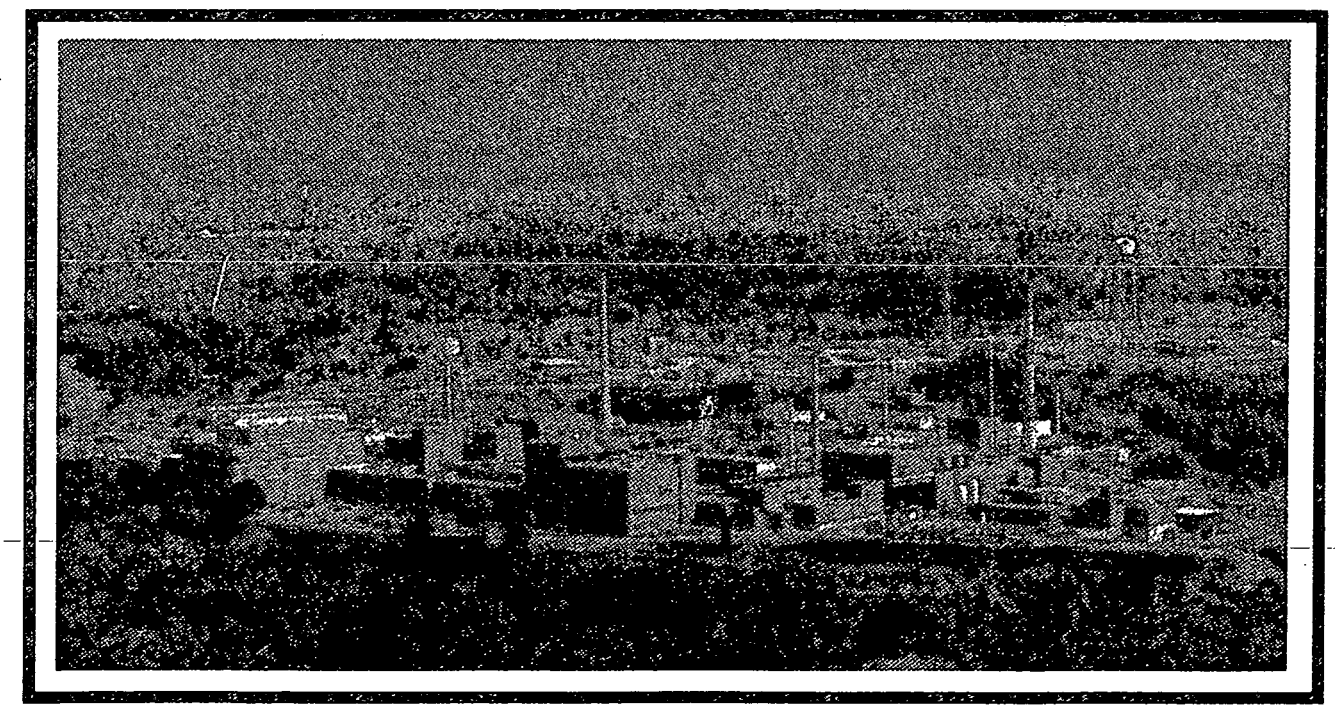
EG&G MOUND-30-03-04-02--9611260101

MOUND

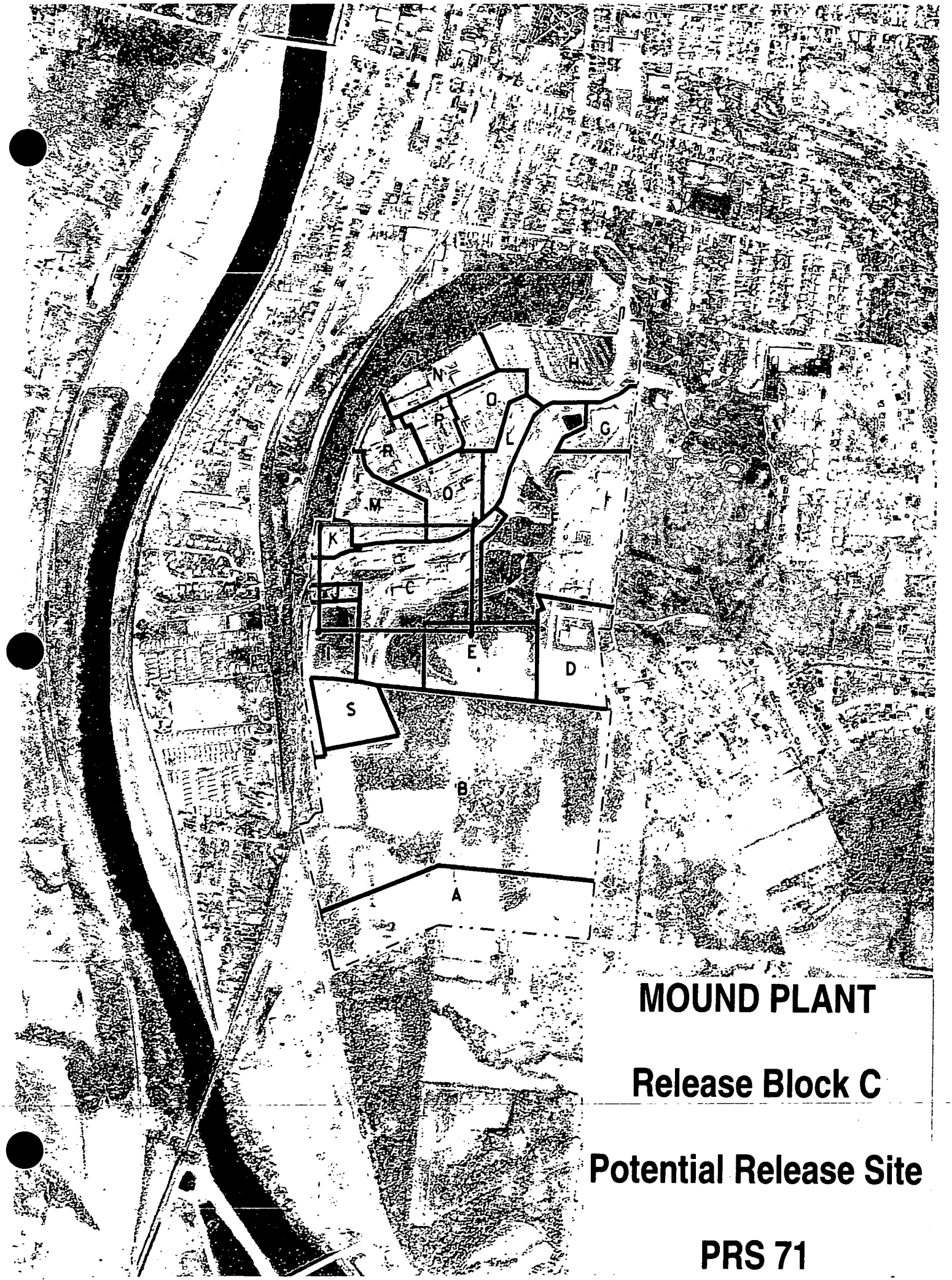
Environmental
Restoration
Program

MOUND PLANT
Potential Release Site Package
PRS # 71



PRS 71

REV	DESCRIPTION	DATE
PUBLIC RELEASE 0	Available for comments.	Mar. 4, 1996
FINAL 1	Comment period expired. No comments. Recommendation page annotated.	Oct. 10, 1996
FINAL 2	Signature page changed to show correct review period.	Nov. 19, 1996



MOUND PLANT

Release Block C

Potential Release Site

PRS 71

G
O
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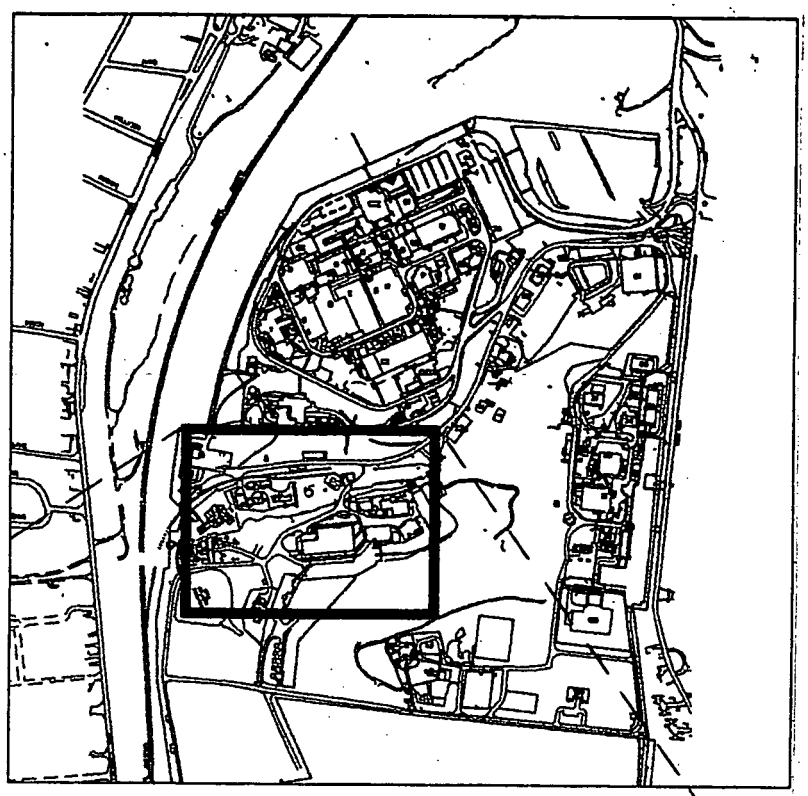
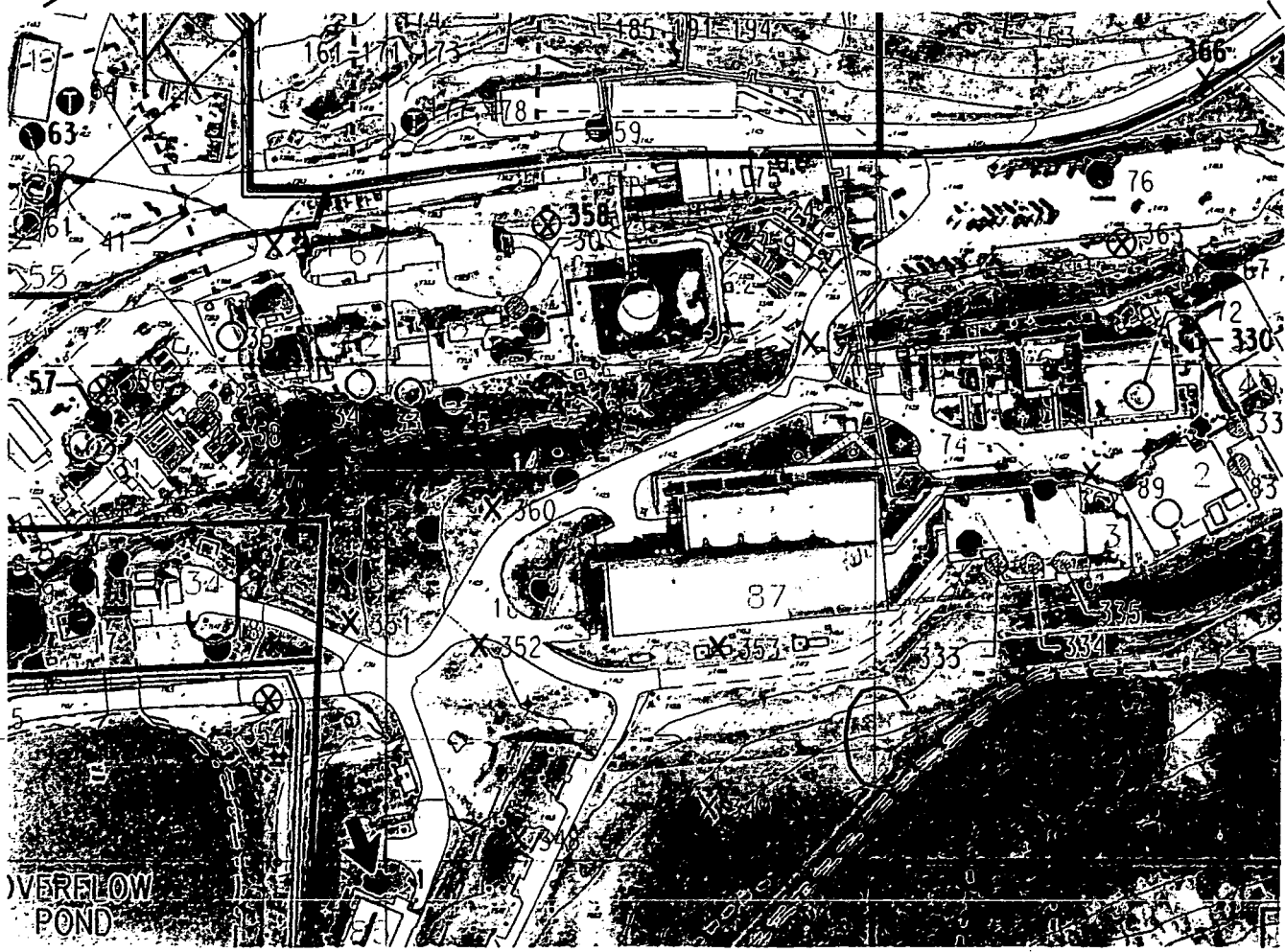
MOUND PLANT

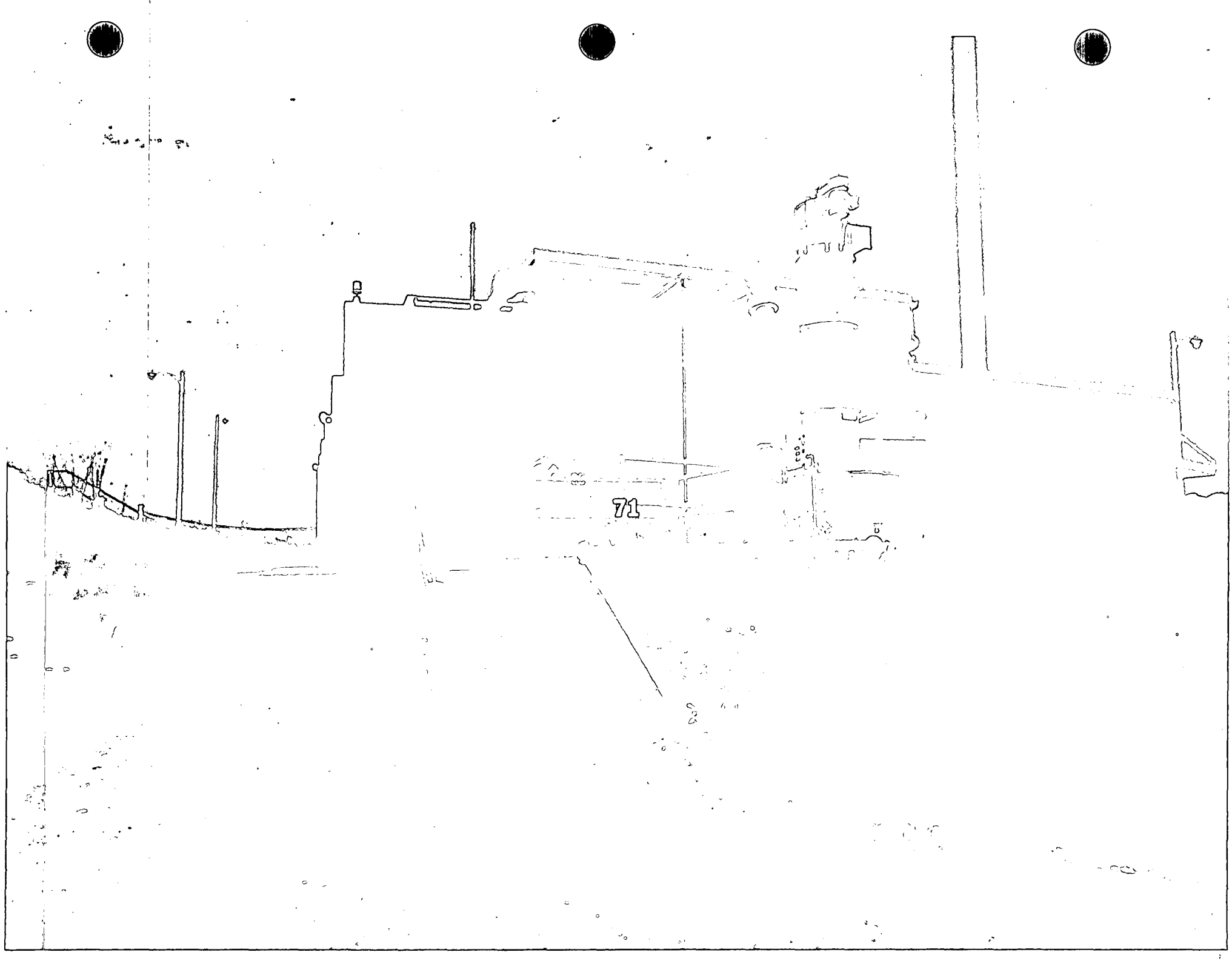
Release Block C

Potential Release Site

PRS 71






71

PRS 71

PRS HISTORY:

PRS 71 was identified as an underground storage tank (UST), tank #136. The tank was designed to store waste solvent associated with explosive processing in Building 85.[2, 3]

PROCESS DESCRIPTION:

No hazardous waste was generated due to the fact that the Building 85 nor the tank 136 were ever in operation.[2]

There are no other hazardous waste or radioactive generating processes known to have occurred at the location of PRS 71.

CONTAMINATION:

Soil sampling, using the Mound Soil Screening Facility, resulted with levels of Plutonium-238 (Pu-238) and Thorium-232 (Th-232) below the Mound Plant As Low As Reasonably Achieveable (ALARA) criteria of 25 pCi/g for Pu-238 and 5 pCi/g for Th-232.[5] Soil gas sampling for chemical contamination, using PETREX, resulted with detected ion counts for Total Aromatic Hydrocarbons of 503,834 and Petroleum Hydrocarbons of 952,251. Total Semi-Volatile Hydrocarbons and Halogenated Hydrocarbons resulted with no-detect (ND).[6] There was not any soil sampling conducted due to the relatively low soil gas detection.[4]

READING ROOM REFERENCES:

1) OU9 Site Scoping Report, Vol. 12, Site Summary Report, December 1994. (pages 5-6)
2) Active Underground Storage Tank Plan, May 1994. (pages 7-9)
3) Mound Plant Underground Storage Tank Program Plan and Regulatory Status Review, November 1992. (pages 10-13)
4) Soil Gas Survey and Geophysical Investigations, Main Hill and SM/PP Areas Reconnaissance Sampling, Feb. 1993. (pages 14-15)
5) OU9 Site Scoping Report, Vol. 3, Radiological Site Survey, June 1993. (pages 16-18)
6) OU5 Operational Area Phase I Investigation Non-AOC Field Report, June 1985. (pages 19-21)

OTHER REFERENCES:

7) Powder Processing and Blending Facility (PPBF) Building 85 Construction Drawings, June 1986. (pages 22-26)

PREPARED BY:

Gary L. Coons, Member of EG&G Technical Staff

MOUND PLANT
PRS 71
SOLVENT WASTE TANK - BUILDING 85

RECOMMENDATION:

Historical process knowledge indicated that this Potential Release Site (PRS), which is a below grade tank located adjacent to Building 85, was never used. Building 85 was designed to store waste solvent associated with explosives processing, however was never occupied or used. Sampling that investigated chemical contamination in the area resulted with no levels of concern for volatile organic compounds (VOCs). There was no history of radiological processes occurring in the area of the building or tank location and radiological sampling near the location of the tank indicated thorium below the D&D clean-up level of 5 pCi/g surface and 15 pCi/g subsurface. Plutonium was not detected above the Mound Soil Screening Level of 25 pCi/g, which was well below the 10-5 risk guideline value of 55 pCi/g. Based on the sampling results and the fact that the tank was never used, PRS 71 has been recommended for NO FURTHER ASSESSMENT.

CONCURRENCE:

DOE/MB: Arthur Kleinrath 2/29/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 3/4/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 2/29/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from ~~4/15/96~~ 3/15/96 to ~~5/15/96~~ 4/01/96.

☒ No comments were received during the comment period.

☐ Comment responses can be found on page_____ of this package.

REFERENCE MATERIAL
PRS 71

Document Control No. _____

Environmental Restoration Program

OPERABLE UNIT 9 SITE SCOPING REPORT: VOLUME 12 – SITE SUMMARY REPORT

MOUND PLANT
MIAMISBURG, OHIO

December 1994

Final

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies

No.	Site Name	Location	Status	Operational Jurisdiction: Regulated Units	Operational Jurisdiction: Regulatory Authority	Operational Jurisdiction: Spill Response	SWMU	Historic Activities: Evidence Of Release	Historic Activities: Response Authority	Further Action Recommended	FFA OU
69	Overflow Pond	H-5 I-5	Waters of the U.S.	(Cont.)	(Cont.)	(Cont.)	SWMU	No	CERCLA	Yes	9
70	Retention Basins and Weir Basin	H-5	Waters of the U.S.				SWMU	No	CERCLA	Yes	9
71	Building 85 Waste Solvent Tank (Tank 136)	I-5	Inactive	PBR	RCRA	RCRA	SWMU	No	CERCLA	No	5
72	Area 13, Polonium-Contaminated Wood from Dayton Unit IV	H-7	Historical	Runoff to plant drainage ditch	NA			Yes	CERCLA	Yes	5
73	Evaporator Storage Area	H-7	Historical		NA			No	CERCLA	No	5
74	Quonset Hut (former)	H-7	Historical		NA			No	CERCLA	No	5
75	Railroad Siding	G-6 G-7	Inactive		AEA	AEA		Yes	AEA	D&D	
76	Warehouse 9	G-7	Historical		NA			Yes	CERCLA	Yes	5
77	Warehouse 10	G-9	Historical		NA			Yes	CERCLA	Yes	5
78	Warehouse 13	G-9	Historical		NA			Yes	AEA	D&D	
79	Warehouse 15	E-8	Historical		NA			Yes	CERCLA	Yes	5
80	Warehouse 15A	F-8	Historical		NA			Yes	CERCLA	Yes	5
81	Drilling Mud Drum Storage Areas (3 locations)	H-5 I-4	Historical		NA		SWMU	No	CERCLA	No	5
82	Building 57 Diesel Fuel Storage Tank (Tank 118)	H-5	In service		BUSTR	BUSTR			NA	OM	
83	Building 2 Propane Storage Tank (Tank 122)	H-7	Inactive		AEA	NA		No	NA	OM	
84	Building 56 Diesel Fuel Storage Tank (Tank 223)	F-5	Historical		NA			No	CERCLA	Yes	2
85	Building 29 Solvent Storage Shed	E-8	Inactive	PBR	RCRA	RCRA	SWMU	No	NA	OM	
[illegible]	9 Septic Tank nk 224)	E-9	Historical		NA			Yes	AEA	Yes	6
[illegible]	lvent Storage Shed	G-7	Inactive	PBR	RCRA	RCRA	SWMU	No	NA	OM	
[illegible]	ied Valley Aquifer	H-4	Historical		SDWA			Yes[d]	AEA	OM	
[illegible]	idual Storage Area	H-7	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
[illegible]	rvey Project ial Hot Spot ion S0425	G-8	Grounds		AEA	NA		Yes	AEA	Yes	6
[illegible]	ll Seep 0601	F-5	NA		NA			Yes	CERCLA	Yes	2
[illegible]	ll Seep 0602	G-7	NA		NA			Yes	CERCLA	Yes	2

EG&G MOUND APPLIED TECHNOLOGIES

Revised Draft

Active Underground Storage Tank Plan

May 16, 1994

Prepared for:

Project Management and Planning
EG&G Mound Applied Technologies
One Mound Road
Miamisburg, Ohio

CLIENT	JOB NUMBER	DATE
EG&G Mound Applied Technologies	10805-794	4-19-94

JOB TITLE	D&M TEAM
Active Underground Storage Tank Program	Grantelli

TANK NO.	BLDG/LOCATION	EG&G SPONSOR	OWNER
136	85	~~D&D~~ ER	U.S. DOE

TANK STATUS	TANK CAPACITY (gallons)	INSTALLATION DATE	INTERVIEWED WITH	INTERVIEW DATE
Inactive	450	unknown		

TANK DESCRIPTION, Purpose of Tank: Waste Solvent Tank

Tank Material
- ___ Bare Steel (unprotected)
- ___ Composite (steel & FRP)
- ___ Fiberglass Reinforced Plastic
- ___ Stainless Steel Lined Concrete
- ___ Steel Lined Concrete
- ___ Concrete
- ✓ Other - Specify
- ___ Unknown

Stainless Steel

Tank Cathodic Protection
- ___ Internal Lining - Specify
- ___ Sacrificial Anodes
- ___ Impressed Current
- ___ Composite (Steel & FRP)
- ___ Other - Specify
- ✓ Unknown
- ___ None

Inlet of Tank: Never Used

Outlet of Tank: Never Used

History of Spills: No

Spill/Overfill Prevention
- ___ Float Vent Valve
- ___ High Level Alarm
- ___ Auto Shutoff
- ___ Other - Specify
- ___ None
- ~~N/A~~ Unknown

Piping Material
- ___ Cathodically Protected Steel
- ___ Bare Steel (unprotected)
- ___ Fiberglass Reinforced Plastic
- ___ Double Walled or Jacketed
- ___ Other - Specify
- ✓ Unknown

Substance Currently/Last Stored
- ___ Gasoline
- ___ Diesel
- ___ Kerosene
- ___ Used Oil
- ___ Hazardous Substances - Specify
- ___ Other - Specify
- ___ Unknown

Never Used

Tank Site Description
- ___ Indoor
- ___ Outdoor
- ___ Soil
- ___ Asphalt/Concrete
- ___ Storm Drains, Potential Surface water runoff
- ___ Soil Staining

Unknown

DOE / AEC / PM No: never used

Calibration Records n/a

Maintenance Records

Tank Release Detection Method
- ___ Inventory Control
- ___ Manual Tank Gauging
- ___ Tank Tightness Testing
- ___ Automatic In-Tank Monitor & Inventory Control
- ___ Vapor Monitoring
- ___ Groundwater Monitoring
- ___ Secondary Containment with Interstitial Monitoring
- ___ Other - Specify
- ___ None

n/a

Piping Release Detection Method
- ___ Pressure Piping Automatic Line Flow Restrictor
- ___ Pressure Piping Automatic Line Shutoff Device
- ___ Line Tightness Test (Pressure Annual, Suction Every 3 yrs)
- ___ Vapor Monitoring
- ___ Groundwater Monitoring
- ___ Approved Suction Piping
- ___ Other - Specify
- ___ None

n/a

Closure

Date of Last use: Never Used

Intended Replacement

Closure Plan

Part of Operable Unit: OU5

Primary Regulatory Jurisdiction: FFA

Spill Jurisdiction: FFA

Regulated Units

DOCUMENTS, REFERENCES USED: DOE, 1992a; DOE, 1993

COMMENTS: This tank was not & will not be used due to design concerns. Currently it is planned for removal under OU5. It is not a potential source.

SIGNATURE Chelelande Grantelli

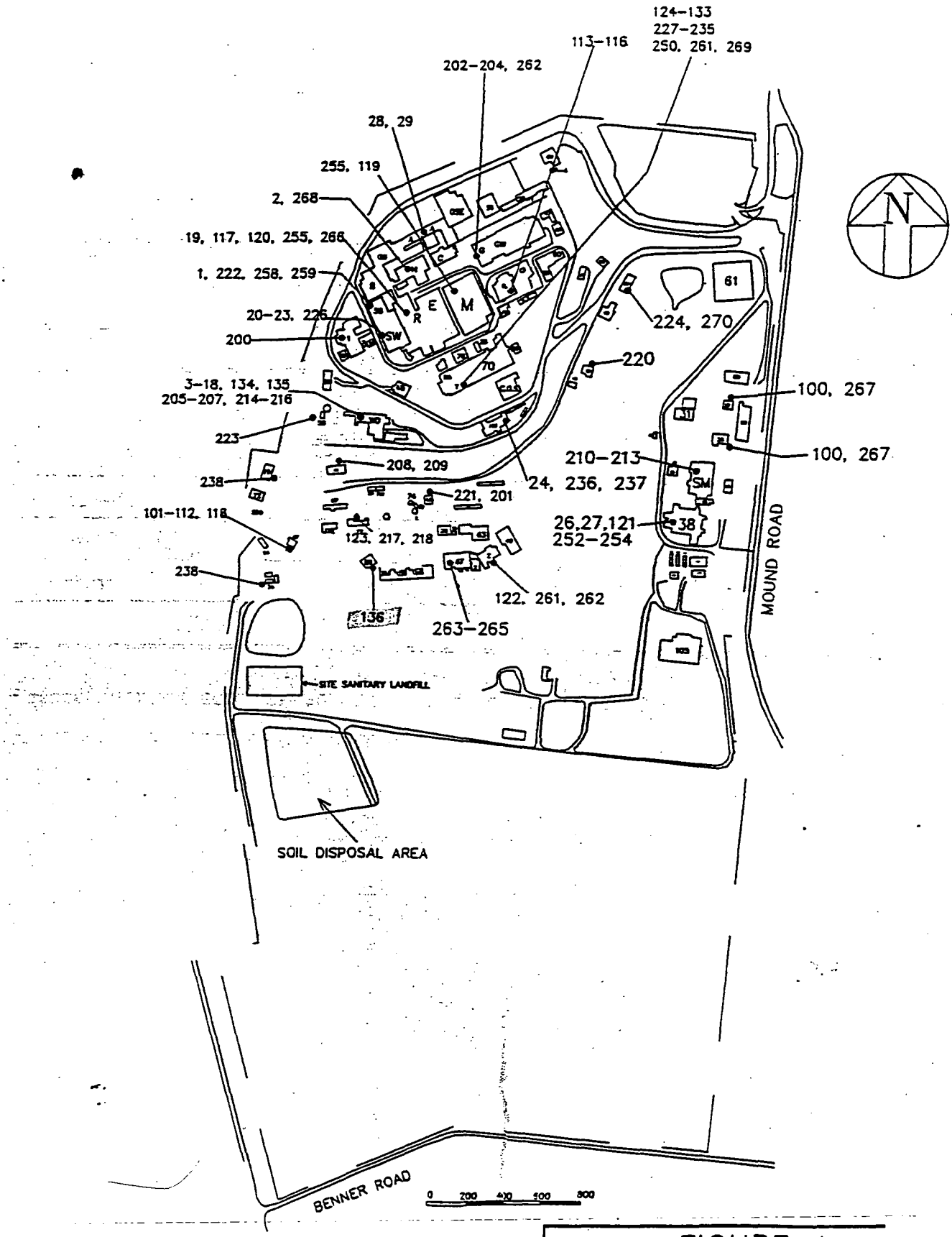


FIGURE 1
Aproximate AUST Locations

EG&G Mound AUST Plan Rev. 0.0

ENVIRONMENTAL RESTORATION PROGRAM

MOUND PLANT UNDERGROUND STORAGE TANK PROGRAM PLAN AND REGULATORY STATUS REVIEW

MOUND PLANT

MIAMISBURG, OHIO

November 1992

DEPARTMENT OF ENERGY

ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION PROGRAM

EG&G MOUND APPLIED TECHNOLOGIES

FINAL (REVISION 0)

be introduced to the tank, it would still not be subject to RCRA hazardous waste or UST regulations because it is considered a wastewater treatment unit.

2.2.22. WD Building Annex Basement: Sanitary Waste Tank (Tank 135)

A 3.5-foot diameter (construction information was not available) tank located adjacent to the north wall of the WD Building Annex basement is used to collect sanitary wastewater from shower and toilet facilities in the WD Building Annex penthouse. The tank drains to the Building 57 New Sewage Disposal Area for sanitary waste treatment.

This tank is part of a wastewater treatment system that discharges subject to CWA § 402 (NPDES)(O.A.C. 3745-33) regulations. Since this sump has received only sanitary waste, it is not subject to RCRA hazardous waste tank regulations or 40 CFR part 280 (O.A.C. 1301: 7-9). Unless it is determined that hazardous substances that pose a threat to human health or the environment are present in the sump, the sump is not subject to CERCLA. Should wastes other than sanitary wastes be introduced to the tank, it would still not be subject to RCRA hazardous waste or UST regulations because it is considered a wastewater treatment unit.

2.2.23. Building 85, Waste Solvent Tank (Tank 136)

A 450-gallon, stainless-steel tank at Building 85 was intended for use as a waste solvent collection tank for explosives processing. The tank is below grade in a concrete "coffin" covered by a metal lid. Neither the building nor the tank have been put into service. Mound personnel report that when operations are initiated in Building 85, the tank will not be used because of design concerns (Kabot, 1992a). As a result, the tank will not be a potential source and will not be a regulated unit. Accordingly, the tank and its location can be deleted as a concern as an UST.

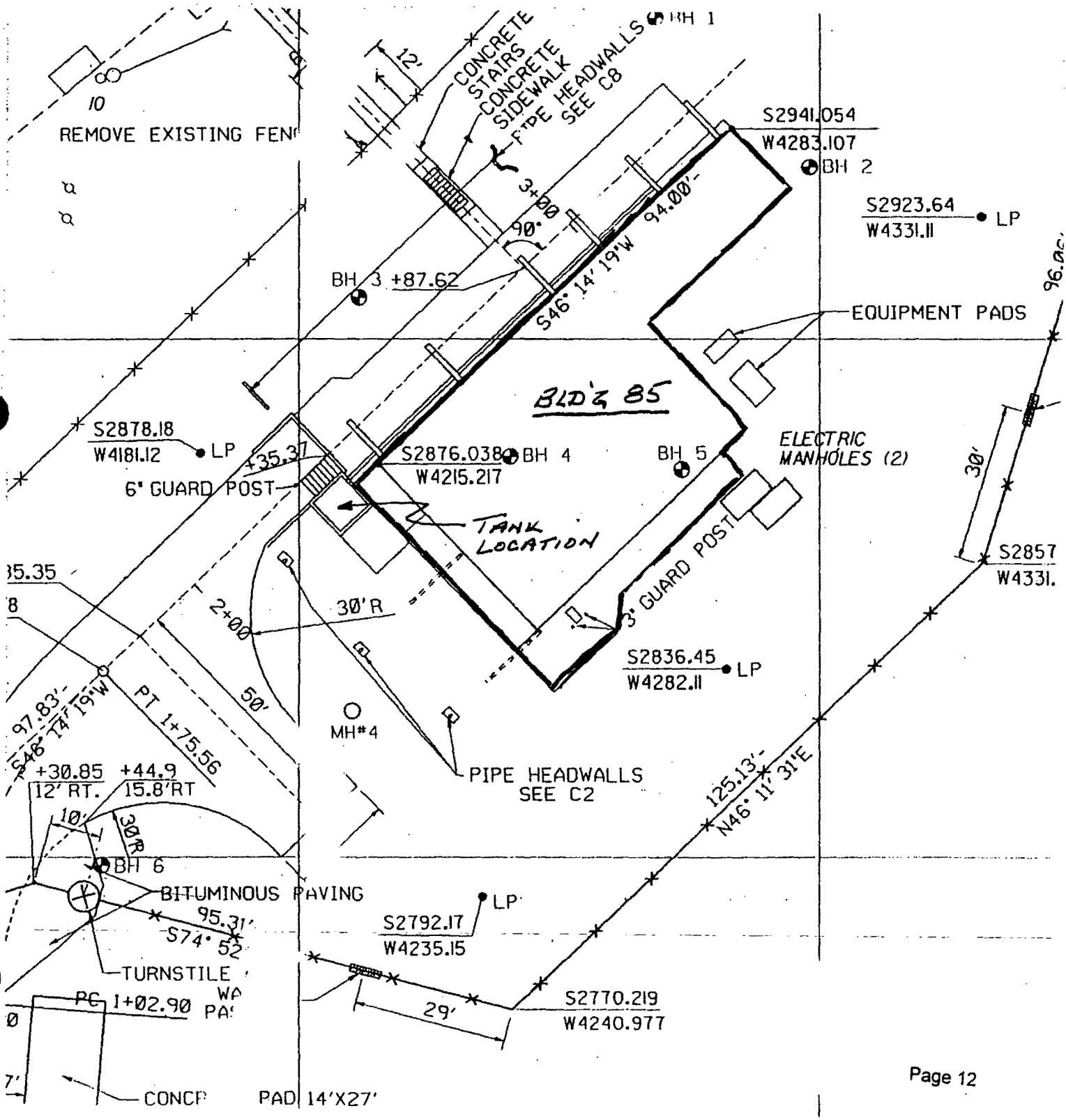
2.3. INACTIVE TANKS

The following are inactive USTs and former UST sites identified at Mound Plant based on available documentation and communications with Mound Plant personnel.

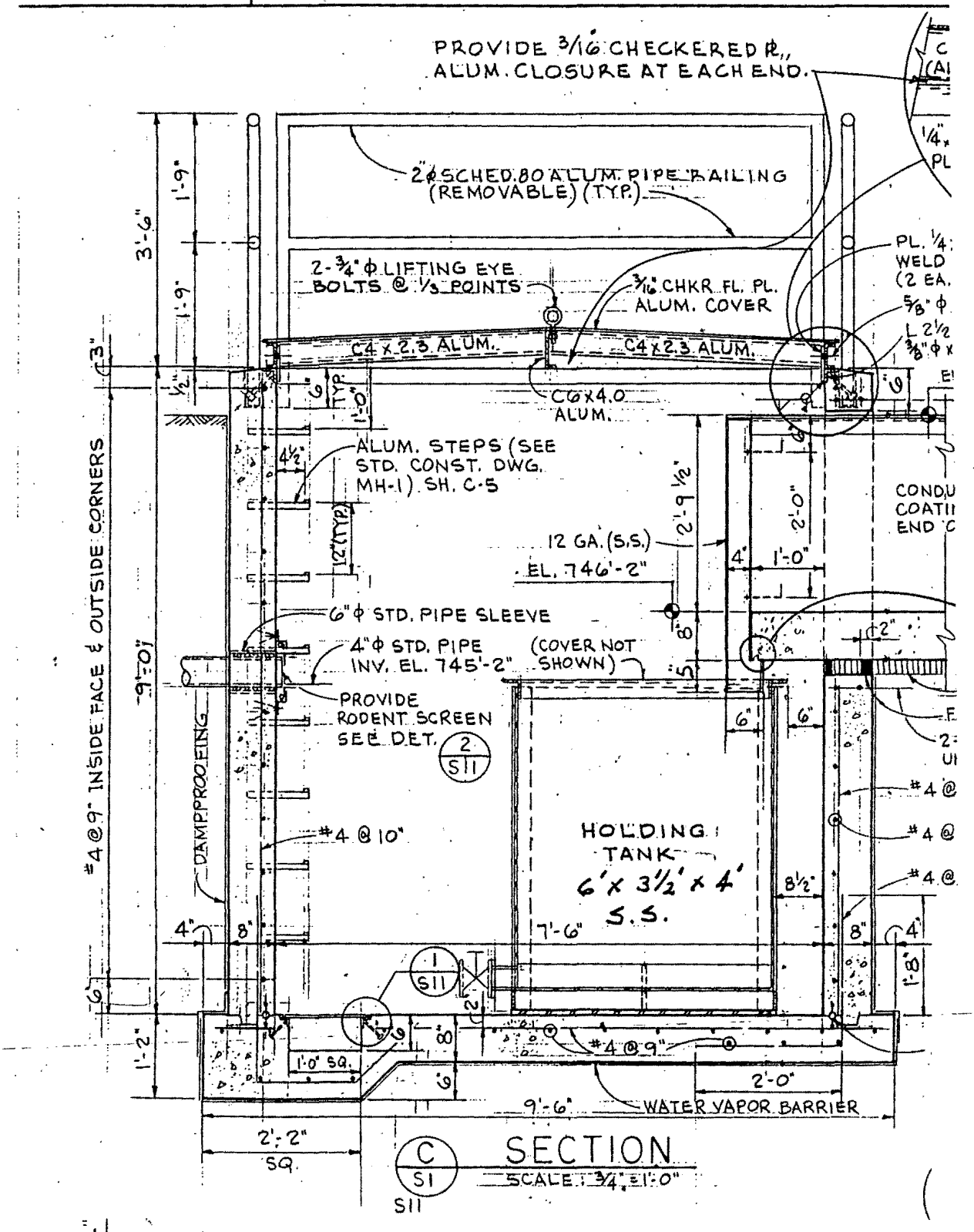
2.3.1. Buildings 1 and 43: Explosives Wastewater Settling Basins (Tanks 200 and 201)

To the west of Building 1 and Building 43 are concrete settling basins (one west of each building) were formerly used to filter and settle out explosives elements in an explosives production proc waste stream. After passing through the basins, wastes from both units would drain to an evapora

Engineering Dwg June 1986



Engineering Dwg. June 1986



ENVIRONMENTAL RESTORATION PROGRAM

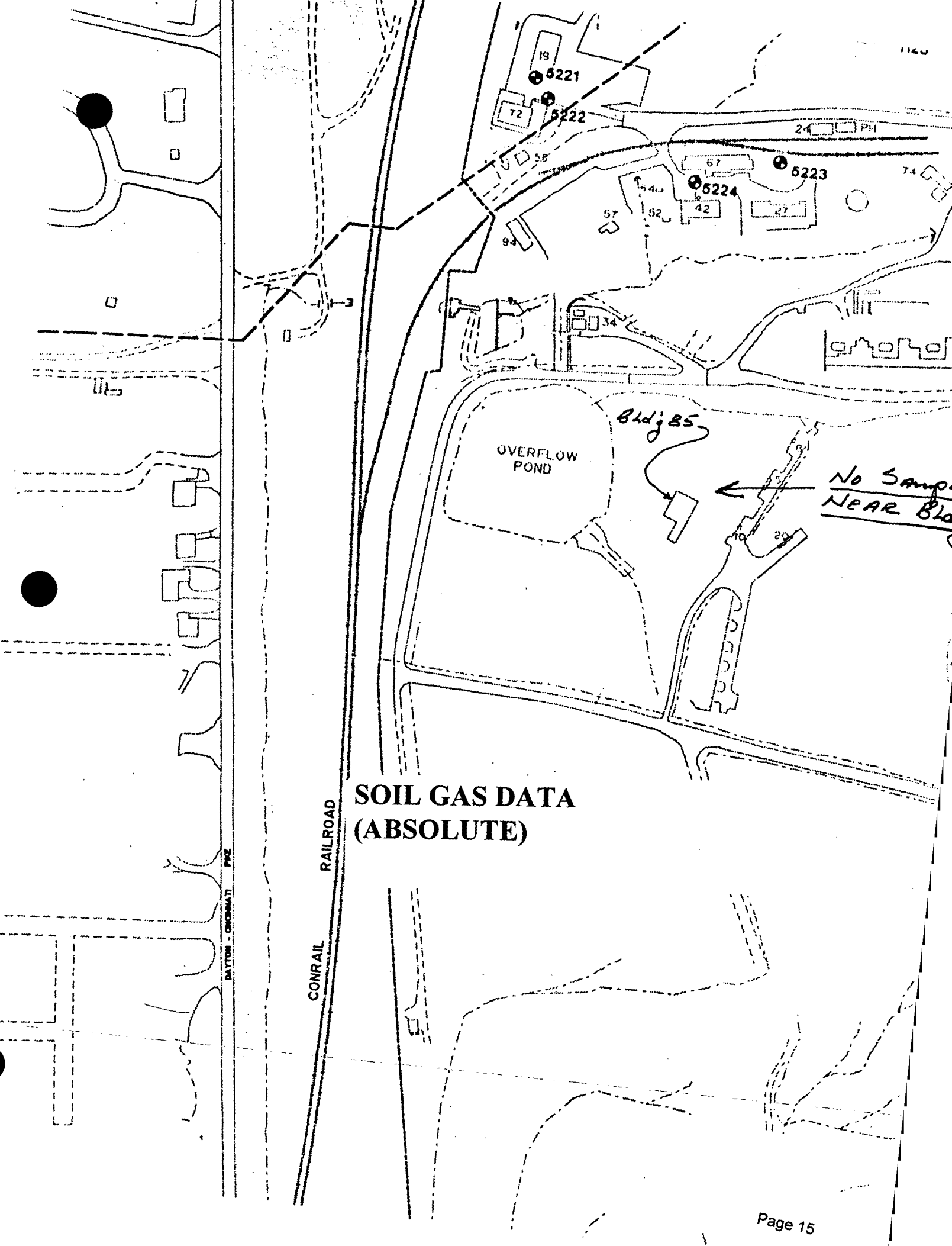
SOIL GAS SURVEY AND GEOPHYSICAL INVESTIGATIONS MAIN HILL AND SM/PP HILL AREAS RECONNAISSANCE SAMPLING

MOUND PLANT
MIAMISBURG, OHIO

February 1993

DEPARTMENT OF ENERGY
ALBUQUERQUE OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES


SOIL GAS DATA
(ABSOLUTE)
5221
5222
5223
5224
OVERFLOW POND
Bldg 85
No Samp
Near Bld
CONRAIL RAILROAD
DAYTON - CINCINNATI PIKE

ENVIRONMENTAL RESTORATION PROGRAM

OPERABLE UNIT 9, SITE SCOPING REPORT: VOLUME 3 - RADIOLOGICAL SITE SURVEY

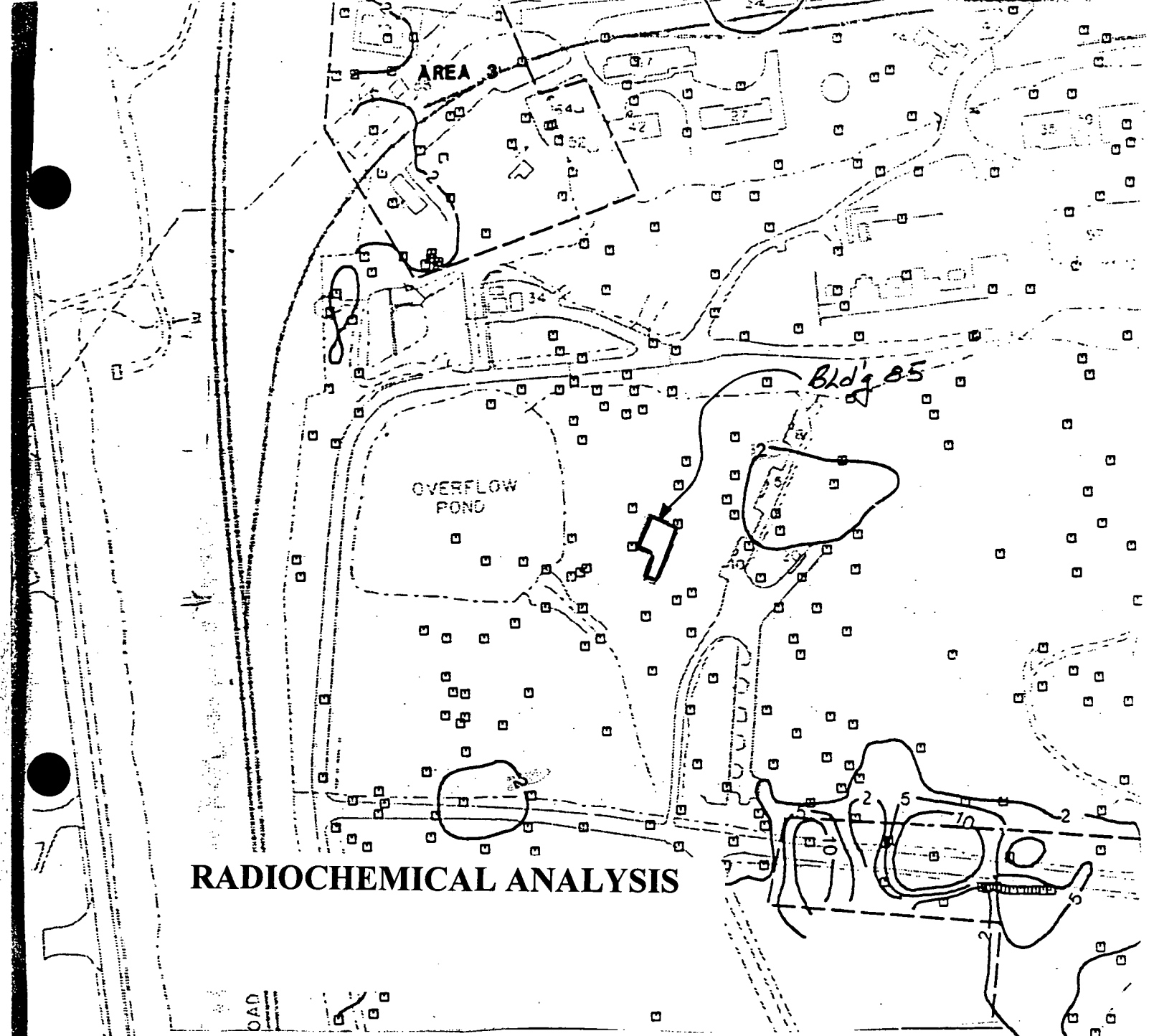
MOUND PLANT
MIAMISBURG, OHIO

June 1993

DEPARTMENT OF ENERGY
ALBUQUERQUE FIELD OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

FINAL



ER PROGRAM

MOUND PLANT

Miamisburg, Ohio

PLATE 5

Site Survey Project

Thorium Concentrations

ER PROGRAM

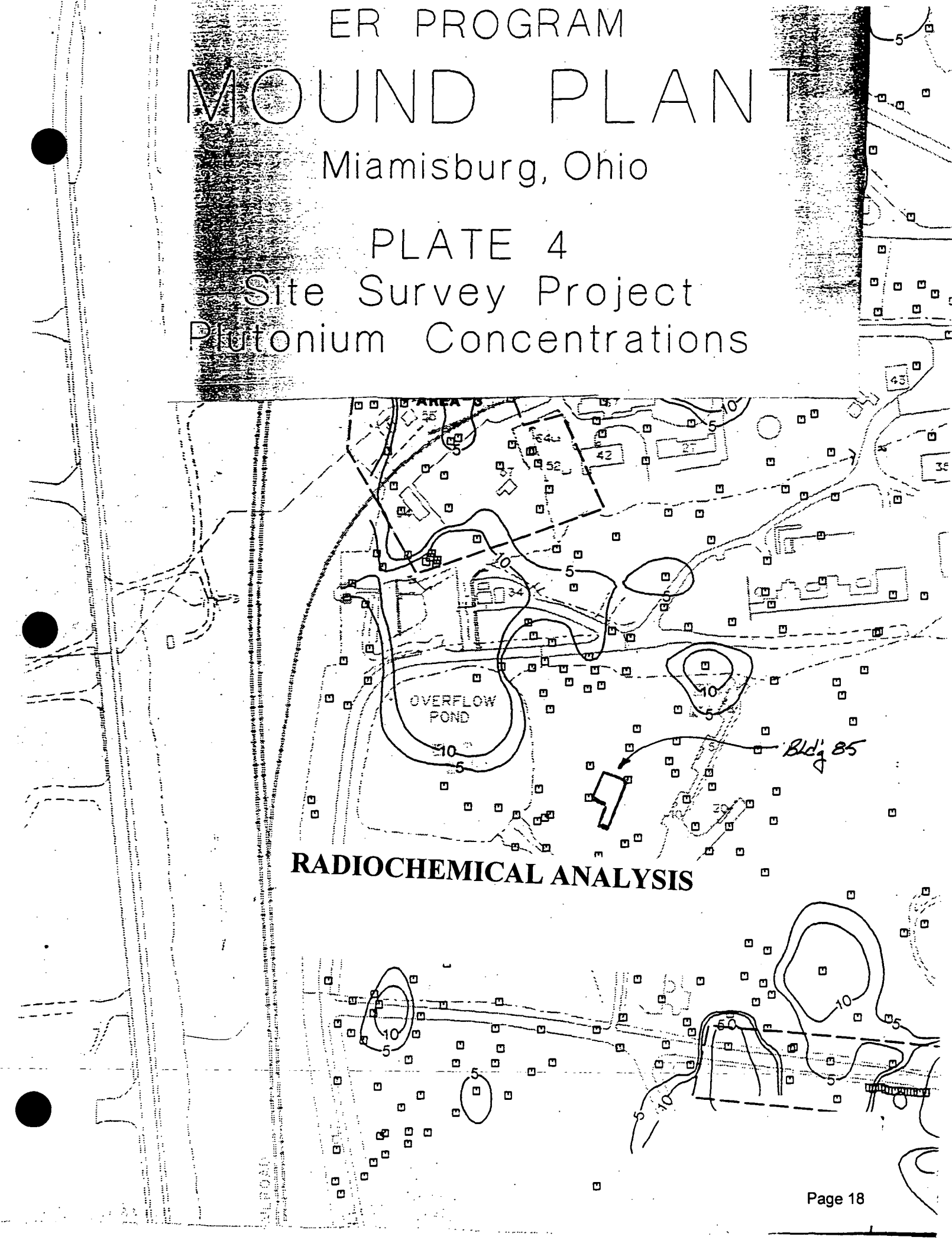
MOUND PLANT

Miamisburg, Ohio

PLATE 4

Site Survey Project

Plutonium Concentrations



RADIOCHEMICAL ANALYSIS

Environmental Restoration Program

OPERABLE UNIT 5
OPERATIONAL AREA PHASE I INVESTIGATION
NON-AOC FIELD REPORT

MOUND PLANT
MIAMISBURG, OHIO

VOLUME I - TEXT

June 1995

Final (Revision 0)

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies

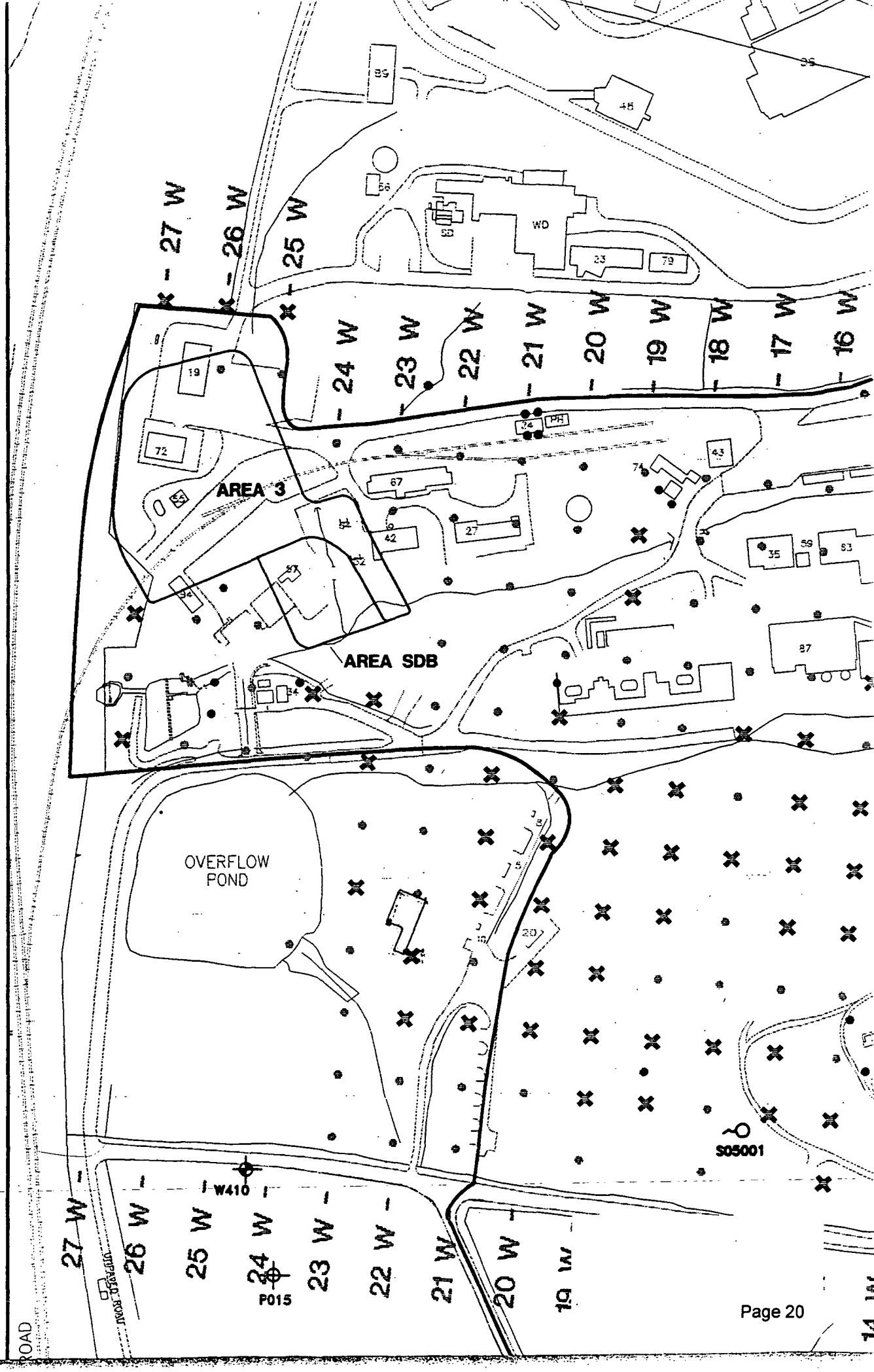

AREA 3
AREA SDB
OVERFLOW POND
S05001
W410
P015
UNPAVED ROAD
ROAD
WD
PH
27 W
26 W
25 W
24 W
23 W
22 W
21 W
20 W
19 W
18 W
17 W
16 W

Table II.2. Summary of Elevated Surface Radiological Activity in Non-AOC (FIDLER Survey)
Page 2 of 5

Location	Channel 1 (cpm)		Channel 2 (kcpm)		Out Channel (kcpm)
	CC	RDG	CC	RDG	RDG
3N20	130	--	5.2	9.0	a
3N21		--		8.0	a
3N22	138	150	7.3	8.5	a
4N4	136.8	--	5.2	7.0	a
4N6.5		1000		80.0	45.0
4N5		--		5.5	a
4N7		--		6.0	a
4N13	165.3	--	7.6	8.5	a
4N19	173.2	--	8.7	9.5	a
4N20	130	--	5.2	5.5	a
4N22	154	--	6.7	8.0	a
5N13	173.2	--	8.7	9.5	a
5N15		--		9.5	a
5N16	200.1	--	9.7	11.0	a
5N18		--		10.5	a
5N19	130	--	5.2	9.5	a
5N20		--		6.5	a
5N21		--		6.0	a
5N23	138	--		6.5	a
6N3	154	--	6.7	9.0	a
6N7	123.1	140	4.5	9.0	a
6N8	177.7	--	9.3	9.5	a
6N9		--		9.5	a
6N11	173.2	--	8.7	9.5	a
6N12					a
6N13					a
6N14					a

FIDLER DATA

Environmental Restoration Program

OPERABLE UNIT 5
OPERATIONAL AREA PHASE I INVESTIGATION
NON-AOC FIELD REPORT

MOUND PLANT
MIAMISBURG, OHIO

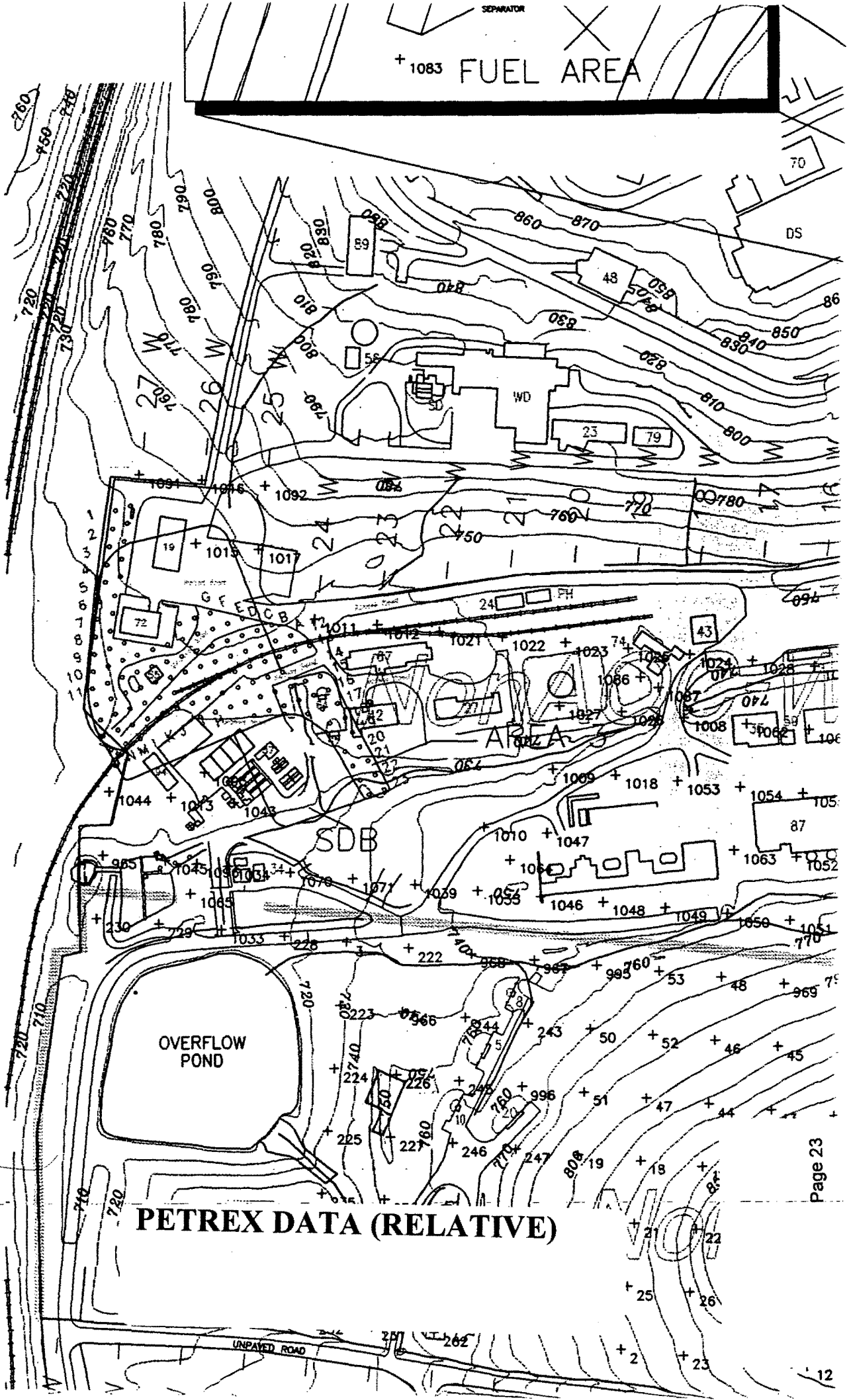
VOLUME II - APPENDICES A-G

June 1995

Final (Revision 0)

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies



PETREX DATA (RELATIVE)

PETREX DATA (RELATIVE)

Table 1 (cont'd)

Sample #	Total Aromatic Hydrocarbons (a)	Total Semivolatile Hydrocarbons (b)	Total C5 to C11 Petroleum Hydrocarbons (c)	Total Halogenated Hydrocarbons (d)
216	583,402	20,316	924,070	ND
217	131,197	ND	176,572	ND
2217 (e)	111,173	1,591	158,499	1,476
218	769,932	8,507	1,622,856	ND
219	175,145	71,014	830,559	ND
220	T	ND	T	ND
221	57,961	ND	85,895	ND
222	125,575	ND	281,182	ND
223	508,222	ND	1,263,111	8,783
225	107,925	1,173	185,399	ND
226	503,834	ND	952,251	ND
227	71,884	ND	107,932	ND
228	45,925	ND	97,090	ND
229	1,044,786	ND	2,338,352	ND
230	104,747	ND	242,338	1,148
232	79,236	ND	177,211	ND
233	905,196	ND	1,575,045	ND
234	491,167	ND	898,007	15,907
235	445,896	ND	875,540	13,307
236	1,461,063	ND	1,706,548	ND
237	80,748	ND	147,205	ND
238	30,460	ND	32,482	ND
239	4,568,544	2,635	8,946,541	2,330,151
240	436,154	ND	860,642	61,580
241	24,929	ND	61,916	ND
242	18,190	ND	18,190	ND
2242 (e)	3,825	ND	3,825	ND

APPENDIX D

RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

	FIDLER SURVEY DATA					MOUND SOIL SCREENING FACILITY DATA			
SMPID	Contamination Criteria CH1	FIDLER Readings CH1	Contamination Criteria CH2	FIDLER Readings CH2	FIDLER Readings Out Channel	Plutonium - 238		Thorium - 232	
	Units: CPM	Units: CPM	Units: KCPM	Units: KCPM	Units: KCPM	Units: pCi/g		Units: pCi/g	
	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	Note:	RESULTS	Note:
04N06	137.8	100	6.5	5.0	NC	0	a	0.3	a
04N6.5	137.8	1000	6.5	80	45	NC		NC	
04N07	137.8	100	6.5	6.0	NC	19	a	0.8	a
04N08	179.4	100	10.92	8.5	NC	0	a	1.1	a
04N13	170.3	130	9.72	8.5	NC	13	a	0.7	a
04N14	170.3	110	9.72	6.0	NC	16	a	1.4	a
04N15	179.4	170	10.92	8.5	NC	19	a	1.2	a
04N16	179.4	140	10.92	8.0	NC	31	b	0.8	a
04N17	179.4	170	10.92	8.0	NC	15	a	1	a
04N18	179.4	160	10.92	8.5	NC	37	b	1	a
04N19	179.4	150	10.92	9.5	NC	35	b	1.5	a
04N20	130	75	6.5	5.5	NC	21	a	1.1	a
04N21	130	50	6.5	4.5	NC	11	a	0.1	a
04N22	157.3	120	8.45	8.0	NC	0	a	0.9	a
04N23	139	100	9.23	6.5	NC	16	a	0.6	a
05N02	253.5	115	[illegible]	[illegible]	[illegible]	[illegible]		1.2	a
05N03	253.5	95						1.3	a
05N04	253.5	115						1.1	a
05N05	253.5	105						0.8	a
05N06	184.6	70						0.3	a
05N07	184.6	160						0.8	a
05N08	184.6	125	11.7	8.5	NC	18	a	1.2	a
05N13	179.4	145	10.92	9.5	NC	16	a	1.2	a
05N14	179.4	120	10.92	7.0	NC	25	b	0.2	a
05N15	179.4	140	10.92	9.5	NC	41	b	0.5	a
05N16	210.6	140	12.22	11.0	NC	16	a	1.1	a
05N17	210.6	145	12.22	9.0	NC	18	a	1	a
05N18	210.6	165	12.22	10.5	NC	39	b	0.8	a
05N19	130	105	6.5	9.5	NC	7	a	0.9	a

MOUND SOIL SCREEN DATA

APPENDIX D

RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FO

NON-AOC POINTS

	MOUND SOIL SCREENING FACILITY DATA			
SMPID	Plutonium - 238		Thorium - 232	
	Units: pCi/g		Units: pCi/g	
	RESULTS	Note:	RESULTS	Note:
	SOIL SCREENING SAMPLES			
	ADDITIONAL LOCATIONS IN NON-AOC			
13.25N06	2	a	0.4	a
13.5N15	20	a	0.8	a
13N22.5	12	a	0.3	a
14.3N13	14	a	0.8	a
2.5N18	13	a	1.3	a
21.5N2.5	25	b	1	a
OS5W	16	a	0.7	a
4.5N7.5	2	a	1	a
	SOIL SAMPLES			
BB1001	8	a	0.4	a
BB2001	6	a	0.6	a
BB3001	5	a	0.7	a
BB4001	3	a	0.5	a
BB5001	7	a	0.1	a
BB6001	4	a	0.5	a
BB7001	8	a	0.4	a
	BUILDING 24			
17001	9	a	1.2	a
17002	15	a	1.1	a
18001	38	b	6.7	b
18002	18	a	1.3	a
19001	6	a	0.4	a
19002	0	a	0.3	a
20001	2	a	0.3	a
20002	11	a	0.5	a
	WELL W410			
B41001	17	a	0.7	a
B41002	0	a	0.8	a

a - Mound Soil Screening Facility detection level not exceeded.
b - Concentration at or above the Mound Soil Screening Facility detection level.
c - Results of the wipe sample were less than 20 disintegrations per minute.
CPM - Counts per minute
KCPM - Counts per minute x 1000
pCi/g - Picocuires per gram