

**Annual Assessment of the
Effectiveness of
Site-Wide Institutional Controls
Applied to the Former
DOE Mound Site Property**

June 2010



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Contents

Abbreviations	v
1.0 Introduction	1
2.0 Overview of Parcel Transfer Process	1
3.0 Overview of Institutional Controls (ICs)	4
4.0 Period of Review	5
5.0 Aerial View of the Mound Site Property	5
6.0 Summary of Previous Year's Annual Assessment.....	5
7.0 Summary of Physical Inspections Performed	7
7.1 Parcel D	8
7.2 Parcel H	9
7.3 Parcel 3	12
7.4 Parcel 4	13
7.5 Parcels 6, 7, and 8.....	15
7.5.1 Parcel 6, 7, and 8 Aerial Views.....	15
7.5.2 Parcel 6, 7, and 8 Inspection	19
7.5.3 Parcel 6, 7, and 8 Groundwater Monitoring Wells and Seeps	21
7.5.4 Parcel 6, 7, 8 Buildings.....	27
7.6 Parcel Phase I.....	30
7.6.1 Parcel Phase I Aerial Views.....	30
7.6.2 Parcel Phase I Inspection	34
7.6.3 Parcel Phase I Groundwater Monitoring Wells and Seep.....	34
7.6.4 Parcel Phase I Buildings	39
8.0 Interviews and Records Reviews	40
8.1 Interviews with City Personnel and Review of City or MMCIC Records	40
8.2 Records, Other Than Permits, Issued by the City of Miamisburg.....	43
9.0 Conclusions	45
10.0 Recommendations	45
11.0 For Further Information	46
12.0 References	47

Figures

Figure 1. Parcel Map of the Former DOE Mound Site Property, Miamisburg, Ohio.....	3
Figure 2. April 2006 Aerial View of Mound Plant Showing Parcel Boundaries.....	6
Figure 3. Parcel D 2006 Aerial View	8
Figure 4. Parcel H DOE Air Monitor.....	9
Figure 5. Parcel H 2006 Aerial View	10
Figure 6. Parcel H Soil Removal Exclusion Area.....	11
Figure 7. Parcel 3 2006 Aerial View.....	12
Figure 8. Parcel 3 View from Parking Lot South toward Mound Museum Building.....	13
Figure 9. Parcel 4 MMCIC Flex Building in Southwest Corner of Parcel 4, Looking West from Old Construction Road Entrance in Parcel 4.....	13
Figure 10. Parcel 4 2006 Aerial View.....	14
Figure 11. Parcel 4 Retention Pond and Flex Building with Bike Path at Right	15
Figure 12. Parcel 6 2006 Aerial View.....	16

Figure 13.	Parcel 7 2006 Aerial View.....	17
Figure 14.	Parcel 8 2006 Aerial View.....	18
Figure 15.	Bob Ransbottom, Paul Lucas, Tim Fischer, Jeff Smith, Brian Nickel, Joe Crombie, and Art Kleinrath Inspecting T Building Red Concrete Area.....	19
Figure 16.	Looking West Toward One of the T Building Areas Where Removal of Concrete Floor is Prohibited without Prior Approval.....	19
Figure 17.	Looking East Toward Inspection Participants Standing on T Building Red Concrete Where Penetration is Prohibited without Prior Approval.....	19
Figure 18.	T Building Areas with Added ICs.....	20
Figure 19.	Parcel 6, 7, and 8 Groundwater and Seep Monitoring Locations.....	22
Figure 20.	Well 0124.....	23
Figure 21.	Pink Plastic Marker at Seep 0608.....	23
Figure 22.	Old Sampler over Seep 0607 (No Longer in Use).....	23
Figure 23.	Well 0118, Off Site.....	24
Figure 24.	Well 0124, Off Site.....	24
Figure 25.	Well 0126, Off Site.....	24
Figure 26.	Well 0138, Off Site.....	24
Figure 27.	Wells 0301 and 0311, Off Site.....	24
Figure 28.	Wells 0333 and 0334, Off Site.....	24
Figure 29.	Wells 0386 and 0389, Off Site.....	25
Figure 30.	Wells 0387 and 0392, Off Site.....	25
Figure 31.	Well 0315.....	25
Figure 32.	Well 0346.....	25
Figure 33.	Well 0347.....	25
Figure 34.	Well 0379.....	25
Figure 35.	Seep 0601, On Site.....	26
Figure 36.	Seep 0602, On Site, On Hillside.....	26
Figure 37.	Roy Mowen Verifying GPS Location at Off-Site Seep 0605.....	26
Figure 38.	Roy Mowen Verifying GPS Location at Off-Site Seep 0606.....	26
Figure 39.	Seep 0607, Off Site.....	26
Figure 40.	Seep 0608, Off Site, On Hillside.....	26
Figure 41.	Building 28 or 925 Capstone Drive.....	27
Figure 42.	Building 45 or 930 Capstone Drive.....	27
Figure 43.	OSE Building or 480 Vantage Point.....	27
Figure 44.	Building 2 (No Address).....	28
Figure 45.	Building 63 or 1070 Vanguard Boulevard.....	28
Figure 46.	Building 61 or 885 Mound Road.....	28
Figure 47.	Building 126 or 955 Mound Road (DOE and Stoller) Located in Parcel 6A.....	28
Figure 48.	OSW Building or 460 Vantage Point.....	29
Figure 49.	COS Building or 965 Capstone Drive.....	29
Figure 50.	T Building East and West Towers (Back of COS Building Shown).....	29
Figure 51.	T Building West and East Tunnel Entrances (Front of COS Building Shown).....	29
Figure 52.	Parcel Phase IA 2006 Aerial View.....	31
Figure 53.	Parcel Phase IB 2006 Aerial View.....	32
Figure 54.	Parcel Phase IC 2006 Aerial View.....	33
Figure 55.	Jeff Smith and Brian Nickel, OEPA, and Art Kleinrath, LM, at the Phase IB Empty Salt Storage Shed.....	34
Figure 56.	Phase I MNA Remedy Monitoring Well Locations.....	36

Figure 57. Well 0411.....	37
Figure 58. Well 0442.....	37
Figure 59. Well 0443.....	37
Figure 60. Well 0444.....	37
Figure 61. Groundwater Seep 0617	37
Figure 62. Well 0445.....	37
Figure 63. Well 0400.....	38
Figure 64. Well 0319.....	38
Figure 65. Well P033	38
Figure 66. Well 0353, Which Still Has Drainage Problems	38
Figure 67. Well 0402.....	38
Figure 68. Building 3 or 1100 Vanguard Boulevard.....	39
Figure 69. Building 87 or 1100 Vanguard Boulevard.....	39
Figure 70. Building 100 or 790 Enterprise Court	39
Figure 71. Building 102 or 1075 Mound Road	39
Figure 72. Building 105 or 1075 Mound Road.....	40
Figure 73. Flex Building or 1390 Vanguard Boulevard	40
Figure 74. Mound Site Buildings and Parcels.....	42

Tables

Table 1. Mound Site Parcel Information.....	2
Table 2. Parcel 6, 7, and 8 Monitoring Wells and Seeps	21
Table 3. Monitoring Wells and Seeps in Parcels Inspected or Part of Phase I Remedy.....	35
Table 4. Crosswalk of Street Addresses to DOE Building Identifications.....	41
Table 5. City of Miamisburg Permit Files for Mound Site (March 24, 2009, to March 24, 2010).....	41
Table 6. City of Miamisburg Files – Planning Commission Reviews.....	43
Table 7. Outstanding Recommendations from Previous Annual or 5-Year CERCLA Inspections of ICs	45
Table 8. Recommendations from 2010 Annual Inspection for ICs	45

Appendixes

Appendix A	Field Inspection Checklists for Parcels D, H, 4, 3, and I
Appendix B	Real Estate Easement for Utility Work Performed on MMCIC Property
Appendix C	Institutional Controls: A Citizen’s Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups
Appendix D	Photos of T Building Rooms with Special ICs

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Abbreviations

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Comprehensive Reuse Plan
DOE	U.S. Department of Energy
EM	Office of Environmental Management
EPA	U.S. Environmental Protection Agency
IC	institutional control
LM	Office of Legacy Management
MMCIC	Miamisburg Mound Community Improvement Corporation
MNA	monitored natural attenuation
NESHAPs	National Emission Standards for Hazardous Air Pollutants
O&M	Operations and Maintenance
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OU	Operable Unit
ROD	record of decision
TCE	trichloroethylene

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1.0 Introduction

This report documents the U.S. Department of Energy (DOE) Office of Legacy Management (LM) 2010 annual assessment of the effectiveness of site-wide institutional controls (ICs) for the Mound Site¹ in Miamisburg, Ohio, for the period from April 14, 2009, to April 13, 2010. This annual assessment covers parcels that have completed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120(h) requirements for property transfer. The ICs, which are legal and administrative tools in the form of deed restrictions, are defined in the record of decision (ROD) for each parcel (DOE 1999a, 1999b, 2001a, 2001b, 2003, and 2009b) are described in the *Operation and Maintenance (O&M) Plan for the Implementation of Institutional Controls at the 1998 Mound Plant Property, Phase I Parcel* (DOE 2004a) (O&M Plan).

This annual assessment covers Parcels D, H, 3, 4, 6, 7, and 8 and the Phase I parcel (comprising sub-parcels A, B, and C) of the Mound Site. The Miamisburg Mound Community Improvement Corporation (MMCIC) owns all of these parcels except Parcels 6, 7, and 8. This annual assessment does not cover Parcel 9, which has not completed the CERCLA process.

The ICs are developed and presented in the ROD process, which includes input from the public, the City of Miamisburg, the regulators, and MMCIC. RODs require that DOE perform an annual assessment to document the effectiveness of the ICs (in the form of deed restrictions) and to confirm that all site changes comply with them. Section 3.0 describes the ICs in detail.

Each annual assessment includes a physical inspection of land parcels; discussions with the property owners; a review of all applicable records, including (but not limited to) construction, street opening, occupancy, and other permits; zoning modification requests; and well drilling logs.

Although not an IC, groundwater monitoring is required by CERCLA remedies for some parcels. This inspection includes the physical conditions of wells and seeps associated with these remedies.

DOE contacted the U.S. Environmental Protection Agency (EPA), the Ohio Environmental Protection Agency (OEPA), and the Ohio Department of Health (ODH) 30 days before the visual inspection. DOE must submit the draft annual assessment report to EPA and OEPA no later than June 13 of each year.

2.0 Overview of Parcel Transfer Process

In January 1998, DOE executed the original sales agreement with MMCIC. The agreement called for the transfer of discrete land parcels to MMCIC, via a series of quitclaim deeds, after the parcels were declared excess to DOE's needs and after all requirements of CERCLA 120(h) for property transfer were met. As MMCIC acquired a parcel, it became part of the Mound Advanced Technology Center, which is a light industrial/technology park operated by MMCIC. The same parcel transfer process was continued in the revised sales agreement, *Sales Contract by*

¹ The Mound Site was also formerly identified as the Mound Laboratory and the Mound Plant.

and between the United States Department of Energy and the Miamisburg Mound Community Improvement Corporation, August 28, 2008. (DOE 2008c)

The O&M Plan for site-wide ICs applies to parcels that have completed the CERCLA 120(h) process for property transfer, whether or not title to those parcels has been transferred to MMCIC. The O&M plan is currently being updated to include Parcel 6, 7, and 8 and will be finalized when the Parcel 9 record of decision is issued.

This annual assessment covers Parcels D, H, 3, 4, 6, 7, and 8 and the Phase I parcels. All of these parcels, when taken together, represent 92 percent of the estimated total 306 acres of the former DOE Mound Site Property. Table 1 provides details of parcel sizes, transfer dates, and status.

Table 1. Mound Site Parcel Information

Parcel	Former ID	Acres	Number of Structures	DOE Building Names/Numbers (See Table 4 for current street addresses)	Completed CERCLA 120(h) Process?	Date Transferred	Owner
D	Release Block D	12.43	2	100, 105	Yes	March 1999	MMCIC
H	Release Block H	14.29	0		Yes	August 1999	MMCIC
3		5.581	2	Guard House (GH), Guard Post (GP)-1 (MMCIC demolished GP-1)	Yes	August 2002	MMCIC
4		94.838	0	MMCIC built Flex Bldg.	Yes	April 2001	MMCIC
Phase I	A	2.542	8	87, 3 Magazines 80-84 Salt storage shed	Yes	February 2009	MMCIC
	B	42.882					
	C	6.568					
6 ¹		13.636	3	Office Space East (OSE), 28, 45	Yes		EM
7		42.307	3	2, 61, 63	Yes		EM
8		45.247	3	Central Office Space (COS), Office Space West (OSW), T	Yes		EM
9		23.148	4	300, 301, Trailers 1 and 16	In process		EM
6A	Within Parcel 7	2.352	1	126	Not applicable		EM
Totals		305.821	26				

¹ Parcels 6, 7, and 8 are combined into one ROD.
EM = DOE Office of Environmental Management

Figure 1 shows the original boundaries of the former DOE Mound Site Property divided into parcels.

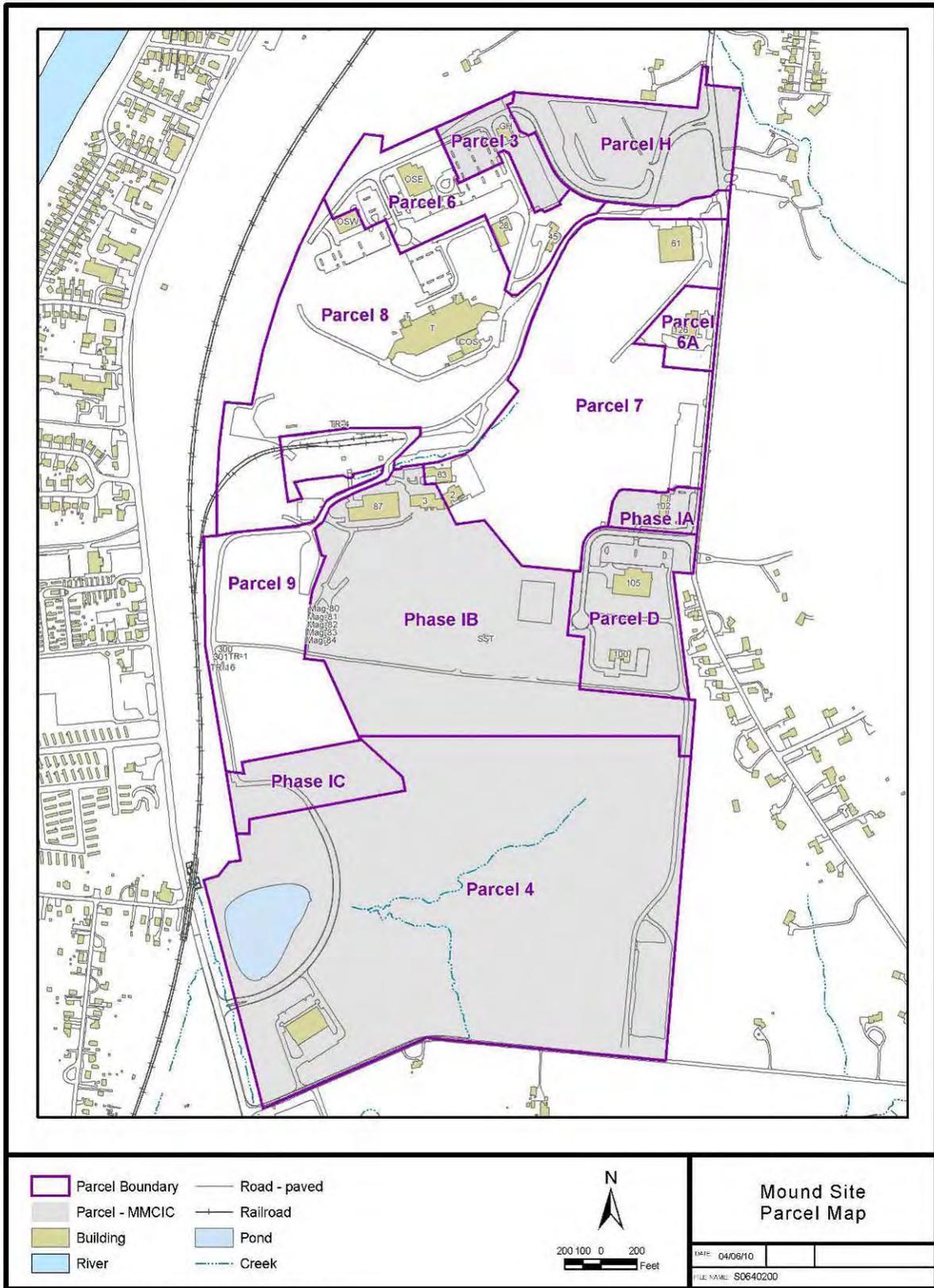


Figure 1. Parcel Map of the Former DOE Mound Site Property, Miamisburg, Ohio

3.0 Overview of Institutional Controls (ICs)

ICs are legal and administrative tools for protecting human health and the environment (Appendix B) defined in each ROD and described in the O&M Plan. The Mound Site ICs, which were imposed as part of the CERCLA remedy, were developed with input from the public, the City of Miamisburg, the regulators, and MMCIC.

DOE remediated the former DOE Mound Site Property to EPA's risk-based standards for industrial/commercial use only.

Each ROD contains the deed-restriction language to be embedded in the quitclaim deed and the *CERCLA 120(h) Summary Notice of Hazardous Substances* for the parcel it covers. The quitclaim deed and the CERCLA summary notice are recorded with Montgomery County, Ohio, so that all future property owners will know about the deed restrictions.

The deed restrictions are designed to:

1. **Prohibit the removal of soil** from the original DOE Mound Site Property boundaries, unless prior written approval from OEPA and ODH has been obtained.
2. **Prohibit the extraction or consumption of, exposure to, or the use in any way of the groundwater** underlying the premises, unless prior written approval from EPA and OEPA has been obtained.
3. **Limit land use to industrial/commercial only.** Each parcel ROD identifies land uses that will not be permitted, but the list is not all-inclusive. Parcels may not be used for any residential or farming activities, or any activities that could result in the chronic exposure of children less than 18 years of age to soil or groundwater from the premises. Restricted uses include, but are not limited to:
 - Single or multi-family dwellings or rental units.
 - Daycare facilities.
 - Schools or other educational facilities for children under 18 years of age.
 - Community centers, playgrounds, or other recreational or religious facilities for children less than 18 years of age.
4. **Prohibit the removal of concrete floor material** in specified rooms of T Building (Figure 18) to off-site locations without prior approval from USEPA, OEPA, and ODH.
5. **Prohibit the penetration of concrete floors** in specified rooms of T Building (Figure 18) without prior approval from USEPA, OEPA, and ODH.
6. **Allow site access for federal and state agencies** for sampling and monitoring.

The preceding deed restriction language is a summary only. The RODs contain the parcel-specific deed-restriction language. RODs and other CERCLA documents are available in the CERCLA Public Reading Room, 955 Mound Road, Miamisburg, Ohio 45342, and electronically on the LM Mound website, <http://www.lm.doe.gov/land/sites/oh/mound/mound.htm>.

Some parcel remedies have monitoring requirements in addition to ICs. The Phase I parcels and Parcels 6, 7, and 8 have groundwater monitoring requirements. These wells and seeps were inspected during the physical inspection and are included in this report.

4.0 Period of Review

This annual assessment covers the period from April 14, 2009, to April 13, 2010.

Each annual assessment identifies new information, such as new construction, demolition, or excavation; lot-splits or the sale of parcels to new landowners; and permit applications filed by property owners or their agents since the last reporting period. Previous annual assessments are available in the CERCLA Public Reading Room or online at the LM Mound website (<http://www.lm.doe.gov/land/sites/oh/mound/mound.htm>) by clicking the “CERCLA Administrative Record” link.

5.0 Aerial View of the Mound Site Property

Figure 2 and the following individual parcel figures are from an April 2006 aerial photograph of the Mound Site. The actual photographs were taken at low altitude, using a nominal negative scale of 1:4800, and were developed using 1”=100’ scale planimetric mapping (the scale sizes of figures in this assessment vary). Photographic-controls points were Horizontal Datum: NAD83, Vertical Datum: NAVD88, U.S. Survey Feet, and State Plane – Ohio South Zone.

6.0 Summary of Previous Year’s Annual Assessment

The *2009 Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former DOE Mound Site Property* (DOE 2009a) (2009 annual assessment) concluded that the ICs functioned as designed, adequate oversight mechanisms appeared to be in place to identify possible violations, and adequate resources were available to correct or mitigate any problems if a violation were to occur.

The 2009 annual assessment made two new recommendations:

1. Confirm that the aRc well was abandoned correctly and removed from the Ohio Department of Natural Resources (ODNR) website.
2. Improve drainage in the area north of Well 0353

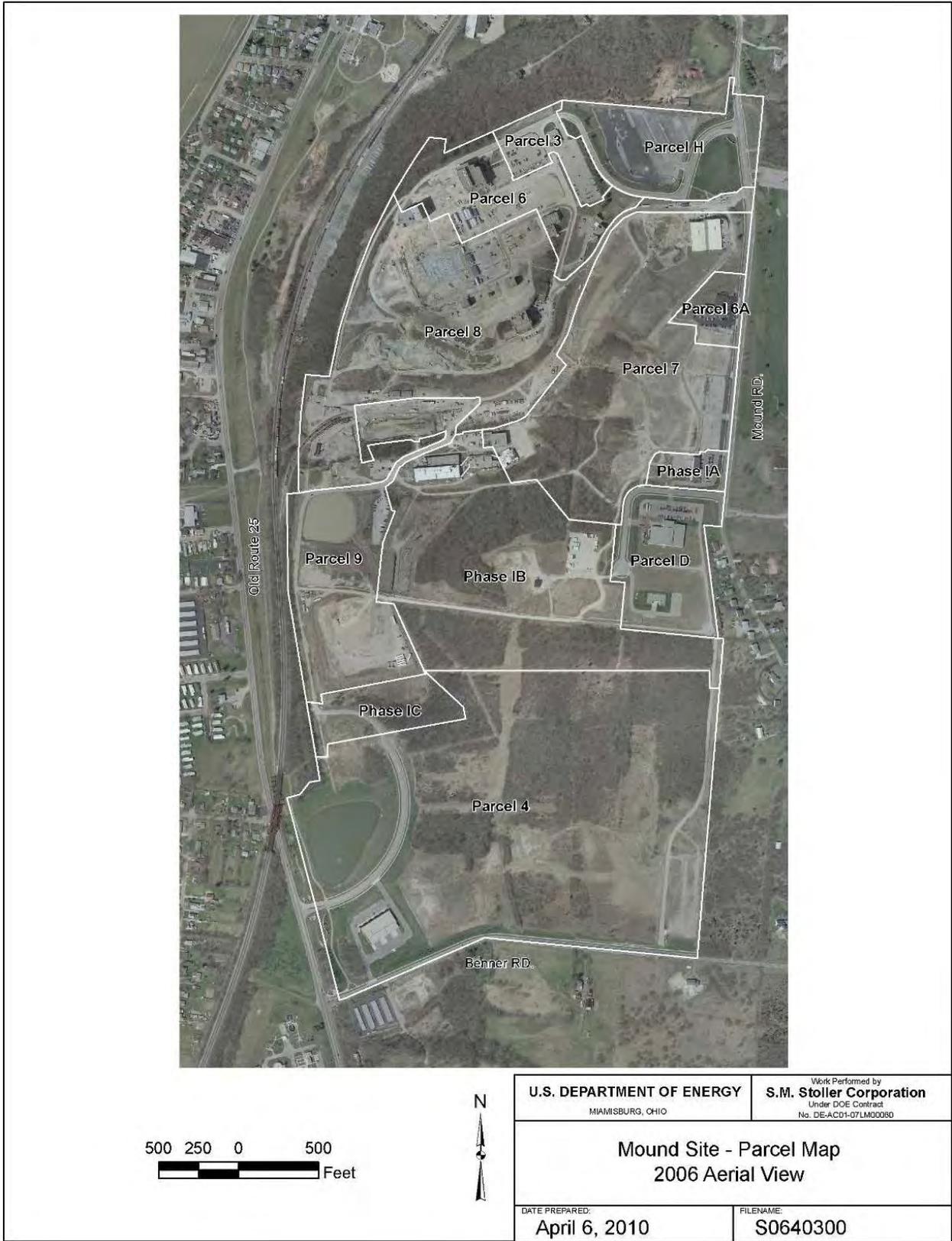


Figure 2. April 2006 Aerial View of Mound Plant Showing Parcel Boundaries

7.0 Summary of Physical Inspections Performed

S.M. Stoller Corporation (Stoller) personnel conducted preliminary physical inspections during March and April 2010, and photographed wells, seeps, buildings, and other items of interest.

The annual physical inspection walkaround with the regulators and stakeholders occurred on April 13, 2010. Art Kleinrath, LM, led the walkaround, and participants included:

- Paul Lucas, DOE Office of Environmental Management (EM).
- Tim Fisher, EPA.
- Brian Nickel, OEPA.
- Jeff Smith, OEPA.
- Joe Crombie, ODH.
- Frank Bullock, MMCIC.
- Ellen Stanifer, City of Miamisburg.
- Gary Weidenbach, Stoller.
- Joyce Massie, Stoller.

Kleinrath gave a presentation defining the scope of the annual assessment and observations from the preliminary physical inspections, including photographs of the wells, seeps, and buildings. Parcels 6, 7, and 8 were included for the first time. Participants were given a copy of the presentation and a checklist for the walkaround.

The following sections summarize the results of the physical inspection of each parcel. A copy of the physical inspection checklist is included as Appendix A.

7.1 Parcel D

In Parcel D (Figure 3), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal from the original boundaries of the DOE Mound Site Property.



Figure 3. Parcel D 2006 Aerial View

7.2 Parcel H

Figure 5 was formerly called Release Block H. There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property.

Although air monitoring is not part of the CERCLA remedy for any parcel covered by this assessment, DOE continues to use site air monitoring stations. One station is on the northeast corner of Parcel H (Figure 4). DOE will continue to operate its Mound Site air monitoring stations until the National Emission Standards for Hazardous Air Pollutants (NESHAPs) requirements are met after Operable Unit (OU)-1 work is completed.

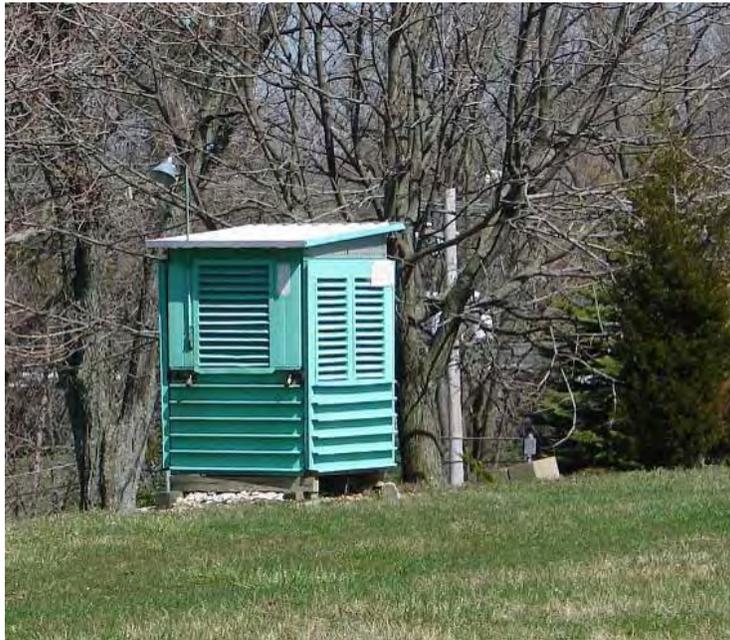


Figure 4. Parcel H DOE Air Monitor



M:\LTS\111\0081\00\003\S06405\S0640500.mxd Parcel S 04/06/2010

Figure 5. Parcel H 2006 Aerial View

One area of Parcel H is exempt from the soil removal restriction (Figure 6). Modifications to the entry and the rerouting of Mound Road isolated this area from the original Mound property.

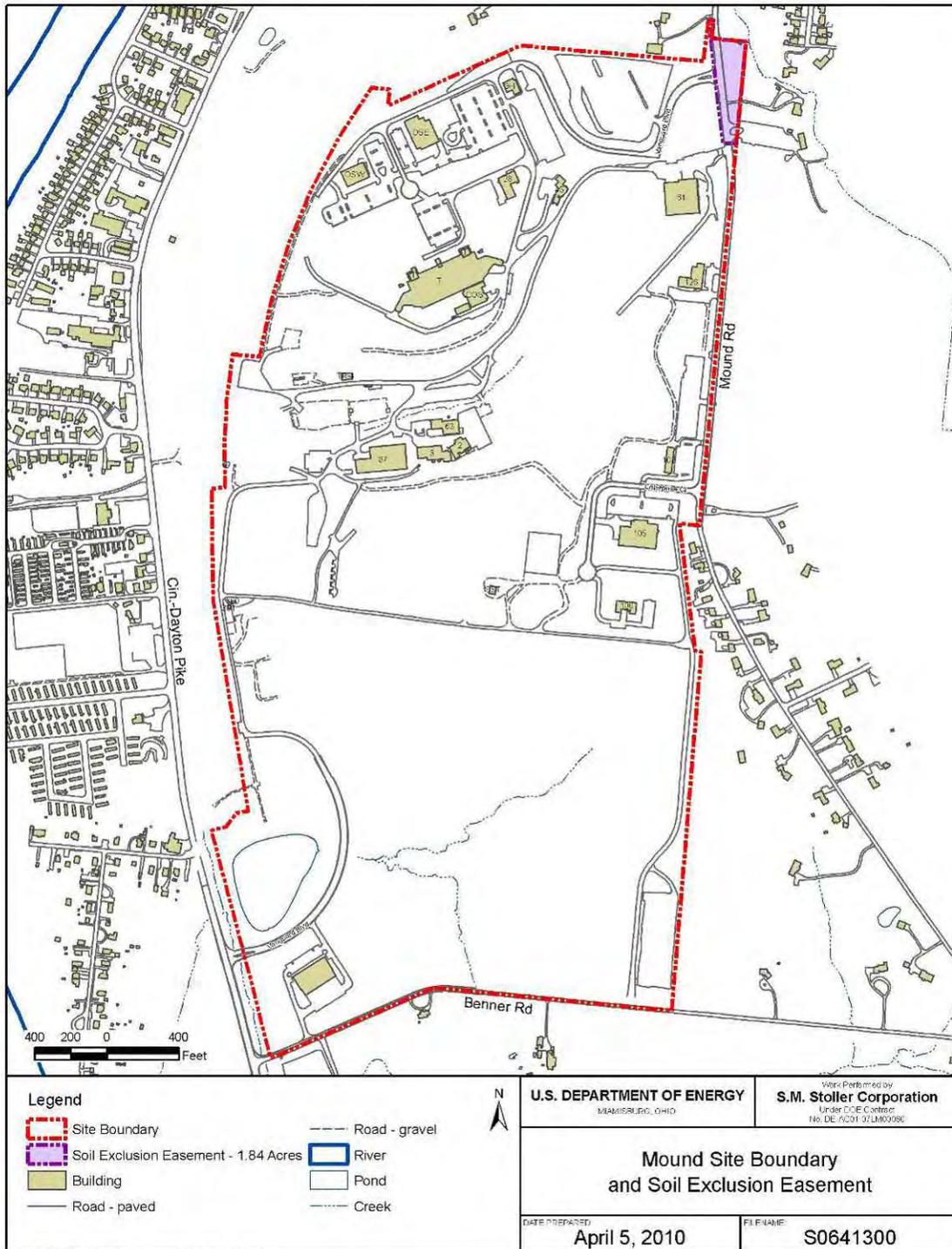


Figure 6. Parcel H Soil Removal Exclusion Area

7.3 Parcel 3

In Parcel 3 (Figure 7), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property. There are no groundwater monitoring wells in Parcel 3.



Figure 7. Parcel 3 2006 Aerial View

Figure 8 shows the Mound Museum Association building in Parcel 3. The building, formerly known as GH Building, is at 500 Vantage Point.



Figure 8. Parcel 3 View from Parking Lot South toward Mound Museum Building

7.4 Parcel 4

In Parcel 4 (Figure 9), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property.

The Flex Building in the southwest corner of Parcel 4 (Figure 10) at 1390 Vanguard Boulevard is leased to a single tenant. The tenant's line of business is consistent with the City of Miamisburg's I-2 General Industrial District Zoning ordinance. A sidewalk installed along Benner Road still prohibits unauthorized vehicular access to the old southeast construction road. Fencing and a locked gate block the northern entrance to this road.



Figure 9. Parcel 4 MMCIC Flex Building in Southwest Corner of Parcel 4, Looking West from Old Construction Road Entrance in Parcel 4



Figure 10. Parcel 4 2006 Aerial View

There is a pond for retaining and detaining storm-water runoff in the southwest part of Parcel 4 (Figure 11). One sign, which states, “Recreational Use Prohibited,” was observed. These signs were damaged and replaced before each of the 2008, 2009, and 2010 annual inspections.



Figure 11. Parcel 4 Retention Pond and Flex Building with Bike Path at Right

A log was still lying across a damaged fence along the northern boundary of Parcel 4 near well 0444. The fencing is not part of the IC for that parcel.

7.5 Parcels 6, 7, and 8

Parcels 6, 7, and 8 completed the CERCLA process, and the ROD was dated August 2009.

In Parcels 6, 7, and 8, there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property.

7.5.1 Parcel 6, 7, and 8 Aerial Views

Figure 12, Figure 13, and Figure 14 show aerial views of Parcels 6, 7, and 8.

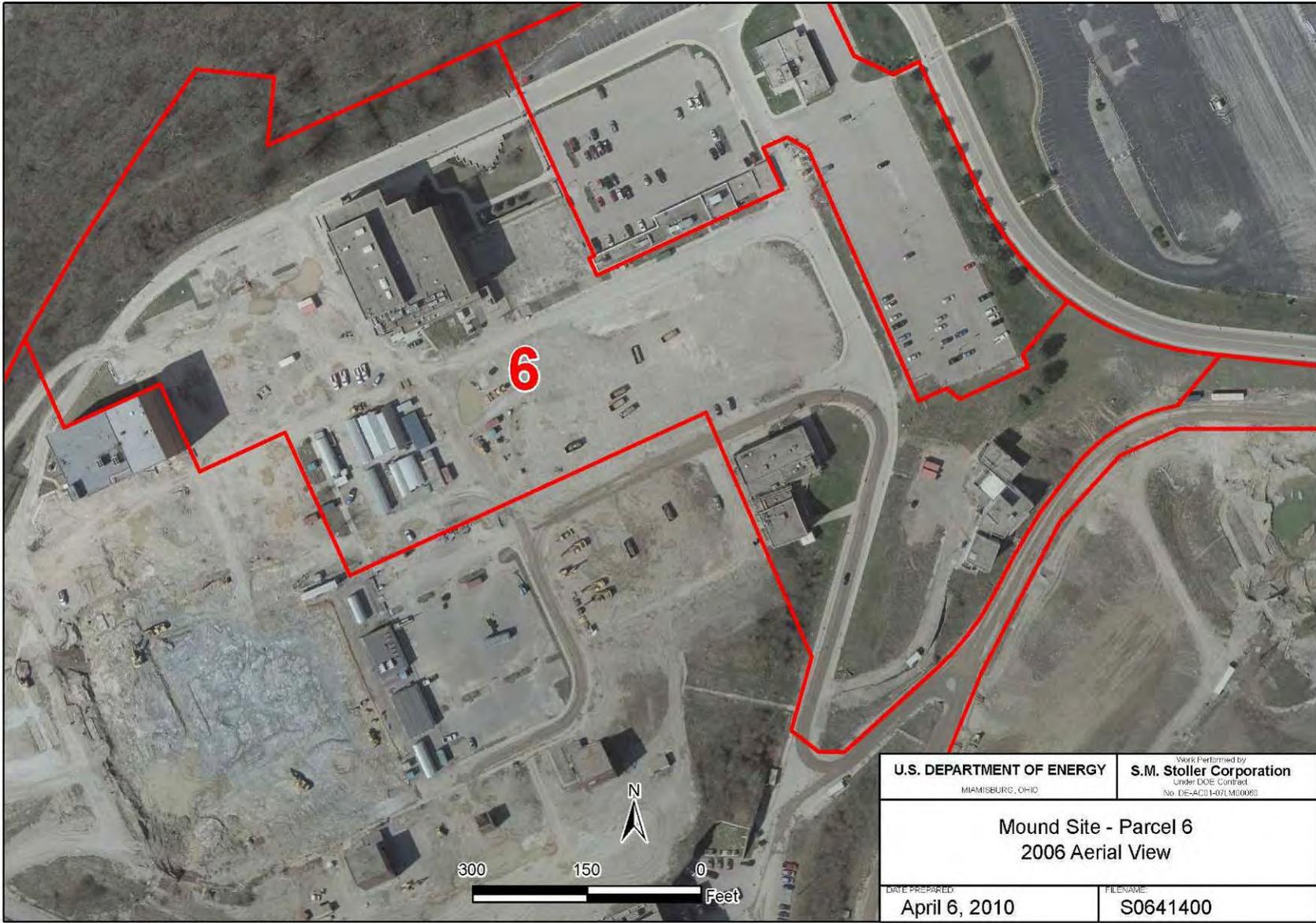


Figure 12. Parcel 6 2006 Aerial View



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Figure 13. Parcel 7 2006 Aerial View

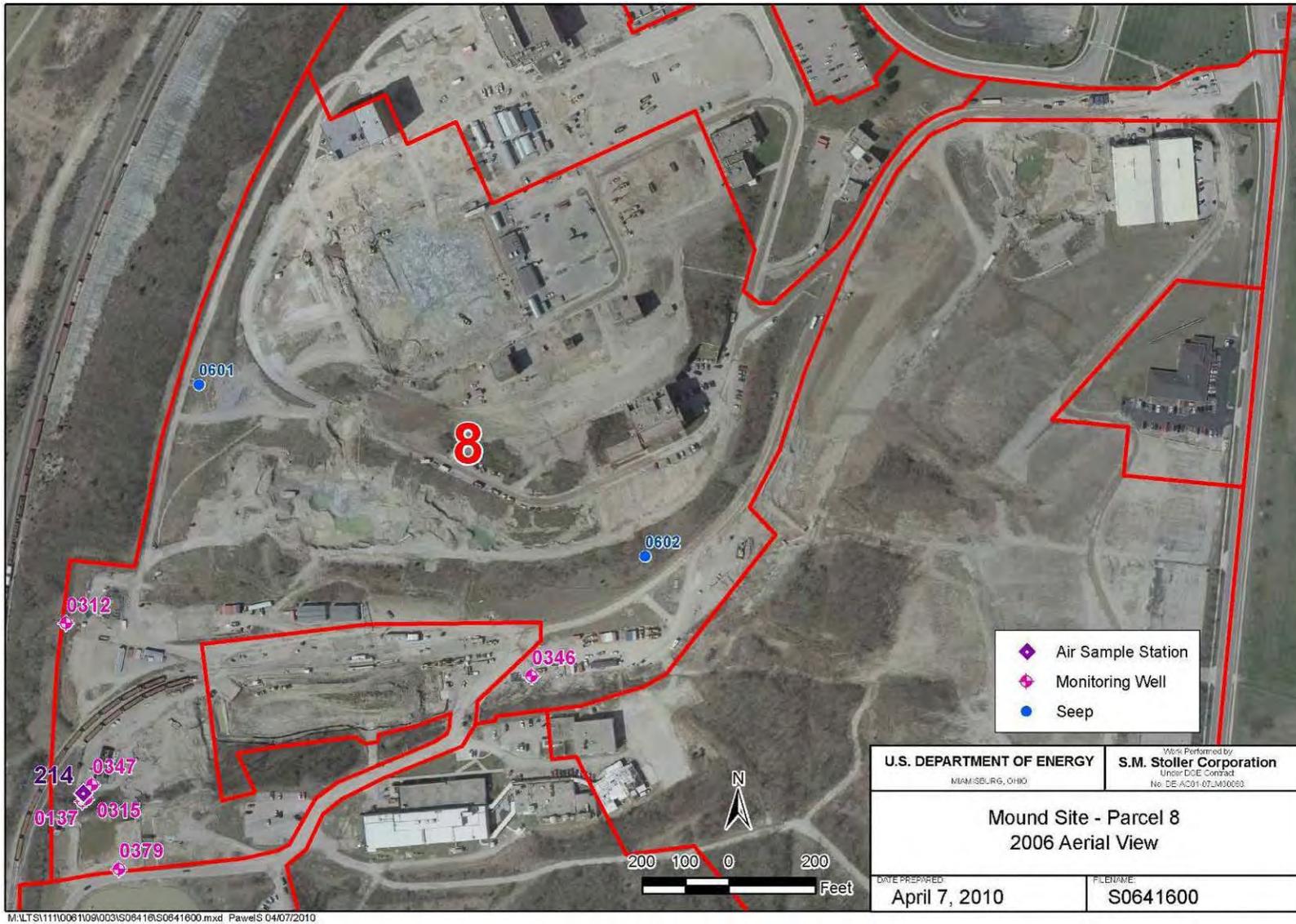


Figure 14. Parcel 8 2006 Aerial View

7.5.2 Parcel 6, 7, and 8 Inspection

The physical inspection included property and buildings and the areas within T Building with special ICs (Figure 15, Figure 16, and Figure 17). These ICs prohibit penetration in some areas, and removal of concrete flooring in others, without prior approval by the regulators. Figure 18 indicates these areas. Photos of each room are included in Appendix D.



Figure 15. Bob Ransbottom, Paul Lucas, Tim Fischer, Jeff Smith, Brian Nickel, Joe Crombie, and Art Kleinrath Inspecting T Building Red Concrete Area



Figure 16. Looking West Toward One of the T Building Areas Where Removal of Concrete Floor is Prohibited without Prior Approval



Figure 17. Looking East Toward Inspection Participants Standing on T Building Red Concrete Where Penetration is Prohibited without Prior Approval

7.5.3 Parcel 6, 7, and 8 Groundwater Monitoring Wells and Seeps

Table 2 and Figure 19 give the requirements and locations of the wells and seep monitored as described in the *Parcel 6, 7, and 8 Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan, Final* (DOE 2006b).

Table 2. Parcel 6, 7, and 8 Monitoring Wells and Seeps

Well/Seep ID	Located in Parcel 8	Off-site
0118		X
0124		X
0126		X
0138		X
0301		X
0311		X
0315	X	
0333		X
0334		X
0346	X	
0347	X	
0379	X	
0386		X
0387		X
0389		X
0392		X
Seep 0601	X	
Seep 0602	X	
Seep 0605		X
Seep 0606		X
Seep 0607		X
Seep 0608		X

This annual assessment report evaluates the effectiveness of the ICs applied to Parcels 6, 7, and 8, but it does not evaluate the effectiveness of the groundwater remedies. The *Parcel 6, 7, and 8 Groundwater Monitoring Report Calendar Year 2009, March 2010*, which is in the CERCLA Public Reading Room at 955 Mound Road, Miamisburg, Ohio 45342, includes an analysis of the groundwater monitoring.

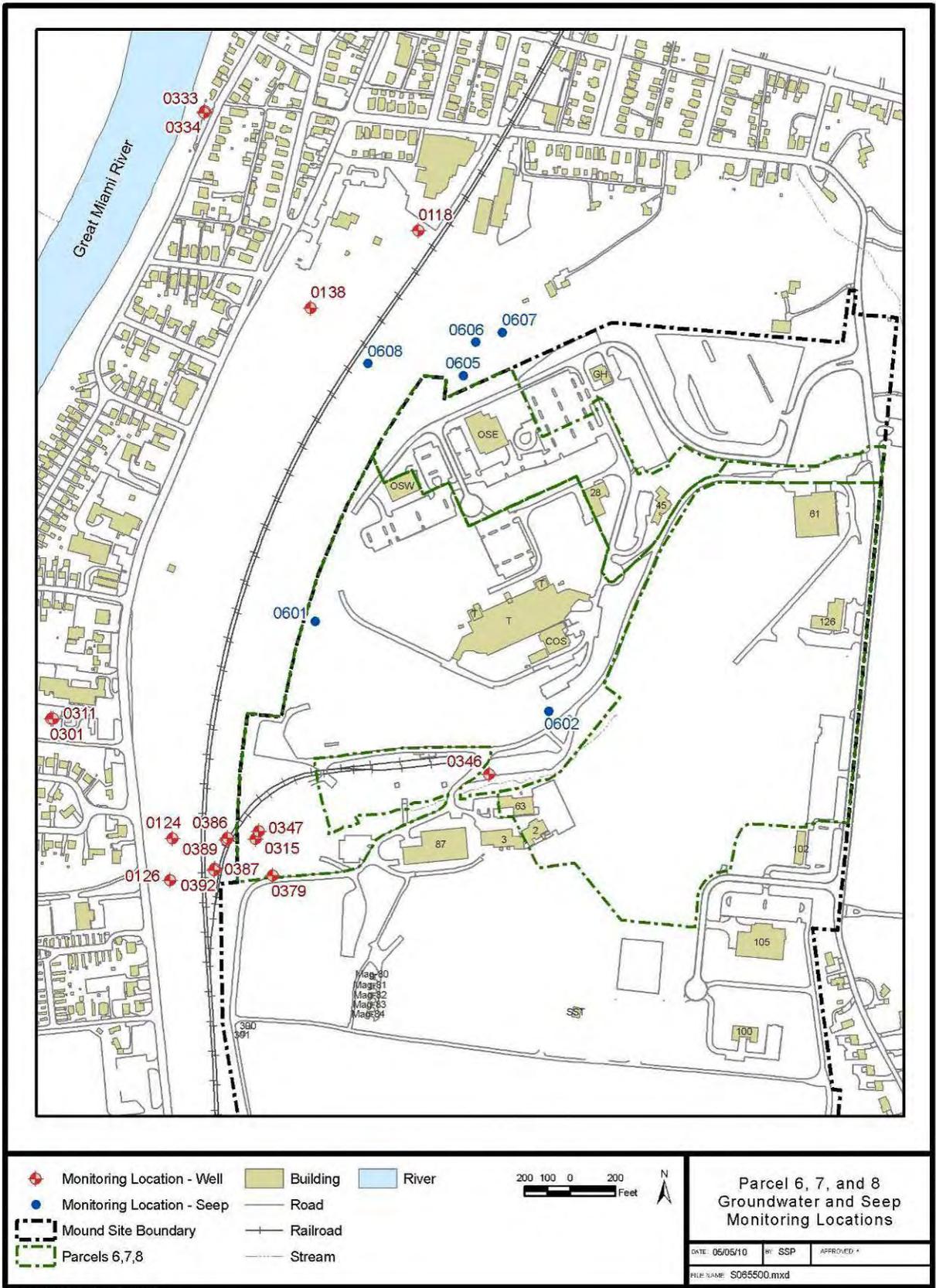


Figure 19. Parcel 6, 7, and 8 Groundwater and Seep Monitoring Locations

Several things were observed during the physical inspection of Parcel 6, 7, and 8 wells and seeps. First, Well 0124 was rusty and needed painting (Figure 20). Second, the seeps were marked with unsubstantial pink plastic flags with faded numbers (Figure 21). It is recommended that a sturdier marker be used.



Figure 20. Well 0124



Figure 21. Pink Plastic Marker at Seep 0608

Third, the old sampler over Seep 0607 was no longer functional (Figure 22). It is recommended that the sampler and the surrounding fencing be removed and the area be returned to its original state.



Figure 22. Old Sampler over Seep 0607 (No Longer in Use)

Photos of wells and seeps are shown in Figure 23 to Figure 40. All were locked and in good condition.



Figure 23. Well 0118, Off Site



Figure 24. Well 0124, Off Site



Figure 25. Well 0126, Off Site



Figure 26. Well 0138, Off Site



Figure 27. Wells 0301 and 0311, Off Site



Figure 28. Wells 0333 and 0334, Off Site



Figure 29. Wells 0386 and 0389, Off Site



Figure 30. Wells 0387 and 0392, Off Site



Figure 31. Well 0315



Figure 32. Well 0346



Figure 33. Well 0347



Figure 34. Well 0379



Figure 35. Seep 0601, On Site



Figure 36. Seep 0602, On Site, On Hillside



Figure 37. Roy Mowen Verifying GPS Location at Off-Site Seep 0605



Figure 38. Roy Mowen Verifying GPS Location at Off-Site Seep 0606



Figure 39. Seep 0607, Off Site



Figure 40. Seep 0608, Off Site, On Hillside

7.5.4 Parcel 6, 7, 8 Buildings

Photos of the buildings on Parcels 6, 7, and 8 are shown in Figure 41 to Figure 51.

Parcel 6 Buildings



Figure 41. Building 28 or 925 Capstone Drive



Figure 42. Building 45 or 930 Capstone Drive



Figure 43. OSE Building or 480 Vantage Point

Parcel 7 Buildings



Figure 44. Building 2 (No Address)



Figure 45. Building 63 or 1070 Vanguard Boulevard



Figure 46. Building 61 or 885 Mound Road



Figure 47. Building 126 or 955 Mound Road (DOE and Stoller) Located in Parcel 6A

Parcel 8 Buildings



Figure 48. OSW Building or 460 Vantage Point



Figure 49. COS Building or 965 Capstone Drive



Figure 50. T Building East and West Towers (Back of COS Building Shown)



Figure 51. T Building West and East Tunnel Entrances (Front of COS Building Shown)

7.6 Parcel Phase I

The Phase I parcel consists of three noncontiguous sub-parcels (A, B, and C), which were transferred to MMCIC in February 2009. The remedy for the Phase I parcel includes ICs for the land and MNA to address TCE-impacted groundwater.

In the Phase I parcel, there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property.

A well drilled by the OU-1 excavation contractor for dust suppression in Parcel 9 near the northwest boundary of Parcel IC was removed, but the well was still shown on the ODNR website. It was determined that the well sealing report was filed with ODNR, and that the well information remains on their website.

7.6.1 Parcel Phase I Aerial Views

Figure 52 through Figure 54 show aerial views of Parcel Phase I.

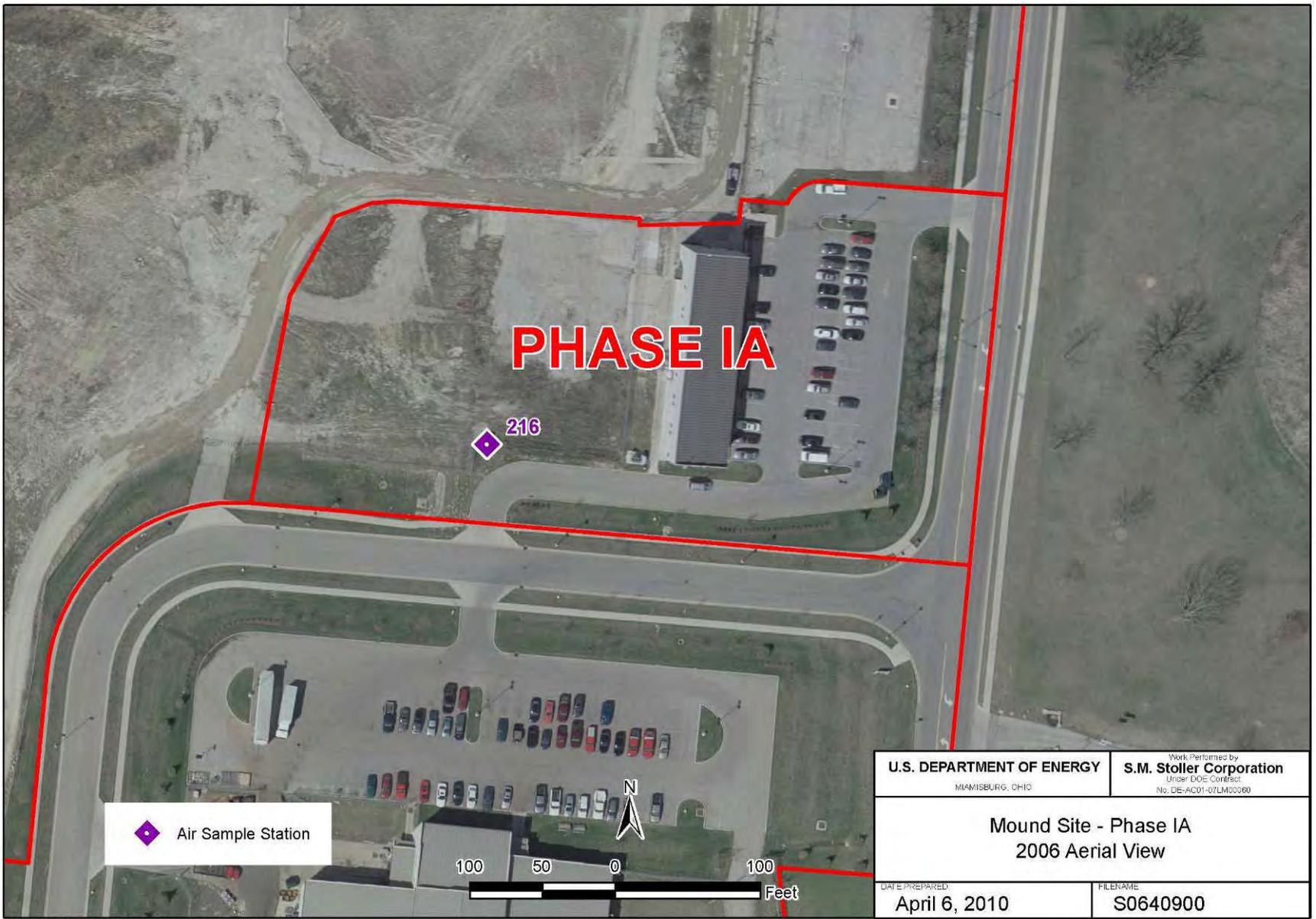


Figure 52. Parcel Phase IA 2006 Aerial View



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Figure 53. Parcel Phase IB 2006 Aerial View

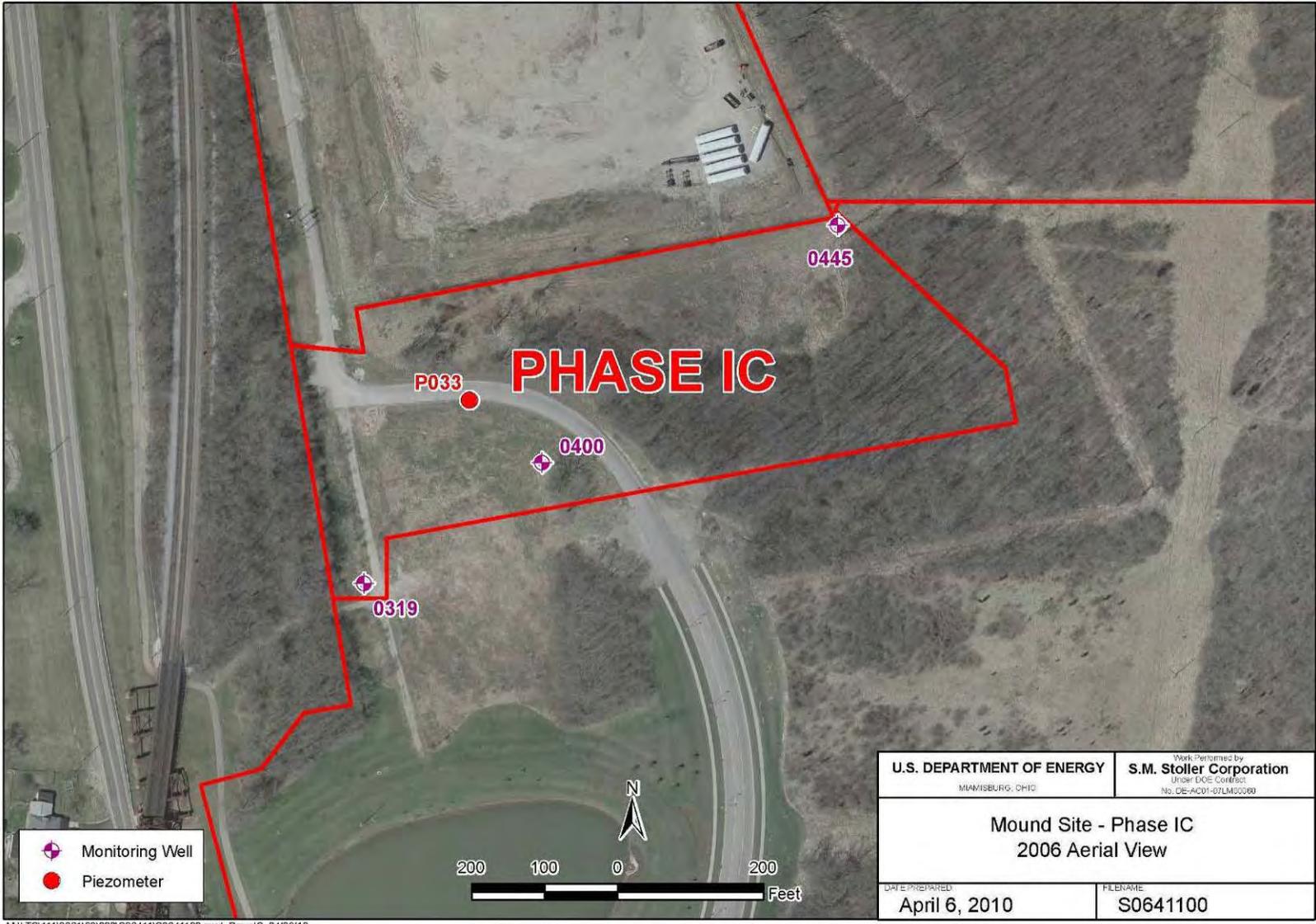


Figure 54. Parcel Phase IC 2006 Aerial View

7.6.2 Parcel Phase I Inspection

The salt storage shed shown in Figure 55 and the concrete pad in Parcel IB remain empty.



Figure 55. Jeff Smith and Brian Nickel, OEPA, and Art Kleinrath, LM, at the Phase IB Empty Salt Storage Shed

Jeff Smith and Brian Nickel, OEPA, and Art Kleinrath, LM, walked over the area northwest of the shed where the Old Burn Area was remediated.

7.6.3 Parcel Phase I Groundwater Monitoring Wells and Seep

Table 3 and Figure 56 give the requirements and locations of the 10 wells and one seep monitored in the Phase I parcel, as described in the *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan, Final* (DOE 2004b). DOE monitors TCE and its degradation products under the MNA remedy to verify that concentrations are decreasing. DOE also conducts sampling to confirm the behavior of barium, radium, nickel, and chromium in Phase I groundwater, as listed in the “Confirmatory” column in Table 3, even though doing so is not part of the remedy.

Figure 57 through Figure 67 are photos of the wells and seep. All wells were locked, had permanent markers, and were in good condition.

Table 3. Monitoring Wells and Seeps in Parcels Inspected or Part of Phase I Remedy

Monitoring Requirement		Well/Seep #	Located in Parcel				
Remedy (MNA)	Confirmatory		4	IA	IB	IC	9
X	X	Well P033				X	
	X	Well 0319				X	
X		Well 0353					X
X	X	Well 0400				X	
X	X	Well 0402					X
X		Well 0411			X		
	X	Well 0442			X		
X	X	Well 0443			X		
X		Well 0444	X				
X	X	Well 0445				X	
X		Seep 0617			X		

This annual assessment report documents the effectiveness of the ICs' remedy applied to the Phase I parcel and Parcels D, H, 3, 4, 6, 7, and 8. This does not include a determination of the effectiveness of the various groundwater remedies, including the MNA remedy associated with the Phase I parcel. All monitoring wells are in operable condition. The *Phase I Groundwater Monitoring Report Calendar Year 2009* can be found in the CERCLA Public Reading Room at 955 Mound Road, Miamisburg, Ohio 45342.

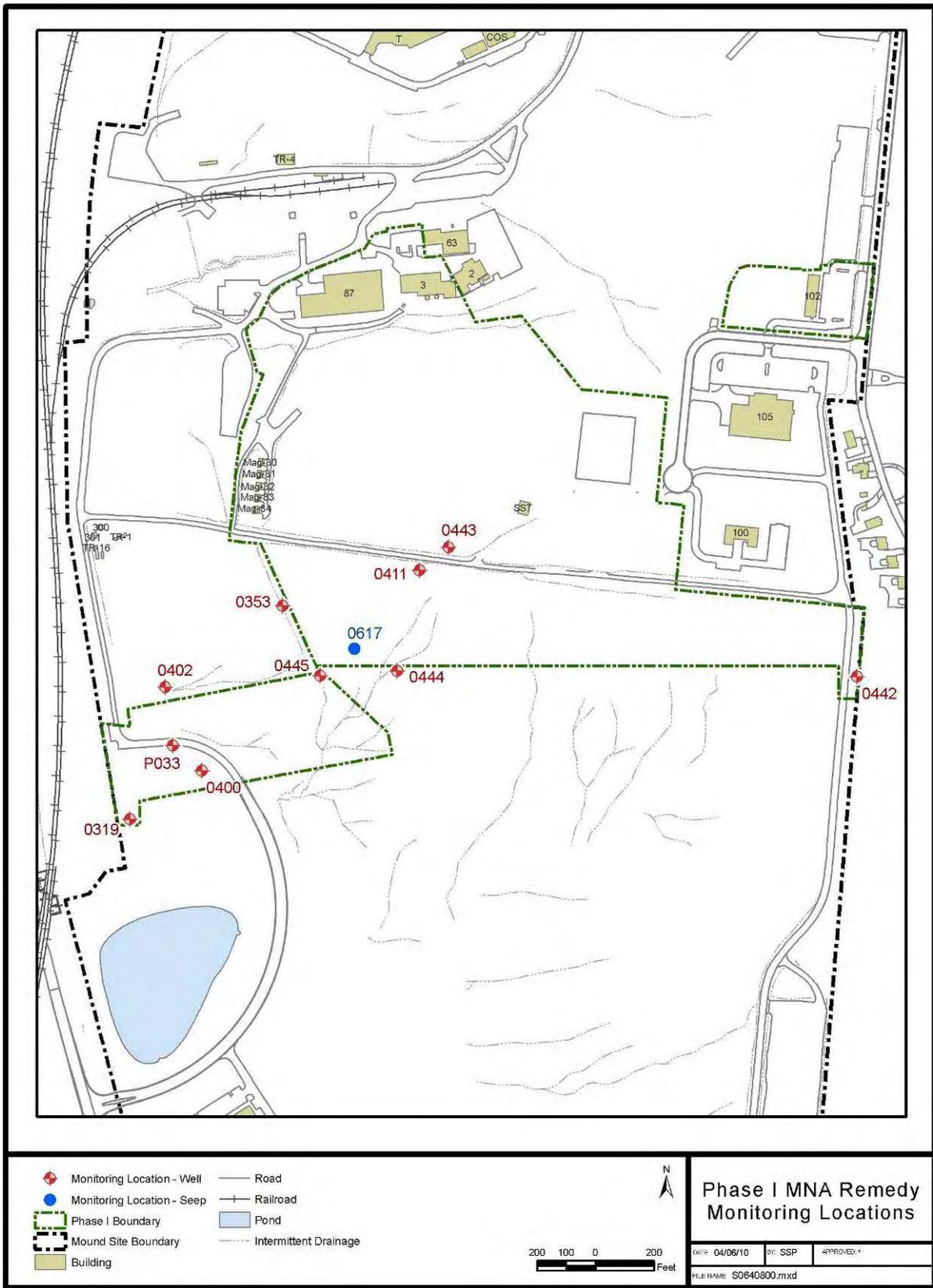


Figure 56. Phase I MNA Remedy Monitoring Well Locations

Phase I Monitoring Wells and Seep



Figure 57. Well 0411



Figure 58. Well 0442



Figure 59. Well 0443



Figure 60. Well 0444



Figure 61. Groundwater Seep 0617



Figure 62. Well 0445



Figure 63. Well 0400



Figure 64. Well 0319



Figure 65. Well P033



Figure 66. Well 0353, Which Still Has Drainage Problems



Figure 67. Well 0402

7.6.4 Parcel Phase I Buildings

Photos of the buildings on Parcel I are shown in Figure 68 to Figure 73.

Phase I Buildings



Figure 68. Building 3 or 1100 Vanguard Boulevard



Figure 69. Building 87 or 1100 Vanguard Boulevard



Figure 70. Building 100 or 790 Enterprise Court



Figure 71. Building 102 or 1075 Mound Road



Figure 72. Building 105 or 1075 Mound Road



Figure 73. Flex Building or 1390 Vanguard Boulevard

8.0 Interviews and Records Reviews

8.1 Interviews with City Personnel and Review of City or MMCIC Records

In addition to conducting the physical inspections for the annual assessment, DOE reviews documents from local governments to ensure that ICs are being followed. These may include construction, street opening, occupancy, or other permits; zoning modification requests; City Planning Commission requests; and well logs issued for land parcels that have completed the CERCLA 120[h] process for property transfer. Documents may be at the City of Miamisburg, at Miami Township, at Montgomery County, or in ODNR's well log files.

LM and Stoller personnel visited the City of Miamisburg Engineering and City Planning departments on March 24, 2010, and reviewed permits maintained by those departments for work performed by MMCIC and its tenants or subcontractors.

The following tables do not repeat information on permits included in previous years' DOE assessment reports on the effectiveness of the site-wide ICs. Furthermore, each year's report does not necessarily list permits filed by MMCIC or its tenants or subcontractors for work performed on DOE-owned, MMCIC-leased property. Instead, the following tables are typically limited to permits filed after a ROD has been executed for a particular parcel, since DOE is responsible for the O&M of the site-wide ICs remedy (regardless of whether DOE has conveyed title of that parcel, in whole or in part, to MMCIC).

Although the property is not subject to City of Miamisburg permitting requirements until DOE conveys the land parcel to MMCIC, the City-permitting process familiarizes the City with the Mound Site. This can reduce the time it takes for MMCIC to receive City approval (e.g., for a building occupancy permit) in the future. City files are maintained by street address. DOE has performed spot-checks of permits in the City Engineering files since May 2001 to confirm that the permits are maintained under configuration control. The City of Miamisburg does not maintain files on buildings that MMCIC plans to demolish. City files do exist on buildings that have been demolished; however, those files are now considered obsolete.

Table 4 shows the DOE building identification and the Miamisburg street addresses for each building. Seven buildings (3, 87, 100, 102, 105, Flex, and GH), five magazines (80 through 84), and a salt storage shed are in land parcels transferred to MMCIC. Figure 74 shows the location of site buildings.

Since City permits are filed by address, MMCIC must inform DOE of changes to the street names or building addresses.

Table 4. Crosswalk of Street Addresses to DOE Building Identifications

DOE Building ID	Former Address	Current Miamisburg Street Address	Parcel
2		To be demolished	7
28		925 Capstone Drive	6
45		930 Capstone Drive	6
61		885 Mound Road	7
63		1070 Vanguard Boulevard	7
87 and 3		1100 Vanguard Boulevard	IB ^a
100		790 Enterprise Court	D ^a
102		1075 Mound Road	IA ^a
105		1195 Mound Road	D ^a
126		955 Mound Road	6A
COS		965 Capstone Drive	8
GH	500 Capstone Circle	500 Vantage Point	3 ^a
OSE	480 Capstone Circle	480 Vantage Point	6
OSW	460 Capstone Circle	460 Vantage Point	8
T		945 Capstone Drive	8
Magazines 80–84	None	None	IB ^a
(New) Flex Building		1390 Vanguard Boulevard	4 ^a

^a Parcel has been transferred to MMCIC.

Table 5 details all permits on file for the site. The City of Miamisburg Building Inspection Department provided the records for review on March 24, 2010.

Table 5. City of Miamisburg Permit Files for Mound Site (March 24, 2009, to March 24, 2010)

Location of Work	Permit Number	Date of Permit Application	Submitted By	Nature of Work	Work Performed By
Flex Building 1390 Vanguard Blvd.	20090145B	10/09/09	Megan	Alteration	Megen Construction
Flex Building 1390 Vanguard Blvd.	20090204E	11/18/09	Not on record	Electric	Mutual Electric
Flex Building 1390 Vanguard Blvd.	20090175H	11/16/09	Not on record	Heating, Ventilation, and Air-Conditioning	Perfection Mechanical
OSW Building 460 Vantage Point	2009 0037B	03/10/09	Not on record	Occupancy	not on record

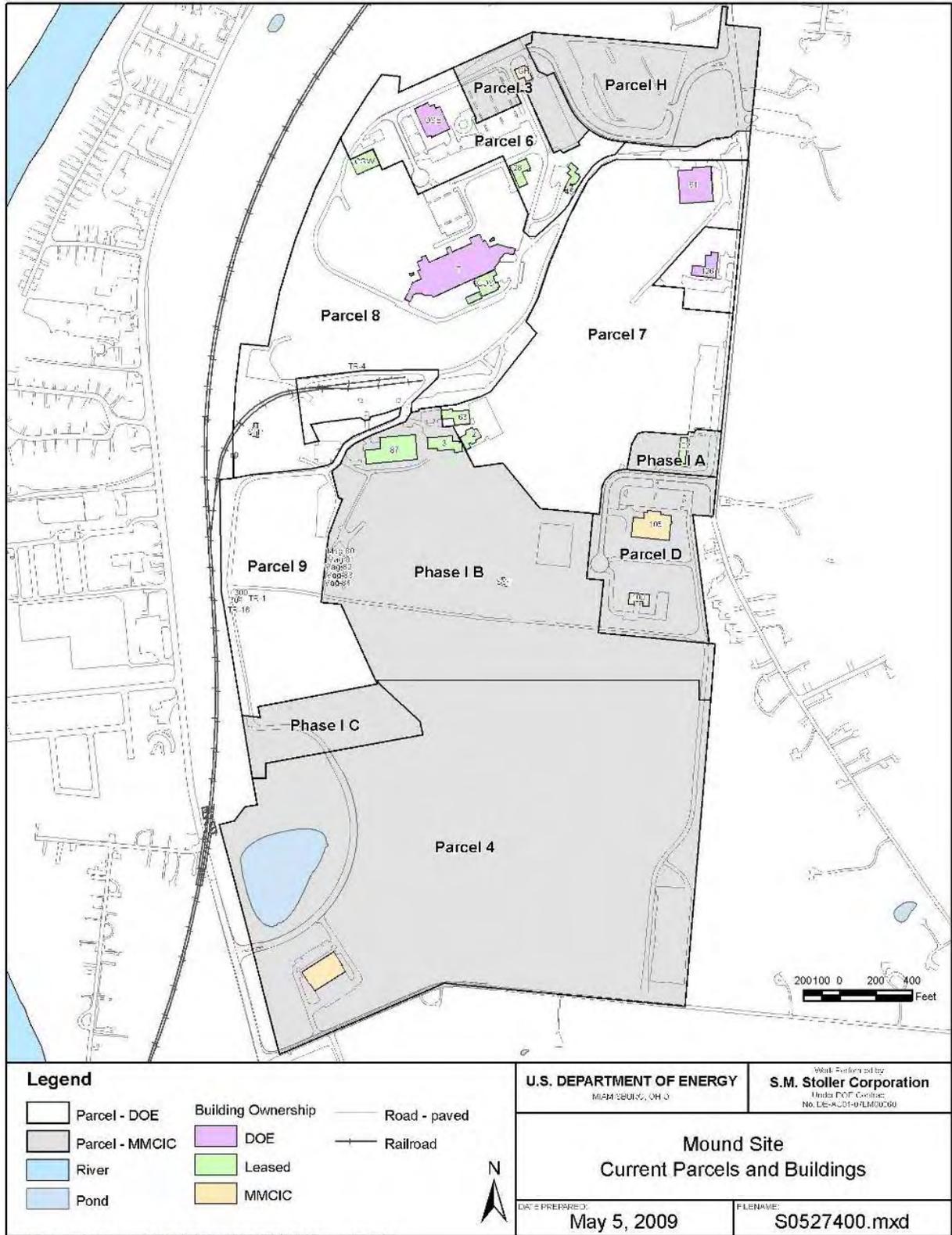


Figure 74. Mound Site Buildings and Parcels

Table 6 lists work requests that did not require a City permit but did require review by the City Planning Commission. These requests included excavation or paving activities.

Table 6. City of Miamisburg Files – Planning Commission Reviews

Location of Work	ID Number	Date of Application	Submitted By	Nature of Work	Parcel/ Building	Status
No Commission reviews were performed during this period.						

All work performed by MMCIC or other parties (e.g., contractors to MMCIC) on the former DOE Mound Site Property that Art Kleinrath (LM) and Frank Bullock (MMCIC) were aware of during the 12-month reporting period appeared to be adequately covered by permits submitted to, and approved by, the City of Miamisburg.

In 2003, the City of Miamisburg implemented a database that allows permits to be searched by keyword (e.g., permit number, date, location, nature of work). Permits issued before the database was implemented (i.e., permits documented in DOE’s annual reports dating back to 2001) may not be in the City’s database. However, the City retains hard copies of all permits in accordance with a records-retention plan that meets all State of Ohio requirements.

Permits filed with the City of Miamisburg do not have an expiration date. Therefore, DOE and the property owner (at present, MMCIC) should remain knowledgeable of permits filed with the City of Miamisburg, where work covered by that permit may have been postponed. This will provide a checks-and-balances system to ensure that the appropriate City officials approve work that requires a permit and has been performed since the last DOE annual assessment.

In general, the permit-review process demonstrated that the City of Miamisburg’s recordkeeping system is adequate.

8.2 Records, Other Than Permits, Issued by the City of Miamisburg

MMCIC and all future property owners must comply with the ICs associated with the former DOE Mound Site Property to maintain the CERCLA remedy. MMCIC currently ensures that contractors performing work for MMCIC (e.g., landscaping, utility work involving excavation, construction) are aware of and comply with the ICs. MMCIC includes the following language in the “Technical Requirements” section of its requests for proposal and subsequent work orders:

Excavated soils must be managed and remain on MMCIC property. Soils from excavation shall be placed at an on-site location, as directed by MMCIC.

The MMCIC project manager, who oversees site work, monitors the vendor’s work and conformance to technical requirements in the work order. MMCIC provides the vendor with a real estate easement in addition to the technical requirements. This easement is recorded with Montgomery County as a matter of public record. An example of a real estate easement used for utility work on MMCIC property is included as Appendix B. Note that Section 2 of the easement gives the utility provider/vendor detailed information on the ICs associated with MMCIC’s property. This requires compliance with restrictions, which are the ICs.

Continuing public education is an important component of DOE's post-closure responsibilities. Appendix C is an EPA document with information concerning ICs. Educating all future property owners about their responsibility to comply with the ICs will be an important element of DOE's public-education campaign. It is also important to educate the general public on the importance of adhering to the site-wide ICs. Therefore, postings (such as warning signs near the MMCIC pond, which state that recreational use is prohibited) are an important part of teaching the public to comply with ICs.

Prior to initiating construction on any land parcel, MMCIC will provide the builder with a pre-construction package that includes a description of the ICs associated with that particular parcel. This is how MMCIC ensures that the builder is aware of applicable ICs. In a new-construction scenario, probably the most important IC to educate builders about is the prohibition against removing any soils from the original boundaries of the approximately 306 acres that constitute the former DOE Mound Site Property.

As recommended in the 2008 annual assessment, DOE will examine these documents during the annual IC assessments after the site has been transferred. This will ensure that the necessary wording continues to be included in contracts or easements after site transfer.

MMCIC's *Comprehensive Reuse Plan Update* (MMCIC 2003) (CRP) identifies each building at the Mound Advanced Technology Center with its own lot. A copy of the CRP is available in the CERCLA Reading Room.

Eventually, MMCIC plans to plat the entire former DOE Mound Site Property. In order to receive financing (i.e., for new construction) on land parcels that make up the original DOE Mound Site Property, MMCIC will record a lot-split with the Montgomery County Recorder's Office. If MMCIC does not require financing for property improvements within a parcel, MMCIC does not have to immediately record a Miamisburg Planning Commission-approved lot-split with the County. However, if MMCIC decides to sell the property, MMCIC has to record the lot-split with the County at that time. The recorded real estate documentation would include the original quitclaim deed that DOE issued to MMCIC for the parcel, as a whole, as well as the CERCLA 120(h) *Summary Notice of Hazardous Substances* associated with the original parcel. This will ensure that future property owners of individual lot-splits know of the site-wide ICs imposed on acreage that lies within the boundaries of the parcels as originally conveyed by DOE to MMCIC.

The property owner's adherence to the ICs imposed on a land parcel is vital to the effective maintenance of those ICs. MMCIC currently coordinates the movement of soil and site grading, and DOE oversees completion of the OU-1 Project in Parcel 9. After DOE's environmental management mission is complete, managing the movement of soil throughout the site should be an effective way for the property owners to ensure that soil is not being removed from the site as a whole. To accomplish this task, MMCIC's CRP establishes locations where future construction and property improvements will occur on the former DOE Mound Site Property. The CRP also includes a site-wide soil-grading plan. The CRP was adopted by the City of Miamisburg, and it was incorporated into the City's comprehensive plan. The City's comprehensive plan is the basis for the zoning of properties that fall within the city limits. If MMCIC subdivides the former DOE Mound Site Property and sells portions (or all) of the property, the new property owners would be required to comply with the CRP and the City's comprehensive plan.

9.0 Conclusions

The ICs for Parcels D, H, 3, 4, 6, 7, and 8 and the Phase I land parcel continue to function as designed. Adequate oversight mechanisms appear to be in place to identify possible violations of ICs, and adequate resources are available to correct or mitigate any problems if violations occur.

10.0 Recommendations

Table 7 and Table 8 list previous inspections' recommendations for improving ICs (DOE 2006a; DOE 2009a), the status of those recommendations, and new recommendations from this year's inspection.

Table 7. Outstanding Recommendations from Previous Annual or 5-Year CERCLA Inspections of ICs

	Origin	Issue/ Recommendation	Status 2009 Report	Corrected?	Current Status 2010 Report
1	2007 Annual	Determine when OEPA removes air monitoring station in Parcel H.	OEPA was working with EM to dispose of their air monitoring stations on site.	Yes	Removed on May 28, 2009
2	2008 Annual	Landowner or management organization will notify LM when there are changes of address or street names on site. Building permits are filed by street addresses.	No process	No	No process
3	2009 Annual	Confirm that the aRc well was abandoned correctly and removed from the ODNR website.	New	Yes	Obtained written confirmation that the well was properly abandoned, and the <i>Water Well Sealing Report</i> was submitted to ODNR. ODNR keeps wells on its website.
4	2009 Annual	Improve drainage in the area north of Well 0353	New	No	Will revisit this issue when the OU-1 excavation has been completed in the area of the well.

Table 8. Recommendations from 2010 Annual Inspection for ICs

Number	Issue/Recommendation	Responsible
1	Improve marking labels at seeps.	Stoller
2	Paint Well 0124 in old canal area.	Stoller
3	Remove water sampling station and fencing over Seep 0607, and return area to its original condition.	Stoller
4	Insure that that signs by pond in Parcel 4 are present at all times.	MMCIC

11.0 For Further Information

For further information on the content of this annual report or the former DOE Mound Site Property in general, contact:

Mr. Paul Lucas
Remedial Project Manager
DOE Office of Environmental Management
955 Mound Road
Miamisburg, Ohio 45342
(937) 847-8350 X301

or

Mr. Art Kleinrath
Site Manager
DOE Office of Legacy Management
955 Mound Road
Miamisburg, Ohio 45342
(937) 847-8350 X318

For further information on the regulatory guidelines governing the CERCLA 120(h) process for property transfer at the former DOE Mound Site Property, contact:

Mr. Tim Fischer
Remedial Project Manager
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, Illinois 60604-3590
(312) 886-7058

or

Mr. Brian Nickel
Remedial Project Manager
Ohio Environmental Protection Agency
401 E. Fifth St.
Dayton, Ohio 45402-2911
(937) 285-6468

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