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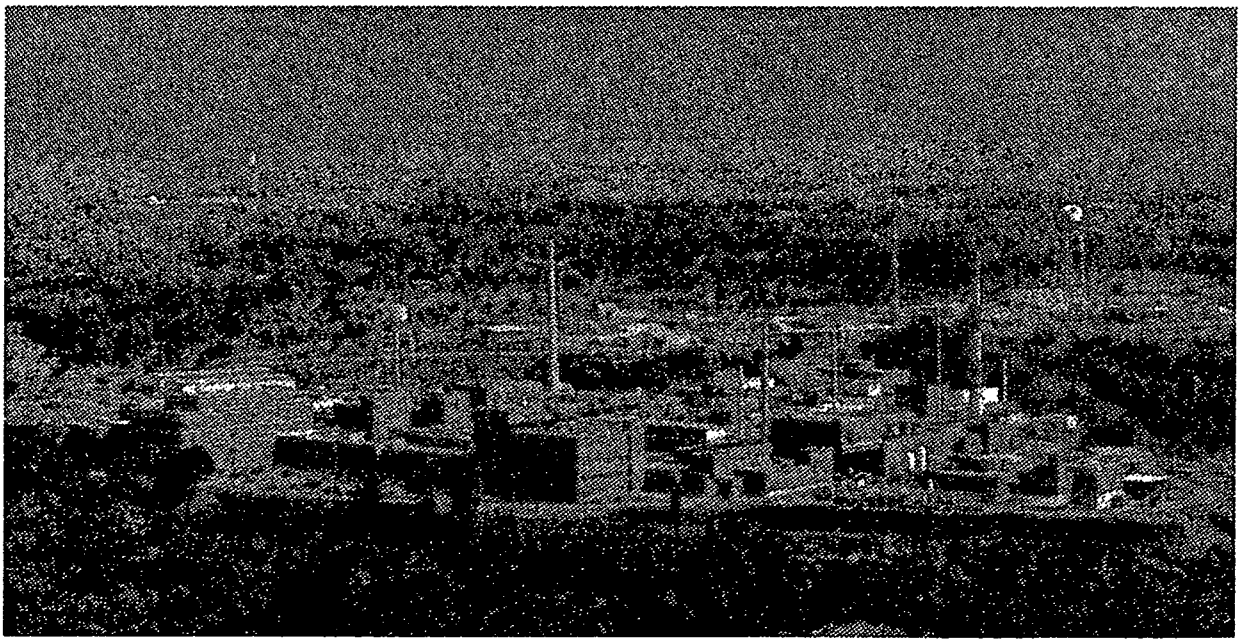
MOUND

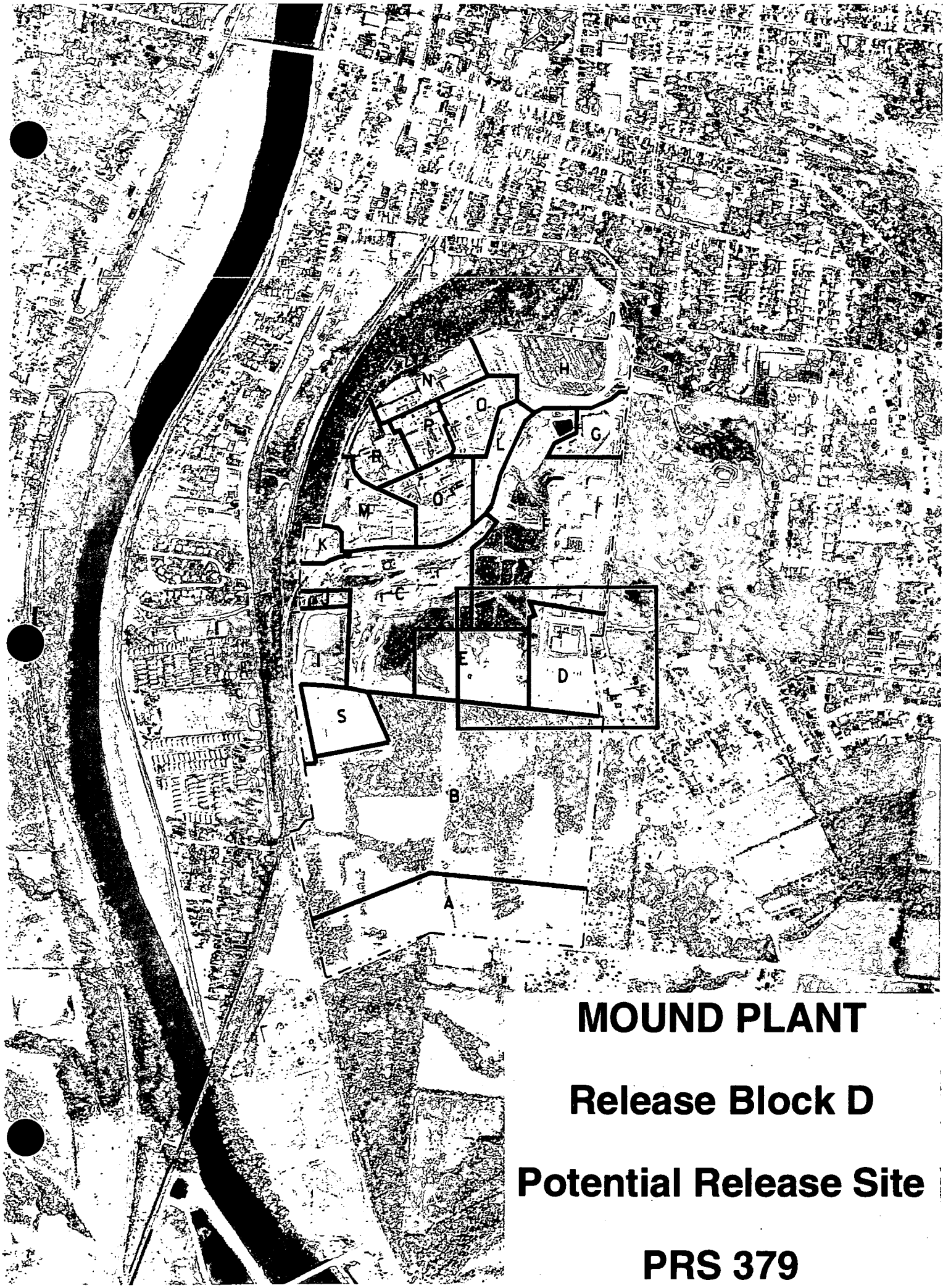
Environmental
Restoration
Program

MOUND PLANT
Potential Release Site Package
PRS # 379



PRS 379

REV	DESCRIPTION	DATE
PUBLIC RELEASE **0**	Available for comment.	**Oct. 18, 1995**
FINAL **1**	Comment period expired. No comments. Recommendation page annotated.	**Oct. 10, 1996**

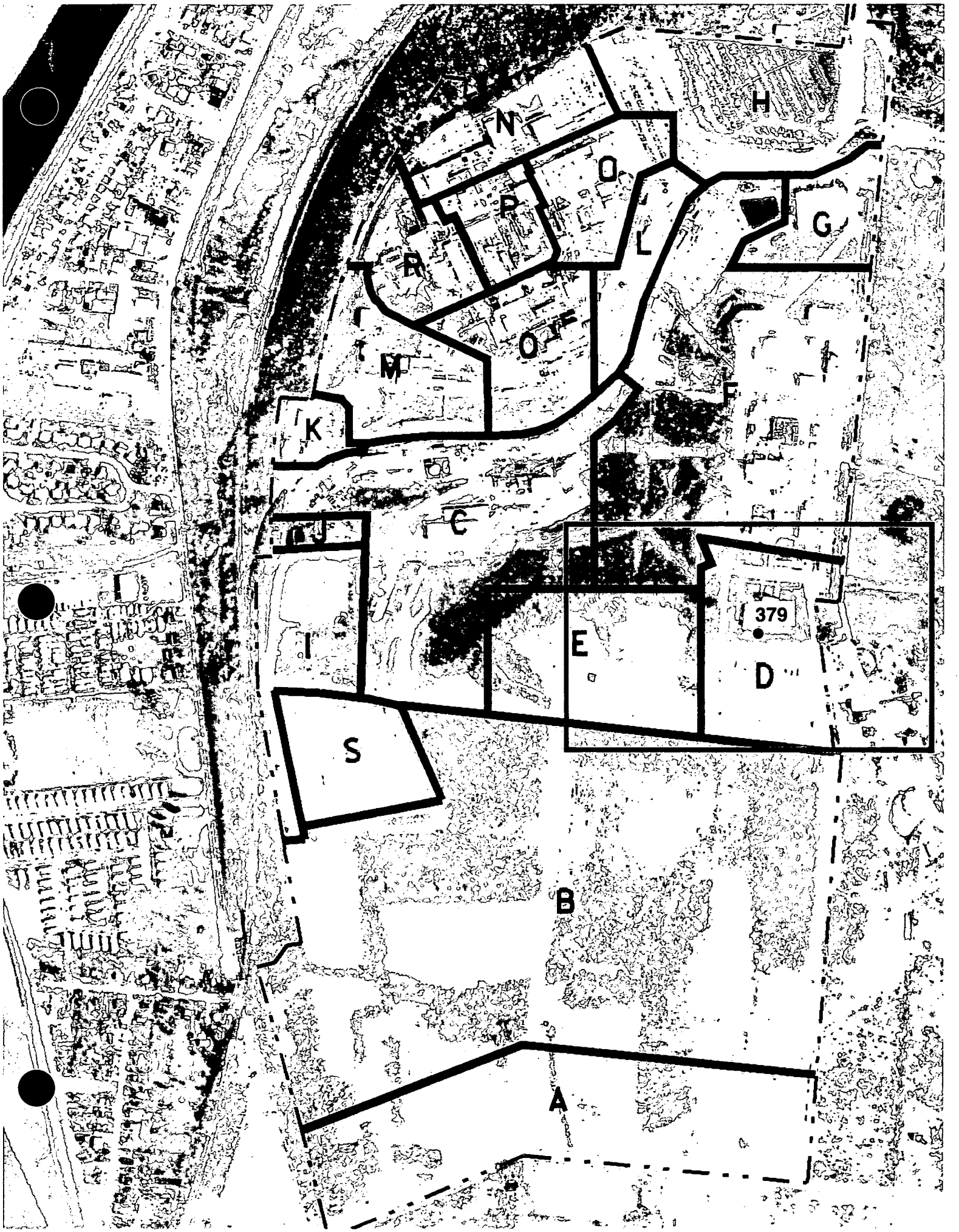


MOUND PLANT

Release Block D

Potential Release Site

PRS 379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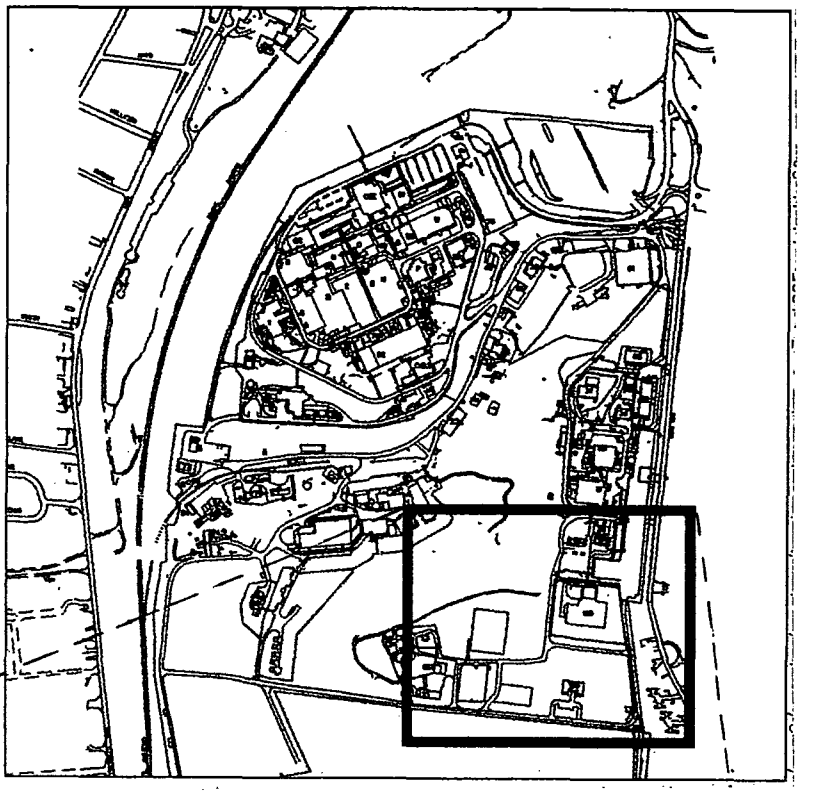
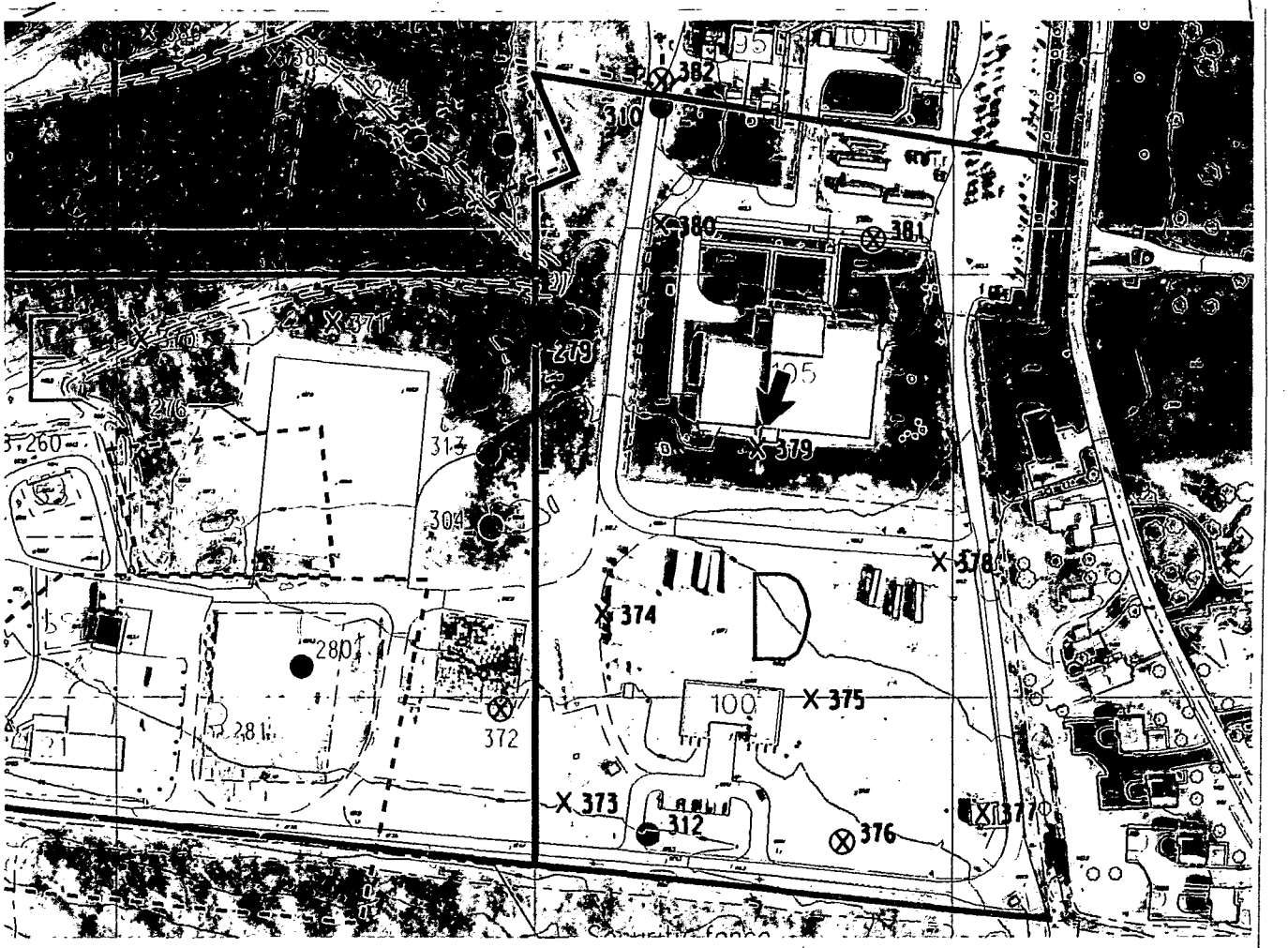
MOUND PLANT

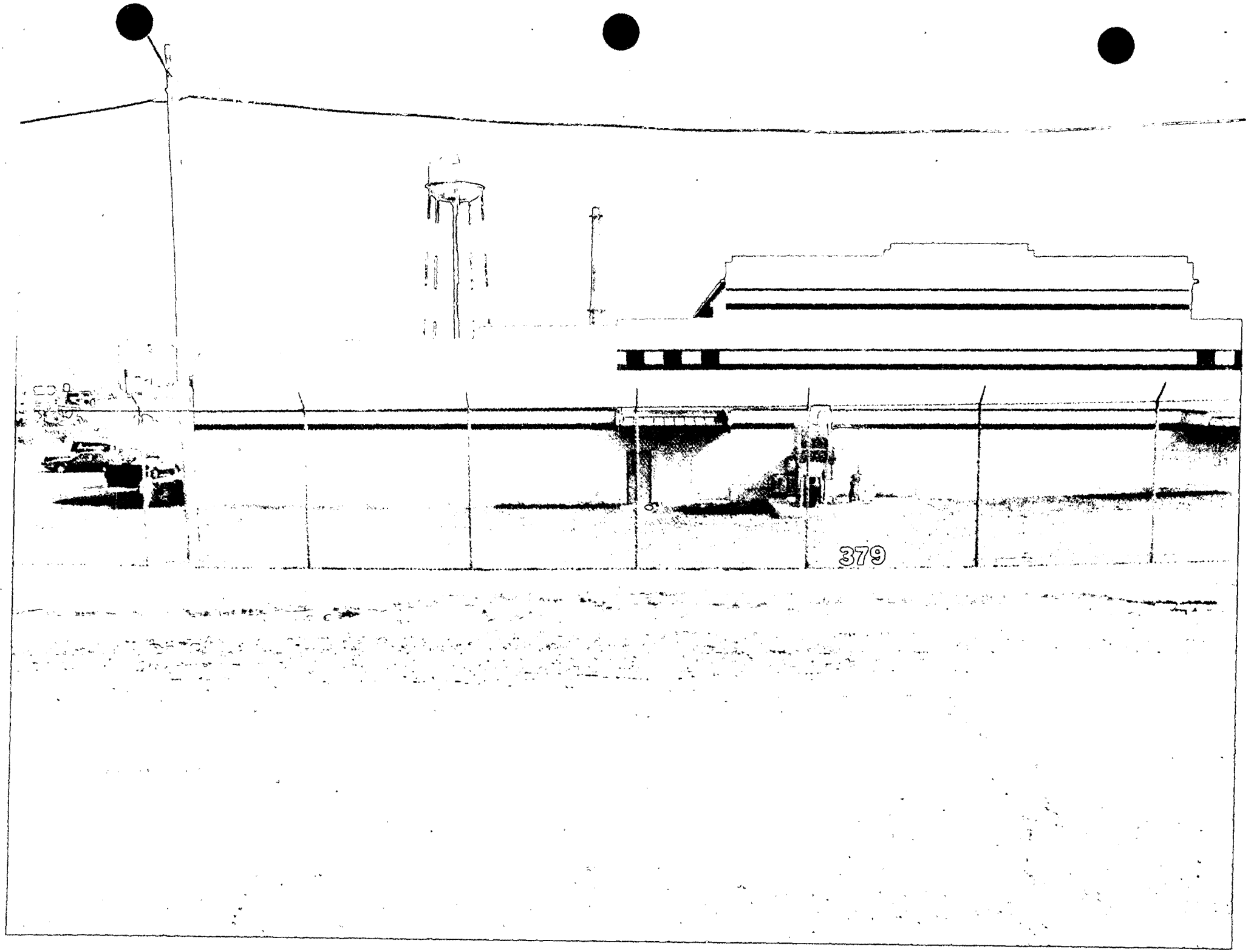
Release Block D

Potential Release Site

PRS 379






379

MOUND PLANT
PRS 379

PRS HISTORY:	Isolated plutonium (Pu-238) hot spot identified during the OU-5 Non-AOC (Area of Concern) Phase 1 activities (location 05N04).[1]
PROCESS DESCRIPTION:	No radioactive or hazardous waste generating processes are known to have occurred at this location. Based on historical activities in nearby buildings, only isolated activity from plutonium (and/or thorium) may be expected.
CONTAMINATION:	Contamination levels were 1.1 pCi/g Thorium (Th-232) and 27 pCi/g Pu-238 in a surface sample. Nearby Phase 1 locations had comparable Th-232 concentrations and all Pu-238 concentrations less than 25 pCi/g These samples were taken in 1994. The OU-5 Phase 1 soil gas sampling in this area showed nosignificant readings for organics.
READING ROOM REFERENCES:	1) OU-5 Operational Area Phase I Investigation, Non-AOC Field Report (Draft), March 1995. (pages 5-11)
PREPARED BY:	Richard Neff, DOE Techical Support Staff Joseph C. Geneczko, Member of EG&G Technical Staff George Liebson, Member of EG&G Technical Staff

MOUND PLANT
PRS379
AUGUST 3, 1995

RECOMMENDATION: No further action. PRS 379 consists of an isolated plutonium hot spot of 27 pCi/g, which is well below the 75 pCi/g cleanup level for plutonium in the OU-4 canal. This cleanup value is based on a recreational land use scenario and has public consensus. Additionally, any exposure pathway would further reduce the concentration of the hot spot. Therefore, PRS 379 is not a site problem.

CONCURRENCE:

DOE: Arthur W. Klemmetsen 10/18/95

USEPA: Timothy J. Fritz 10/18/95

OEPA: [illegible] 10/18/95

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 3/15/96 to 4/15/96.

☒ No comments were received during the comment period.

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

REFERENCE MATERIAL

FOR

PRS 379

Environmental Restoration Program

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

MOUND PLANT
MIAMISBURG, OHIO

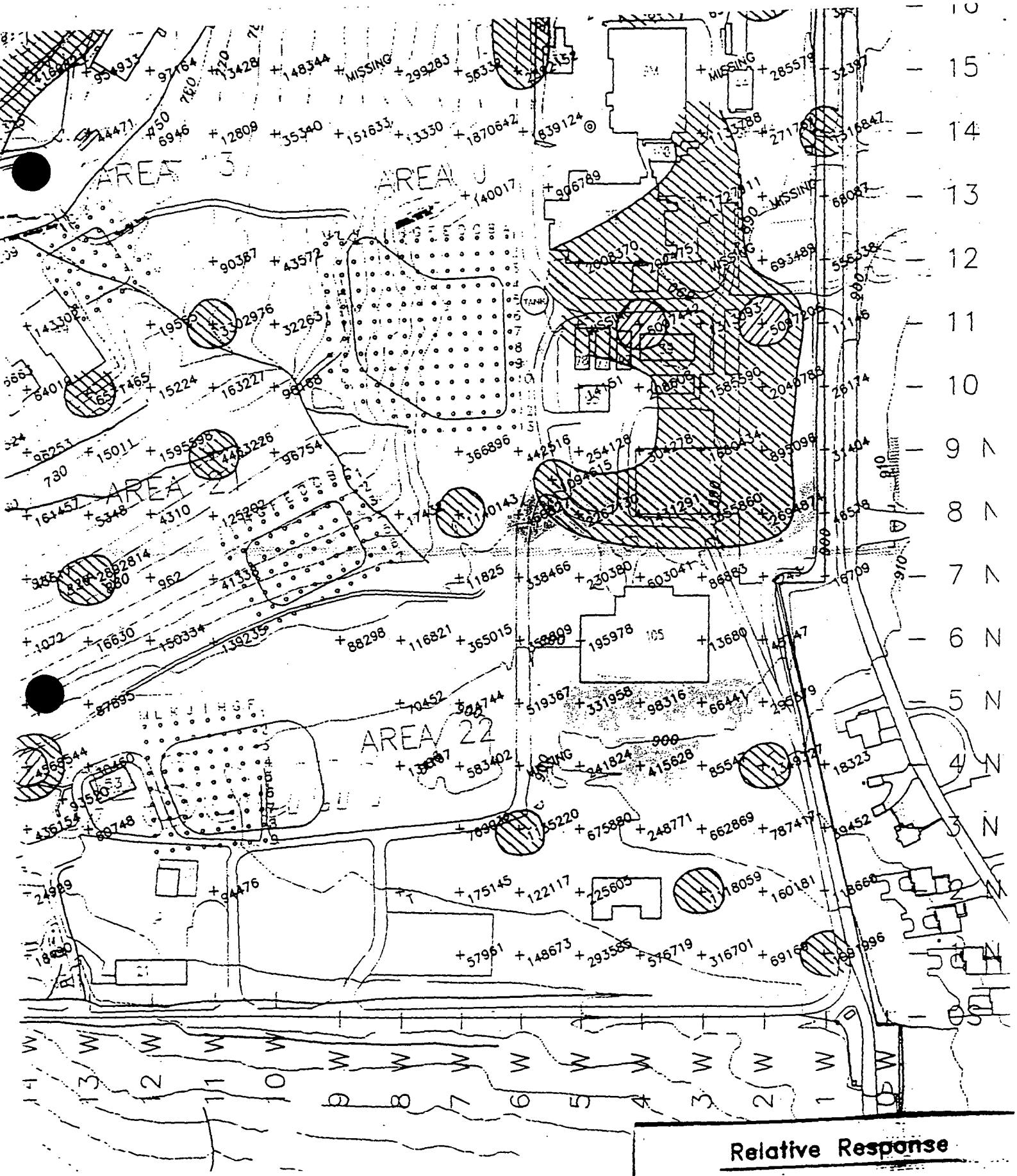
VOLUME II - APPENDICES A-G

March 1995

Draft

U.S. Department of Energy
Ohio Field Office

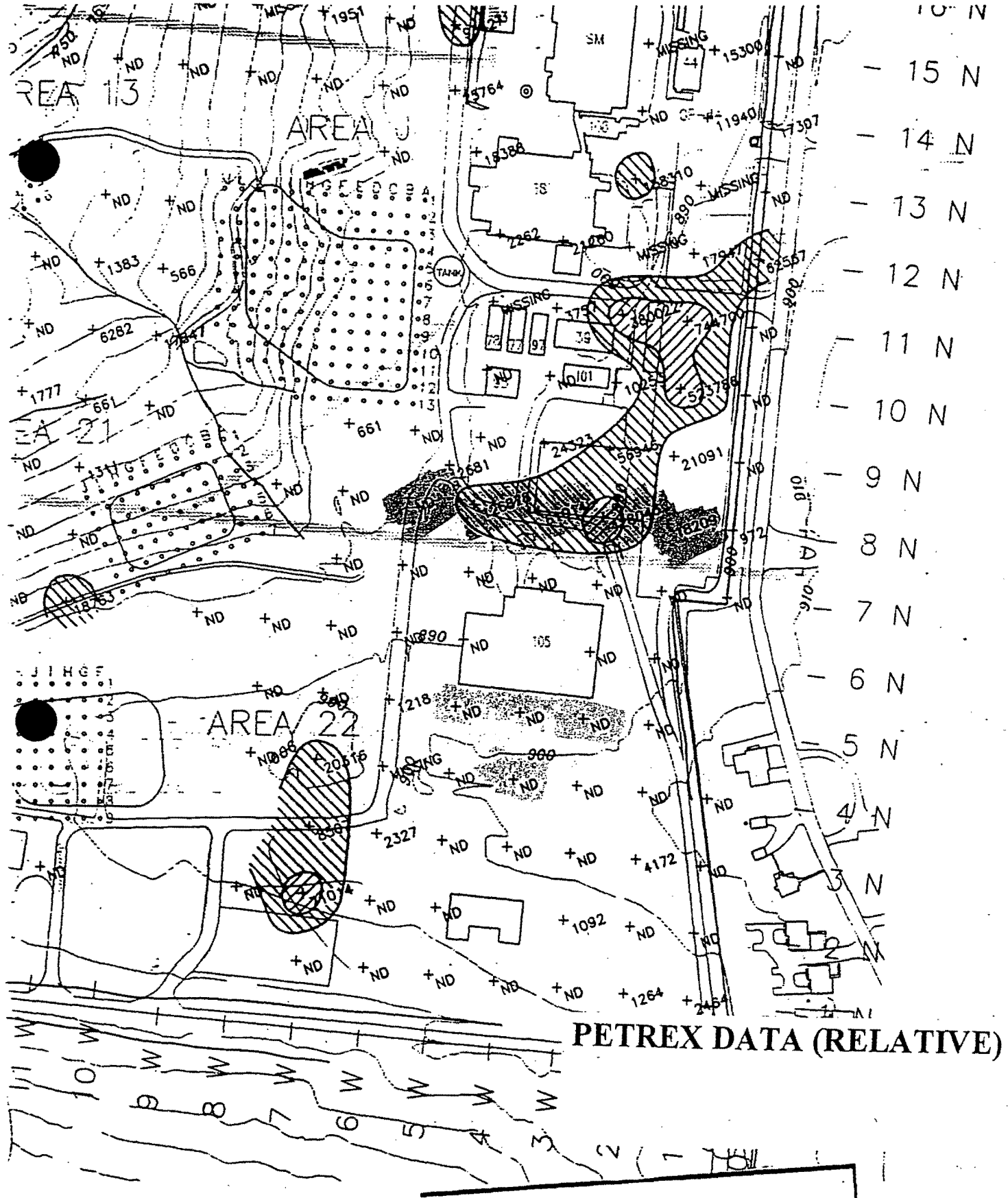
EG&G Mound Applied Technologies



PETREX DATA (RELATIVE)

Relative Response

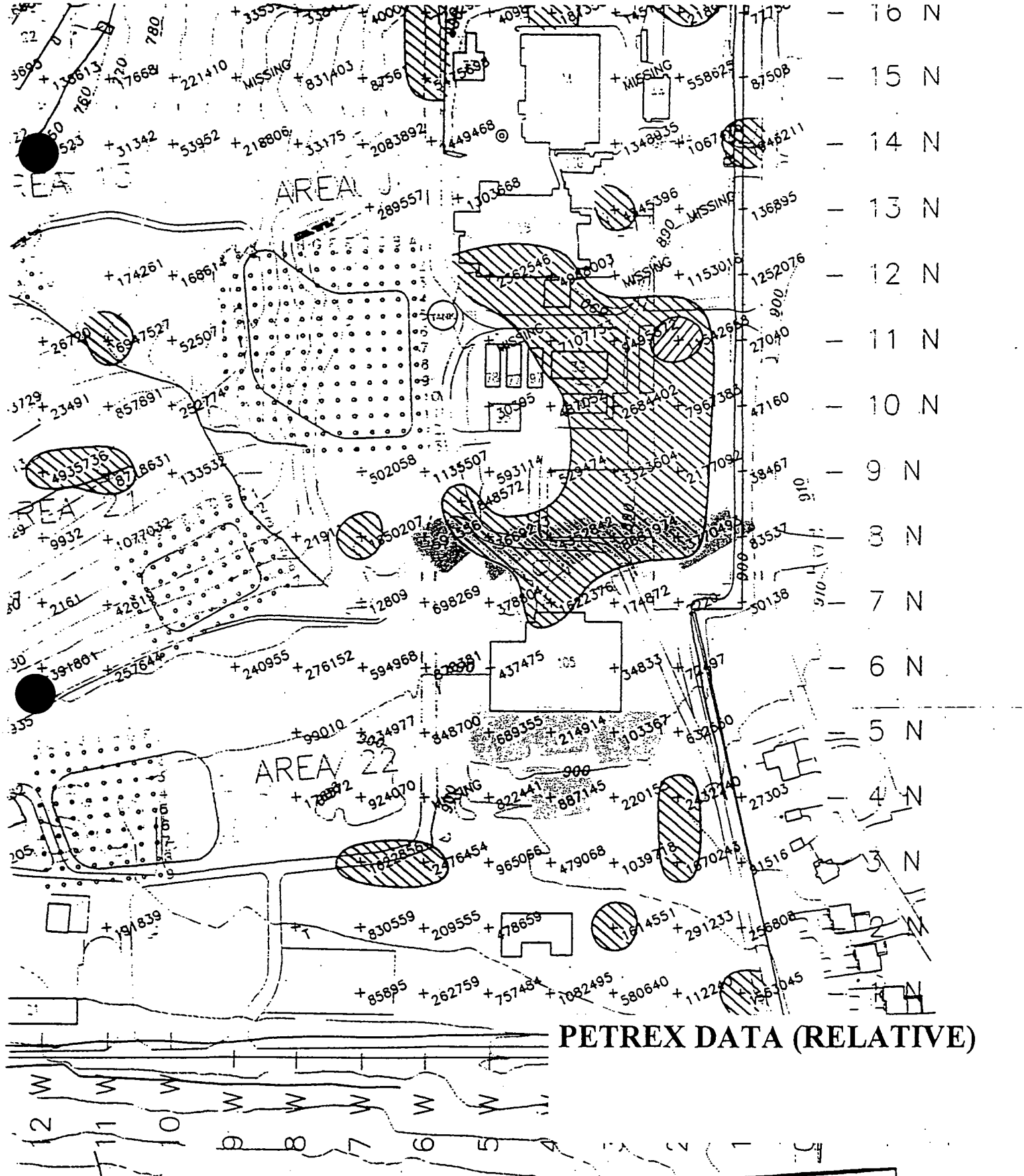
Total ~~Aromatic~~
~~Hyd~~



Relative Response

Total Semivolatile Hydrocarbons

Plate 3

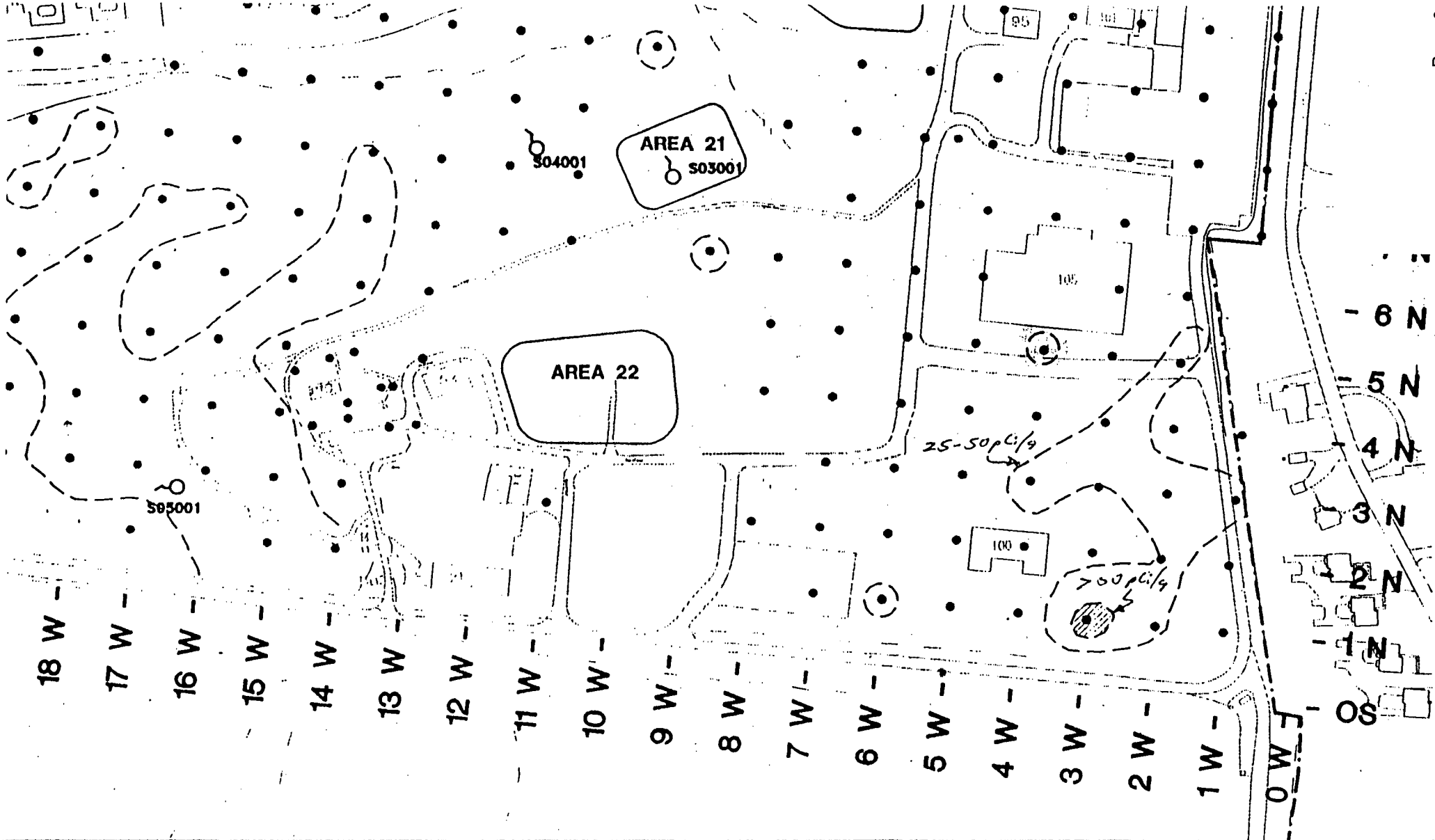


PETREX DATA (RELATIVE)

Relative Response

Total C5-C11
Petroleum Hydrocar

Plate 4



TITLE:

E 3

LOCATIONS OF ELEVATED SURFACE SOIL PU-238 ACTIVITY

Structures

Monitoring Well

AREAS OF SPECIAL INTEREST AND ADDITION

Surface Soil Sampling Locations

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	12.48	9.0	NC	30	b	1.2	a
05N03	253.5	95	12.48	5.5	NC	16	a	1.3	a
05N04	253.5	115	12.48	7.5	NC	27	b	1.1	a
05N05	253.5	105	12.48	7.0	NC	1	a	0.8	a
05N06	184.6	70	11.7	4.0	NC	0	a	0.3	a
05N07	184.6	160	11.7	6.5	NC	0	a	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) 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:
02N18	179.4	170	10.92	9.5	NC	40	b	1	a
02N19	179.4	150	10.92	10.0	NC	20	a	1	a
02N20	130	85	6.5	6.5	NC	18	a	1.3	a
02N21	130	90	6.5	6.5	NC	NR		NR	
02N22	179.4	115	10.92	7.0	NC	21	a	0.8	a
02N23	179.4	80	10.92	6.5	NC	15	a	1	a
03N01	113	105	8.06	6.5	NC	38	b	0.7	a
03N02	152	145	8.45	8.5	NC	49	b	0.9	a
03N03	152	150	8.45	8.5	NC	25	b	1	a
03N04	152	150	8.45	9.0	NC	31	b	0.8	a
03N05	137.8	100	6.5	7.0	NC	9	a	0.9	a
03N06	137.8	100	6.5	6.0	NC	21	a	0.7	a
03N07	137.8	100	6.5	5.0	NC	13	a	0.8	a
03N13	170.3	90	9.72	6.0	NC	6	a	0.6	a
03N14	170.3	75	9.72	5.5	NC	9	a	0.5	a
03N15	210.6	150	12.22	9.5	NC	28	b	1.4	a
03N16	210.6	155	12.22	10.0	NC	36	b	0.8	a
03N17	210.6	150	12.22	10.5	NC	35	b	0.8	a
03N18	210.6	150	12.22	10.0	NC	46	b	0.7	a
03N19	179.4	160	10.92	9.0	NC	19	a	1.1	a
03N20	130	80	6.5	9.0	NC	24	a	1.6	a
03N21	130	100	6.5	8.0	NC	22	a	0.9	a
03N22	139	150	9.23	8.5	NC	1	a	1.1	a
03N23	139	100	9.23	6.5	NC	17	a	0.6	a
04N01	157.2	65	8.45	6.1	NC	0	a	0.8	a
04N02	98.8	70	6.72	4.5	NC	7	a	0.4	a
04N03	98.8	90	6.72	5.0	NC	25	b	0.8	a
04N04	137.8	120	6.5	7.0	NC	10	a	1.1	a
04N05	137.8	110	6.5	5.5	NC	20	a	1	a