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4538

OCT 17 2002

DOE-0028-03

Mr. Michael Murphy, Health Physicist
Air & Radiation Division
United States Environmental Protection Agency
Region 5–AE-17J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Mr. Murphy and Mr. Saric:

REVISION TO THE APPLICATION FOR USE OF THE ENVIRONMENTAL MEASUREMENTS TO DEMONSTRATE COMPLIANCE WITH NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS, SUBPART H, AT THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

Reference: DOE letter from J. Reising to J. Saric and M. Murphy, "Application for Approval to Use Environmental Measurements to Demonstrate Compliance with the National Emission Standards for Hazardous Air Pollutants, Subpart H," dated May 23, 1997

The purpose of this letter is to request approval for the Fernald Environmental Management Project (FEMP) to utilize one background air particulate monitoring location, versus two monitoring locations that have been operated since 1998, for use in demonstrating the site's compliance with National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart H. This letter serves as a follow-up to the September 18, 2002 meeting between FEMP representatives and Mr. James Saric of the United States Environmental Protection Agency (USEPA) where Mr. Saric concurred with this change contingent upon approval from the USEPA's Air & Radiation Division. The original application for the use of environmental measurements to demonstrate compliance with the NESHAP, 40 CFR, 61, Subpart H included a reference to two background air

monitoring stations, AMS-12 and AMS-16. Please refer to the enclosed map for the location of AMS-12 and AMS-16. These background monitors have been operated and maintained in accordance with the USEPA-approved application and the Integrated Environmental Monitoring Plan (IEMP) since 1998. The FEMP requests approval to eliminate background monitor AMS-16 due to reasons explained below.

As originally designed, the AMS-12 and AMS-16 dual background locations provided a measure of assurance that the background concentrations of airborne particulate would be measured in the event that there were difficulties in maintaining the monitoring equipment or analyzing the samples from a background monitor. Experience has shown that maintaining the monitoring equipment and analyzing the samples is less problematic than originally envisioned. The equipment has operated over 98% of the time over the past five years and there has been minimal loss of data as the reliability and data quality from the contract lab has improved for the analysis of the quarterly composite samples. Based on this experience and the development of a database of typical background concentrations over a four-year span, there is no need to maintain two background monitors. Table 1 provides a summary of the annual average particulate concentrations and the operational performance measured at AMS-12 and AMS-16 from 1998 through 2001.

Beginning January 2003, the FEMP proposes that AMS-12 will be the only background air particulate monitoring location. The AMS-16 would be eliminated as a background monitor based on operational experience, the high quality of background data collected over the past four years, and the continuing development of businesses and light industry near AMS-16, which are creating conditions that are not entirely representative of a background area.

Although the FEMP radon monitoring program is not relevant to NESHAP compliance, the background radon monitor co-located with the AMS-16 particulate monitor would also be eliminated. Based on operational experience and data from 1998 through 2001, the annual average radon concentration at AMS-16 is comparable to the AMS-12 concentration. Table 2 provides a summary of the annual average radon concentrations measured at AMS-12 and AMS-16 from 1998 through 2001. Given this data and the increased development in the vicinity of AMS-16, there is no longer a need to maintain this background radon monitor.

These proposed changes have been incorporated into the draft IEMP, Revision 3, which was submitted to the USEPA and Ohio Environmental Protection Agency (OEPA) for review on October 9, 2002.

If you have any questions concerning this proposal, please contact Kathleen Nickel at (513) 648-3166.

Sincerely,

Johnny Reising

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Nickel

Enclosure: As Stated

cc w/enclosure:
R. J. Janke, OH/FEMP
A. Murphy, OH/FEMP
K. Nickel, OH/FEMP
E. Skintik, OH/FEMP
P. J. Sturdevant, HC-DOES
T. Schneider, OEPA-Dayton
G. Jablonowski, USEPA-V, SRF-5J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:
R. Greenberg, EM-31/CLOV
N. Hallein, EM-31/CLOV
D. Brettschneider, Fluor Fernald, Inc./MS52-5
J. Byrne, Fluor Fernald, Inc./MS90
D. Carr, Fluor Fernald, Inc./MS2
M. Frank, Fluor Fernald, Inc./MS90
T. Hagen, Fluor Fernald, Inc./MS9
W. Hertel, Fluor Fernald, Inc./MS52-5
M. Jewett, Fluor Fernald, Inc./MS52-5
T. Poff, Fluor Fernald, Inc./MS65-2
ECDC, Fluor Fernald, Inc./MS52-7

TABLE 1

ANNUAL AVERAGE AIR PARTICULATE CONCENTRATIONS AT BACKGROUND LOCATIONS

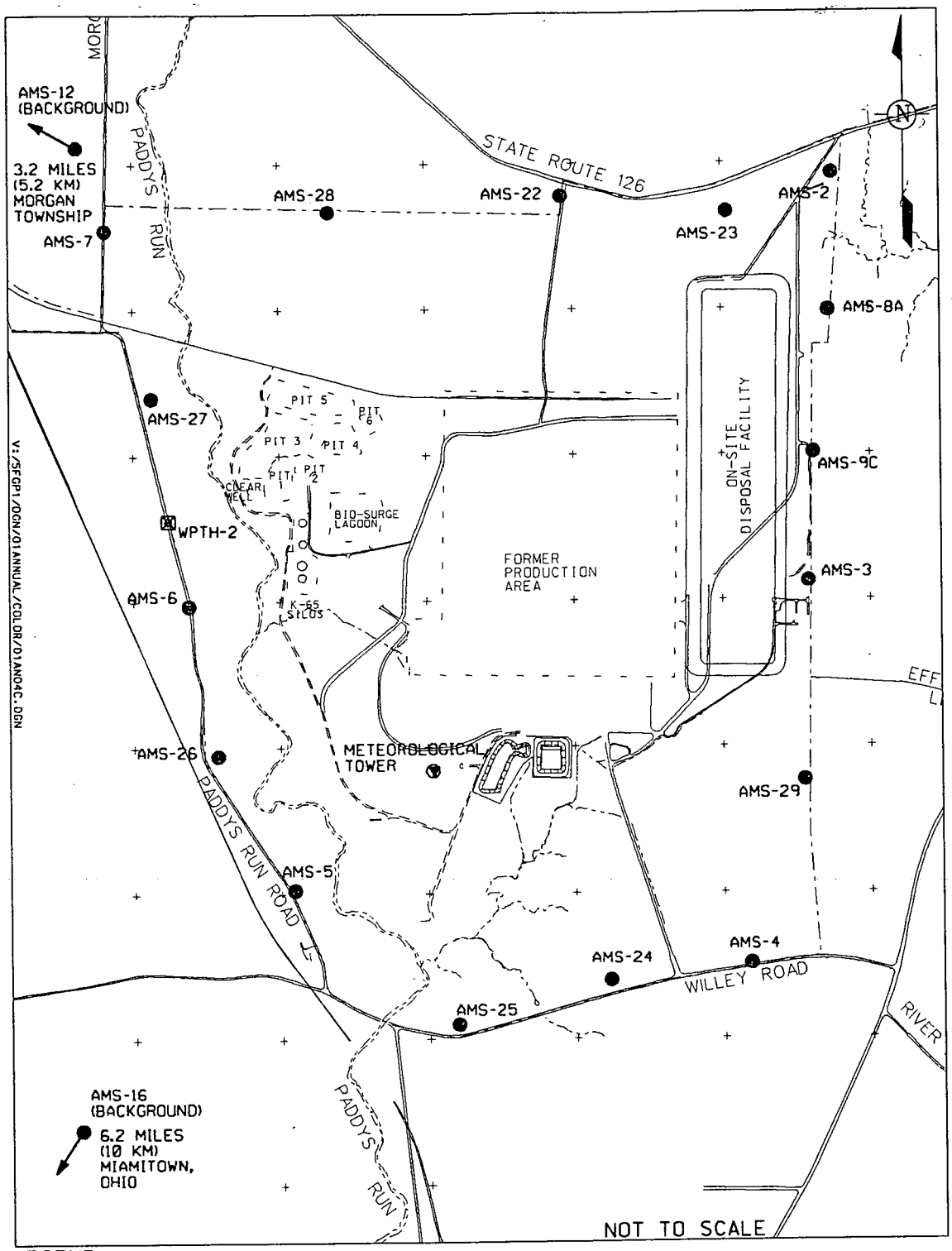
Year & Location	Uranium[a] (pCi/m^3)			Thorium (pCi/m^3)			Radium (pCi/m^3)	Operational Performance (%)[b]
	234	235/236	238	228	230	232	226	
1998								
AMS-12	9.0E-06	4.7E-07	9.7E-06	5.3E-06	5.8E-06	4.8E-06	6.3E-06	98.4
AMS-16	1.6E-05	2.7E-07	1.5E-05	1.4E-06	1.7E-06	1.2E-05	5.1E-06	98.5
1999								
AMS-12	1.0E-05	1.5E-07	9.9E-06	3.6E-06	6.4E-06	3.9E-06	5.1E-06	99.9
AMS-16	1.3E-05	3.5E-07	1.3E-05	8.6E-06	1.4E-06	9.2E-06	2.5E-05	96.8
2000								
AMS-12	5.9E-06	1.9E-07	6.4E-06	5.5E-06	6.1E-06	3.6E-06	6.8E-05	99.4
AMS-16	7.2E-06	ND	7.4E-06	7.7E-06	8.9E-06	6.1E-06	8.0E-05	99.0
2001								
AMS-12	7.0E-06	ND	7.4E-06	4.9E-06	7.5E-06	3.9E-06	1.4E-04	99.9
AMS-16	9.4E-06	4.8E-07	1.1E-05	8.8E-06	9.5E-06	7.2E-06	1.7E-04	98.9

[a]ND – non-detect.
[b]Represents the percent of time the air monitor was operational in comparison to continuous annual operation.

TABLE 2

ANNUAL AVERAGE RADON CONCENTRATIONS AT BACKGROUND LOCATIONS

	Radon Concentration (pCi/L)	
Year & Location	**AMS-12**	**AMS-16**
1998	**0.3**	**0.4**
1999	**0.2**	**0.3**
2000	**0.3**	**0.2**
2001	**0.3**	**0.1**



LEGEND:

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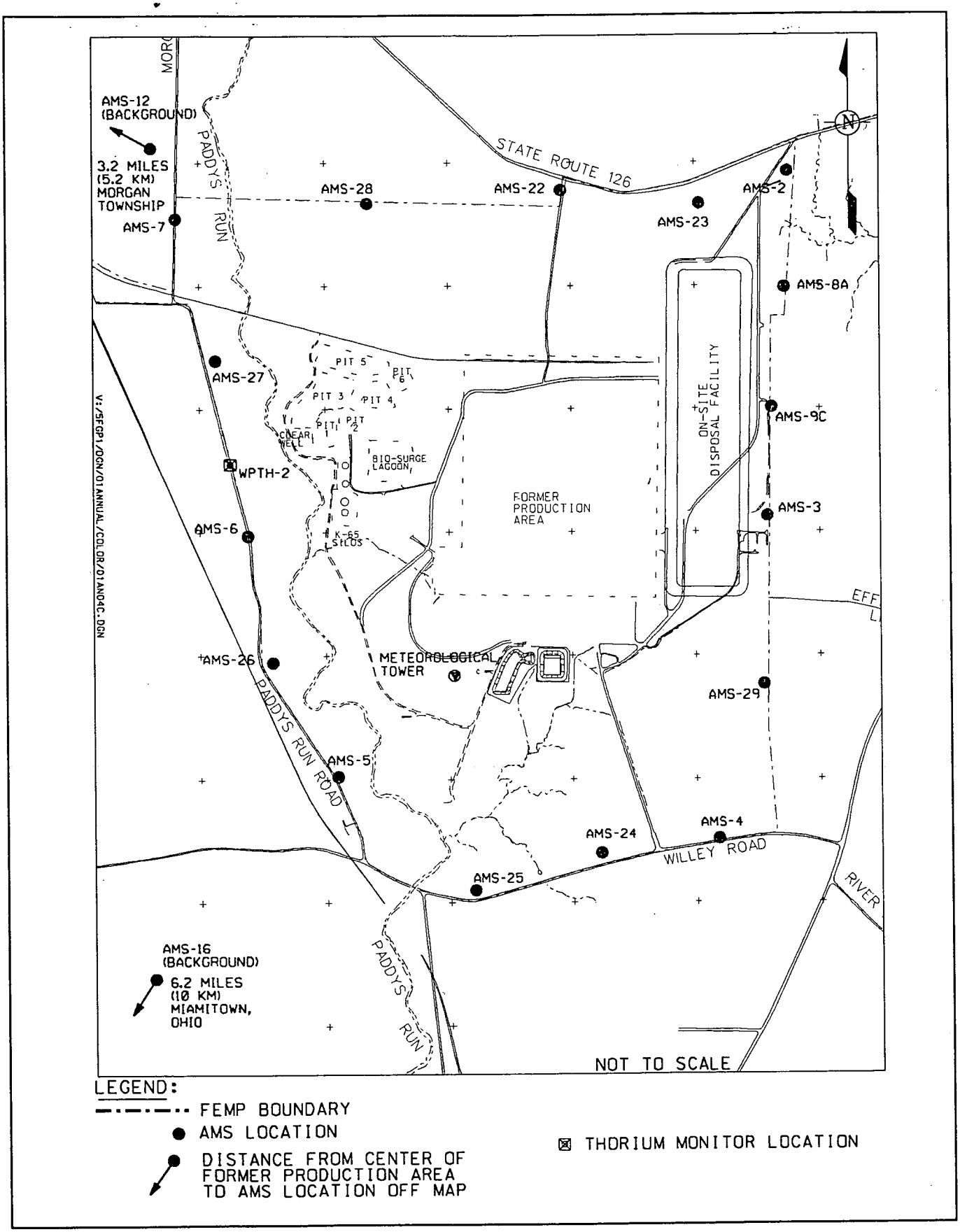
Radiological Air Monitoring Locations



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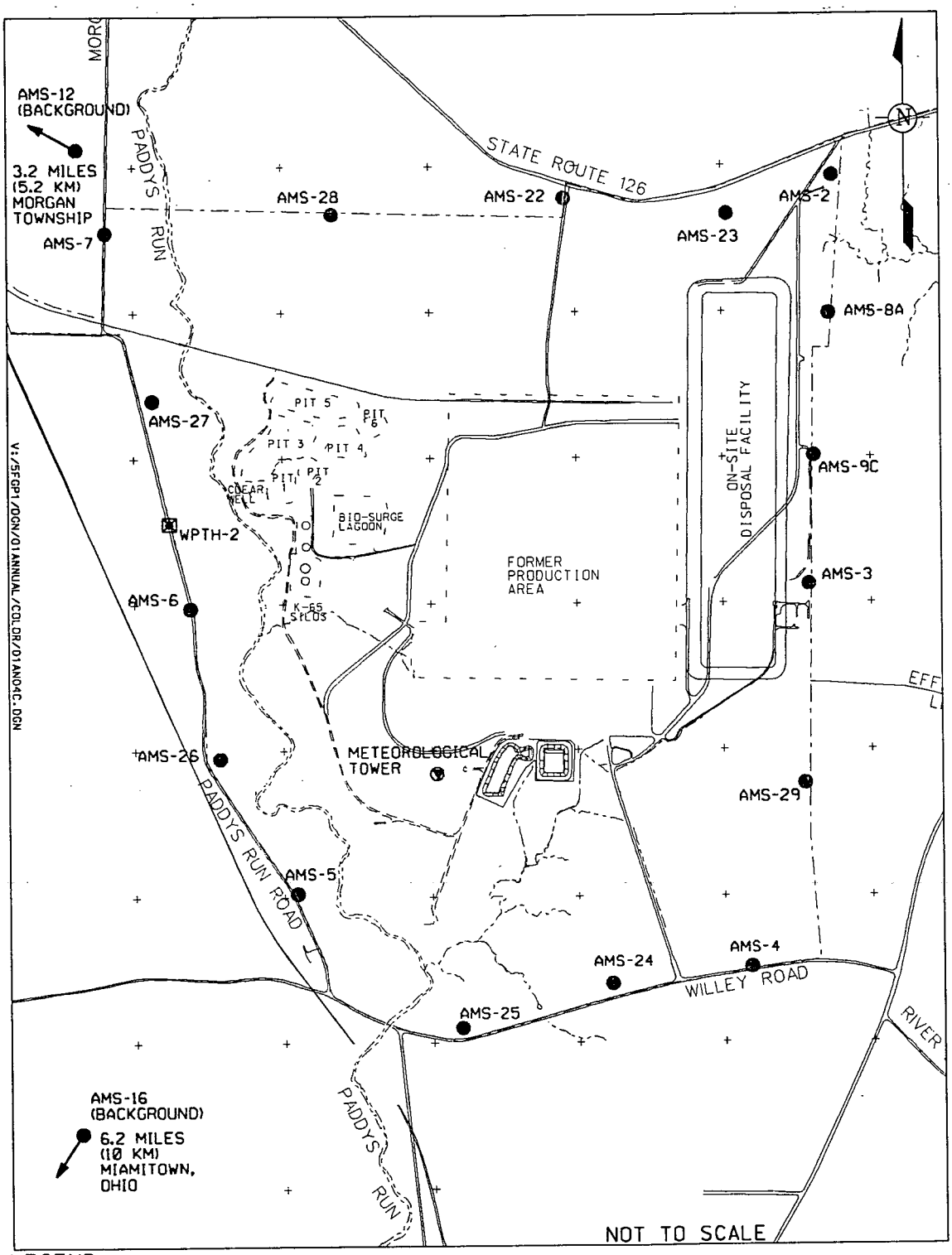

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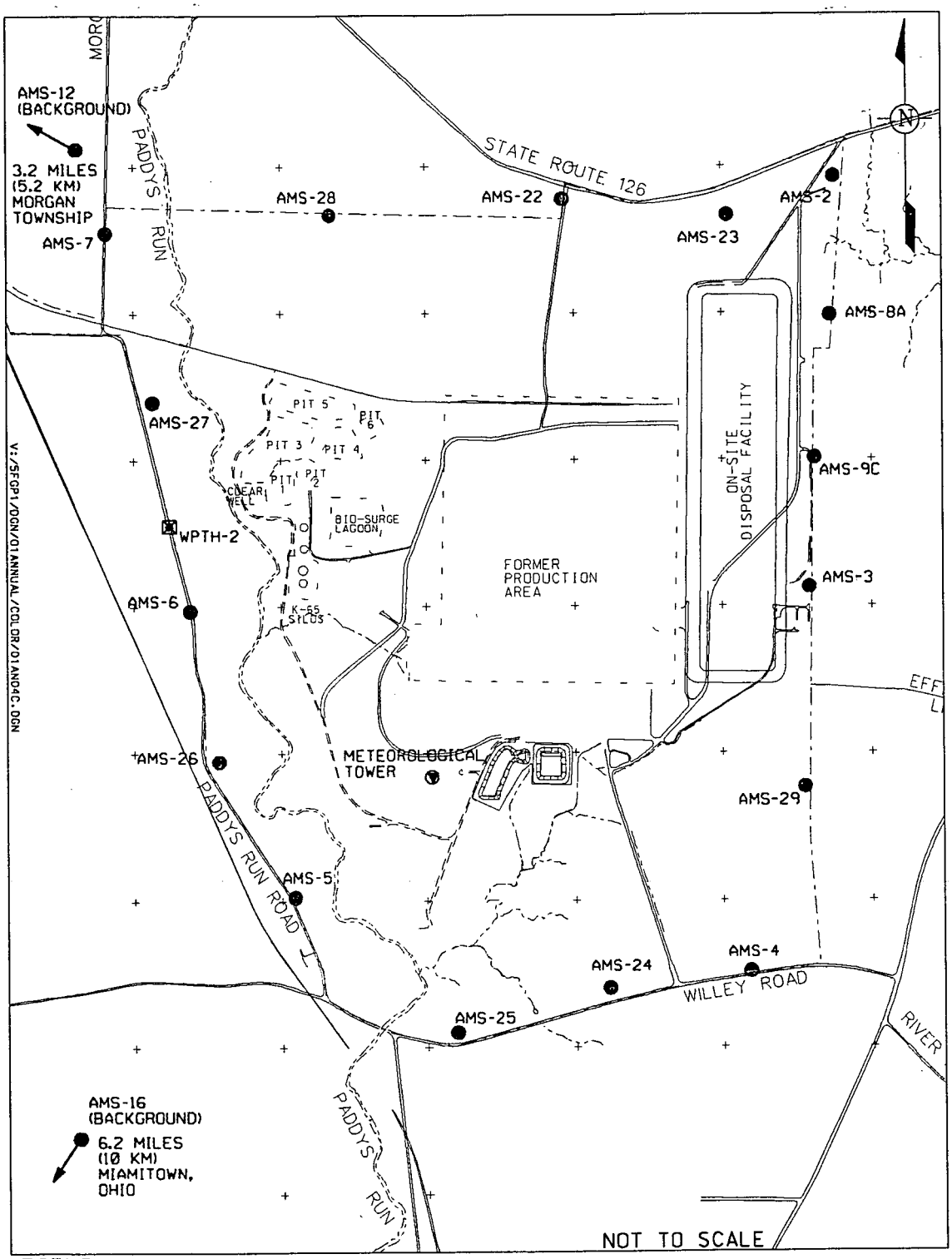

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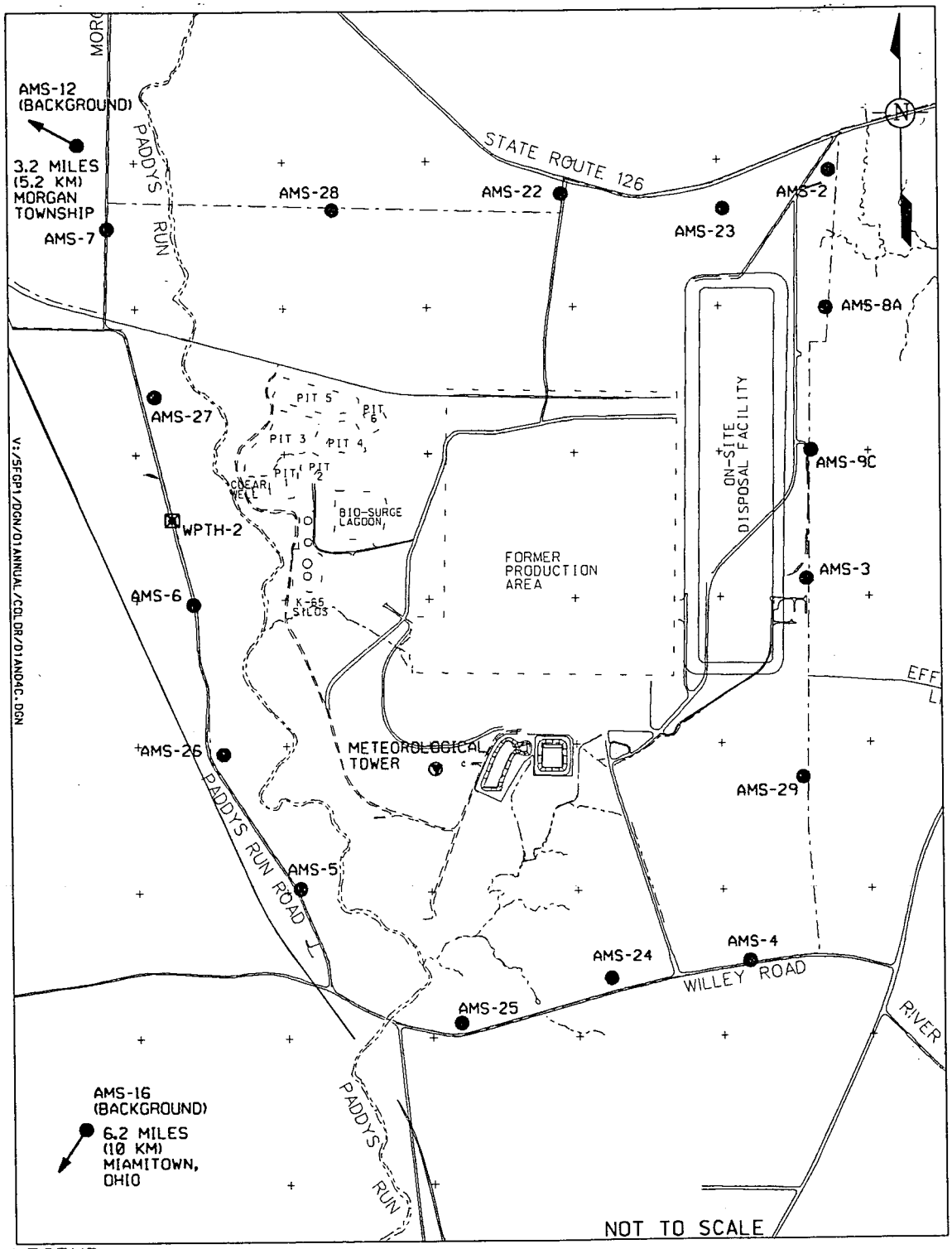

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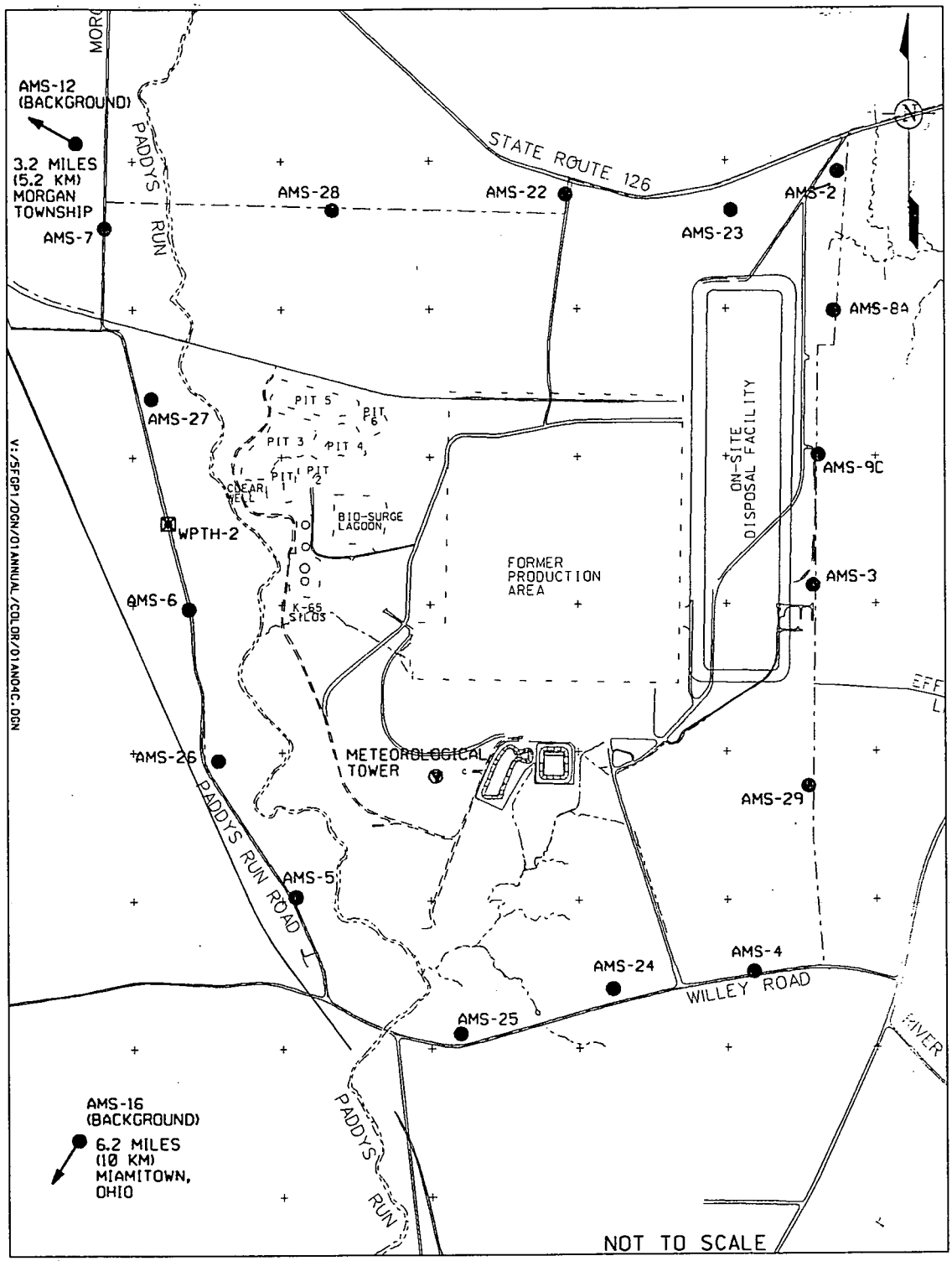

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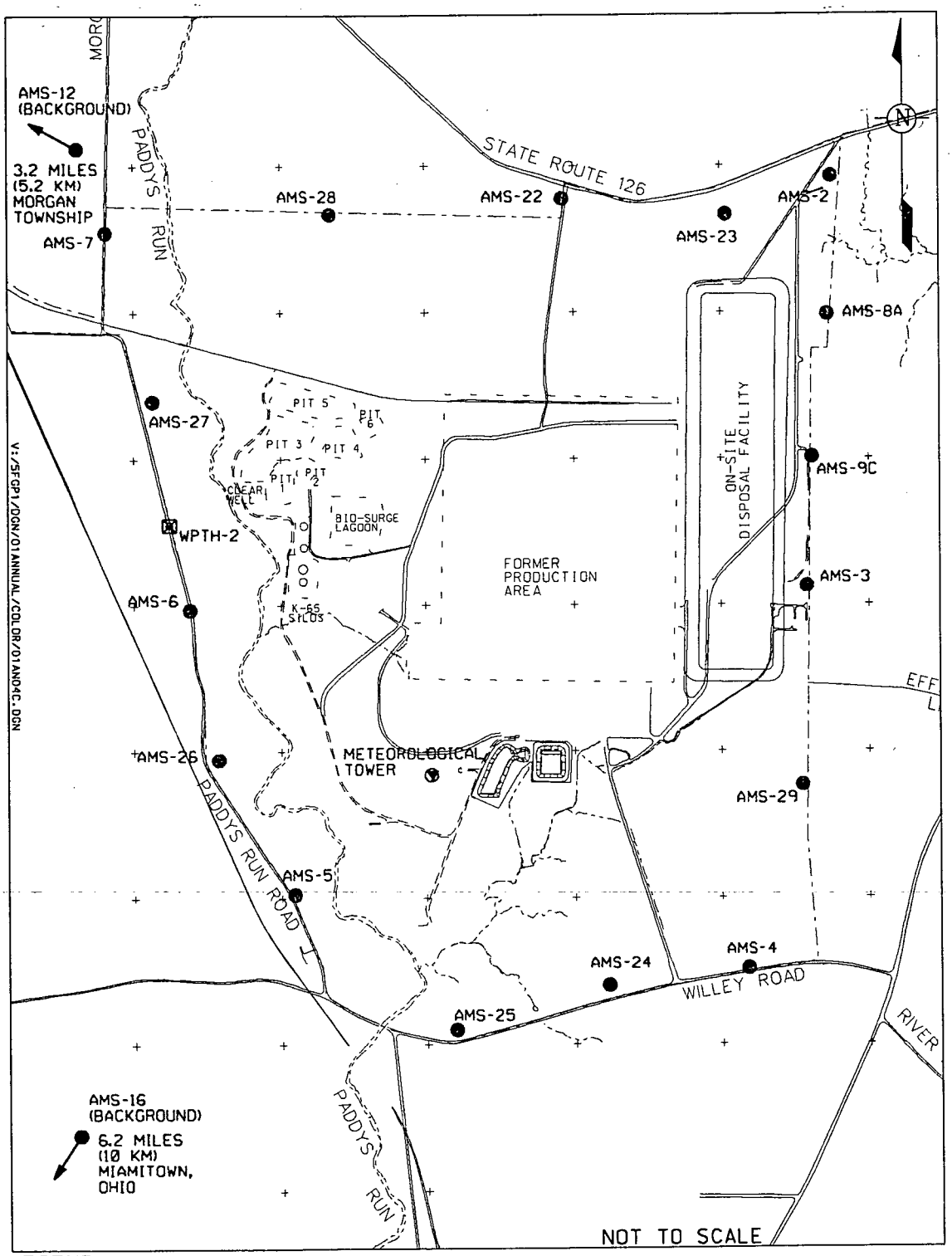

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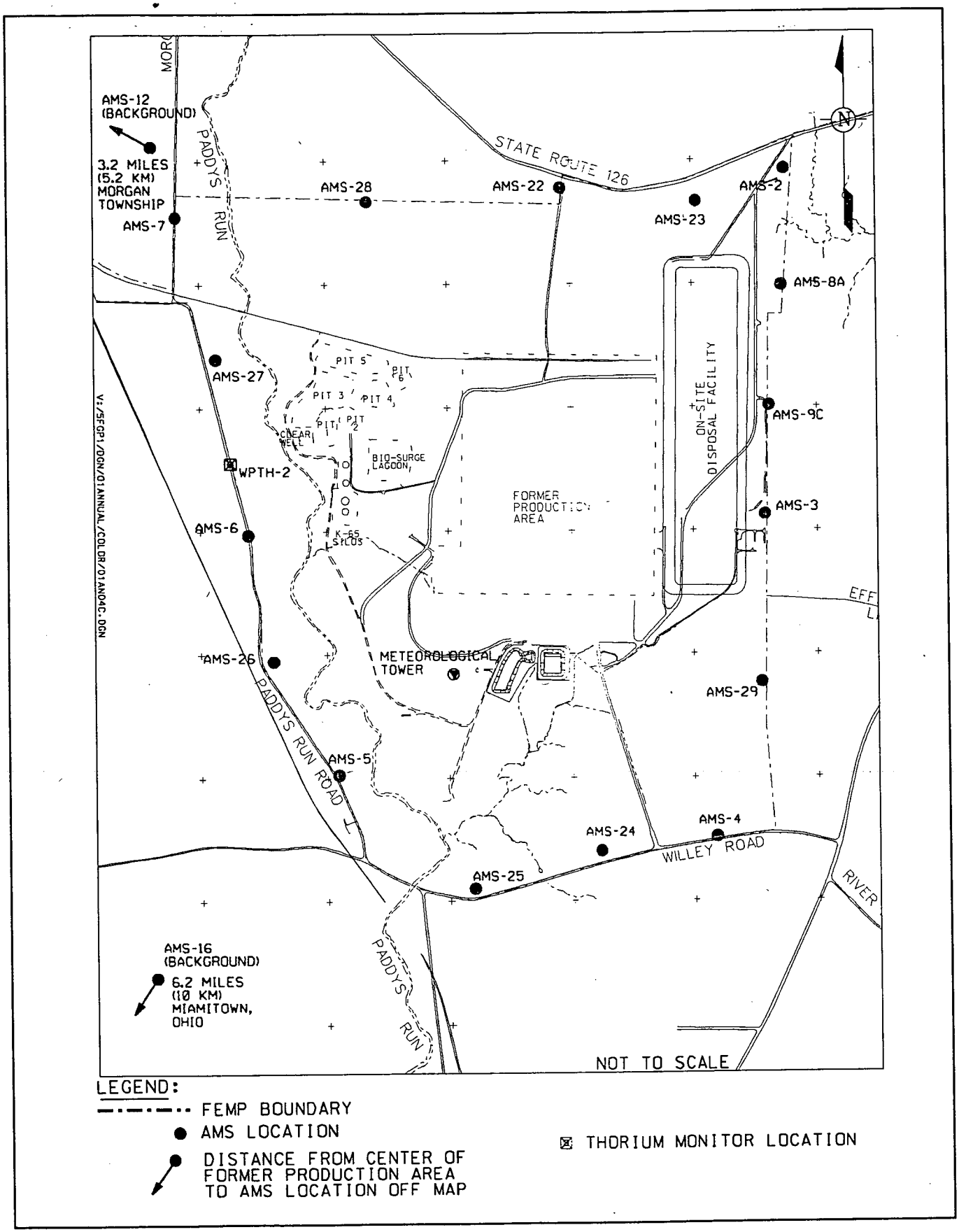

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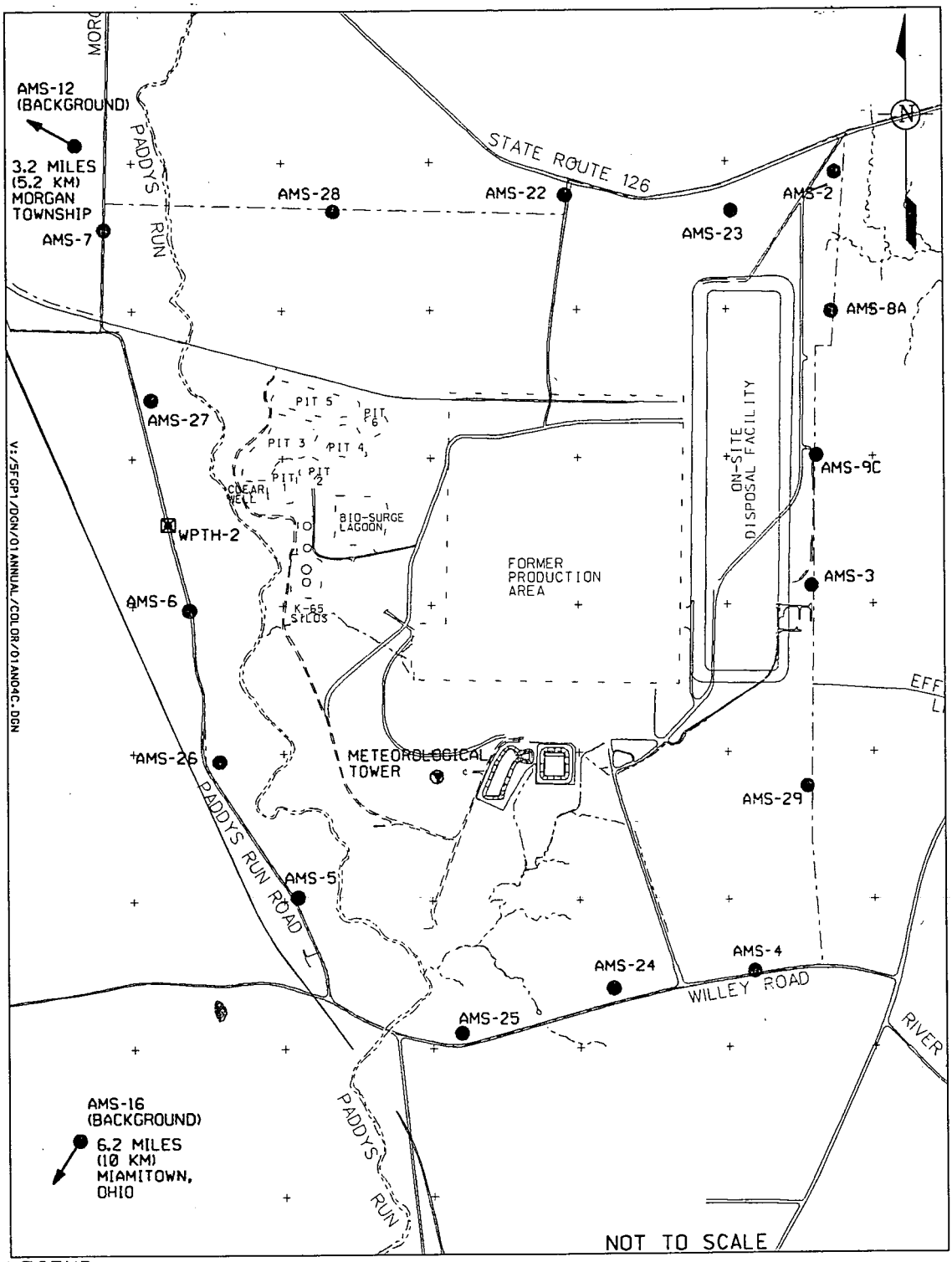

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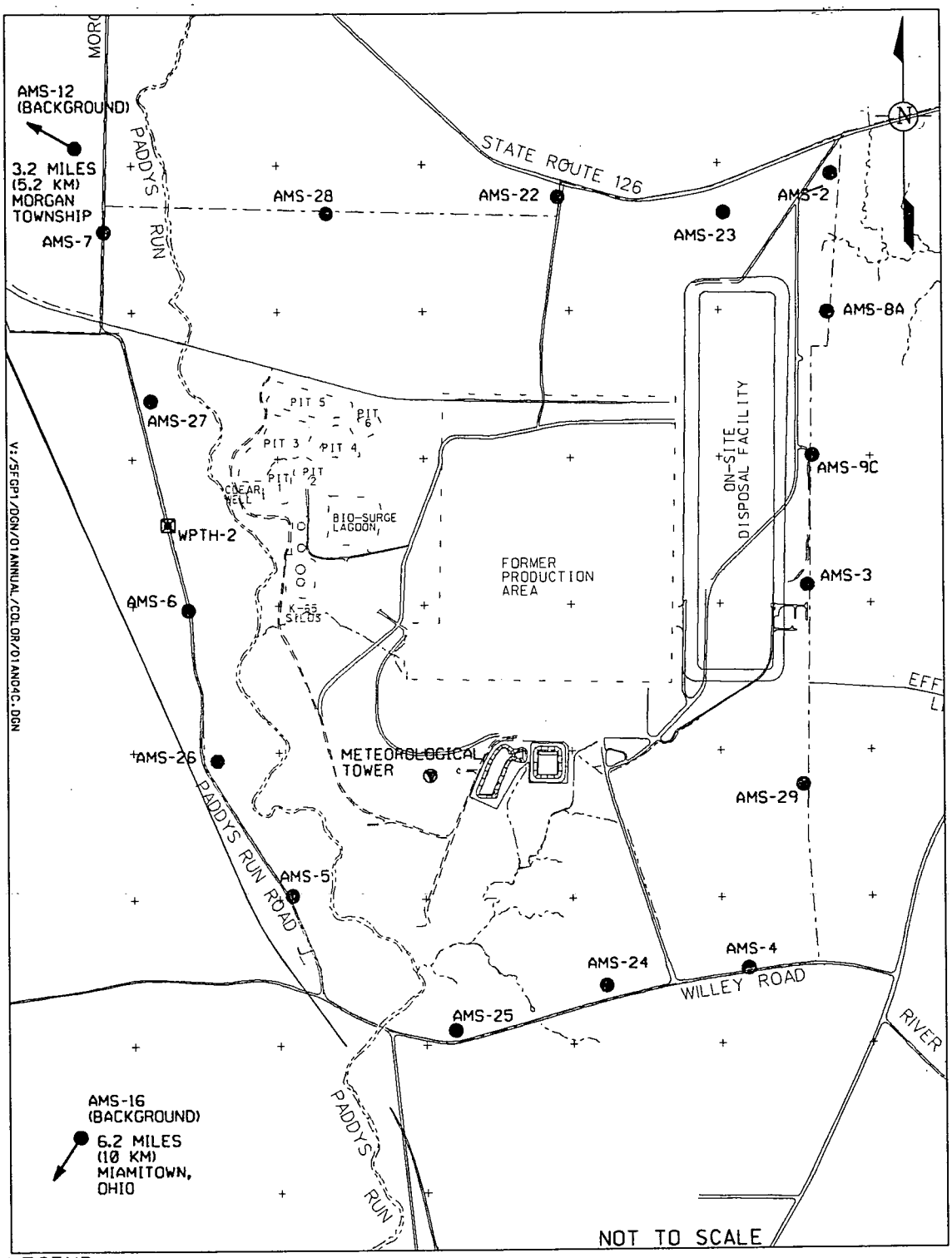

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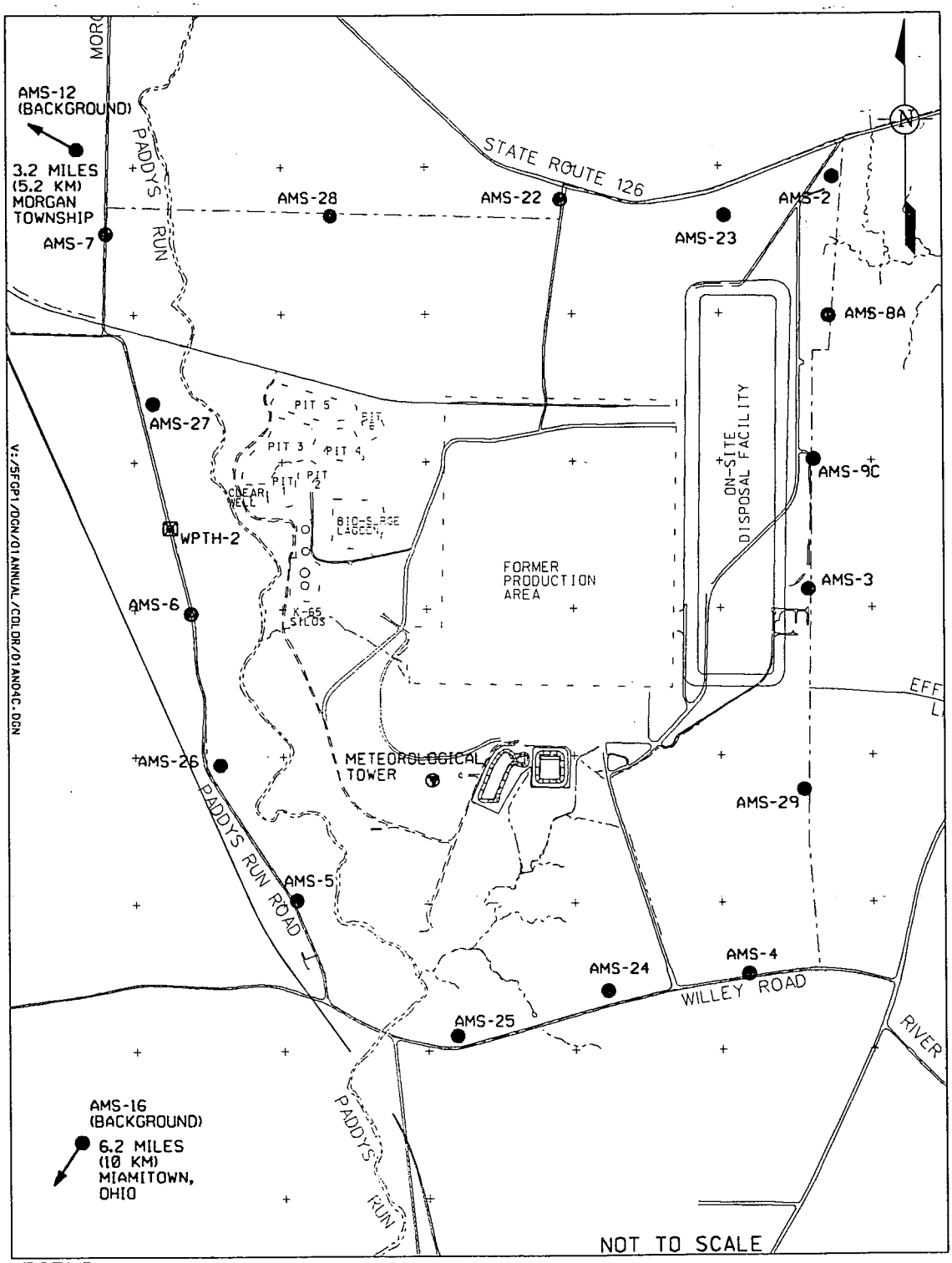

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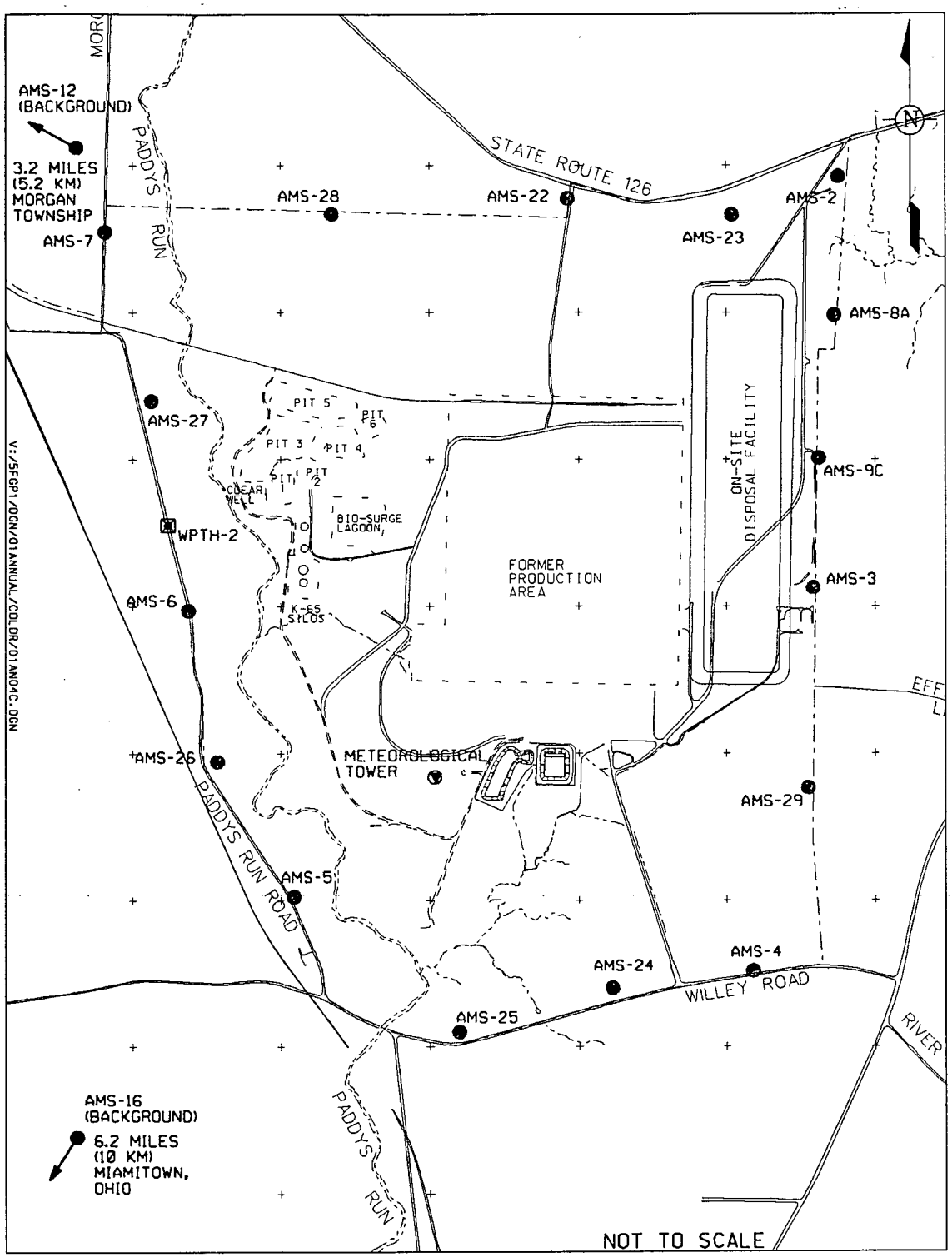

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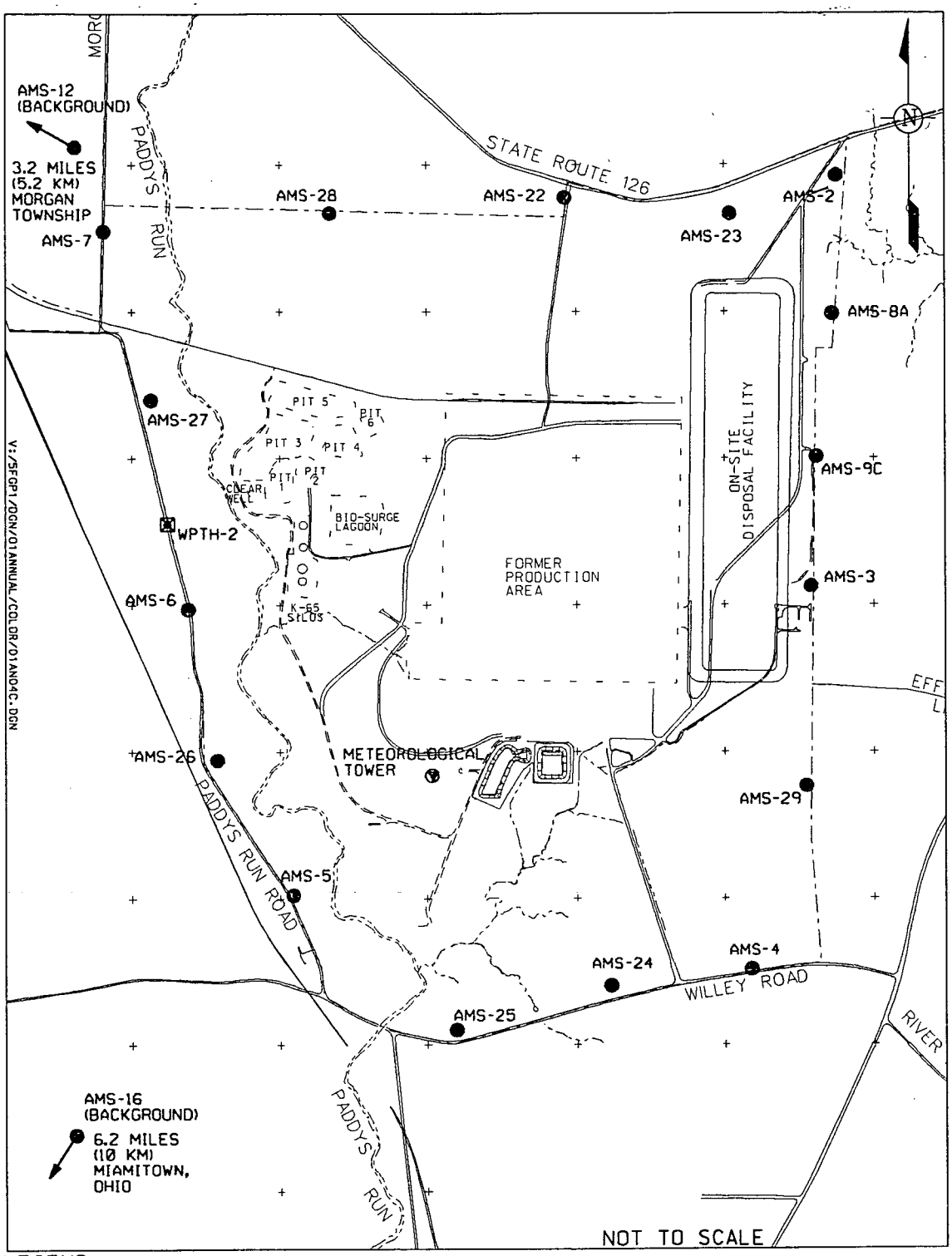

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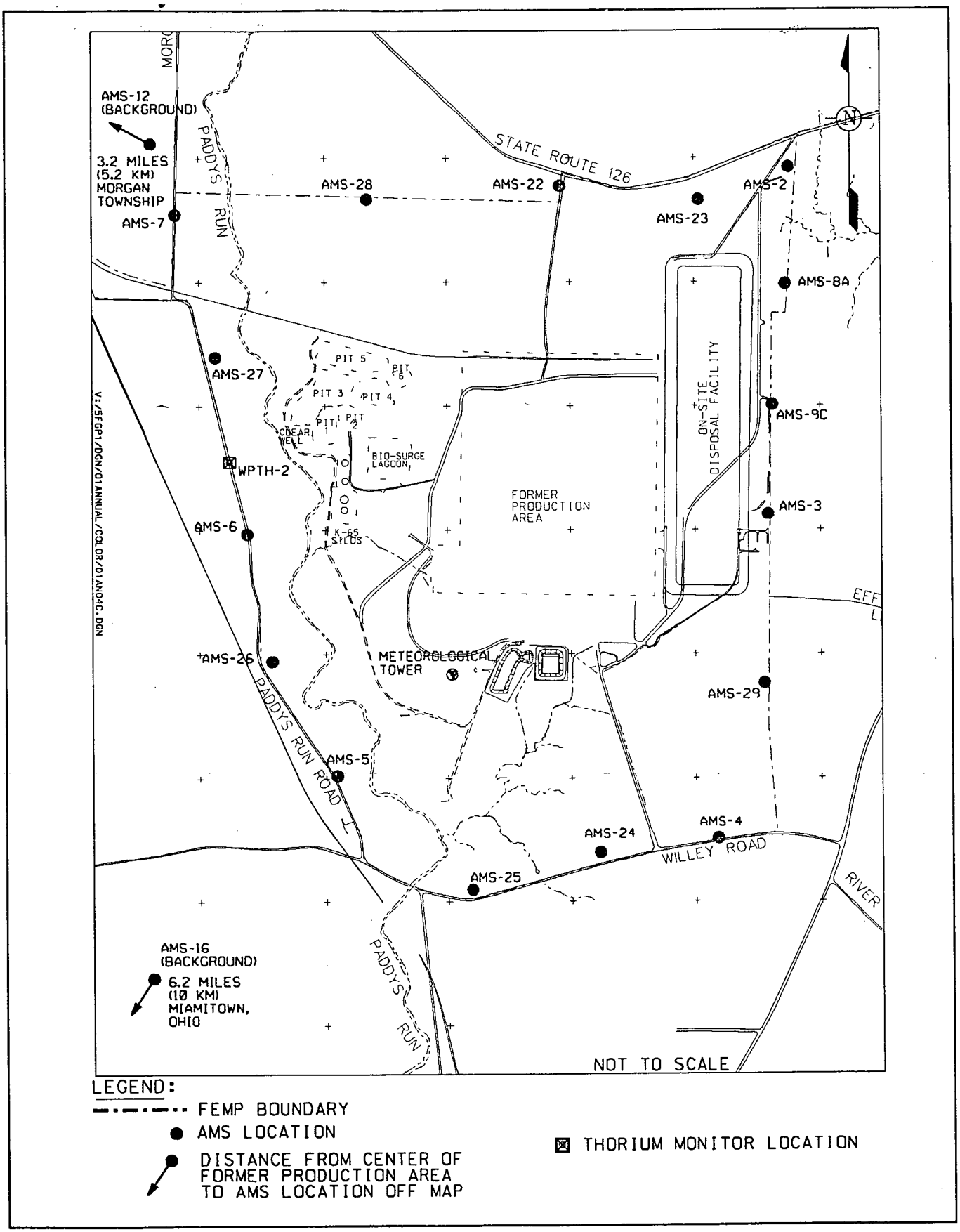

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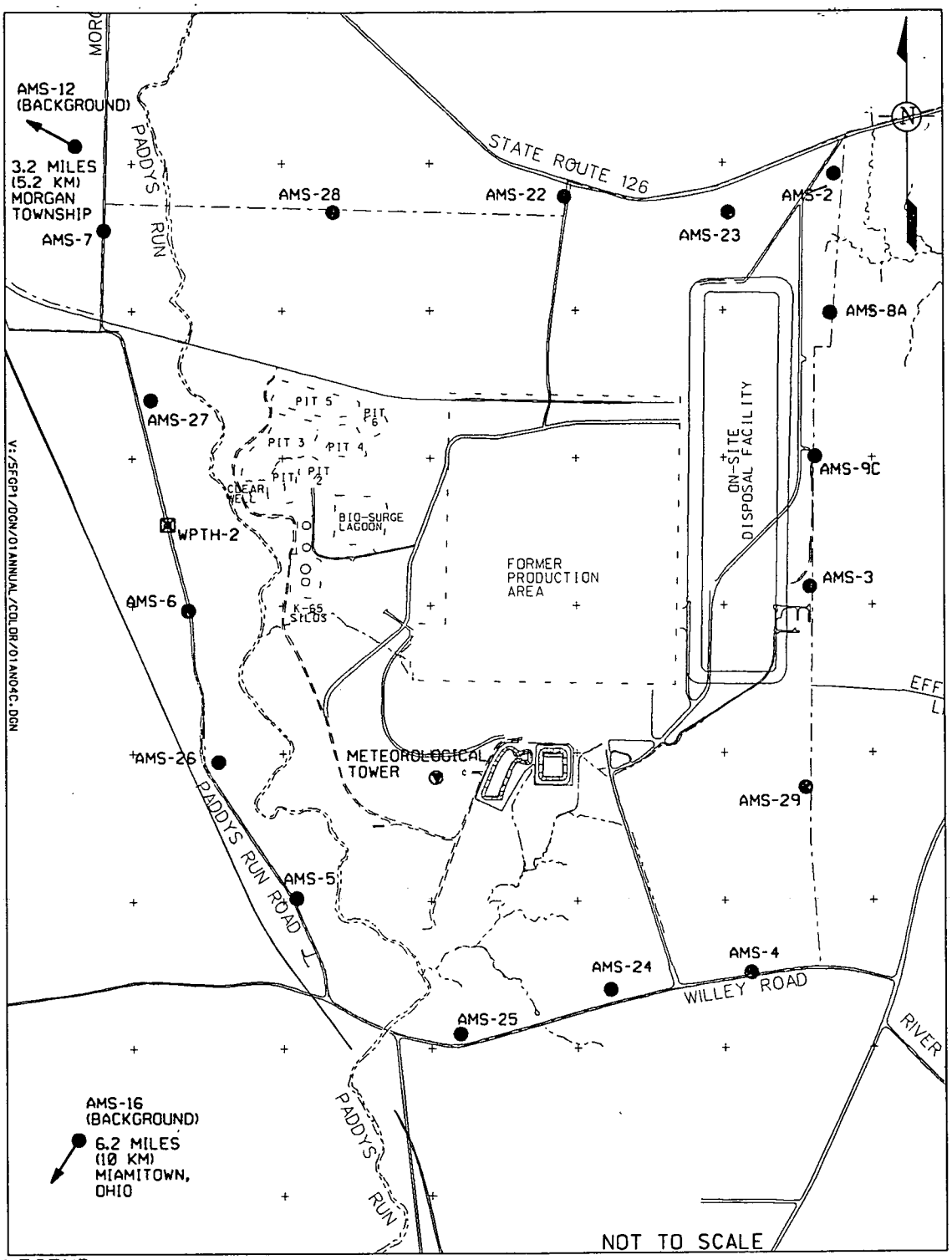

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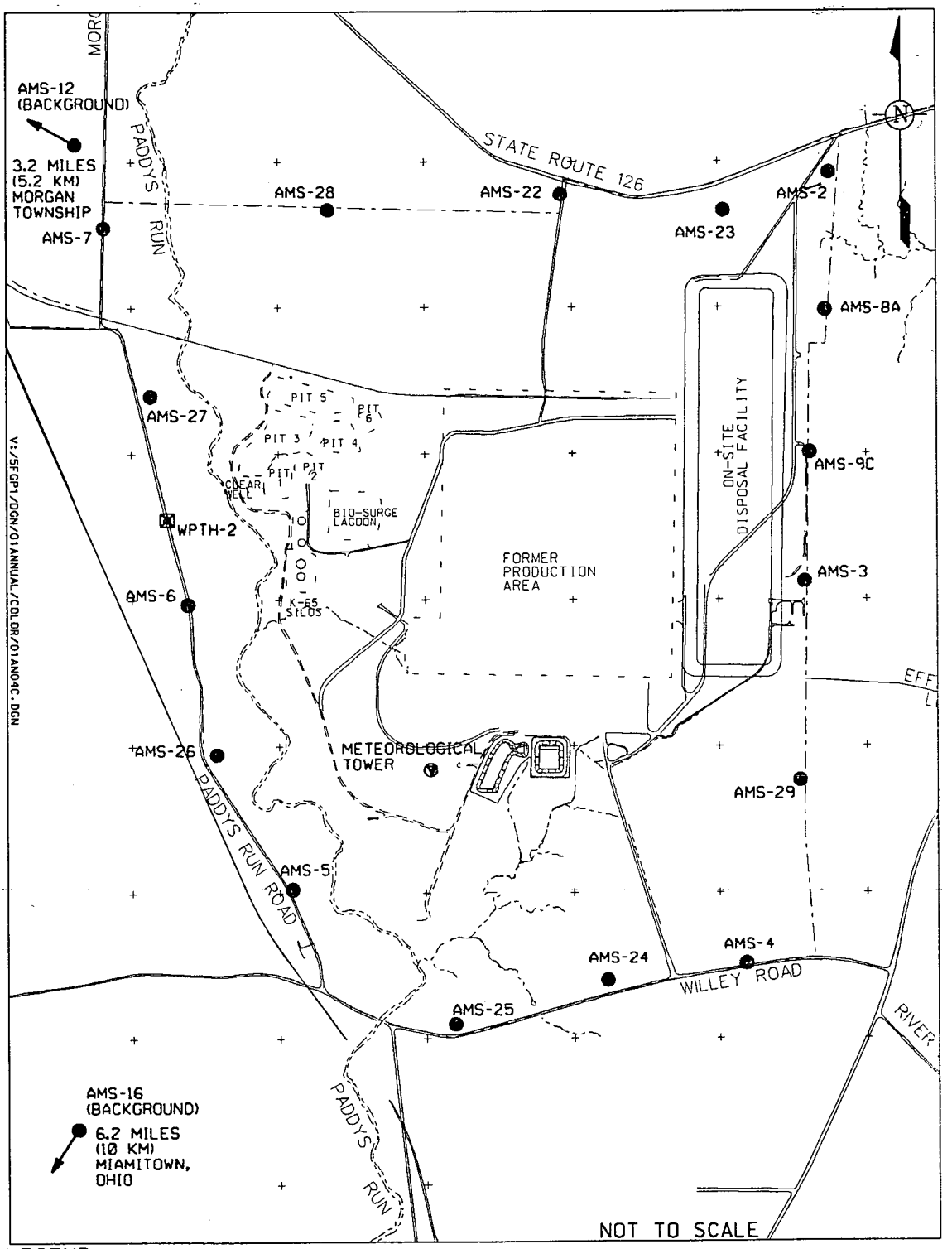

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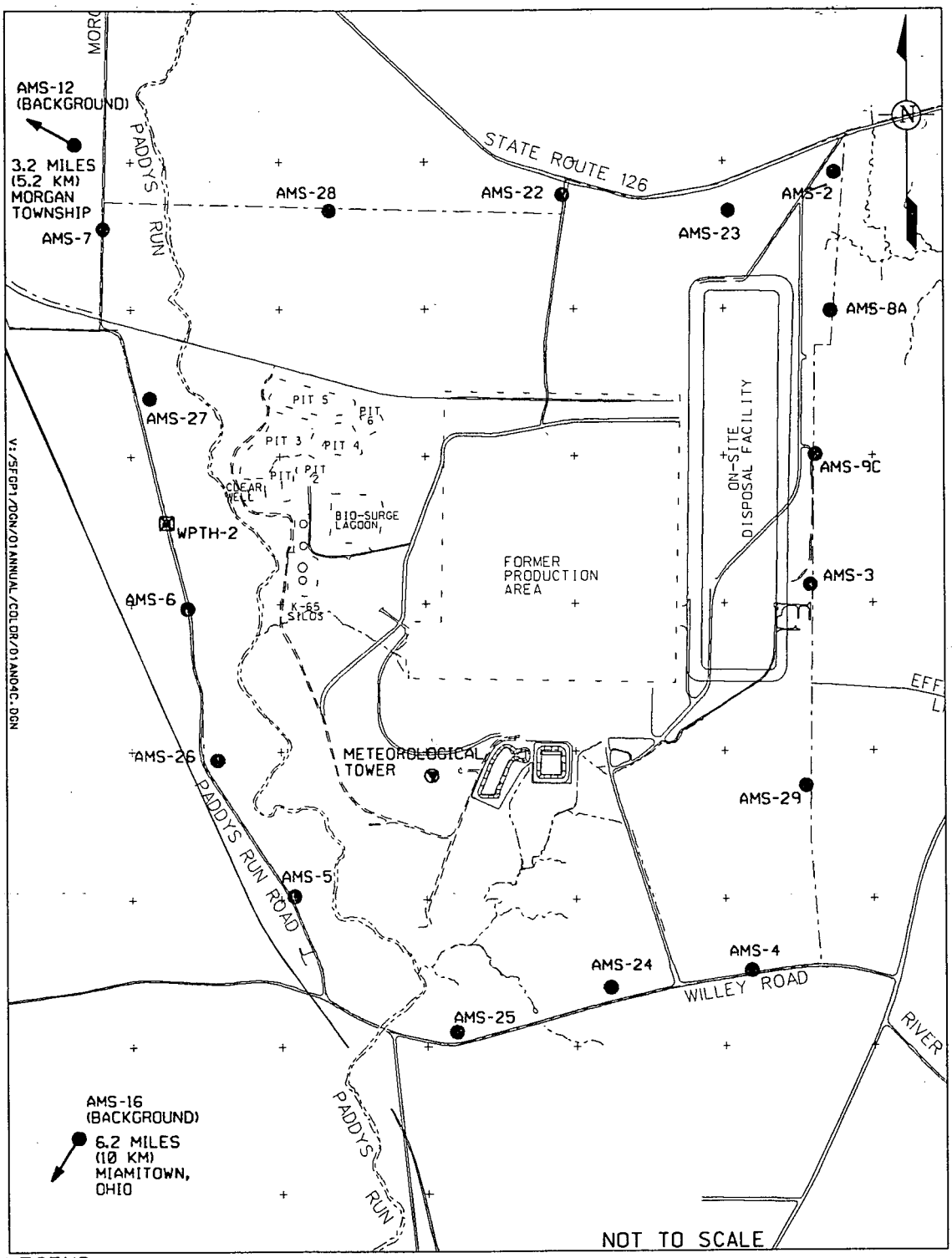

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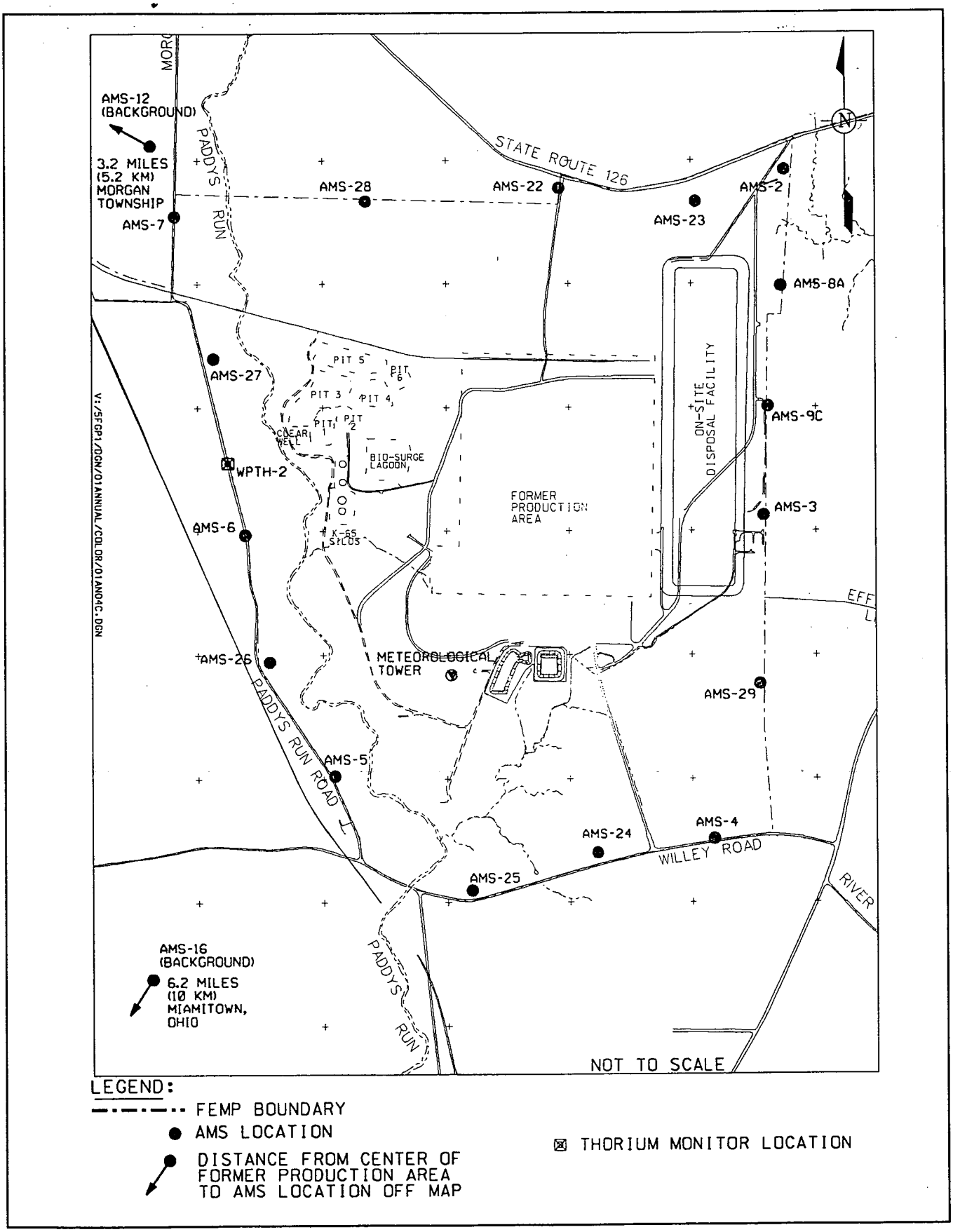

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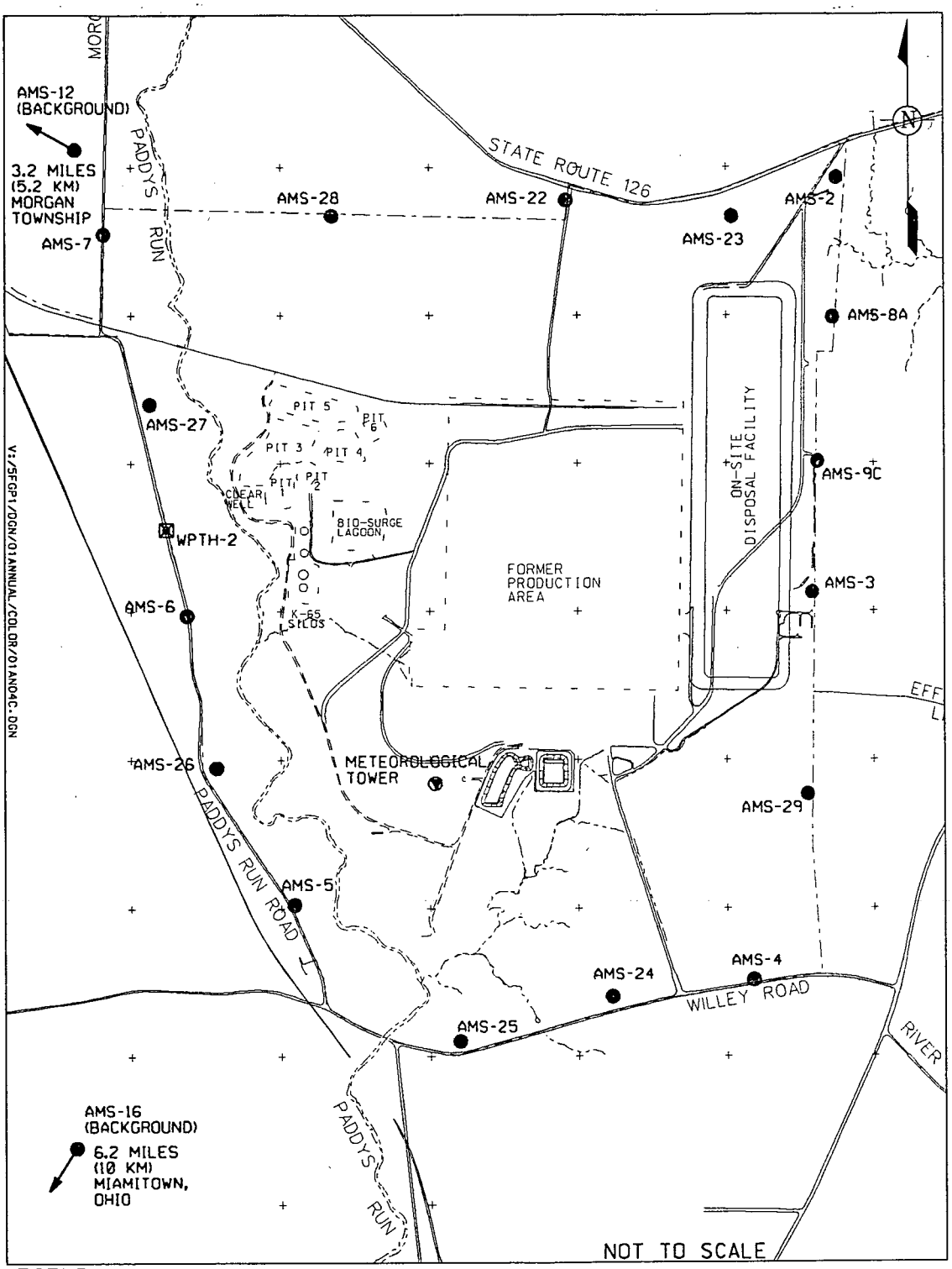

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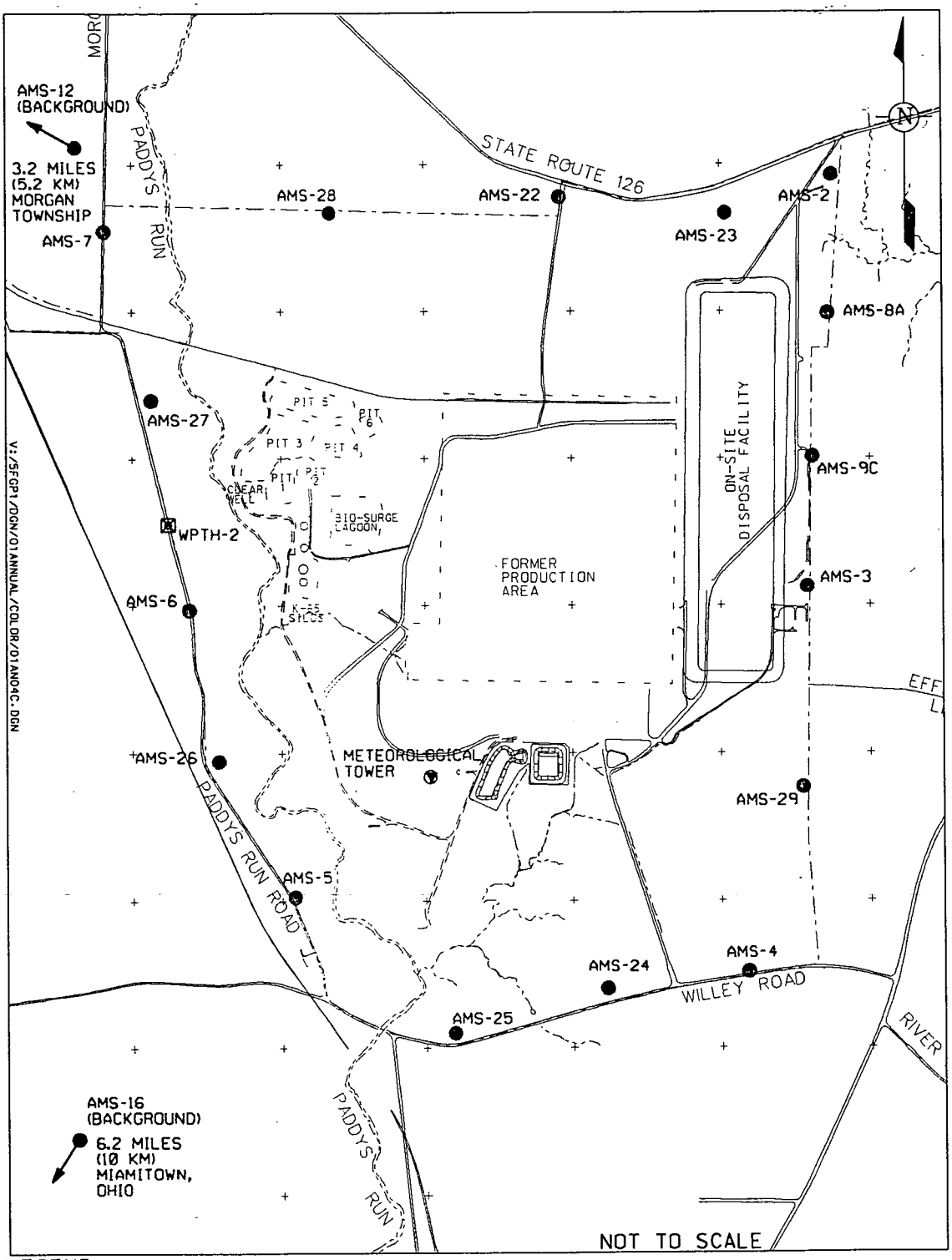

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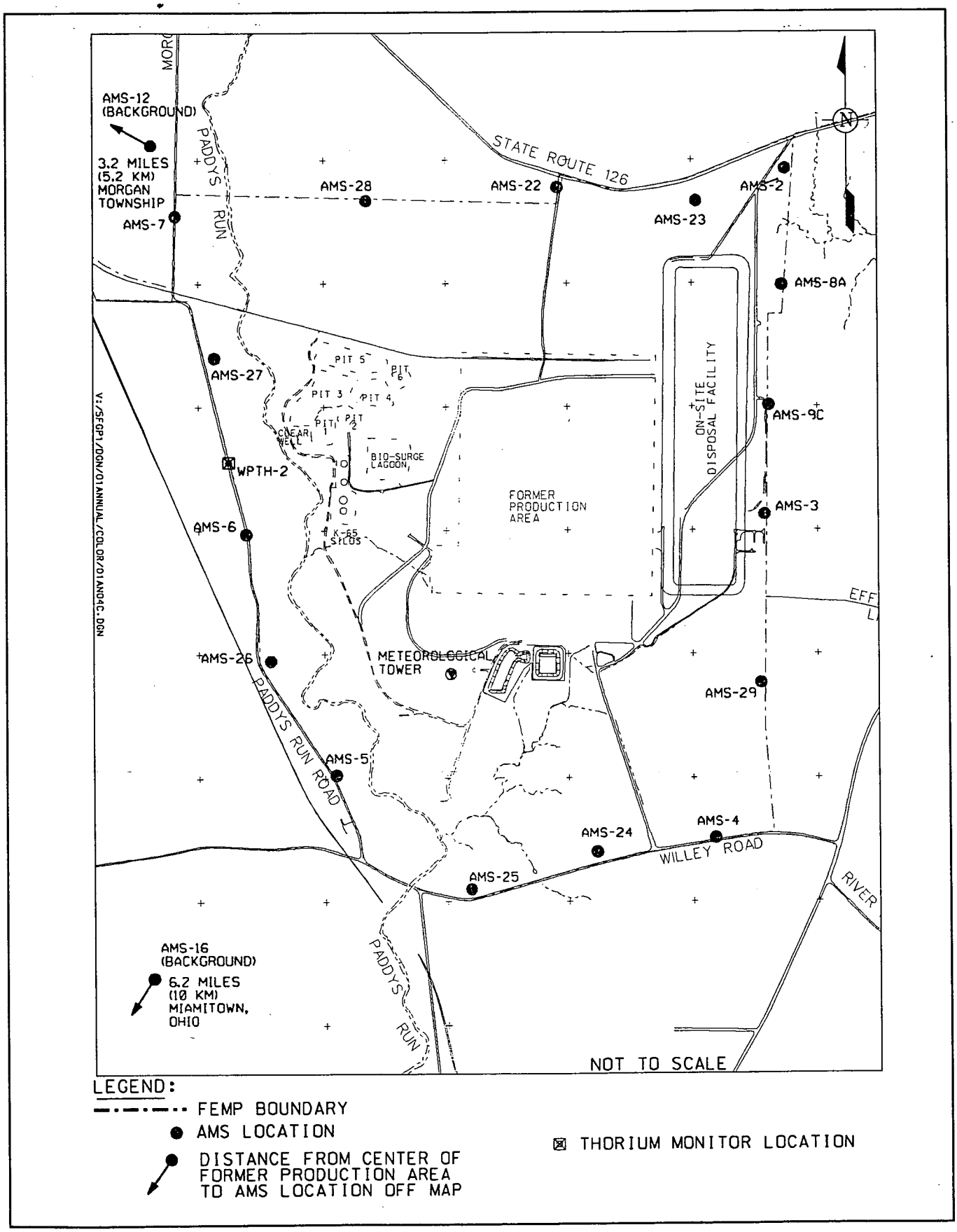

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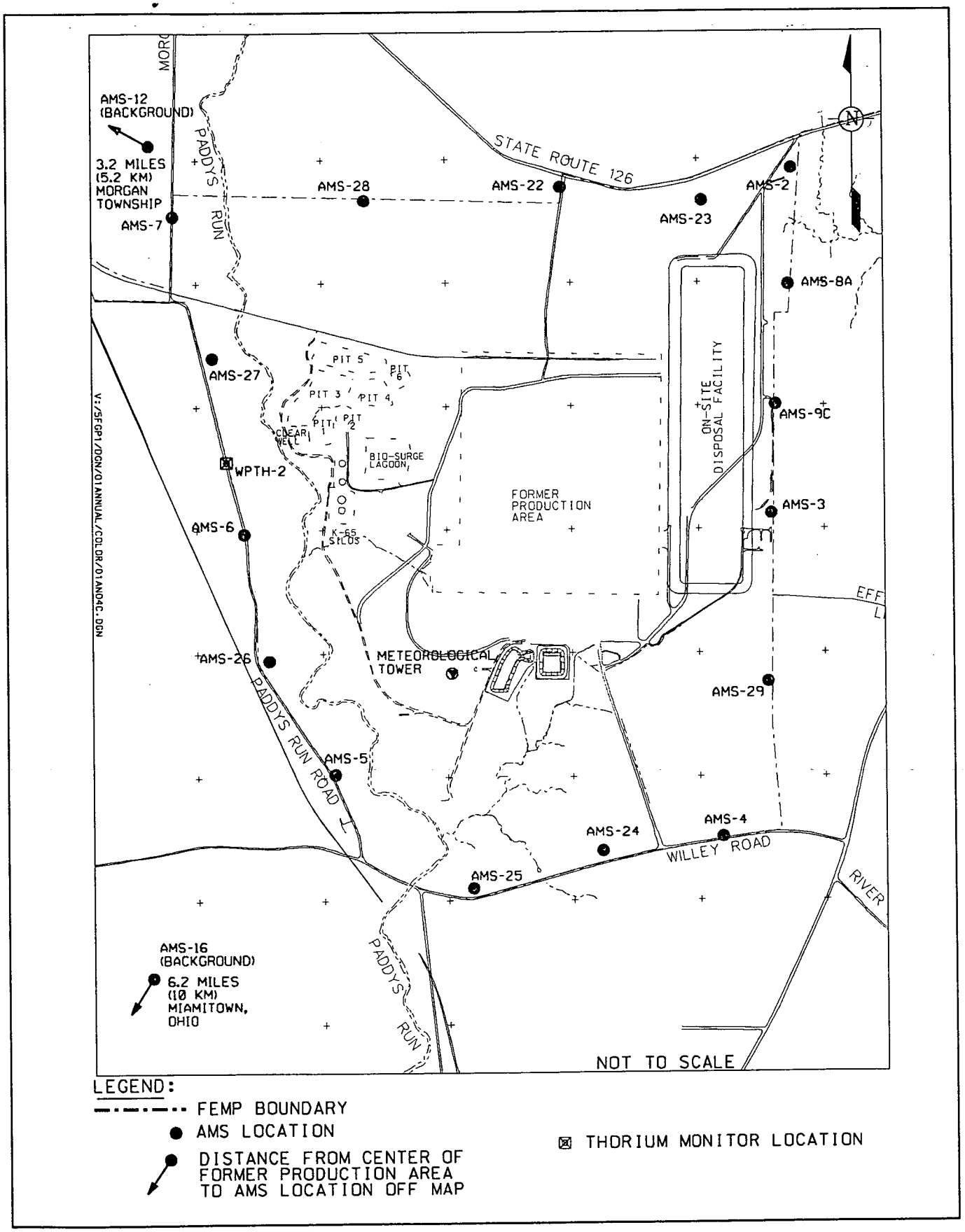

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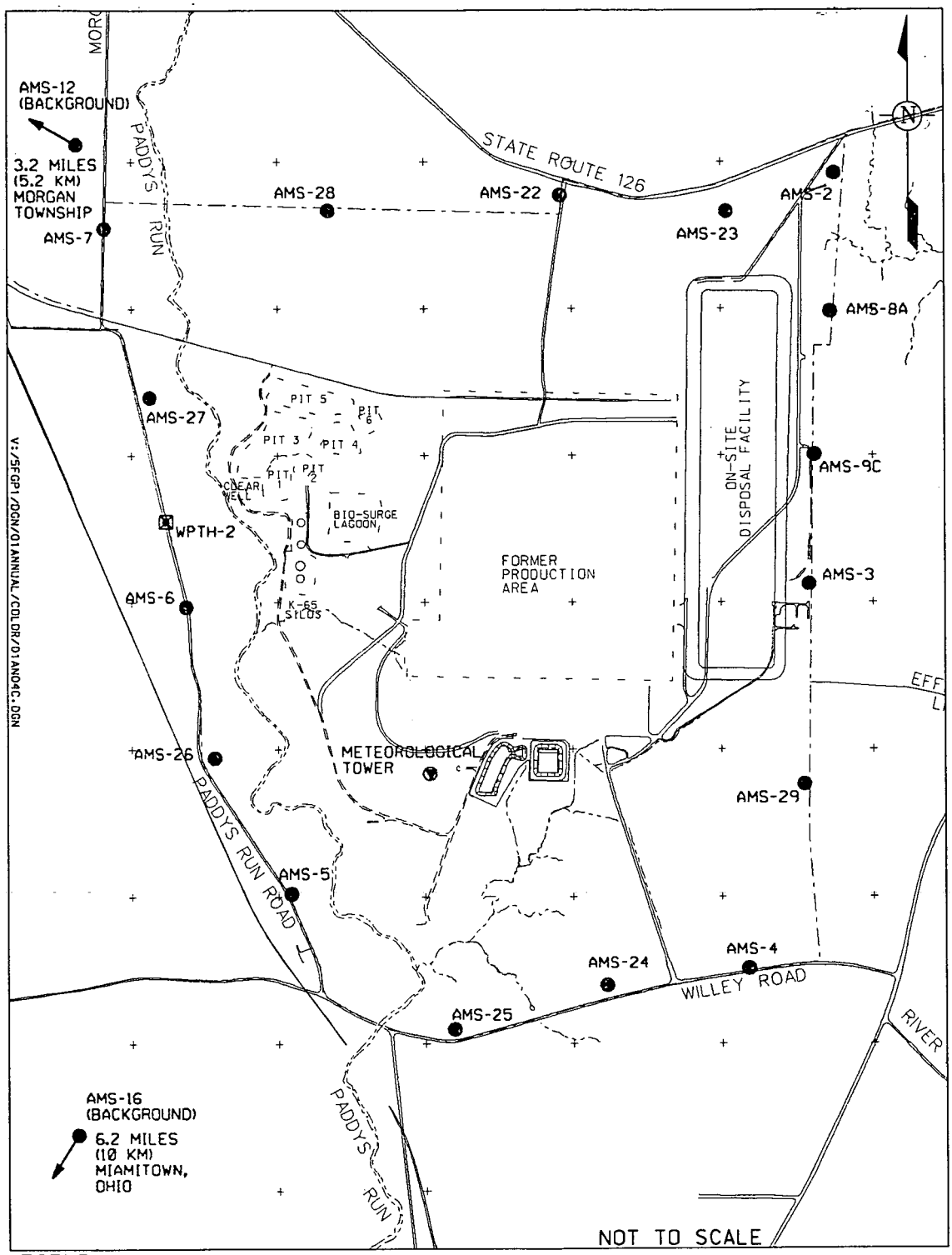

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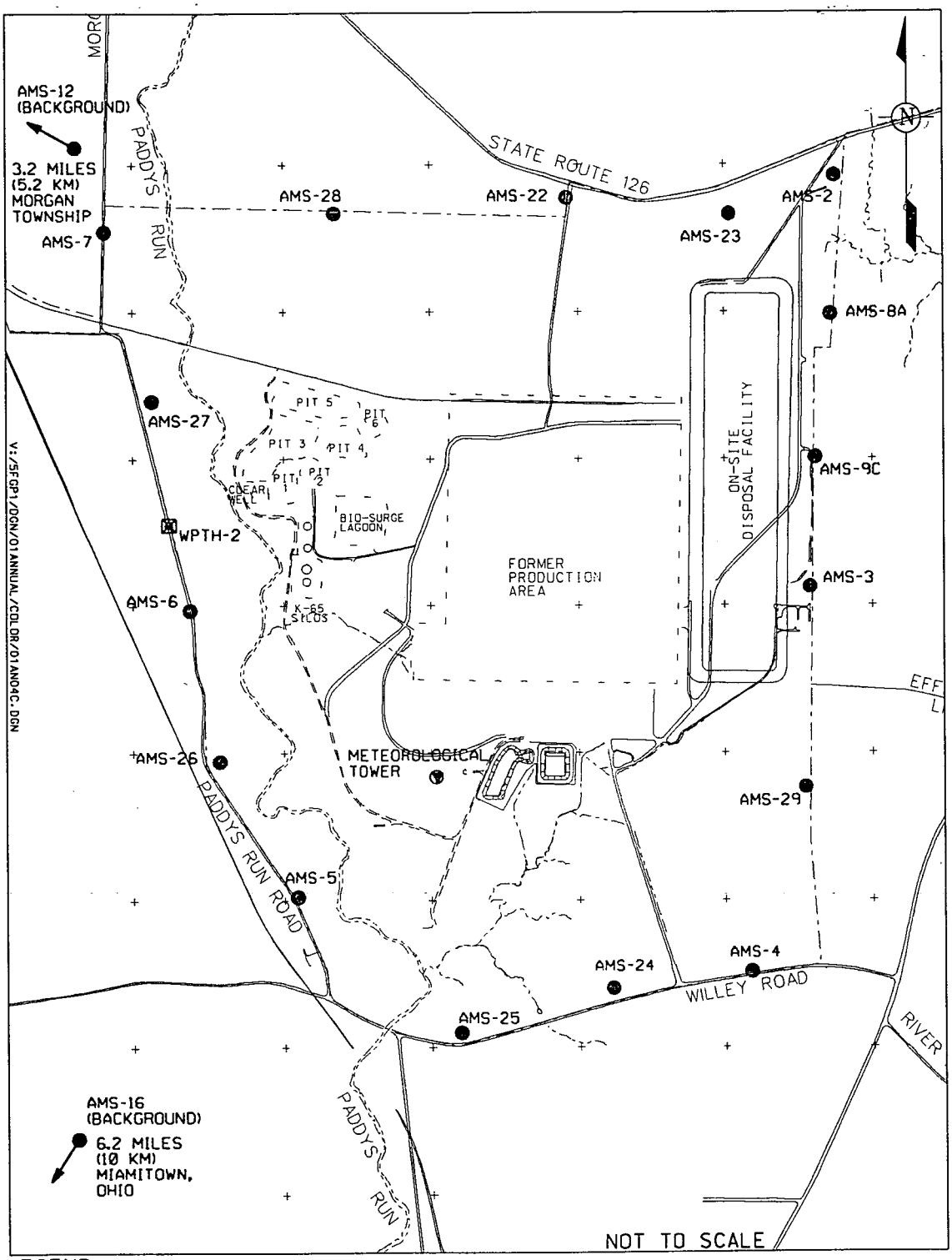

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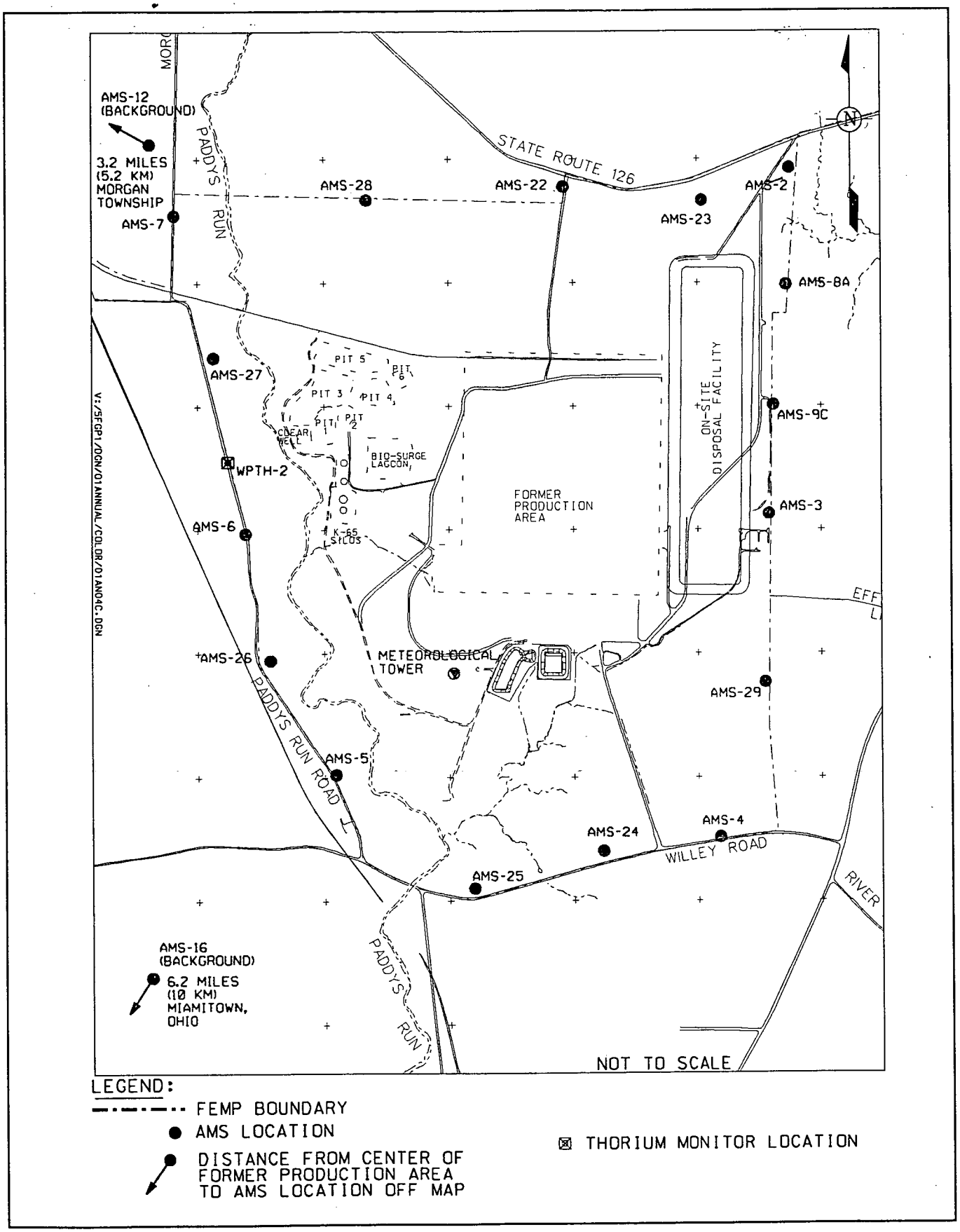

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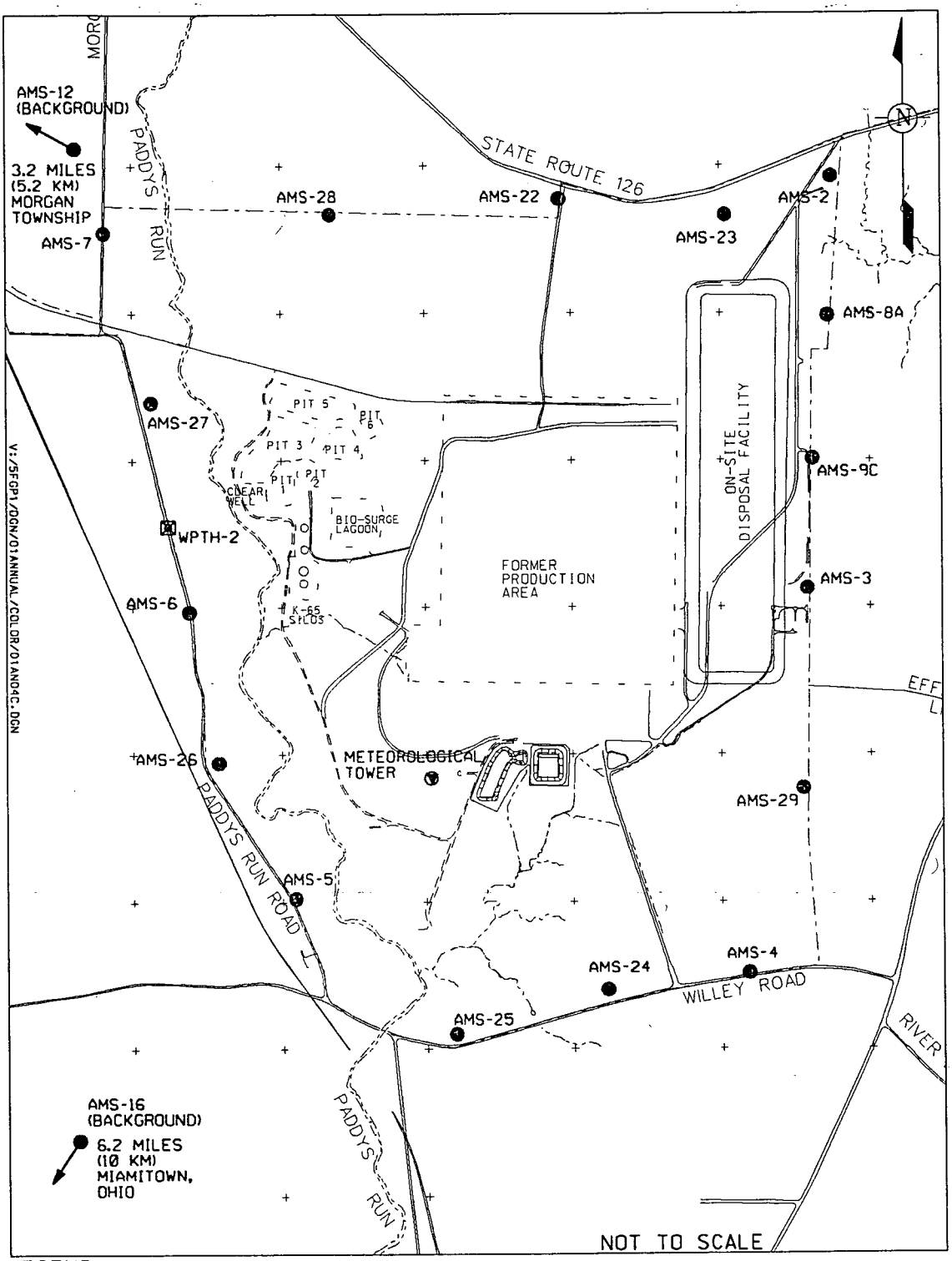

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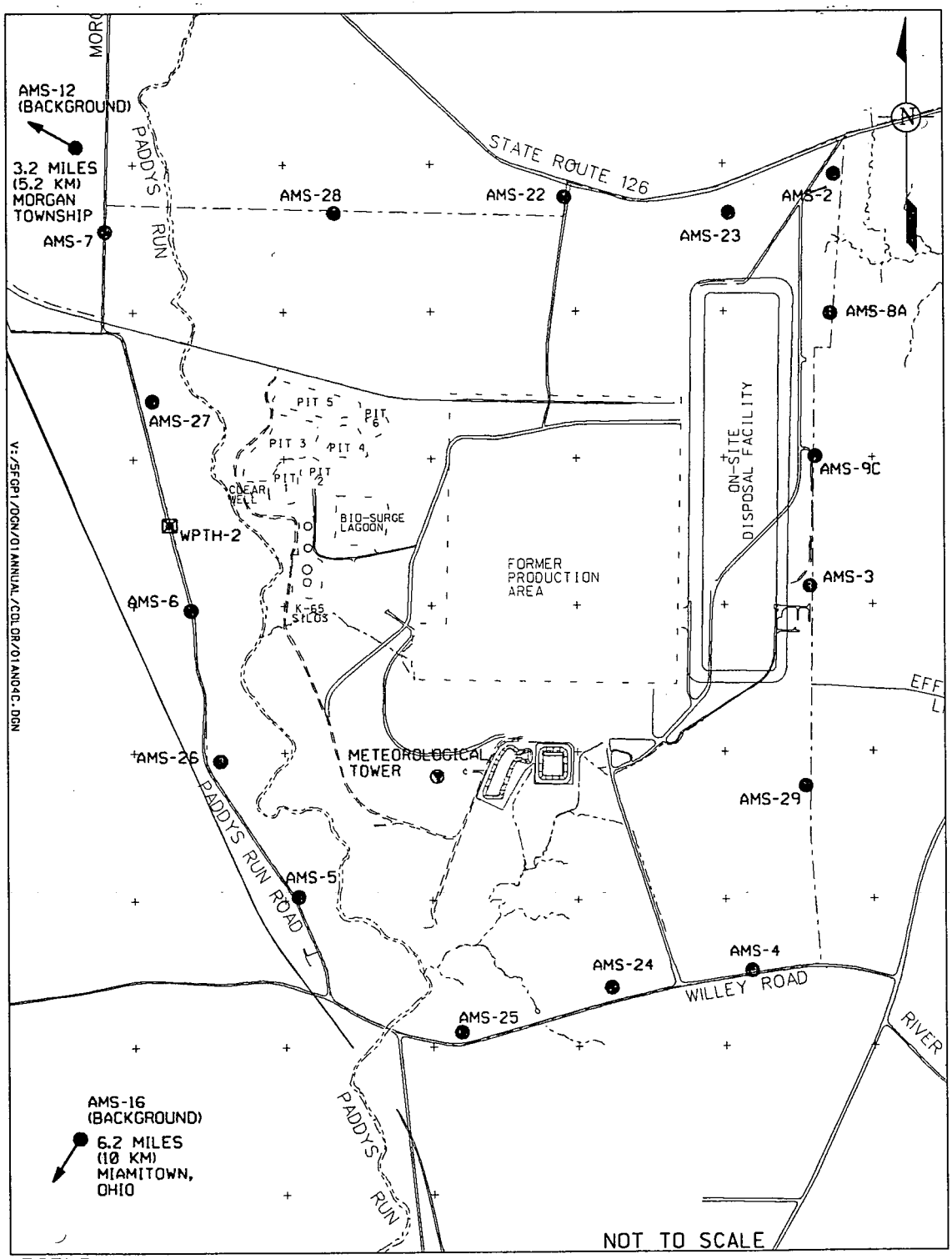

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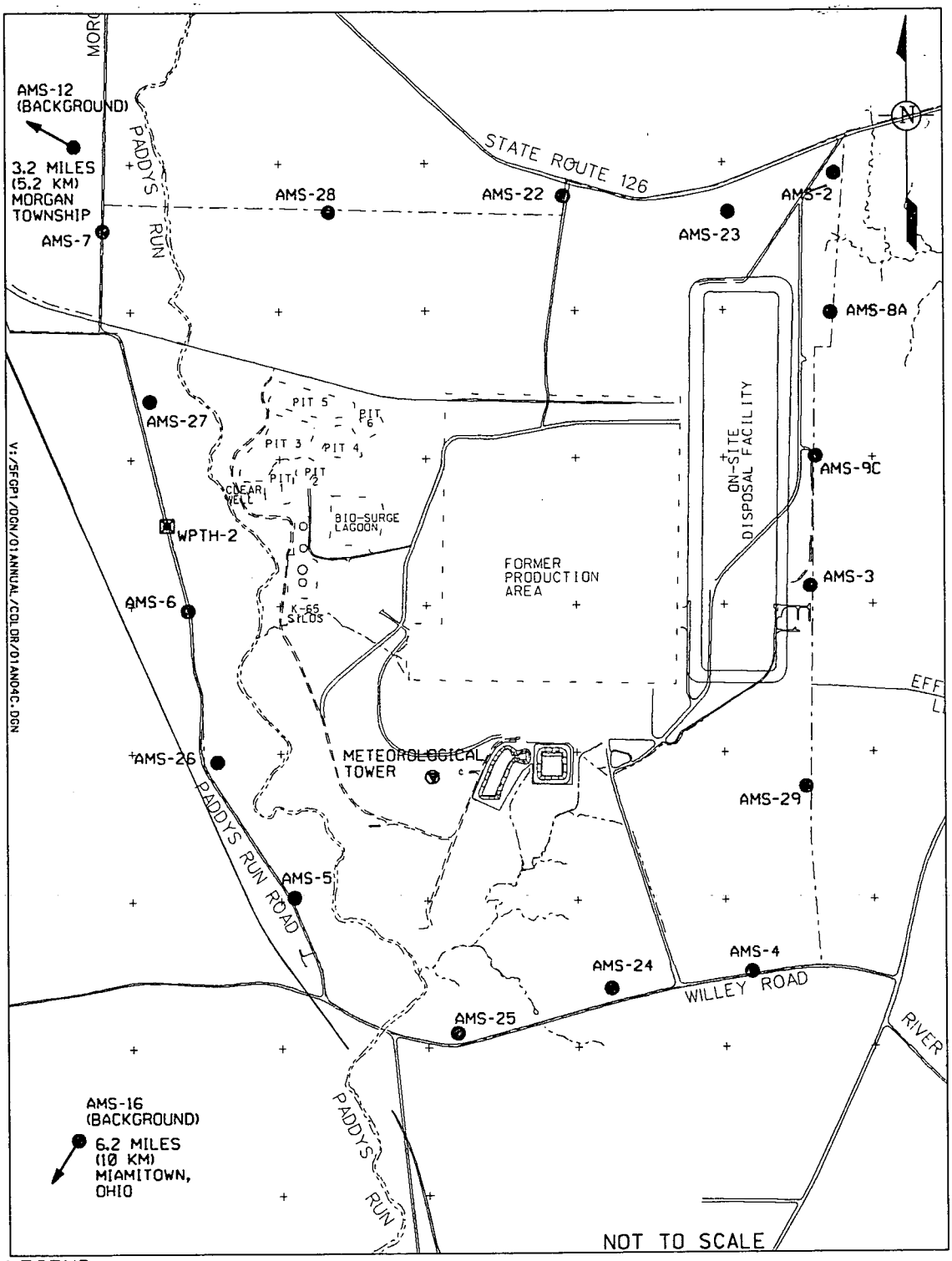

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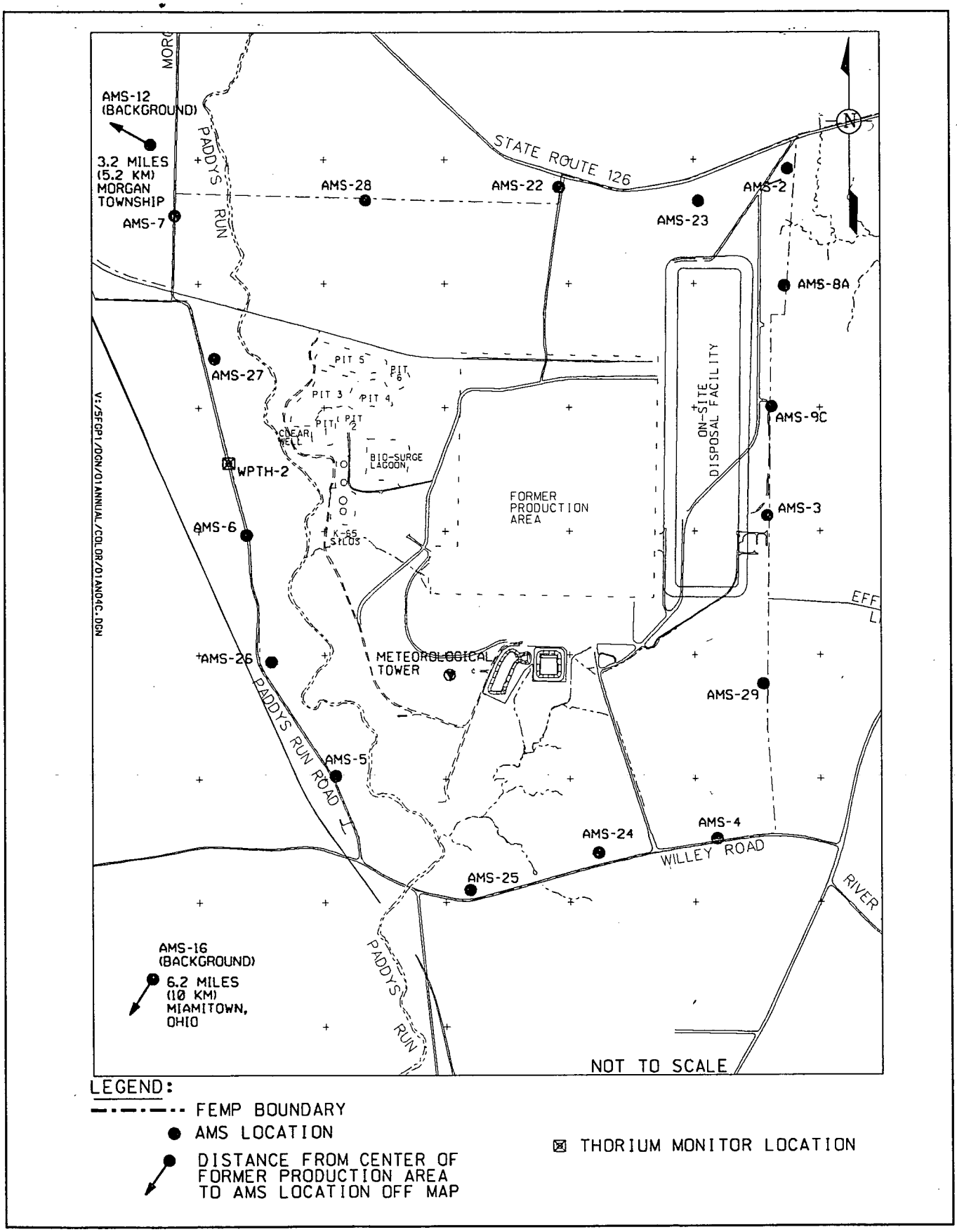

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