

U.S. EPA REGION III EMERGENCY RESPONSE TEAM

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COMMENTS: For your information and comment!
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Asbestos Sampling Plan

Wissahicken Park, Whitpain Township
Montgomery County, Pennsylvania

Background:

In 1968, Whitpain Township established a multi-purpose park along Wissahicken Creek. The park was built on the site of a disposal area formerly owned by Nicolet Industries. The site was used as a waste disposal area up until the early 1960s. The site was leveled by the township, covered with soil and seeded. The site became municipal park containing a baseball diamond, football/soccer fields, playground equipment, a basketball court and a tennis court.

Sampling conducted by EPA and the State in 1984 confirmed the presence of Asbestos in the wastes disposed of at the site. The sampling also found areas where cover material had been disturbed exposing the asbestos beneath the surface. The Township conducted an investigation of the disposal area in September of 1984 to look at remedial options for the park. The Park was closed and fenced to restrict access in November, 1984.

Introduction:

In 1995 the Environmental Protection Agency (EPA), Pennsylvania Department of Environmental Protection (PADEP), and Whitpain Township were approached by Rohm & Haas with the proposal for a joint Public/Private venture to re-open Wissahicken Park.

Purpose:

This sampling plan is has been prepared by EPA and PADEP to determine the current status of the disposal area. This plan is intended to measure the thickness of the soil cover over each of the areas proposed for future restoration. This information will be used to determine the soil cover profile of the site and help in the design of a grading and drainage plan for the site. This plan includes the collection and analysis of soil samples to determine the concentration of asbestos at and/or near the surface.

Site status survey:

The attached base map (approx. scale 1"= 67') was digitized from an aerial photograph of the site. A grid has been laid over the base map to identify potential data/sample collection points. A survey of the site will be conducted to lay out the 50'X50' data/sample collection grid. Elevation data will be collected for

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each point on the grid and referenced to a fixed datum point on site. A topographic map of the site will be prepared showing one foot contours. Soil samples for asbestos analysis will be collected at pre-identified sampling points as described below.

Disposal Area Soil Cover Survey -

To adequately determine the depth of soil cover core samples will be collected on transects set at predetermined intervals. The first sample of each transect will start at the Alley fence line and proceed toward Wissahicken Creek at 50 foot intervals, perpendicular to the Alley. Each point will be surveyed to the base line (fence). This will provide up to 220 data points for contour mapping.

Each core will be collected with a split spoon and be 24 inches deep or until refusal. Each core will be examined to determine the depth of soil cover at each location. The depth information will be used to develop waste and surface contour maps that are critical in the development of the restoration plan.

Asbestos Sampling -

Two samples (6"-aliquots) will be collected at each soil core location (approximately 140-160 samples). The first sample will be a surface sample, the second will be a waste sample at the soil/waste interface or bottom of each core.

Surface Samples

Surface samples will be used to determine the level of asbestos contamination at the surface. This data will be used as part of the risk assessment of the site and the basis for the design of the site cover and stabilization plan to meet the needs of a long term remedy.

Grab and composite sampling techniques will be used to reduce the sample analysis and minimize costs. Surface sampling will consist of 80 grab samples and 14 Composite samples. The composite samples will be collected utilizing a 7 point technique based on the 50' grid points. See attached map and list of sample locations.

Second Samples

The second subsurface sample will be collected to help assess the depth of cover material over the entire park. Waste samples will be collected from these samples to help verify the type of asbestos disposed in the fill area. Other subsurface sample will

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help characterise the overall extent of near surface contamination. This information will be considered in the development of cover specification for the long term remedy.

A set of waste samples, if any, will be collected from the collection of second samples. About 5 of the waste samples will be analysed using PLM. A representative set (about 10%) of the remaining second subsurface samples will be collected for analysis. All samples will be held for further analysis if necessary.

Sample size = ? oz.

Sample container = Glass vial

Sample No. = Sample numbers will consist of an Alpha-numeric designation referencing the grid point for each sample.

Each sample will be analysed for asbestos using polarized light microscopy/dispersion staining (PLM/DS).

Analytical Method(s) - There are two basic analytical methods for asbestos, Polarized Light Microscopy (PLM) and Transmission electron microscopy (TEM).

PLM is a method for determining the unique optical crystallographic properties of various crystal phases in a sample. It is a particle identification technique that identifies the total quantity of crystal particles and structures in the sample.

TEM allows for the determination of the mineralogical types of asbestos that is present in the sample and for distinguishing asbestos structures from non-asbestos structures. It is a technique that provides the identification and concentration of asbestos and other structures in the sample.

Analysis by: Commercial Laboratory and/or PADEP State Lab

Applicable Relevant and Appropriate Requirements (ARAR):

Asbestos is a TSCA & NESHAP regulated substance. All on-site activity shall be conducted in accordance with all applicable relevant and appropriate requirements. As a listed hazardous substance all on-site activities which involve the possible contact with asbestos containing material must comply with OSHA requirements.

Federal:

NESHAPS - Nation Emission Standards for Hazardous Air Pollutants

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TOSCA - Toxic Substances Control Act
SDWA - Safe Drinking Water Act
OSHA - Occupational Safety and Health Administration
29CFR1910.120
State: - ?
Air - ?
Water (100year flood plain) - ?
Water (Drinking water) - ?

Site Health and Safety Plan (HASP):

Prior to any on-site activity a Site Health and safety plan will be prepared and approved by all participating agencies and organizations. All personnel entering the site during sampling or remediation activities shall read and sign the HASP.

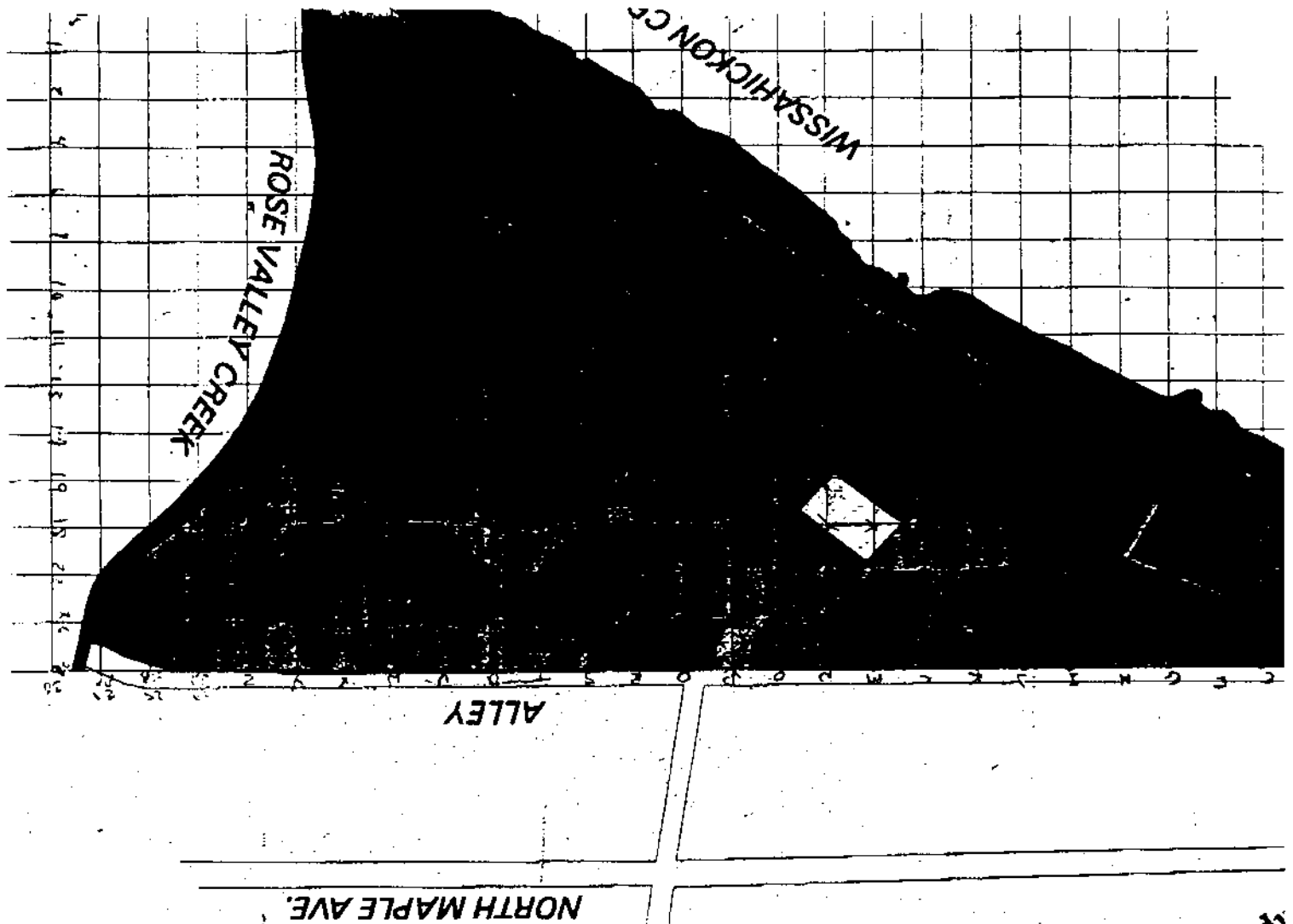
Sampling and/or remediation activities that have the potential to expose asbestos, asbestos containing material or asbestos contaminated materials shall require the minimum use of Level 'C' personal protective equipment (PPE). These tasks include but are not limited to, sampling or any excavation (by hand or heavy equipment). Each task shall have a task hazard analysis prepared prior to the work performed.

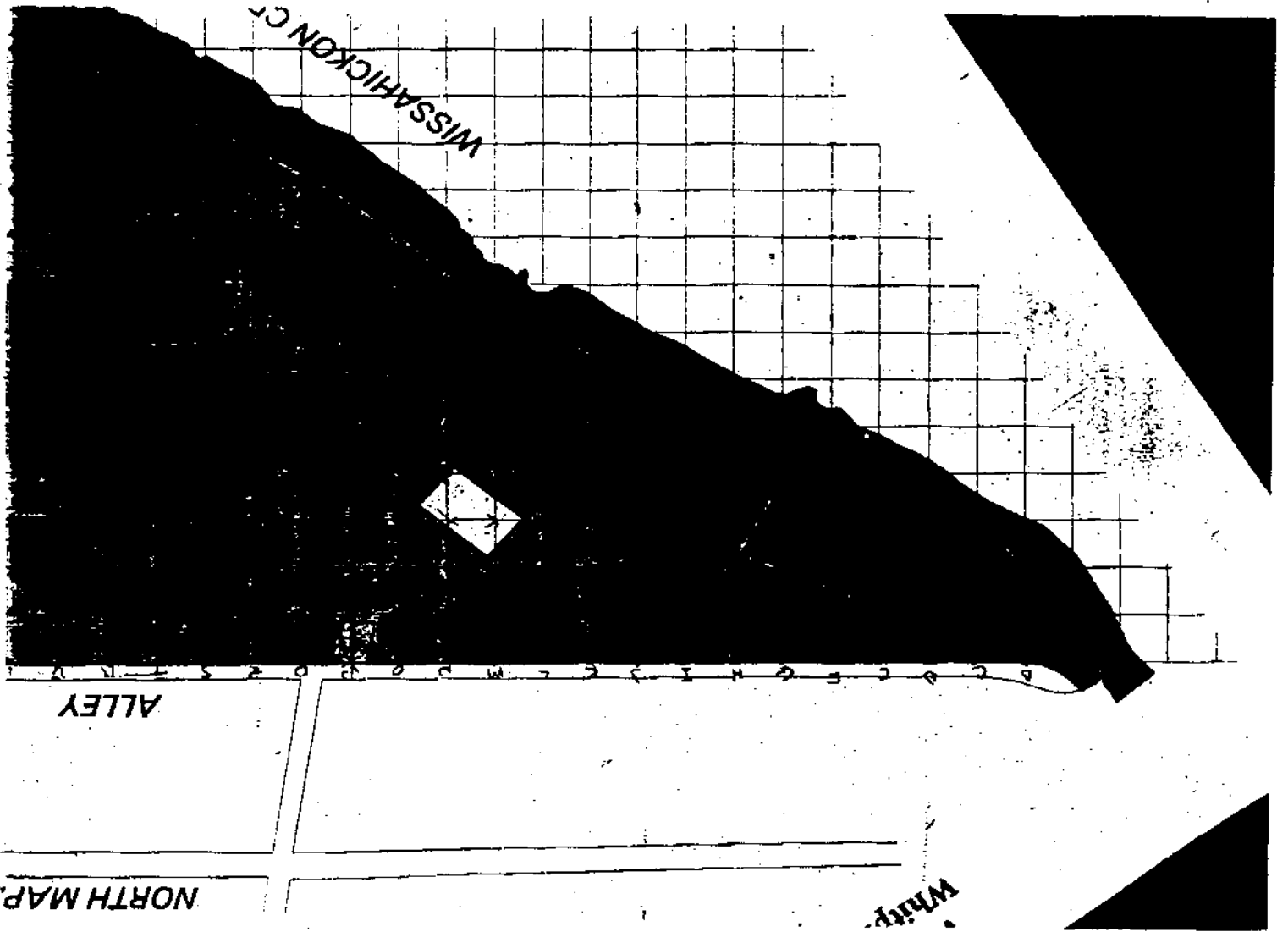
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Sample Locations

Grab #	Composite #
A1	C2
D1,D4	
E1,E2,E3,E4	
F1,F2,	
G1,G2,G3	
H1,H2,H3,H4,H5	
I3,I6	J2,J5
K1,K4,K7	
L1,L4,L5	
M5	M2,M7
N3,N5,N6	
O1,O2,O3,O4,O5,O6,O7,O8,O9	
P2,P3,P4,P7	
Q1,Q2,Q3,Q4	Q6,Q9
R1,R2,R5,R8,R11	
S1,S6,S9,S10	S3
T1,T7,T11,T12	T5,T9
U1,U6	
V1,V10	V3,V8,V12
W1,W2,W11,W12,W14	W6
X1,X2,X5,X8,	
Y1,Y5	Y3
Z1,Z4	
AA1,AA2,AA3	
BB2	

NOTE: The composite sample number references the center of the composite polygon.





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