 6.0 of this Leasing Data Package.
- iv. Identification of pathways that are not a concern for the purposes of the lease and the rationale for this determination. As identified in Section 3.ii above, surface and subsurface soil contamination were identified as the pathways of potential contamination for utility workers. The following have been

discounted as pathways of potential contamination.

- Water: the water that will be carried by the water distribution system will be produced by the City of Miamisburg and regulated by the Ohio EPA. As a pressurized system, contamination from outside of the water pipe is of small concern. The potential for contamination of the water through surrounding soils via a pipe failure is directly related to the risk assessment of the subsurface soils included in Section 6.
  - Water pipe: the water that has passed through the water pipe is regulated for quality. Therefore, the potential for contamination of the pipe through the supplied water is not of concern. The potential for contamination of the outside of the water pipe is addressed by the risk assessment of the surrounding soils included in Section 6.
  - Air: the potential for contamination through air is not of concern as no apparent pathway exists for the water distribution system.
- v. Documentation of land and facility use restrictions to prevent exposure to pathways not addressed. The water distribution system is regulated by the Ohio EPA. As such, pathways that are not addressed in the Leasing Data Package are addressed through the normal regulatory activities of the state.
- vi. Documentation of restrictions to mitigate/reduce exposure and risk. In addition to the risk assessment conducted and included in this Leasing Data Package, the draft lease document and its attachments identify that all system expansions will comply with City of Miamisburg ordinance requirements and that the water lines to be leased will be flushed and tested prior to being placed into service. Additionally, all soils excavated on the Mound site must remain on the Mound property. These conditions further reduce the potential for exposure and risk.
- vii. Completed risk evaluation. Section 6.0 describes the methodologies and findings of the completed risk evaluation on the potential pathways of concern for the water distribution system.
- viii. Documentation of federal access rights verification and documentation of suitable ingress and egress and restrictions to prevent interference with ongoing remediation systems or investigation actions. The lease is restricted to the water distribution system. Therefore, no access rights that would interfere with ongoing remedial systems and investigations are included or implied.

#### 4.0 DESCRIPTION OF AREA TO BE LEASED

The portions of the water Mound water system to be leased are the blue linear sections as shown in Figure 1 (Appendix C) illustrating the Mound Closure Project site situated in the State of Ohio, county of Montgomery, in the City of Miamisburg, being a part of section 30

and fractional section 36, Town 2, Range 5, Miami Rivers Survey (M.R.S.), and being on city lot numbered 2259 lying within the corporate limits of Miamisburg, being on the tracts of land conveyed to the United States of America by instruments as recorded in Deed Book 1214 pages 12-14, Micro-Fiche 81-376A01 and Micro-Fiche 81-323A11 of the Deed Records of Montgomery County.

Where new service installations for the various transfer buildings on the site required new service taps into existing City water distribution lines, those 'service lines' are identified in gold on Figure 1 (Appendix C). Where the new service lines are installed, clean soil will be used as backfill. Therefore, it is assumed that wherever service lines are located on the map, contaminated soil near the water distribution pipe will have been removed.

In some cases, the existing Mound water lines run to the inside of the transfer buildings. In these cases, no 'service lines' are identified on the map leading to these buildings.

## **5.0 RESPONSIBILITIES OF THE LEASE**

The draft lease document and its attachments identify the responsibilities of each party relative to the initial and ongoing activities of the lease. The key responsibilities relating to environmental contamination are that all system expansions conducted by MMCIC will comply with City of Miamisburg ordinance requirements. Additionally, the terms specify that the water lines to be leased will be flushed and tested by MMCIC prior to being placed into service. Both of these activities result in a reduction of the potential for risk to the public health and the environment.

## **6.0 REVIEW OF AVAILABLE DATA**

### **6.1 EVALUATION PROCESS**

The same evaluation process used for the binning of Potential Release Sites (PRSs) and buildings was used for evaluation of the potable water distribution system. All historic soil sampling results within 15 feet of the center line of the drinking water lines were obtained from the Mound Environmental Information Management System (MEIMS). Results above  $10^{-5}$  Risk Based Guideline Value (RBGV) or a Hazard Index (HI) of 1 were flagged for further evaluation by the Core Team. Just as it does for PRS binning decisions, the Core Team reviewed the quality of the data, its location, previous evaluations of the data in binning or removal action closure decisions. In this evaluation, the  $10^{-5}$  RBGV (or HI equal 1) is used as a line of demarcation for further evaluation and not a predictor of risk. For the RBGV to correlate exactly with risk, the worker would have to be exposed to the RBGV concentration for 8 hours per day for five days per week for five years.

The pipes or interior of the pipes were not considered a risk due to its use as a potable water system.

## 6.2 DATA SET

The data within 15 feet of the drinking water lines obtained from MEIMS are included on the enclosed CD (Attachment 3, Appendix A). There are 6,721 analytical results from samples collected at 298 locations. Table 1 (Appendix B) lists the results that exceed  $10^{-5}$  RBGV. There are seven locations with a result that exceeds  $10^{-5}$  RBGV. No results exceeded the HI equals 1 value. Figure 1 (Appendix C) shows the drinking water lines, the locations of sampling results below  $10^{-5}$  RBGV (gray), and the locations of sampling results greater than  $10^{-5}$  RBGV (red).

## 6.3 DATA EVALUATION

Table 1 (Appendix B) lists the sample results greater than  $10^{-5}$  RBGV and Table 2 provides the Core Team evaluation of that information. Conceptually, the evaluation process is similar to that used to evaluate PRSs for protectiveness or buildings for re-use (Work Plan for the Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach, February 1999, Final and Potential Release Site Packages, Reading and Understanding, August 1996).

## 7.0 PROTECTIVE CONDITIONS

Operational activities of the water distribution system are regulated by the Ohio EPA. Future use of the potable water system will be restricted to commercial/industrial use and will only be used to supply facilities located on the former DOE Mound property (as owned in 1998). Additionally, soils removed during work activities on the water distribution system are required to remain on the Mound site. The review of soil data in the vicinity of the water distribution system identified no sample locations where the result exceeded a value that corresponds to a Hazard Index of 1 or a  $10^{-4}$  Risk Based Guideline Value. Therefore, no additional protective assurances and conditions of the property to mitigate any environmental contamination are required.

## 8.0 RECOMMENDATIONS WITH CONCLUSIONS

The Potable Water System Information Package provides the evaluation of all existing soil data collected from within 15 feet of the center-line of the drinking water lines to be transitioned. Of the 6,721 analytical results that were evaluated, no results exceeded the hazard index equals 1 value, and seven results exceeded the  $10^{-5}$  Risk-Based Guideline Value (RBGV). Each of the seven elevated results were further evaluated; the Core Team determined that the transfer of the potable water system is protective of human health and the environment. The elevated results will be left in place, and the data included in the residual risk evaluation for each parcel during transition.

After thorough review of the environmental data provided in the Potable Water System Information Package, the Core Team agrees that all existing environmental issues associated with the potable water system have been resolved. Future use of the potable water system will be restricted to commercial/industrial use and will only be used to supply

facilities located on the former DOE Mound property (as owned in 1988). This recommendation applies to the CERCLA processes only and is separate and distinct from the Drinking Water Plan Review and all other functions of the Ohio EPA Division of Drinking and Ground Waters. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA for final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

## **APPENDIX A**

### **Attachments**

Attachment 1: Draft Lease of Mound Water Distribution System

Attachment 2: Letter Request for Core Team Involvement

Attachment 2: CD with Soil Data within 15 feet of Drinking Water Lines

**Attachment 1: Draft Lease of Mound Water Distribution System**

**U. S. DEPARTMENT OF ENERGY  
AMENDMENT TO GENERAL PURPOSE LEASE**

**WITNESSETH:**

The Lease, entered into on the 7th day of September, 1994, between the UNITED STATES OF AMERICA, acting by and through the Department of Energy, hereinafter referred to as the "GOVERNMENT," and the Miamisburg Mound Community Improvement Corporation, hereinafter referred to as the "Lessee," is amended this day as follows:

- (a) The real property shown in Exhibit A, inclusive of the Mound water utility system contained therein, is hereby included within the Lease effective as of the date of this document.
- (b) The Lessee hereby agrees to operate the Mound water distribution system for the benefit of the Government and all Government contractors / subcontractors located at the Installation effective October 31, 2004 or at such other time as specifically agreed to by the parties in writing. Upon such date the parties' Interim Utility Agreement of March 3, 1999, is amended to eliminate the duty of the Government to supply potable water service.

1. The parties agree that the Lessee may charge the Government for utility service provided hereunder at a rate no greater than the lowest rate under the published rate structure of the City of Miamisburg.

2. The Lessee agrees to reliably supply utility service to the Government with interruptions no longer than those experienced by any other user of such service unless excessive interruption of service to the Government is solely due to a unique situation impacting supply to the Government.

3. The Government will maintain the utility systems within the leasehold granted hereby until October 31, 2004 or such later date as is agreed to by the parties in writing.

4. The parties agree that the exchange of responsibility for operation of the Mound water utility system shall be conducted according to the steps and conditions outlined in Exhibit B. It is anticipated that transfer of the system will occur between Lessee and the Government.

(c) The Government hereby agrees to indemnify Lessee pursuant to and to the extent of the authority granted in 42 USC § 7274q (b)(2)(B) which is or is to be codified at 50 USC §2811.

IN WITNESS WHEREOF, the parties hereto have caused this Lease amendment to be executed on their behalf by their duly authorized representative effective as of the date last executed below.

AI/10

**Attachment 1: Draft Lease of Mound Water Distribution System (cont'd)**

MIAMISBURG MOUND COMMUNITY  
IMPROVEMENT CORPORATION

By \_\_\_\_\_

Title \_\_\_\_\_

THE UNITED STATES OF AMERICA

By \_\_\_\_\_

Title \_\_\_\_\_

STATE OF )  
 ) ss:  
COUNTY OF )

The foregoing instrument was signed before me, a Notary Public, this \_\_\_\_ day of \_\_\_\_\_, 2004 by Michael J. Grauwelman as President of the Miamisburg Mound Community Improvement Corporation, an Ohio non-profit corporation, on behalf of the corporation.

\_\_\_\_\_  
Notary Public

STATE OF )  
 ) ss:  
COUNTY OF )

The foregoing instrument was signed before me, a Notary Public, this \_\_\_\_ day of \_\_\_\_\_, 2004 by Robert Warther, Manager, Ohio Field Office, U.S. Department of Energy, of The United States of America, on behalf of the United States of America.

\_\_\_\_\_  
Notary Public

<sup>2</sup> AZ/10

**Attachment 1: Draft Lease of Mound Water Distribution System (cont'd)**

**Exhibit A**

**Legal Description**

Highlighted linear sections of attached map of Mound Closure Project site on Parcel 'H' and Parcel '3' situated in the State of Ohio, county of Montgomery, in the City of Miamisburg, being a part of section 30 and fractional section 36, Town 2, Range 5, Miami Rivers Survey (M.R.S.), and being on city lot numbered 2259 lying within the corporate limits of Miamisburg, being on the tracts of land conveyed to the United States of America by instruments as recorded in Deed Book 1214 pages 12-14, Micro-Fiche 81-376A01 and Micro-Fiche 81-323A11 of the Deed Records of Montgomery County.

A3/10

## Attachment 1: Draft Lease of Mound Water Distribution System (cont'd)

### Exhibit B

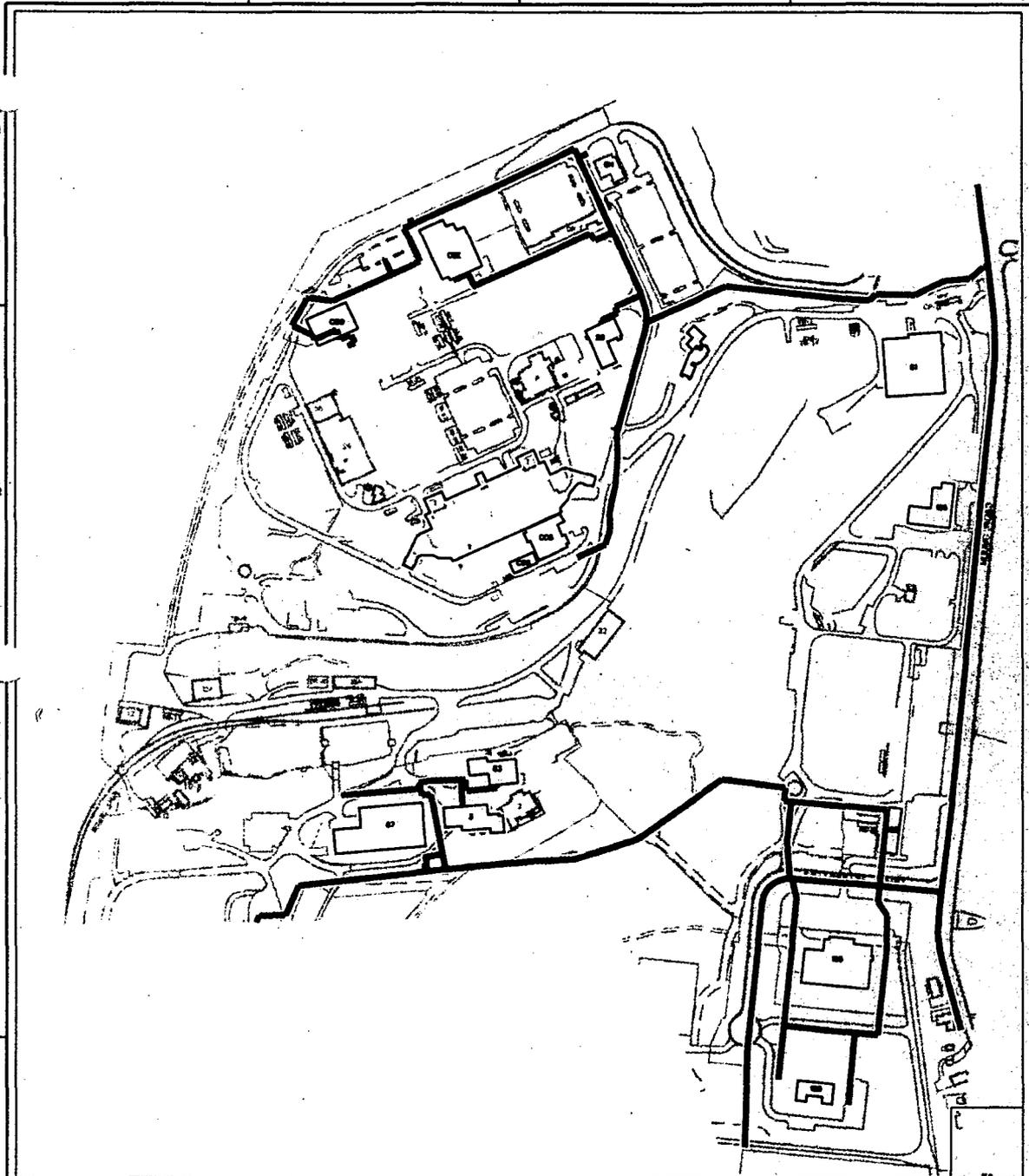
1. Service Period: The current water system will be shut down and prepared for abandonment and demolition by CH2M HILL and will no longer be functional in the present configuration on 10/31/04.
2. System Shutdown: CH2M HILL/DOE will isolate existing water services to buildings that are to be demolished and abandon the corresponding sections of the underground water system in place. CH2M HILL will perform the isolation and ultimate safe shutdown and demolition of obsolete components of the Mound water system including the three deep wells, water treatment facilities at the Powerhouse and Building 24, the SMPP and Powerhouse elevated storage tanks, Building 56 booster pumps, associated storage tank and other associated water facilities. The deep wells will be abandoned in accordance with OEPA guidelines
3. Building Transition: The parties will provide for the engineering, planning, and installation to transfer water service from the existing Mound system to water service provided by the City and MMCIC for the various buildings as identified in the attachments to the MOA. Water service connections, meters, and backflow preventors to all buildings will be designed to meet City ordinance requirements and City specifications. MMCIC will manage engineering and installation work for certain CH2M HILL facilities.
4. System Modifications: All water main extensions and system modifications will be designed and reviewed with MMCIC, the City, CH2M Hill and DOE to insure compliance with City standards and ordinances, and MMCIC and CH2M Hill operational requirements. MMCIC has designed the connections between existing MMCIC/City lines.
5. Line Flushing and Testing: MMCIC will perform flushing and testing of the water lines to be leased from DOE before the lines are placed into service.
6. Regulatory Activities: All parties will work together to apply for and receive approval from OEPA to transition the Mound water distribution system under the lease to MMCIC. CH2M HILL/DOE has paid the appropriate application fee to OEPA for the water system
7. Condition Documentation: CH2M HILL will provide available written documentation on the history of water line breaks and repairs, type and size of pipe material, as-builts, electronic files, installation dates, valve types/locations, hydrant types/locations, and system maps to MMCIC.
8. Operating Procedures: Prior to the initiation of the lease, CH2M HILL will develop operating procedures for MMCIC contractors or designated crews to access and perform work on site in land parcels not yet transferred to

## Attachment 1: Draft Lease of Mound Water Distribution System (cont'd)

MMCIC. CH2M HILL will also provide training and orientation for the Mound site to MMCIC staff and its subcontractors.

9. Excavation Soils: All soils from excavation work to repair distribution lines, valves, and hydrants will remain on the Mound site and be placed at the direction of CH2M HILL or MMCIC. CH2M HILL and MMCIC will work together to determine the location of the soils.
10. Inspections: Prior to any transfer efforts, CH2M HILL will enable MMCIC and the City to perform a site inspection of water facilities. Available documentation on existing backflow prevention devices will be provided to MMCIC.
11. Fire Hydrants: Fire hydrants, sectional valves, and post-indicator valves will be left in place on water lines to be leased to MMCIC and lines included in the site CRP for future use. By 12/31/04 all fire hydrants on leased lines will be replaced by MMCIC to meet City specifications. Fire hydrants, sectional valves, and post-indicator valves will be removed on lines not included in the site CRP.
12. Core Team Review: The Core Team will review the water distribution system and the soils data on a 15-foot radius of the pipes to ensure that the system is acceptable for transfer.

**Attachment 1: Draft Lease of Mound Water Distribution System (cont'd)**



<b>Legend</b> 		Structure Roadway Opened Roadway Railroad Mound Plant boundary	All Mound Water Lines Installed Per 2004 Specifications Water Lines on MMCIC Property MMCIC / City Water Lines Water Lines to be Leased by MMCIC		<table border="1"> <tr> <td>SHEET</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> <td>26</td> <td>27</td> </tr> <tr> <td>SHEET</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td></td> </tr> </table>	SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	SHEET	1	2	3	4	5	6																<p><b>Mound Plant EXHIBIT-A WATER LINES TO BE LEASED BY MMCIC</b></p> <p>water exhibit Adgn</p>
SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27																													
SHEET	1	2	3	4	5	6																																												
07/26/04 DATE	PLAN VIEW METHOD	MR BY	ENV DATE	UNCLASSIFIED STATE MD-REL-06722/04	water exhibit Adgn SCALE SHEET 1 MSTATYON / J																																													

A6/10

## Attachment 2: Letter Request for Core Team Involvement

David Raket - FW: Utility Questions for the Core Team

Page

**From:** "Dann Bird" <DBird@mound.com>  
**To:** "Brian Nickel (E-mail)" <Brian.nickel@epa.state.oh.us>, "David Seely (E-mail)" <Seely.David@epamail.epa.gov>, "Paul Lucas (E-mail)" <Paul.lucas@ohio.doe.gov>  
**Date:** 10/13/03 12:15PM  
**Subject:** FW: Utility Questions for the Core Team

Attached are several questions from Beth Moore concerning the City's need to understand the process for determining that the various utility systems have been cleaned to an acceptable standard prior to transfer. This includes not only the systems, but also the soils around the systems. The item should be an agenda item for the Core Team to address. The key issue is what are the Core Team's expectations in terms of timing, data collection and review, scope of work for the site contractor and coordination of cleanup and transfer of utility services.

Please advise.

Dann

-----Original Message-----

**From:** Beth Moore [mailto:beth.moore@cityofmiamisburg.com]  
**Sent:** Monday, October 13, 2003 9:55 AM  
**To:** Dann Bird  
**Subject:** Utility Questions for the Core Team

Dan

Thanks for bringing these questions forward to the Core Team at the meeting tomorrow. I don't think we will get immediate answers tomorrow, but rather just providing food for thought. If you feel that I should be there, please just let me know. Thanks!

Beth Moore

Environmental Coordinator

City of Miamisburg

600 N. Main St.

Miamisburg, OH 45342

(937) 847-6629 phone

(937) 847-6634 fax

**CC:** "Dave Raket (E-mail)" <Rakeda@doe-md.gov>, "Beth Moore (E-mail)" <Beth.Moore@cityofmiamisburg.com>, "Frank Bullock" <FBullock@mound.com>

A7/10

## Attachment 2(continued)

### QUESTIONS FOR THE CORE TEAM REGARDING UTILITY TRANSFERS FROM THE MOUND TO THE CITY OF MIAMISBURG

The City of Miamisburg needs to fully understand the role of the Core Team in the water, sanitary and storm utility transfers. The appropriate Core Team review / involvement in this process could increase City and public confidence that "clean" utility systems are being transferred. It would be helpful if there was consistency in the evaluation and transfer process for each utility.

#### Sanitary Sewer Collection System

There are basically two separate issues: 1) transfer of ownership of the physical system (sanitary sewer collection system) from DOE to the City of Miamisburg and 2) the cessation of DOE as a direct discharger to the Great Miami River and the transition of the Mound customers (including DOE) to direct dischargers to the City of Miamisburg POTW.

1. The transfer of the wastewater discharge from DOE to the City is a process that is governed by 1) the OEPA, Division of Surface Water via a PTI and NPDES permit modification from DOE and 2) the ODH due to the potential presence of radioactive material in the Mound wastewater discharge to the City that could pass through the City POTW to the effluent or the sludge. Is this correct?
2. Will the sanitary system have a Building Data Package that will be reviewed by the Core Team and put out for public comment?
3. Have any portions of the sanitary sewer collection & treatment system been binned?
4. Do all of the sanitary sewer pipes go through an evaluation process to determine that they are "clean"?
5. If portions of the sanitary sewer collection system lie in PRSs that have been determined NFA, does that mean the sanitary sewer pipes were evaluated as part of the NFA determination?
6. Could the sanitary pipes have a NFA determination independent of the PRS (clean or dirty) in which they reside?

#### Water Distribution System

1. Will the water distribution system have a Building Data Package that will be reviewed by the Core Team and put out for public comment?
2. Do the water pipes go through any type of evaluation process to determine that they are "clean"? Since the fire water distribution system will become the potable water distribution system it is the fire system that is of concern.
3. If portions of the water distribution system lie in PRSs that have yet to be remediated, and a temporary reroute of water services around these dirty areas is planned, and the water pipes will be reconnected to the water distribution system after the PRSs have been remediated; will these water pipes be evaluated and determined "clean" as part of the PRS remediation?
4. The process of connecting the DOE water distribution system to the City is governed by the OEPA, Division of Drinking & Ground Waters. Is this correct?

October 13, 2003

A8/10

## Attachment 2 (continued)

### QUESTIONS FOR THE CORE TEAM REGARDING UTILITY TRANSFERS FROM THE MOUND TO THE CITY OF MIAMISBURG

#### Storm System

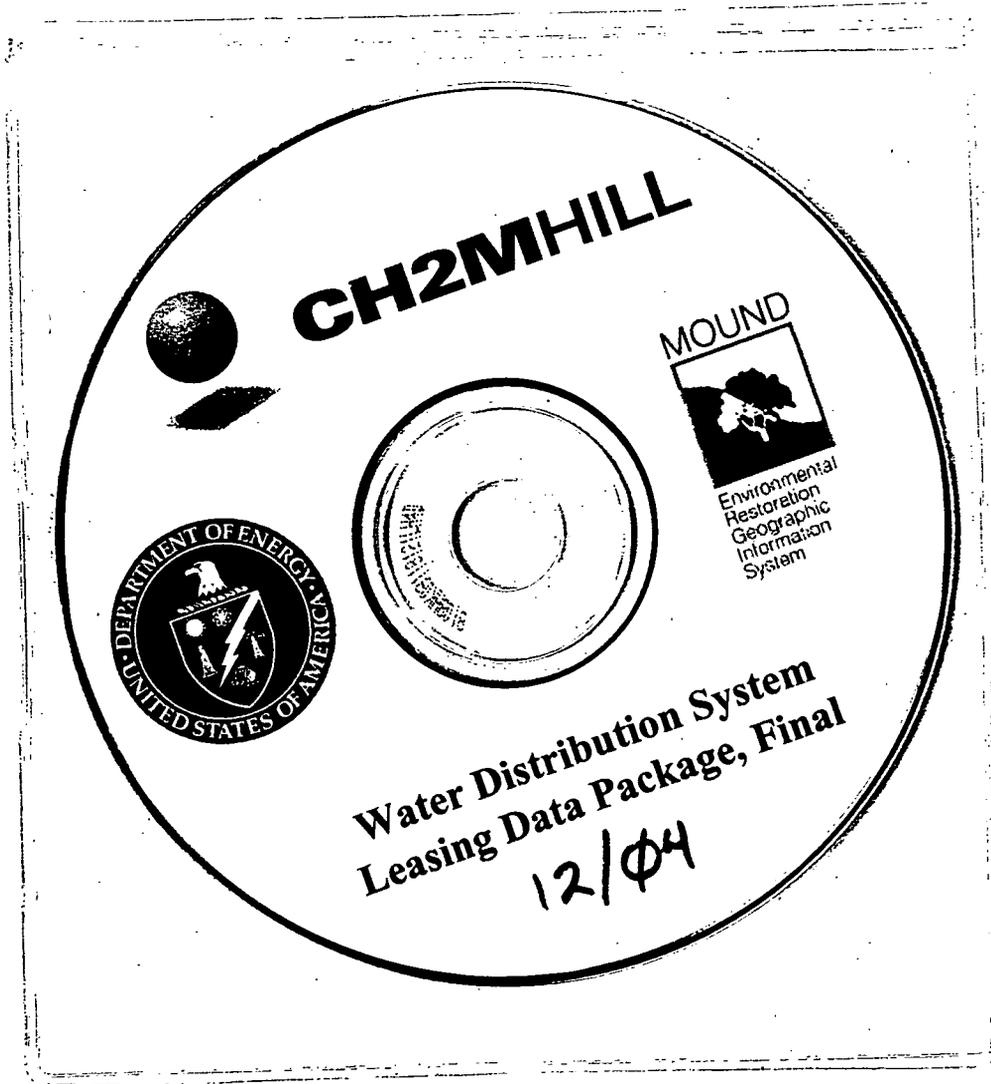
There are basically two separate issues: 1) transfer of ownership of the physical system (storm sewer system) from DOE to the City of Miamisburg and 2) the cessation of DOE as a direct discharger to the Great Miami River and the transition of the Mound storm outfalls to be included in the City MS4 NPDES permit.

1. DOE will terminate their industrial storm water NPDES permit. The OEPA and the city will no longer consider the Mound as an "industrial facility"; therefore an individual industrial storm water NPDES permit will no longer be necessary. The city will consider the Mound the same as any other industrial park with multiple individual facilities. Is this correct?
2. Will the storm system have a Building Data Package that will be reviewed by the Core Team and put out for public comment?
3. Some portions of the storm system have been designated PRSs, clarification of boundary definitions of what each of these PRS evaluations addressed is needed.
4. Will the storm system be reviewed as a whole entity? Do all of the storm sewer components (pipes, ditches...) go through an evaluation process to determine that they are "clean"?
5. If portions of the storm system lie in PRSs that have been determined NFA, does that mean the storm system component (pipe, ditch, pond...) was evaluated as part of the NFA determination?
6. Could the storm sewer component (pipe, ditch, pond...) have a NFA determination independent of the PRS (clean or dirty) in which they reside?

October 13, 2003

A9/10

Attachment 3: CD with Soil Data within 15 feet of Drinking Water Lines



A10/10

## **APPENDIX B**

### **Tables**

Table 1: Soil Data Exceeding 10-5 RBGV

Table 2: Core Team Evaluation of Data in Table 1

Table 1: Soil Data Exceeding  $10^{-5}$  RBGV

Project Id	Sample Id	Station	CAS Number	CAS Description	Result	Unit of Measure	Lab Qual	Data Qual	Detection Limit	Error	Date Collected	Lab Code	Matrix	Method Description	Field Sample Type	Start Sample Depth	Ending Sample Depth	Depth Units
PRS277/278	V12-2	V12	13981-16-3	Plutonium-238	66	PCI/G			0.060000	13	5/3/01	STLSL	SOIL	Alpha Spectroscopy	GR	1.0	2.0	FT
SCRDATA	004444	4444	13982-63-3	Radium-226	3.53	PCI/G			0.450000		1/18/99	SSF	SOIL	Germanium Detector Screen, Radioisotopes	GR			NA
PRS280	000013	B07	13982-63-3	Radium-226	3.02	PCI/G			2.280000		8/4/99	SSF	SOIL	Germanium Detector Screen, Radioisotopes	GR	0.5	1.0	FT
PRS304V	004420	4420	14269-63-7	Thorium-230	3.14	PCI/G			2.450000		11/23/98	SSF	SOIL	Germanium Detector Screen, Radioisotopes	GR	0.5	1.5	FT
PRS99-100C	000139	X5	14269-63-7	Thorium-230	10.1	PCI/G			0.017200	1.45	2/9/99	QTESR	SOIL	NAS 1960, Thorium Isotopes / Strontium-90	GR	4.0	8.0	FT
SCRDATA	88021715	SCR971	7440-29-1	Thorium-232	2.2	PCI/G					2/17/88	SSF	SOIL	Bicron Detector Screening, Pu & Th	GR	2.0	2.0	FT
SCRDATA	93121014	SCR488	7440-29-1	Thorium-232	2.2	PCI/G					12/8/93	SSF	SOIL	Bicron Detector Screening, Pu & Th	GR			NA
RSS	1561	C0152	7440-29-1	Thorium-232	2.8	PCI/G			2.000000		4/1/83	MRC	SOIL	PD80030-3605, Pu in Sm Soil Sample, Acid-Leach	GR	1.5	1.5	FT
RSS	1584	C0156	7440-29-1	Thorium-232	3.02	PCI/G			2.000000		4/1/83	MRC	SOIL	PD80030-3605, Pu in Sm Soil Sample, Acid-Leach	GR	19.5	19.5	FT
RSS	2469	C0168	7440-29-1	Thorium-232	7.11	PCI/G			2.000000		8/1/83	MRC	SOIL	PD80030-3605, Pu in Sm Soil Sample, Acid-Leach	GR	1.5	1.5	FT

B1/3

**TABLE 2: Core Team Evaluation of Data on Table 1**

Project Id	Station	CAS Number	CAS Description	Result	Unit of Measure	Date Collected	Lab Code	Core Team Evaluation
PRS277/278	V12	13981-16-3	Plutonium-238	66	PCI/G	05/03/2001	STLSL	Although greater than cleanup objective (55 pCi/g), this value is below hot spot criteria (165pCi/g). This was evaluated during the PRS 277/278 Further Assessment/Hot Spot Removal. In addition to the off site analysis, there was an on-site alpha spec result of 42 pCi/g which is below the cleanup objective.No further soil removal was pursued. (PRS 277/278 Further Assesmmnt Data Report, Final Spetember 2001 and PRS 277/278 On-Scene Coordinaoor report, Final, March 2003)
SCRDATA	4444	13982-63-3	Radium-226	3.53	PCI/G	1/18/99	SSF	Although greater than cleanup objective (2.9 pCi/g), this value is below hot spot criteria (4.7 pCi/g). This was evaluated with GP-1 Building which the Core Team binned NFA. (GP-1 Building Data Package, Final, July 1999)
PRS280	B07	13982-63-3	Radium-226	3.02	PCI/G	8/4/99	SSF	Although greater than cleanup objective (2.9 pCi/g), this value is below hot spot criteria (4.7 pCi/g). This was evaluated in te PRS 280 further Assessment data set and determined by he Core Team to be protective (PRS 280 Package, NFA recommendation February 2002). This result was included in the Phase I Residual Risk Evaluation (Phase I residual Risk Evaluation, Final, March 2003)and the soil risk was found to be protective.
PRS304V	4420	14269-63-7	Thorium-230	3.14	PCI/G	11/23/98	SSF	This location is in Release Block D. This result was included in the Reidual Risk Evaluation - Release Block D Revision Summary (Final December 1998) which adjusted the previous release Block D Risk Evaluation for samples obtained in November 1998 and analyzed in the Soil Screening Facility to complete the PRS 304 removal action. Although this vauue is greater than cleanup objective (2.8 pCi/g), it is below the hot spot criteria (4.6 pCi/g). Furthermore, Th-230 screened out of the Release Block D risk evaluation since its exposure point concentration was less than background.
PRS99-100C	X5	14269-63-7	Thorium-230	10.1	PCI/G	02/09/1999	QTESR	This location is in the pathway of the water line installed in December 2000 and January 2001 and is likely no longer present. This line was installed approximately 5 feet deep. The measured result was from a 4-8 foot depth in 1999. Th-230 value exceeds current hot spot criteria (4.6 pCi/g). This location was sampled during PRS 99-100 Further Assessment sampling in February 1999. At that time, the comparison value for Th-230 was 44 pCi/g, but revision to the current value was under consideration. The Core Team binned PRS 99/100 NFA in September 1999 based on the results of the Further Assessment.

B2/3

SCRDATA	SCR488	7440-29-1	Thorium-232	2.2	PCI/G	12/8/93	SSF	This Th-232 Value is slightly above the cleanup objective (2.1 pCi/g). However it is below the hot spot criteria (3.5 pCi/g). In addition, the location is under Building 45 and along a service line.
SCRDATA	SCR971	7440-29-1	Thorium-232	2.2	PCI/G	2/17/88	SSF	This Th-232 Value is slightly above the cleanup objective (2.1 pCi/g). However it is below the hot spot criteria (3.5 pCi/g). In addition, the location will be removed when the service line is installed.
RSS	C0152	7440-29-1	Thorium-232	2.8	PCI/G	04/01/1983	MRC	This Th-232 value was identified in the Radiological Site Survey Report (OU9 Vol 3, Final, June 1993). This data was included in the PRS 277/8 Package recommending Removal Action. (Final June 2002). Because the value is below hot spot criteria (3.5 pCi/g) and isolated, the location was not included in the excavation design (PRS 277/8 OSC Report). This result will be included in the residual risk evaluation for the parcel.
RSS	C0156	7440-29-1	Thorium-232	3.02	PCI/G	04/01/1983	MRC	This Th-232 value was identified in the Radiological Site Survey Report (OU9 Vol 3, Final, June 1993). This data was included in the PRS 277/8 Package recommending Removal Action. (Final June 2002). Because the value is below hot spot criteria (3.5 pCi/g) and isolated, the location was not included in the excavation design (PRS 277/8 OSC Report). The reported depth of this result is 19.5 feet. This is well below the approximate depth of the water line (5 feet). This result will be included in the residual risk evaluation for the parcel.
RSS	C0168	7440-29-1	Thorium-232	7.11	PCI/G	8/1/83	MRC	This value exceeds the hot spot criteria (4.6 pCi/g). However, this location was resampled as part of the PRS 304 verification data set (location 4420) in November 1998 (see above). This location is in Release Block D. This result was included in the Release block D Risk Evaluation.

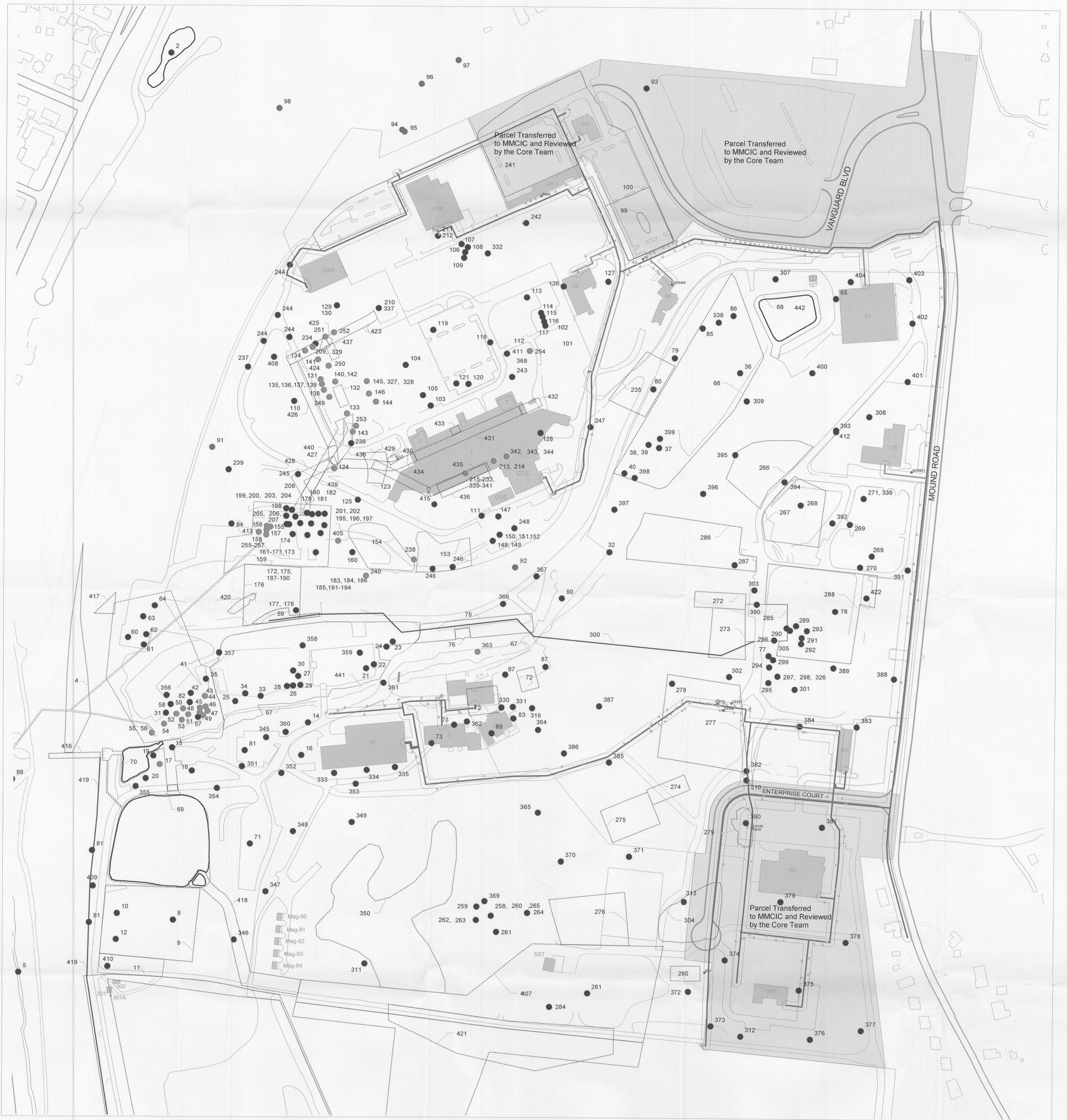
B3/3

## **APPENDIX C**

### **Figures**

Figure 1: Sampling results within 15 feet on drinking water lines

# Historic Sample Locations within 15 feet of Water Lines



100 0 100 200 300 400 500 Feet

- Sample > 10.5 RBGV
- Other Sample
- Service Line
- Water Line
- PRR Point
- FA
- NFA
- RA
- UB
- PRR Area
- RA
- FA
- NFA
- PRR Linear
- FA
- NFA
- Parcel
- To Be Transferred
- MMCIC

