

5060-005-300

**ENVIRONMENTAL EVALUATION
OF "WAYSIDE" NAVAL WEAPONS
STATION EARLE
COLTS NECK, NEW JERSEY**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN)
PROGRAM**

**CONTRACT NO. N62472-90-D-1298
CONTRACT TASK ORDER
NUMBER (CTO) - 010**

NOVEMBER 7, 1991





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November 7, 1991

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Reference: Navy CLEAN Contract No. N62472-90-D-1298, CTO #0010
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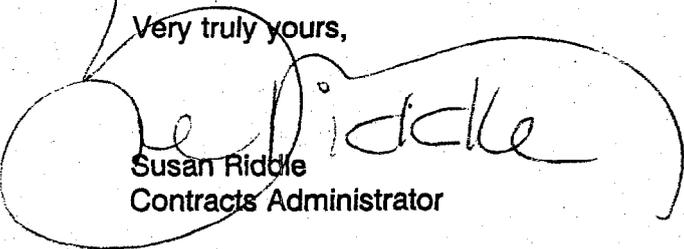
Subject: Final Report Environmental Evaluation of "Wayside Area"
NWS Earle, Colts Neck, New Jersey

Dear Mr. Helland:

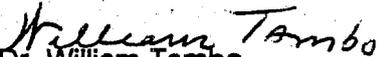
Attached are eight (8) copies of the Final Report for the above referenced site which is the complete submission as required under this CTO. Two (2) copies of this report have also been forwarded to Mr. Greg Goepfert, Environmental Director at NWS Earle.

Please direct any questions or comments regarding this report to Mr. Alan Fillip, ENSR Project Manager or Mr. John Trepanowski of HALLIBURTON NUS at 215-971-0900. The HALLIBURTON NUS team appreciates this opportunity to be of service to the Navy and looks forward to working with you in the future.

Very truly yours,



Susan Riddle
Contracts Administrator



Dr. William Tambo
Vice President
Government Services Program Manager

cc: Mr. Greg Goepfert, NWS Earle
Mr. Art Bomberger, NUS
Mr. John Trepanowski, NUS
Ms. Patricia Patton, NUS

5060-005-300

**ENVIRONMENTAL ASSESSMENT OF "WAYSIDE"
NAVAL WEAPONS STATION EARLE
COLTS NECK, NEW JERSEY**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) PROGRAM**

**Submitted to:
Northern Division
Environmental Branch, Code 14
Naval Facilities Engineering Command
Building 77-L, U.S. Naval Base
Philadelphia, PA 19112-5094**

**Submitted by:
HALLIBURTON NUS Environmental Corporation
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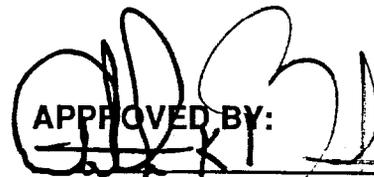
**Contract No. N62472-90-D-1298
Contract Task Order Number 010**

NOVEMBER 7, 1991

SUBMITTED BY:


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11/6/91

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1.0 INTRODUCTION

1.1 OVERVIEW

1.1.1 Purpose/Objectives

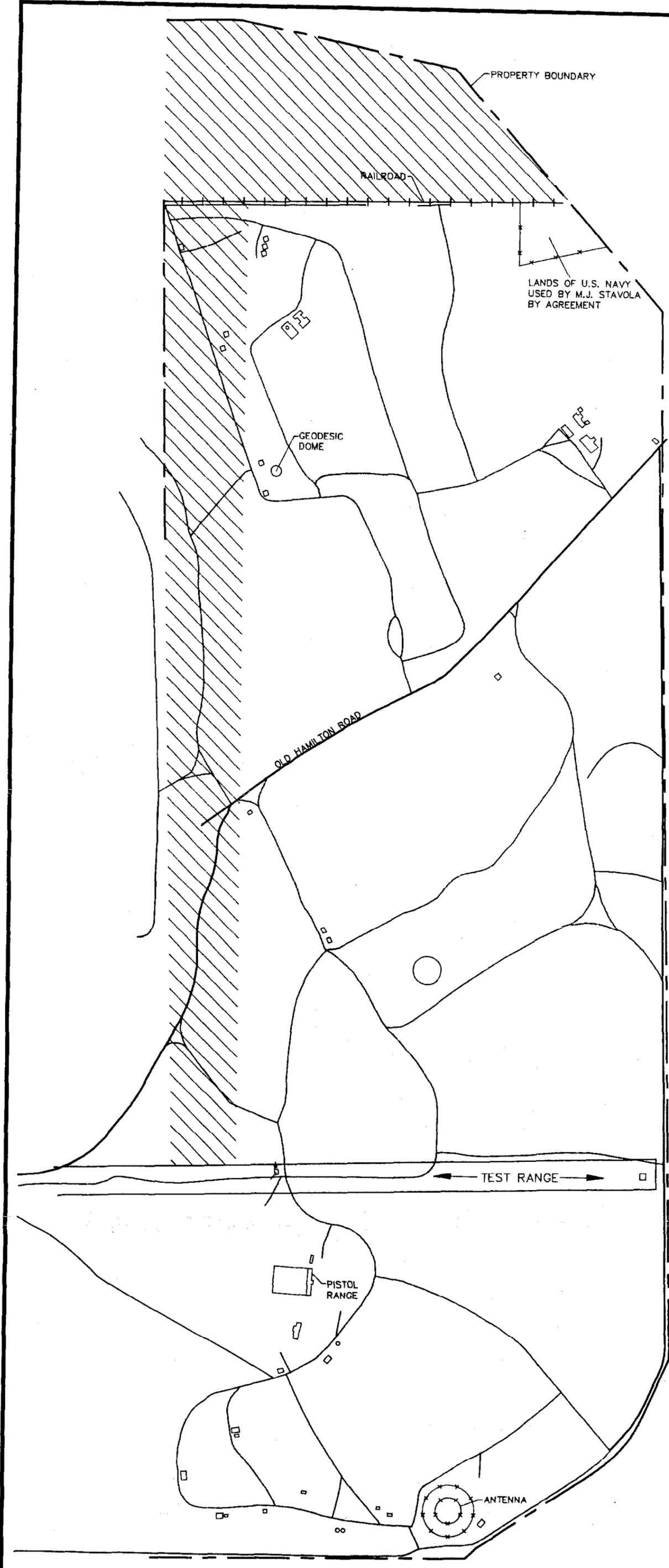
The Wayside Area of the Naval Weapons Station (NWS) Earle is approximately 440 acres, and has been used by the Army for approximately 45 years for training exercises and testing of communications and electronics equipment. The Navy is currently evaluating the use of the Wayside Area for siting 500 units of Navy family housing and two schools. The objective of this environmental evaluation was to locate areas of known or potential contamination that might render portions of the site unsuitable for housing or schools.

ENSR Consulting and Engineering (ENSR), under subcontract to HALLIBURTON NUS Environmental Corporation (HALLIBURTON NUS), has performed this environmental evaluation under the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract (Number N62472-90-D-1298), Contract Task Order (CTO) 0010.

1.1.2 Methodology

The following tasks were performed for the environmental evaluation of the Wayside Area:

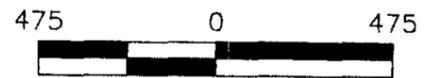
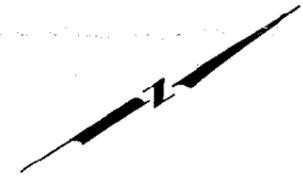
- Introductory meeting on August 12, 1991 at NWS Earle. The purpose of meeting was to define the area of investigation and discuss information needs. Figure 1-1 shows the the portion of the Wayside Area which is the focus of this investigation, as well as the areas which received a cursory review. In attendance were Brian Helland, Naval Facilities Engineering Command; Greg Goepfert, William Matthaey, and Tom Gentile, NWS Earle; Alan Phillip, Sylvie Rice, Rosemary Mattuck, and Angela Mathur, ENSR.
- Field reconnaissance of the area under investigation. All buildings, structures, foundations, antennae, etc. were examined for evidence of contamination. Building interiors were examined where accessible. All roads, former roads, and disturbed areas were traversed.
- Review and evaluation of existing records and aerial photographs at NWS Earle and Fort Monmouth Army Base. The purpose was to determine historic uses of the site, and locate any potential areas of contamination. Monmouth County maps and reports were also reviewed to determine potential impacts from surrounding properties.
- Interviews with NWS and Army personnel, local officials, and others knowledgeable about site activities were conducted to determine historic site uses and any potential impacts from surrounding properties.



MAP IS COMPILED FROM AERIAL PHOTOGRAPHS AND SITE MAPS PROVIDED BY THE NAVY AND ARMY, AND MAY NOT REPRESENT FEATURES EXACTLY.

EXPLANATION

//// CURSORY REVIEW



SCALE IN FEET
1" = 475'-0"

FIGURE 1-1
AREA OF INVESTIGATION
WAYSIDE AREA
NAVAL WEAPONS STATION, EARLE
MONMOUTH COUNTY, NJ

ENSR

- A brief summary memo was prepared and a debriefing meeting was held on August 16, 1991 at NWS Earle, to inform the Navy of the important findings of the evaluation.
- FOIA letters were sent to the US Environmental Protection Agency (US EPA) and the New Jersey Department of Environment Protection (NJDEP) on August 21, 1991 requesting whether any files exist on the Wayside Area of NWS Earle. ENSR has received a response from the US EPA but not from the NJDEP.

This report details the findings of this environmental evaluation. Section 2.0 contains background information, including a site description, site history, and past and current uses. This information has been compiled from a review of historical records, maps, aerial photographs and interviews with selected personnel. The results of the field reconnaissance are discussed in Section 3.0, while Section 4.0 presents conclusions and recommendations. Section 5.0 details proposed sampling activities based on the recommendations in Section 4.0.

2.0 BACKGROUND INFORMATION

2.1 SITE DESCRIPTION

The Wayside Area of NWS Earle is located in the east central portion of Monmouth County, New Jersey. The area consists of approximately 440 acres of partially developed land located in the northeast corner of the main part of the Naval Weapons Station. The tract is bounded on the southeast by Shafto Road, on the east by Wayside Road, to the northeast, north and northwest by Stavola Construction Company and residential areas, and to the southwest by ordnance railroad barricades on NWS Earle. The Central New Jersey Railroad runs through the western section of the Wayside Area, and represents the northwestern boundary of the area that has been used by the Army. The area to the northwest of the railroad tracks is not easily accessible at the present time. Figure 2-1 shows the location of the Wayside Area, and Figure 2-2 shows the general site map.

2.2 SITE HISTORY

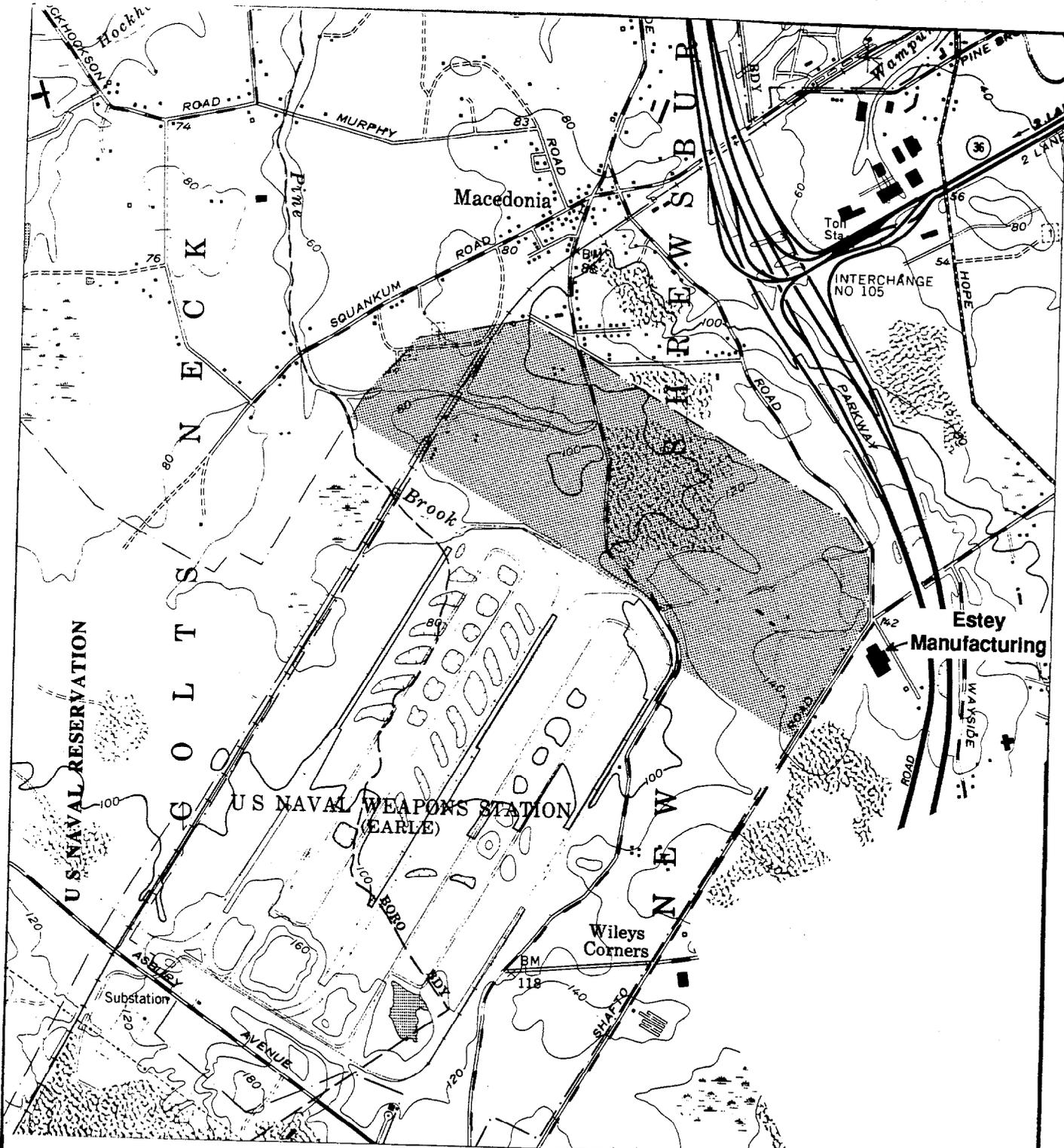
The following site history has been compiled from historical maps and aerial photographs. Photocopies of some of these maps and aerial photographs are provided in Appendix A. The site was considered in three sections: northwest, central (antenna field), and southeast.

The area encompassing the subject site was forested and undeveloped in 1851. The Naval Ammunition Depot (now known as the Naval Weapons Station) was constructed in 1942. In 1943, the subject site was known as the "Intransit Area". Tinton Falls Road bisected the site from north to south, and 10 houses were located along this road. A sand and gravel pit was located in the central section of the site.

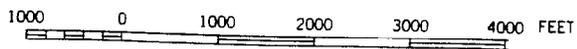
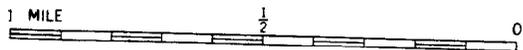
By 1947, two large rectangular tracts had been cleared in the northwest section of the site, and the barricade area had been constructed to the southwest of the site. The central section was vegetated, and numerous buildings and a network of dirt roads existed in the southeast section. An agreement between the Navy and the Army was signed in 1947 which permitted the Army use of 91 acres known as the "Wayside Area." The "Wayside Area" was depicted on a 1951 map as an approximately square, 90 acre, fenced parcel located at the east corner of the site.

In 1956, plans were made for construction of an airstrip in the Wayside Area, however, it was never built. The airstrip (2300' x 250') would have been oriented NW-SE, crossing the central and southeast sections of the site. Four test holes were bored in planning for the airstrip; two holes in the central section and two in the southeast section. The test holes showed the subsurface to be composed generally of sand and gravel. Two gravel pits, both located in the central section of the site, were noted on the airstrip plans: one at the southwest border, and one at the northeast fenceline.

1962 aerial photographs of the southeast section of the site show that by this time, the Pistol Range had been constructed, the Communications Electronics Command-Electromagnetic Interference (CECOM-EMI) building, asphalt pad, round metal shed, and miscellaneous adjacent



SCALE 1:24000



CONTOUR INTERVAL 20 FEET



Area of Investigation

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FIGURE 2-1
WAYSIDE AREA
EARLE WEAPONS STATION
Monmouth County, New Jersey

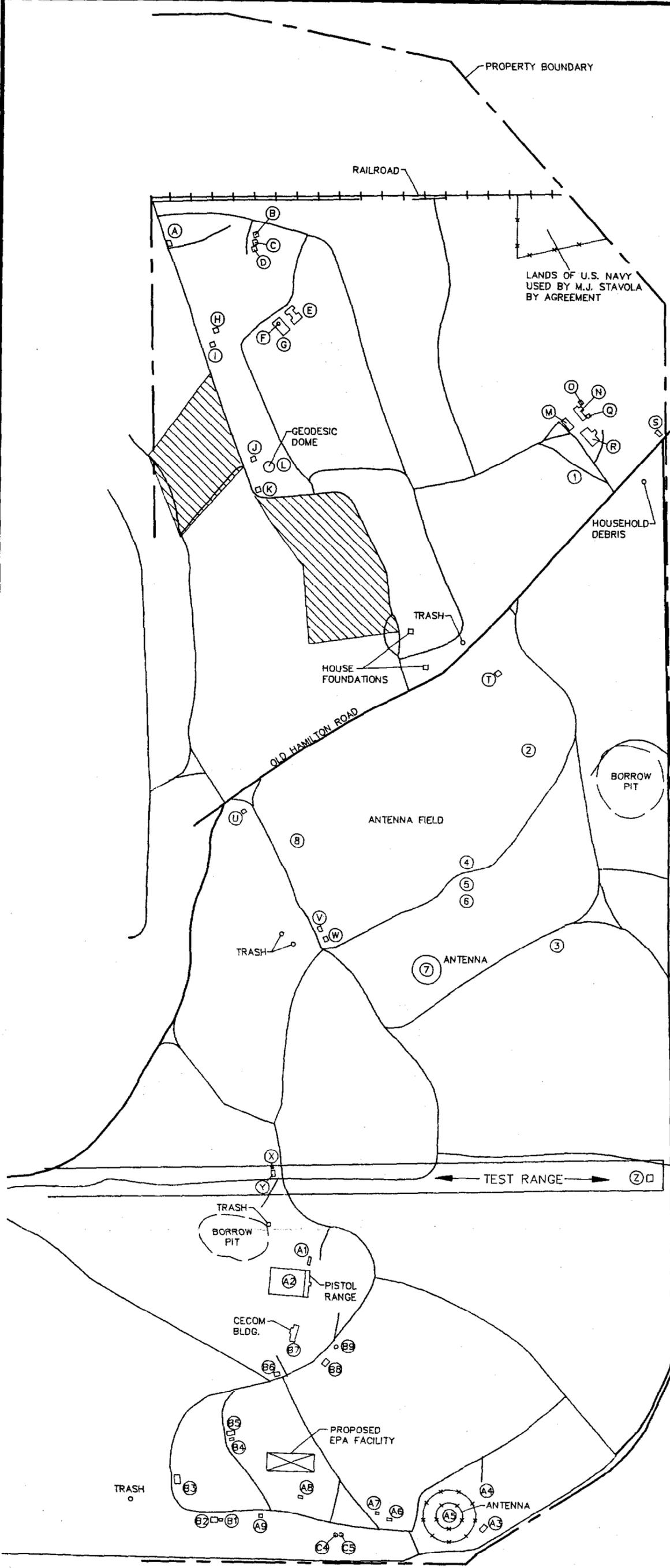
DRAWN: SOR

DATE: August 22, 1991

PROJECT NO.: REV:

FILE NO.:

CHECKED:



KEY TO STRUCTURES

- A METAL BLDG.
 - B METAL SHED
 - C WOOD SHED W/OBSERVATION DECK ROOF & SMALL SHED IN BACK
 - D SMALL ROUND METAL BLDG.
 - E LARGE WOOD ROOF HELICOPTER HANGER
 - F SMALL ROUND METAL BLDG.
 - G WOOD BLDG. W/ATTACHED STAIRWAY & OBSV. DECK
 - H SMALL WOOD BLDG. W/OBSV. DECK ROOF
 - I WOOD TOWER
 - J SMALL WOOD BLDG. W/OBSV. DECK ROOF
 - K SMALL WOOD BLDG. W/OBSV. DECK ROOF
 - L LARGE SPHERE FIBERGLASS BLDG.
 - M METAL BLDG.
 - N METAL BLDG.
 - O WOOD SHED
 - P HOUSE TRAILER
 - Q WOOD SHED
 - R CONCRETE FOUNDATION OF BLDG. DESTROYED BY FIRE
 - S WOOD GUARD HOUSE
 - T WOOD OBSERVATION PLATFORM APPROX. 25' HIGH
 - U SMALL WOOD STORAGE SHED
 - V METAL TRAILER BOX (ELECTRICAL)
 - W SMALL WOOD SHED
 - X HOUSE TRAILER
 - Y WOOD BLDG.
 - Z HOUSE TRAILER W/WOOD PORCH AND OVERHEAD WOOD OBSERVATION BLDG.
-
- A1 WOOD SHED
 - A2 PISTOL RANGE SHELTER & PISTOL RANGE
 - A3 BLDG. FOUNDATION
 - A4 CAMP SITE W/S PORTA-JOHN
 - A5 ABANDONED ANTENNA
 - A6 SMALL WOOD SHED
 - A7 METAL TOWER
 - A8 METAL TOWER W/METAL TRUCK BOX
 - A9 METAL BOX SHED
 - B1 SMALL WOOD BLDG. W/OBSV. ROOF
 - B2 LARGE WOOD PLATFORM
 - B3 LARGE WOOD PLATFORM
 - B4 SMALL WOOD SHED
 - B5 WOOD BLDG.
 - B6 WOOD SHED
 - B7 METAL BLDG. W/OBSV. DECK ON ROOF
 - B8 PAD OR OLD BLDG. FOUNDATION
 - B9 SMALL ROUND BLDG.
 - C4 SMALL ROUND BLDG.
 - C5 SMALL ROUND BLDG.

KEY TO ANTENNAS IN ARMY AREA

- 1 IONOSPHERIC SOUNDER
- 2 HORIZONTAL DIPOLE
- 3 LIGHT TRACKER BEACON
- 4 LOG PERIODIC
- 5 WHIP
- 6 BLADE
- 7 MONOCONE ANTENNA
- 8 SSL

MAP IS COMPILED FROM AERIAL PHOTOGRAPHS AND SITE MAPS PROVIDED BY THE NAVY AND ARMY, AND MAY NOT REPRESENT FEATURES EXACTLY.

EXPLANATION

 TICK STUDY AREAS

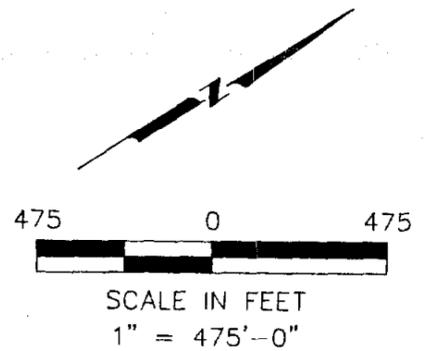


FIGURE 2-2
GENERAL SITE MAP
WAYSIDE AREA
NAVAL WEAPONS STATION, EARLE
MONMOUTH COUNTY, NJ

buildings had been installed, and the southeast edge of the site was cleared of trees. The cover for the septic tank located about 200 feet southeast of the CECOM-EMI building was visible. A small pile of what appears to be debris was noted about 200 feet south of the pistol range.

In 1969, the north corner and southeast sections of the site were still cleared and had several buildings. The central section of the site was still vegetated.

Maps and aerial photographs from the period 1976-1978 show the buildings, structures and features of the site to be essentially as they exist today (with the exception of overgrown vegetation). By 1976, the central section of the Wayside area, the antenna field on Figure 2-2, was cleared of vegetation. Also by this time, properties adjacent to the Wayside area, north and east of the NWS had been developed. The Estey building had been constructed and the area northeast of the central section of the site had been cleared for the asphalt batch plant (Figure 2-1). By 1978, the laser test range had been cleared in the southeast section, and all other site features (buildings, observation towers, geodesic dome, antennas, etc.) were present as they exist today.

Aerial photographs from 1969 to 1990 show a circular cleared area in the southern corner of the site, southwest of the dirt road, and just to the northwest of observation tower B3. On a 1978 photograph, something resembling a rectangular structure was located at the edge of this clearing next to the woods. This area was labelled as a helicopter pad on a 1978 Army map. A minor trash disposal area was found in the woods at the edge of this clearing. Although no other visual evidence of a disposal area was found during the site reconnaissance, the morphology of this area and the fact that it appears that it has been bulldozed suggests that this area could have been used for waste disposal.

2.3 GENERAL SITE USES

The subject site is owned by the U.S. Navy, but was used by the U.S. Army from the 1940's until June, 1991. The site is currently not actively used. The following past uses of the subject site were determined from interviews with individuals from the Fort Monmouth Army Base and NWS Earle, historical maps, and a site reconnaissance.

2.3.1 Military Training

The Army used the subject site to conduct field training exercises for soldiers, army reserves, chaplains and chaplain assistants. Numerous camping sites and "fox holes" were noted throughout the site area. The Plans, Training and Mobilization Officer for Fort Monmouth indicated that the army used blank ammunition which left a brass casing, smoke grenades, and noise simulators (similar to firecrackers) on the site.

2.3.2 Testing of Communications, Electronic and Electromagnetic Equipment

The CECOM branch of the Army apparently tested various types of equipment on the site. The CECOM-EMI building (B7/T-8006) was relocated to the Wayside Area from the Coles Signal Laboratory in 1955. A sign on the building noted that it was used for "electromagnetic interference testing". Numerous antennae are located throughout the subject site, particularly in the cleared "antenna field" in the central section of the site. A geodesic dome is located in the northwest section of the site. The dome contains a turntable at the center of the dome that was used to orient a vehicle holding radar equipment.

2.3.3 Laser Test Range

The Laser Test Range is a narrow strip (approximately 50 yards wide) cleared of vegetation, which runs from northeast to southwest through the southeast section of the site. At the northeast end of the cleared strip is a tall building identified as the laser tower.

2.3.4 Pistol Range

The Pistol Range was used by the Army (and later by the Navy) for target practice. Many spent bullets and shells were found on the embankment furthest from the pistol range shelter. Shells were also found throughout the rest of the site area, indicating that firearms were also discharged elsewhere on the site.

2.3.5 EPA Soil Washing Experiment

In approximately 1982-1983, the U.S. Environmental Protection Agency and its contractor, Mason and Hanger, Inc., planned and initiated a soil washing test program next to building B5 on the southeast section of the subject site (see Figure 2-2). The plans called for the construction of a large concrete tank (the Chemical Additive Treatment, or CAT, tank) in which the soil washing tests would be conducted. A large quantity of clean sand was purchased and stockpiled on the site to be used for the testing program. Two pairs of PVC monitoring wells were installed to the north of building B5, in order to determine depth to groundwater. The project was apparently cancelled due to lack of funding, and the tank was never constructed. The pile of clean sand remains behind building B5 today.

In 1985, EPA conducted an in-situ soil washing test using its mobile In-Situ Containment and Treatment Unit (ISCTU), on a section of the site located just east of observation tower B3. Five monitoring wells and five pumping wells were installed on the 2-acre rectangular section of cleared land. While the wells were pumped and the aquifer was recharged from the surface, a low concentration of a biodegradable fluorescense dye tracer was added to the recharge water. The test was conducted for eight weeks, after which the wells and recharge system were removed, and the site reseeded. A copy of the NJPDES permit is provided in Appendix D.

2.3.6 Tick/Pesticide Study

In 1986, the NJ State Department of Health conducted a study of the tick population and effectiveness of two insecticides at the subject site, in response to an outbreak of Lyme disease in an army reserve unit using the area. Insecticides (carbaryl and diazinon) were applied on two 1-hectare treatment blocks in the northwest section of the site. The approximate locations of the study areas are shown on Figure 2-2.

2.3.7 Hunting and Recreation

According to a Fort Monmouth newsletter, deer hunting will be allowed by permit for an unspecified period in the Wayside Area beginning August 21, 1991. In addition, two riders on three-wheelers were seen entering the Wayside Area during ENSR's site visit.

3.0 RESULTS OF FIELD RECONNAISSANCE

3.1 OVERVIEW

The main objective of the site reconnaissance was to identify any areas within Wayside which would be unsuitable for construction of residential housing or schools. While no criteria for unsuitability were defined by the Navy, for the purpose of this evaluation, unsuitability was defined as areas of environmental contamination that would be unusable for immediate construction. In determining areas for which there was potential concern, ENSR relied upon the professional judgement of the project team conducting the evaluation and on its corporate experience in conducting environmental evaluations. These judgements were based on ENSR's combined knowledge of environmental regulations and the hazards posed by past and present uses of chemical compounds.

This section describes the important findings of the field reconnaissance, and includes descriptions of the main buildings, transformers, underground and above ground storage tanks, wells, trash disposal areas, and other physical features. Adjacent land uses are also identified in this section.

3.2 BUILDINGS

3.2.1 Description

During the initial site investigation of the Wayside area, approximately 50 buildings and/or structures were identified. Generally, the structures were small wood buildings or sheds, wooden platforms and observation decks, portable toilets, aluminum trailers and round aluminum storage huts, and several types of antennas. A summary of the structures is provide in Table 3-1, and the approximate location of the structures is shown on Figure 2-2.

3.2.1.1 CECOM-EMI Building (Building B7/T-8006)

The CECOM-EMI building is located in the southeast section of the subject area. Although its historical uses are unknown, CECOM appears to have been used as the Army's central communications and electronics command station for the Wayside Area. Several cable boxes and wires were observed inside the building.

Eight galvanized steel pipes noted northwest of the building marked the location of the septic tank. Sanitary facilities were observed inside the building. No lab sinks or evidence of chemical or hazardous substance use were observed inside CECOM-EMI. However, Army and Navy personnel were unaware of the exact use of the building.

A sign along the northwest wall of CECOM-EMI marked the presence of an underground 550 gallon #2 fuel oil tank. No staining was observed at or near the fill pipe. An Army engineering map dated March 1955 outlines the building plans for CECOM-EMI, including the installation of an underground storage tank. The tank is currently registered with the state of New Jersey and has been in place for at least 36 years.

TABLE 3-1
BUILDINGS AND STRUCTURES
WAYSIDE AREA NWS EARLE

Building/Description	Navy Designation	Army Designation
Metal building, approximately 15x15 ft with garage doors, telephone hookup and electric box	A	T-8010
Metal shed, approximately 10x25 ft, wood floor with roll of razor wire inside, electrical hookup, peeling paint	B	
Wood shed with observation deck roof and small shed in back, approximately 30x20 ft, electrical hookup, soundproof room inside, peeling paint	C	T-8019
Small round metal building, approximately 20 ft in diameter, wood floor, insulation made by Johns Manville (Super felt), electrical hookup, peeling paint	D	
Large wood roof helicopter hanger, three sided, approximately 40'x40', concrete pad floor, electrical hookup	E	T-8016
Small round metal building, approximately 10 ft in diameter, electrical hookup, rotted floor, 2 portajohns directly south of building, peeling paint	F	
Wood building with attached stairway and observation deck, approximately 40x40 ft, rotted floor, ceiling insulation labeled "Johns Mansville", 2 portajohns nearby, electrical hookup, peeling paint	G	T-8007
Small wood building with observation deck roof, approximately 10x10 ft, poor condition, hole in roof, peeling paint, electrical hookup	H	
Wood tower, with large winch-like structure for lifting objects, also referred to as a vibration tower, approximately 50 ft high	I	
Small wood building with observation deck roof, approximately 10x10 ft, partially collapsed, rotted floor, electrical hookup	J	
Small wood building with observation deck roof, not found	K	
Large sphere fiberglass building, approximately 50 ft in diameter and 50 ft high, electrical hookup, dirt floor, 4x4x4 ft pit in floor near entrance, rotating platform in center of structure	L	Geodesic Dome
Metal building, aluminum structure with garage doors approximately 200x420 ft, oil heat, above ground fuel oil tank, bulkhead with some staining inside	M	T-8004
Metal building, approximately 100x30 ft, electrical hookup, water tap in back, peeling paint, locked	N	T-8003
Wood shed, approximately 25x20 ft, electrical hookup, peeling paint	O	T-8009
House trailer, no longer present	P	
Wood shed	Q	
Concrete foundation of building destroyed by fire, approximately 100x50 ft, 1 550 gallon underground fuel tank was removed after the fire	R	T-8005

TABLE 3-1 (continued)

**BUILDINGS AND STRUCTURES
WAYSIDE AREA
NWS EARLE**

Building/Description	Navy Designation	Army Designation
Wood guard house, approximately 7x7 ft, trash, peeling paint, electrical hookup, telephone	S	T-8014
Wood observation platform approximately 25 ft high, poles coated with creosote/tar, hard black material at base of poles, metal pipe sticking out of ground south of platform	T	
Small wood storage shed, not found	U	
Metal trailer box (electrical) (mislabeled, should be small wood storage shed, 10x10 ft, sitting on a 20'x15' concrete pad). 550 gallon above ground tank labeled "D" east of shed.	V	
Small wood shed	W	
House trailer in laser range, approximately 20x100 ft with gas oven, outlets, sink, electrical hookup, some soil staining in parking area	X	
Wood building, green shed next to trailer on laser range, approximately 50x10 ft, peeling paint, electrical hookup and telephone, locked	Y	
House trailer with wood porch and overhead wood observation building, approximately 10x100 ft, electrical hookup, telephone hookup, bathroom in trailer; portajohn, fibrous insulation hanging from bottom of trailer	Z	
Wood shed, metal shed approximately 40x10 ft with electrical hookup with lumber and paper target debris inside, electrical hookup, peeling paint	A1	
Pistol range shelter and pistol range, electrical boxes on shelter posts, some soil staining on ground approximately 50 ft from shelter.	A2	T-8015
Building foundation	A3	
Camp site with 5 portajohns	A4	
Abandoned antenna	A5	
Small wood shed, no longer standing, concrete pad foundation	A6	
Metal tower (mislabeled, partially collapsed wooden building), approximately 8x8 ft, with a 5-10 ft deep foundation partly filled with wood and debris. Appears to be well at bottom which is connected to an underground water storage tank; 2 6-inch cast iron wells are located approximately 50-100 feet northeast of building	A7	
Metal tower with metal truck box, approximately 10x30x10 ft, electrical, communication equipment, metal trailer parked on concrete pad with tall antenna	A8	
Metal box shed, no longer present, wood beams along ground and old electrical box and cable coming out of ground	A9	
Small wood building with observation roof, approximately 10x10 ft, with electricity and telephone	B1	

TABLE 3-1 (continued)
BUILDINGS AND STRUCTURES
WAYSIDE AREA
NWS EARLE

Building/Description	Navy Designation	Army Designation
Large wood platform, approximately 25 feet high, poles appear to have been coated with creosote	B2	
Large wood platform, observation deck approximately 25 feet high, electrical box near deck; creosote/tar on poles	B3	
Small wood shed, may have been a guard house, approximately 10x10 ft, rotted	B4	
Wood building, large shed (30x10 ft) with 3 portajohns nearby, telephone, electrical hookup, next to soil pile left from EPA soil washing study. Exterior shingles may contain asbestos	B5	T-8020
Wood shed, rotted floor, electrical hookup	B6	
Metal building with observation deck on roof, sign labelled GECOM building and "electromagnetic interference evaluation test facility", plumbing, electricity, telephone, and water well, 550 gallon underground fuel tank and septic tank.	B7	T-8006
Pad or old building foundation, asphalt foundation, empty since at least 1962, metal pipe with cable at each corner of pad, 3 small metal cable boxes around pad	B8	T-8018
Small round building with electrical hookup	B9	T-8017
Small round building, approximately 20 to 25 ft in diameter, 15 ft high, electrical hook up, concrete pad adjacent to structure	C4	
Small round building, approximately 20 to 25 ft in diameter, 15 ft high, electrical hook up, concrete pad adjacent to structure	C5	
Ionospheric sounder antenna, not found	1	
Horizontal dipole antenna, not found	2	
Light tracker beacon antenna, wooden tower constructed of poles approximately 75 ft high, poles coated with creosote/tar, soil staining at base of poles	3	
Log periodic antenna, not found	4	
Whip antenna, not found	5	
Blade antenna, not found	6	
Monocone antenna	7	
SSL antenna, not found	8	

3.2.1.2 Geodesic Dome (Building L)

The western section of the subject area contains a fiberglass sphere structure with a dirt floor. The building is empty except for a rotating structure in the middle of the floor. Both Army and Navy personnel are unaware of the uses of this building. However, Ed Devlin of the US Army Training Division believes the building was used to house radar equipment which was placed on the rotating structure to orient the radar in different directions. No oil staining was observed on the dirt floor or on the surrounding tract of land.

3.2.1.3 Concrete Foundation (Building R/T-8005)

The northwest section of the subject property contains a concrete foundation, 100'x 50', of a structure that burned down approximately 5 to 10 years ago. According to Mr. Reggie Sears of Fort Monmouth, all building debris and one of the underground storage tanks associated with it were removed. The cause of the fire and the UST excavation date are unknown.

3.2.1.4 Pistol Range (Buildings A2/T-8015 and A1)

The southeast section of Wayside contains a pistol range. Two structures are located here, a firing shelter and an aluminum shed. Currently, the shed stores lumber, litter from paper targets, and a 3/4 full can of urea resin glue-adhesive (manufactured in 1964), 1/2 full can of Lubriplate, and an empty container of anti-freeze. Minor paper trash is scattered about. The embankment behind the pistol range target is covered with bullets and shells and may pose a risk from lead and other heavy metals. Aerial photographs show that this area was developed in 1962.

3.2.2 Potential Hazards Associated with Buildings

3.2.2.1 Asbestos

Various structures throughout the Wayside Area are deteriorating and collapsed. Insulation material was observed in many of these structures. Given the age of the buildings, and the fact that some of the insulation was manufacture by Johns-Manville (a known manufacturer of asbestos insulation), it is possible that the insulation material contains asbestos. However, positive identification is only possible through lab analysis. The following buildings were identified as possibly containing asbestos:

- G
- B5
- D
- C4
- Z
- C5

3.2.2.2 Creosote

The utility poles used in conjunction with the antennas and many of the poles used to support the large wooden observation decks were covered with creosote or tar at the bases of the poles and soil staining extended outward to a diameter of one foot. The following areas exhibited creosote/tar staining:

- All poles associated with antennas and observation decks in the central section of Wayside

- Buildings B2 and B7

3.2.2.3 Lead Paint

The following structures exhibited chipping paint, and given the age of the buildings, the paint may contain lead:

- Buildings A through D
- Buildings A1 and A2
- Buildings F and G
- Buildings M, O, S, Y, Z

3.3 TRANSFORMERS

No transformers or empty transformer pads located by ENSR on the site showed any evidence of leaks or staining. The inventory of transformers in the Wayside Area (prepared by Fort Monmouth) is summarized on Table 3-2. Transformers located by ENSR during the site visit are denoted with an "F" for Found. The location of the transformer is given by a) the notation on the handwritten inventory done by Fort Monmouth, and b) a description of where it is, if known. The table gives the PCB test result of each transformer tested, as well as any reference to PCB concentration noted on the transformer itself. Figure 3-1 shows the approximate locations of the transformers.

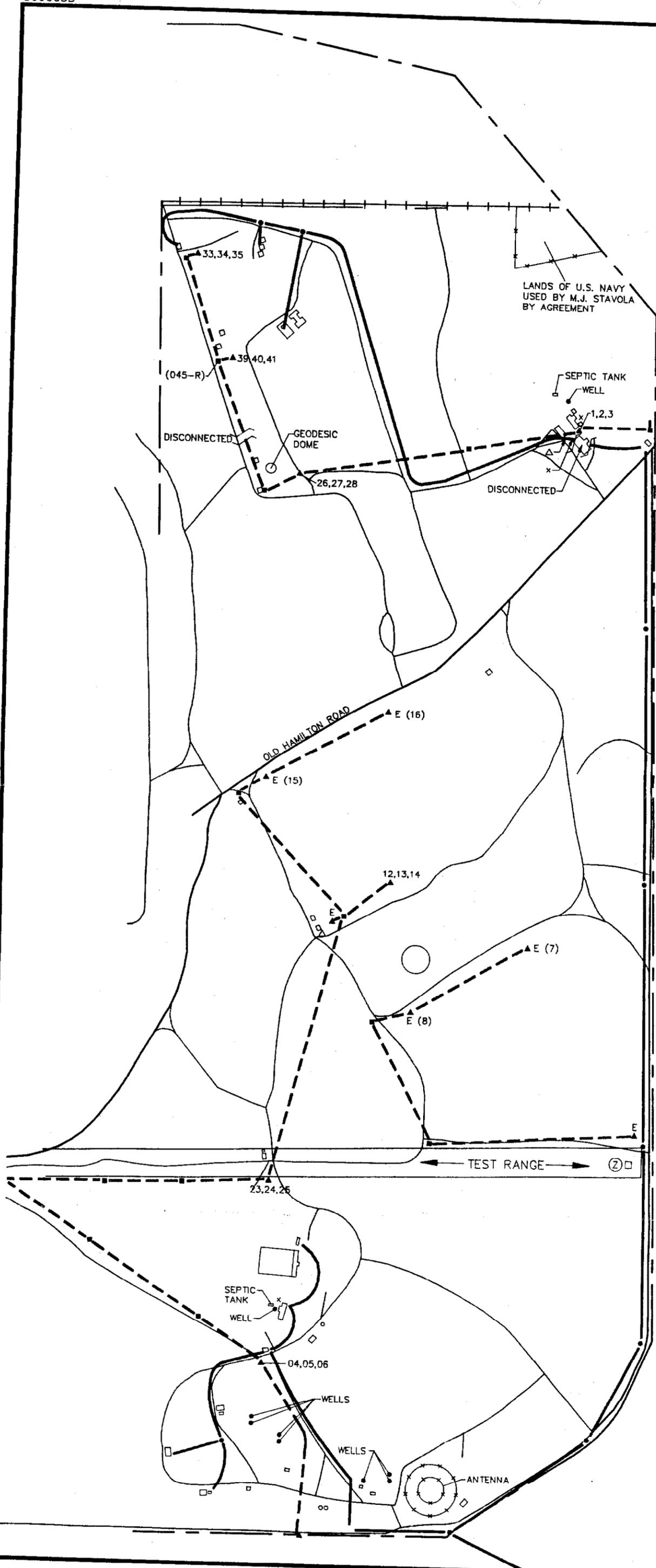
Personnel at Fort Monmouth are aware of only five (5) transformers removed from the site: nos. WA-007, WA-008, WA-015, WA-016, WA-045. These transformers were removed in August 1991 because they contained PCBs at levels between 50 and 300 ppm. According to Fort Monmouth personnel, no transformers were ever removed from the site which contained >500 ppm PCBs. Transformers are listed on the table as "apparently removed" when an empty transformer pad was found at the approximate location where these transformers were supposed to be. Ten (10) transformers were not accounted for: WA029-032, WA036-038, WA042-044. They were not located in the field, no empty pads were found in the field where they could have been removed from, and no pads for these transformers were noted on the electric utility map. However, all of these transformers were tested and contained <50 ppm PCBs.

Transformers WA012-014 are located in the eastern part of the antenna field, near a tall observation tower. The cables from these transformers are routed through a PVC plastic pipe. The outer protective casing on the cables has melted away, resulting in a four-foot section of the PVC pipe having melted and burned. This would seem to represent a safety hazard if the power is turned back on through these transformers.

TABLE 3-2

TRANSFORMER SUMMARY
WAYSIDE AREA
NWS EARLE

TRANSFORMER NO.	F=FOUND Blank= Not Found	Note	LOCATION Description	PCB TEST RESULT* (ppm)	PCB ON TRANSF. (ppm)	REMOVED	KEY:
WA 001	F	T-8003	NW: next to bldg R		NT		A.F. - antenna field
WA 002	F	T-8003	" "		NT		L.R. - laser range
WA 003	F	T-8003	" "		NT		R.A. - radio antenna??
WA 004	F	T-8006	100' SE of CECOM bldg		0		T.H. - unknown
WA 005	F	T-8006	" "		0		V.T. - vibration tower
WA 006	F	T-8006	" "		0		near geodesic dome
WA 007		A.F.	E side of antenna field	58		R-PCB	R-PCB - removed due to PCBs
WA 008		A.F.	" "	223		R-PCB	AR - Apparently removed:
WA 009		A.F.	near bldg W, E side of A.F	<2		AR	empty pad at this location.
WA 010		A.F.	" "	<2		AR	* Blank spaces indicate not tested
WA 011		A.F.	" "	<2		AR	or no test result available.
WA 012	F	A.F.	antenna fld nr obs twr	<2	<2		NT - not tested
WA 013	F	A.F.	" "	<2	<2		
WA 014	F	A.F.	" "	<2	<2		
WA 015		A.F.	W side of antenna field	55		R-PCB	
WA 016		A.F.	W side of antenna field	244		R-PCB	
WA 017		L.R.	pole mounted--not in study area				
WA 018		L.R.	" "				
WA 019		L.R.	" "				
WA 020		L.R.	" "				
WA 021		L.R.	" "				
WA 022		L.R.	not found in Army inventory				
WA 023	F	L.R.	Laser Range, nr bldg Y	9	9		
WA 024	F	L.R.	" "	9	9		
WA 025	F	L.R.	" "	11	11		
WA 026	F	R.A.	NE of geodesic dome	<2	<2		
WA 027	F	R.A.	" "	<2	<2		
WA 028	F	R.A.	" "	<2	<2		
WA 029		R.A.	?	7			
WA 030		R.A.	?	6			
WA 031		R.A.	?	6			
WA 032		R.A.	?	8			
WA 033	F	R.A.	NW: north of bldg A	<2	<2		
WA 034	F	R.A.	" "	<2	<2		
WA 035	F	R.A.	" "	<2	<2		
WA 036		T.H.	?	19			
WA 037		T.H.	?	19			
WA 038		T.H.	?	19			
WA 039	F	V.T.	NW: near bldg H	<2	<2		
WA 040	F	V.T.	" "	<2	<2		
WA 041	F	V.T.	" "	<2	<2		
WA 042		V.T.	near geodesic dome	<2			
WA 043		V.T.	" "	<2			
WA 044		V.T.	" "	3			
WA 045		V.T.	NW of geodesic dome	297		R-PCB	
WA 046		L.R.	NE end of laser range?	<2		AR	
WA 047		L.R.	" "	<2		AR	
WA 048		L.R.	" "	<2		AR	



MAP IS COMPILED FROM AERIAL PHOTOGRAPHS AND SITE MAPS PROVIDED BY THE NAVY AND ARMY, AND MAY NOT REPRESENT FEATURES EXACTLY.

EXPLANATION

- ▲ TRANSFORMER (E - EMPTY PAD)
- MANHOLE, 4'x4'x6' DEEP
- POLE
- WELL
- SEPTIC TANK
- △ ABOVE GROUND TANK
- X UNDERGROUND TANK
- TELEPHONE
- - - ELECTRICITY



**FIGURE 3-1
UTILITIES MAP
WAYSIDE AREA
NAVAL WEAPONS STATION, EARLE
MONMOUTH COUNTY, NJ**

3.4 STORAGE TANKS

3.4.1 Underground Storage Tanks

Three underground storage tanks (UST) for no. 2 fuel oil were located on the subject site:

- 1000-gallon tank located in the northwest section of the site, west of building R (T-8005). The tank was reportedly removed after building T-8005 burned down around 1984. Personnel from Fort Monmouth indicated that in July, 1991, they dug in this area to try to locate the tank, and discovered free product in the ground. They stopped digging and did not look further for the tank.
- 1000-gallon tank located in the northwest section of the site, next to building N (T-8003). The tank is reportedly still in the ground.
- 550-gallon tank located adjacent to the CECOM-EMI building (B7 or T-8006). The tank appears to still be in the ground.

All three tanks have been registered with the State of New Jersey, including the one that was reportedly removed. A copy of the certification is included in Appendix B.

No evidence of a spill or any staining was noted on the ground in the vicinity of the tanks. Since the CECOM-EMI building was relocated from the Coles Signal Laboratory to the Wayside Area in 1956, it is likely that the UST adjacent to this building is at least 35 years old. The age of the other tank is unknown, but based on the age of the buildings in this area, it may be at least 40 years old.

A fourth underground storage tank was also found under building A7. This tank is believed to be connected to an adjacent water well and appears to have been used for water storage.

3.4.2 Above Ground Storage Tanks

Two above ground storage tanks were noted on the subject site. No oil stains were observed around either tank. One tank, approximately 275 gallons in size, was located in front of building M (T-8004). The outside of the tank was rusty and was marked: "haz met oil #2". The tank was empty but it is assumed that it had contained no. 2 fuel oil. The second above ground tank, approximately 550 gallons, was located at the southeastern corner of the antenna field in the central section of the site, next to former building W. The tank appeared to be empty. The outside was rusty, and was marked with a "D", presumably denoting diesel fuel storage.

3.5 WELLS

3.5.1 Drinking Water Wells

Several drinking water wells are located in the Wayside Area. The approximate locations of these wells are shown on Figure 3-1. One drinking water well is located near building R, in the northwest section of the Site. A second well is located next to the CECOM-EMI building, in the southeast section of the Wayside Area. Three wells were found in the northeast section of the Wayside Area. One of these wells is located in a partially collapsed building (A7) and is

connected to an underground water storage tank. The other two wells are located in the woods northeast of this building. They are constructed of 6-inch cast iron casing.

3.5.2 Monitoring Wells

Four two-inch PVC monitoring wells (piezometers) were found in the southeast section of the Wayside Area, northeast of building B4. These wells were installed as part of the EPA soil washing study. Apparently other wells were also installed in this area, but were not found during the site reconnaissance.

The US Geological Survey also monitors an observation well located approximately 3000 feet to the south of the Study Area in the vicinity of the former mock Vietnamese village.

3.6 TRASH DISPOSAL AREAS/STAINED SOILS

Several small trash disposal areas were found throughout the Wayside Area, although most of them were small (less than 10x10 ft) and contained miscellaneous trash such as lumber, discarded electrical wire, and household debris. The approximate locations of these small disposal areas are shown on Figure 2-1.

In addition to the areas identified during the field reconnaissance, a 1962 aerial photograph showed an area southwest of the pistol range which may have been a possible disposal area. Ground reconnaissance of this area did not identify any remains of a disposal area. However, geophysical techniques could be used to make a more positive determination of the presence or absence of any buried material in this area.

Historical aerial photographs and maps indicated a second area in the southeastern corner of the Wayside Area that was used as a helicopter pad, and may have been used as a disposal area. ENSR's field survey located a small amount of trash and debris in this area. The disposal area covered an area of approximately 20 ft x 50 ft, and consisted primarily of nylon netting, metal debris, coaxial cable and black plastic. Geophysics and or sampling in this area may help to make a more positive determination of the presence or absence of any buried material in this area.

Minor soil staining was observed in several areas of the site. Small oil-stained areas were observed in the parking area at the Pistol Range, in the vicinity of building X near the Laser Test Range and near the group of buildings located in the northern section of the Wayside Area near building R. A partially-filled 55-gallon drum was observed approximately 30 ft south of building A, near the southwest corner of the site. This drum was filled with stained sand which had a faint petroleum odor. All of these areas appear to be associated with incidental petroleum releases from leaking vehicles.

Other soil staining was observed at the bases of some of the observation decks. This staining has already been discussed in Section 3.1.2.2.

3.7 SURROUNDING PROPERTY USE

The Wayside Area is surrounded by mixed residential and industrial areas to the east, north and west, and by ordinance railroad barracks to the southwest. Stavola Construction Company has two active operating areas which abut the subject site. The first area includes an asphalt batch plant located near the center of the northeast boundary, and the second area is a cement plant which is adjacent to the north corner of the Wayside Area. Stavola is also using a section the northwest section of the Wayside Area within NWS Earle boundary for the cement facility. Table 3-3 provides a summary of the surrounding property uses and their potential impact on the Wayside Area. Potential waste disposal sites that are located in the general area are also discussed in this table.

Files on Estey Manufacturing and the Wayside Area of NWS Earle were requested from the US Environmental Protection Agency (EPA) Region II, under the Freedom of Information Act. The EPA did not have any files on the Wayside Area, but did provide a 1987 Preliminary Assessment (PA) of the Estey Manufacturing Company, completed by the New Jersey Department of Environmental Protection (DEP). A summary of this document is provided in Appendix E.

The PA found that historically the facility had several problems associated with disposing of its waste products. In 1980, approximately 200 drums of epoxy powder paint and liquid paint were disposed of behind the Estey Corporation, but were later removed along with six inches of contaminated topsoil. Post remedial soil sampling was not conducted. A 1986 RCRA site inspection conducted by NJDEP found three main waste streams generated by Estey: 1) an oil sludge generated during degreasing of metal parts, 2) waste lubricating oil, and 3) contaminated epoxy paint powder from an electrostatic painting operation. During the 1987 site reconnaissance by NJDEP for the PA, no signs of stained soil or stressed vegetation were noted in the 1980 drum disposal area. The PA recommended soil sampling in the drum disposal area to determine if residual contamination existed, however, there is no record that this sampling subsequently occurred. The PA also noted approximately 220 drums of liquid paint, with a flash point as low as 56°F, that had been stored inside the building for at least six years. These drums were supposedly removed from the site in 1987.

TABLE 3-3

**SURROUNDING PROPERTY USE
WAYSIDE AREA NWS EARLE**

LOCATION	POTENTIAL CONCERN	POTENTIAL IMPACT
Residential areas to the southeast, north and northwest of the Wayside Area.	None.	None.
Ammunition barricades to the south/southwest of the Wayside Area.	Potential for accidental detonation of stored ammunition.	Low, since developed areas must be located outside of the Explosive Safety Quantity Distance (ESQD) arcs for the railroad bunkers.
Stavola Asphalt Batch Plant, adjacent to northeast boundary of Wayside Area.	Potential impact from odors and noise.	Area adjacent to plant should be avoided to minimize noise and odor exposure.
Stavola Concrete Plant, adjacent to north corner of Wayside Area; portion of Wayside Area is leased to J.M. Stavola.	Potential impact from dust and noise.	Leased portion of Wayside Area is unsuitable under current conditions; adjacent areas should be avoided to minimize noise and dust exposures.
Estey Products, corner of Wayside & Shafto Roads, 200 ft east of Wayside Area.	Metal office furniture manufacturer that operated from approximately 1965 to 1990. Not in operation at present time. Listed on EPA CERCLIS site listing (NJD042910901), but not included on NJDEP sites list.	Low, PA/SI conducted by EPA indicated historic waste disposal problems at facility; however, only potential impact would be from groundwater contamination if on-site wells were to provide drinking water.
Trash dump, southeast of Estey Products, 1000 feet east of Wayside Area.	Uncontrolled disposal of construction debris, including old paint cans, lumber, etc.	Low, only potential impact would be from groundwater contamination if on-site wells were to provide drinking water.

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TABLE 3-3 (continued)

**SURROUNDING PROPERTY USE
WAYSIDE AREA NWS. EARLE**

LOCATION	POTENTIAL CONCERN	POTENTIAL IMPACT
Old cemeteries, adjacent to northern boundary of Wayside Area.	Potential for ground-water contamination from embalming fluids.	Low, however, if the portion of Wayside northwest of railroad tracks is considered for development this area should be more closely inspected.
Junk yard, adjacent to western boundary of Wayside Area.	Potential for ground-water, surface water and soil contamination.	Low, however, if the portion of Wayside northwest of railroad tracks is considered for development this area should be more closely inspected.
EOD Range, Earle, 3000 ft west of Wayside Area.	Potential for ground-water, surface water and soil contamination. The area is currently under investigation.	Unlikely, the site is not upgradient of the Wayside Area.
Solid Waste Landfill, Earle, 5000 ft southwest of Wayside Area.	Potential for ground-water, surface water and soil contamination. The area is currently under investigation.	Unlikely, the site is not upgradient of the Wayside Area.
Tinton Falls Landfill, Hope Road and Route 18, 2000 ft northeast of Wayside Area.	Municipal waste site located under Route 18 (NJDEP Facility #1336A).	Unlikely, the site is topographically downgradient of the Wayside Area and is approximately 1/3 mile away from the closest boundary.
Benoit Landfill, Green Grove Road, 6000 ft south of Wayside Area.	Recycling facility for bulky and vegetative waste, closure plans approved December 1990.	Unlikely, the site is greater than one mile from closest boundary.

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TABLE 3-3 (continued)

**SURROUNDING PROPERTY USE
WAYSIDE AREA NWS EARLE**

LOCATION	POTENTIAL CONCERN	POTENTIAL IMPACT
Monmouth County Reclamation Center, Asbury Ave, and Shafto Road, 8000 ft southwest of Wayside Area.	Regional landfill facility for household, commercial, industrial, bulky wastes, tires, vegetative waste, construction materials (NJDEP Facility #1336D, #1336E, and #1336F).	Unlikely, the site is greater than one mile from closest boundary.

4.0 CONCLUSIONS AND RECOMMENDATIONS

In general, ENSR's investigation of the Wayside Area has not identified any areas of environmental concern which would be unsuitable for housing and a school according to the criteria used.

However, the areas listed below are recommended for further investigation and may subsequently warrant remediation prior to development. The locations of these areas are shown on Figure 4-1.

- Pistol Range - The embankment is covered with bullets and shells that may contain lead and other heavy metals.
- Underground storage tanks - Two USTs remain on the site. One of these tanks, storing No. 2 fuel oil, is known to be at least 36 years old. It is recommended that soil around these tanks should also be sampled at the time the tanks are removed. Soil and/or ground water samples should also be collected in the vicinity of the tank which was removed. If contamination is identified in any of these areas, they should be remediated.
- A 1962 aerial photo showed an area southwest of the pistol range which may have been a possible disposal area. Ground reconnaissance did not identify any remains of a disposal area. However, geophysics and/or sampling may be used to make a more positive determination of the presence or absence of any buried material in this area.
- Historical aerial photos and site maps indicate an area in the southeastern corner of the site that was used as a helicopter pad and may have been used as a disposal area. ENSR's field survey located a small amount of trash and debris in this area. Again, geophysics and/or sampling may be used to make a more positive determination of the presence or absence of any buried material in this area.

Other potential environmental hazards associated with the existing structures were also identified. These include:

- Creosote staining was noted on the ground around the base of nearly all poles used to construct the observation towers and decks. Although the staining is very localized, children could be potentially be exposed to the hardened material at the base of the posts.
- The building insulation in several buildings may contain asbestos, given the age of the buildings, and the fact that some of the insulation was marked "Johns-Manville", a known manufacturer of asbestos insulation.
- Peeling paint was observed on the interior and exterior of many of the buildings. Given the age of these buildings, it is possible that lead paint was used.



MAP IS COMPILED FROM AERIAL PHOTOGRAPHS AND SITE MAPS PROVIDED BY THE NAVY AND ARMY, AND MAY NOT REPRESENT FEATURES EXACTLY.

EXPLANATION

▨ AREAS RECOMMENDED FOR ADDITIONAL INVESTIGATION

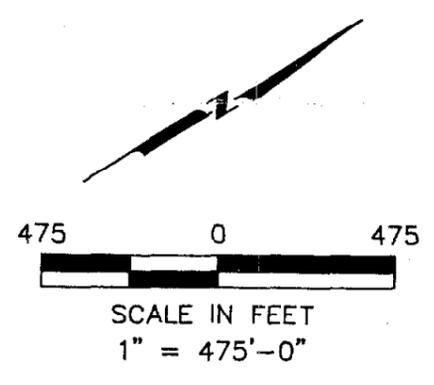


FIGURE 4-1
AREAS RECOMMENDED FOR
ADDITIONAL INVESTIGATION
WAYSIDE AREA
NAVAL WEAPONS STATION, EARLE
MONMOUTH COUNTY, NJ

ENSR

- The septic tank adjacent to the CECOM-EMI building and also the septic system behind building T-8003 (near the main gate) may warrant sampling. These septic systems appear to have been used for sanitary wastewater, however, since the past uses of these buildings have not been fully determined, the potential exists that unknown chemicals were also disposed of through the septic system.
- Some minor soil staining was observed near several buildings throughout the Wayside Area. All of the areas appear to be associated with incidental petroleum releases from leaking vehicles.
- Two above ground fuel storage tanks are located near building N and at the south edge of the antenna field, respectively.
- Five of the empty transformer pads once held PCB-contaminated transformers (50-500 ppm PCBs).

Although the primary objective of this investigation was to identify areas of environmental concern, the field reconnaissance also revealed the presence of other hazards that are of concern to personal safety to construction workers, children, or residents. For example, numerous foxholes, dilapidated buildings, and electrical and communication cables are present throughout the area. In most cases, these conditions can be easily remediated by regrading the area and removing the cables and structures. Some of the specific concerns are listed below:

- Numerous wires and cables were noted throughout the site area, both buried and on the ground surface.
- Three transformers (WA012-WA014) are located on a concrete pad in the center of the antenna field. These transformers all have <2 ppm PCBs, however, bare wires from the transformers appear to have melted and burned a four-foot section of PVC plastic pipe which they are routed through. Although the wires do not represent an environmental hazard, they may present a safety hazard if the power is turned back on.
- An asphalt batch plant and sand and gravel operation is located on adjacent property immediately north of the Wayside area. The plant may produce unacceptable odors and noise to any future users of the property. In addition, the northern section of the Wayside Area, leased to M.I. Stavola for operations associated with the concrete batch plant, would not be usable for development in its present condition.

Table 4-1 provides a description of the areas that are recommended for further investigation. This table also includes general recommendations for sampling activities or forms of remediation that could be carried out to complete this investigation.

TABLE 4-1

**AREAS RECOMMENDED FOR ADDITIONAL INVESTIGATION
WAYSIDE AREA NWS EARLE**

Structure/Area	Recommendations for Sampling/Remediation
CECOM-EMI Building	<p>Sample septic system for VOCs.</p> <p>Remove underground storage tank and sample soil beneath tank for petroleum hydrocarbons.</p>
Group of buildings near former building R (M, N, O, Q, R)	<p>Sample septic system for VOCs.</p> <p>Remove underground storage tank and sample soil beneath tank for petroleum hydrocarbons at building N.</p> <p>Install monitoring wells and sample groundwater for petroleum hydrocarbons in vicinity of former underground tank at building R.</p>
Pistol Range	Sample soil for lead.
Potential waste disposal area southwest of Pistol Range	Conduct geophysical investigations and trenching to evaluate the presence or absence of buried materials.
Cleared area in southeastern corner of Wayside Area	Conduct geophysical investigations and trenching to evaluate the presence or absence of buried materials.
Buildings G, D, Z, B5, C4, and C5	Sample insulation materials for asbestos.
Observation towers B2 and B7	Sample stained areas at base of posts for creosote.
Buildings A through D, A1, A2, F, G, M, O, S, Y, and Z	Collect paint chip samples for lead analysis.
Two above ground tanks	Sample soil beneath tanks for petroleum hydrocarbons, VOCs, and metals.
Empty transformer pads WA-007, WA-008, WA-015, WA-016 and WA-045	Sample soil for PCBs.
VOCs - Volatile Organic Compounds	

5.0 PROPOSED SAMPLING PROGRAM

Table 5-1 presents the details of sampling activities proposed to investigate the areas of concern identified in Section 4.0. These sampling activities could be carried out as a Preliminary Assessment/Site Inspection (PA/SI) under the Installation Restoration Program (IRP). In order to execute this sampling program, a detailed Work Plan prepared in accordance with the IRP must be completed and approved by the Navy. All sampling and analysis conducted as part of this sampling program would be performed in accordance with "Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program" NEESA 20.2-047B. Level D data quality objectives were assumed in the preparation of Table 5-1.

It is recommended in Section 4.0 that the underground storage tanks at the CECOM-EMI building and building N be removed and the surrounding soils investigated. However, ENSR understands that the Army will be assuming responsibility for this work and hence these activities are not reflected in Table 5-1.

The list of analytes on the Target Compound List (TCL) and Target Analyte List (TAL) from Appendix C of the Contract Laboratory Program (CLP) Scope of Work (March, 1990 version), is provided for reference in Table 5-2.

TABLE 5-1

**PROPOSED SAMPLING ACTIVITIES
WAYSIDE AREA NWS EARLE**

Location	Sampling Equipment	Sample Type	Maximum Number of Samples	Analyses ¹	EPA Method
Septic tank near GECOM-EMI Building	Backhoe to locate septic tank	Water Sludge	2 2	TCL/TAL	CLP SOW (App C; 3/90 rev.) VOCs, SVOCs, Pest/PCBs, Metals
	Backhoe or hand auger	Soil samples (6-8', 10-12')	6		
Septic tank near former Building R	Backhoe to locate septic tank	Water Sludge	2 2	TCL/TAL	CLP SOW (App C; 3/90 rev.) VOCs, SVOCs, Pest/PCBs, Metals
	Backhoe or hand auger	Soil samples (6-8', 10-12')	6		
Pistol Range	Hand auger	Surface soil and bullets (0-1')	2 2	TAL metals TCLP metals	CLP SOW Methodology (App C; 3/90 rev.)
		Subsurface soil (2-4')	4	TAL metals	
Potential waste disposal area southwest of pistol range	Magnetometer EM-31 Backhoe	Soil samples/waste material (if waste material is found)	5	TCL/TAL	CLP SOW (App C; 3/90 rev.) VOCs, SVOCs, Pest/PCBs, Metals
Cleared area in southeastern corner of Wayside Area	Magnetometer EM-31 Backhoe	Soil samples/waste material (if waste material is found)	5	TCL/TAL	CLP SOW (App C; 3/90 rev.) VOCs, SVOCs, Pest/PCBs, Metals
Buildings B5, C4, C5, D, G and Z		Insulation material	6	Asbestos	Approved NIOSH methods
Observation towers B2 and B7	Shovel or trowel	Composite surface soil samples	2	TCL SVOCs TPH	CLP SOW (App C; 3/90 rev.) SVOCs; TPH (418.1)
Buildings A, A1, A2, B, C, D, F, G, M, O, S, Y, and Z		Lead Paint Chips	13	Lead	CLP SOW Methodology (App C; 3/90 rev.)

5-2

TABLE 5-1 (continued)

PROPOSED SAMPLING ACTIVITIES
WAYSIDE AREA NWS EARLE

Location	Sampling Equipment	Sample Type	Maximum Number of Samples	Analyses ¹	EPA Method
Empty transformer pads WA-007, WA-008, WA-015, WA-016 and WA-045	Shovel or trowel	Composite surface soil samples (0-1')	5	PCBs	CLP SOW (App C; 3/90 rev.) PCBs
Two above ground storage tanks	Shovel, trowel and/or hand auger	Composite surface soil samples (0-1')	2	TPH, TAL Metals	CLP SOW (App C; 3/90 rev.) VOCs, Metals, TPH (418.1)
		Subsurface soil sample (2-4')	2	TPH, TCL VOCs, TAL Metals	
Background soil samples	Shovel, trowel and/or hand auger	Surface soil grab samples	2	TCL/TAL	CLP SOW (App C; 3/90 rev.) VOCs, SVOCs, Pest/PCBs, Metals
QA/QC samples ²		Duplicates Equipment blanks Field Blanks Trip blanks	1/10/media/anal. 1/day 1/source/event 1/cooler	TCL/TAL TPH Asbestos	CLP SOW (App C; 3/90 rev.) VOCs, SVOCs, Pest/PCBs, Metals, TPH (418.1); NIOSH methods (asbestos)

¹TCL/TAL includes TCL organics (VOCs, SVOCs, Pesticides/PCBs) and TAL Inorganics and cyanide (March 1990).
²QA/QC assumes Level D QC

53

TABLE 5-2
Target Compound List (TCL)

Volatiles

1. Chloromethane
2. Bromomethane
3. Vinyl Chloride
4. Chloroethane
5. Methylene Chloride

6. Acetone
7. Carbon Disulfide
8. 1,1-Dichloroethene
9. 1,1-Dichloroethane
10. 1,2-Dichloroethene (total)

11. Chloroform
12. 1,2-Dichloroethane
13. 2-Butanone
14. 1,1,1-Trichloroethane
15. Carbon Tetrachloride

16. Bromodichloromethane
17. 1,2-Dichloropropane
18. cis-1,3-Dichloropropene
19. Trichloroethene
20. Dibromochloromethane

21. 1,1,2-Trichloroethane
22. Benzene
23. trans-1,3-Dichloropropene
24. Bromoform
25. 4-Methyl-2-pentanone

26. 2-Hexanone
27. Tetrachloroethene
28. Toluene
29. 1,1,2,2-Tetrachloroethane
30. Chlorobenzene

31. Ethyl Benzene
32. Styrene
33. Xylenes (Total)

TABLE 5-2 (Continued)

<u>Semivolatiles</u>	
34.	Phenol
35.	bis(2-Chloroethyl) ether
36.	2-Chlorophenol
37.	1,3-Dichlorobenzene
38.	1,4-Dichlorobenzene
39.	1,2-Dichlorobenzene
40.	2-Methylphenol
41.	2,2'-oxybis (1-Chloropropane)#
42.	4-Methylphenol
43.	N-Nitroso-di-n- dipropylamine
44.	Hexachloroethane
45.	Nitrobenzene
46.	Isophorone
47.	2-Nitrophenol
48.	2,4-Dimethylphenol
49.	bis(2-Chloroethoxy) methane
50.	2,4-Dichlorophenol
51.	1,2,4-Trichlorobenzene
52.	Naphthalene
53.	4-Chloroaniline
54.	Hexachlorobutadiene
55.	4-Chloro-3-methylphenol
56.	2-Methylnaphthalene
57.	Hexachlorocyclopentadiene
58.	2,4,6-Trichlorophenol
59.	2,4,5-Trichlorophenol
60.	2-Chloronaphthalene
61.	2-Nitroaniline
62.	Dimethylphthalate
63.	Acenaphthylene
64.	2,6-Dinitrotoluene
65.	3-Nitroaniline
66.	Acenaphthene
67.	2,4-Dinitrophenol
68.	4-Nitrophenol

TABLE 5-2 (Continued)

Semivolatiles

69. Dibenzofuran
70. 2,4-Dinitrotoluene
71. Diethylphthalate
72. 4-Chlorophenyl-phenyl ether
73. Fluorene

74. 4-Nitroaniline
75. 4,6-Dinitro-2-methylphenol
76. N-nitrosodiphenylamine
77. 4-Bromophenyl-phenylether
78. Hexachlorobenzene

79. Pentachlorophenol
80. Phenanthrene
81. Anthracene
82. Carbazole
83. Di-n-butylphthalate

84. Fluoranthene
85. Pyrene
86. Butylbenzylphthalate
87. 3,3'-Dichlorobenzidine
88. Benzo(a)anthracene

89. Chrysene
90. bis(2-Ethylhexyl)phthalate
91. Di-n-octylphthalate
92. Benzo(b)fluoranthene
93. Benzo(k)fluoranthene

94. Benzo(a)pyrene
95. Indeno(1,2,3-cd)pyrene
96. Dibenz(a,h)anthracene
97. Benzo(g,h,i)perylene

TABLE 5-2 (Continued)

Pesticides/Aroclors

- 98. alpha-BHC
- 99. beta-BHC
- 100. delta-BHC
- 101. gamma-BHC (Lindane)
- 102. Heptachlor

- 103. Aldrin
- 104. Heptachlor epoxide
- 105. Endosulfan I
- 106. Dieldrin
- 107. 4,4'-DDE

- 108. Endrin
- 109. Endosulfan II
- 110. 4,4'-DDD
- 111. Endosulfan sulfate
- 112. 4,4'-DDT

- 113. Methoxychlor
- 114. Endrin ketone
- 115. Endrin aldehyde
- 116. alpha-Chlordane
- 117. gamma-Chlordane

- 118. Toxaphene
- 119. Aroclor-1016
- 120. Aroclor-1221
- 121. Aroclor-1232
- 122. Aroclor-1242

- 123. Aroclor-1248
- 124. Aroclor-1254
- 125. Aroclor-1260

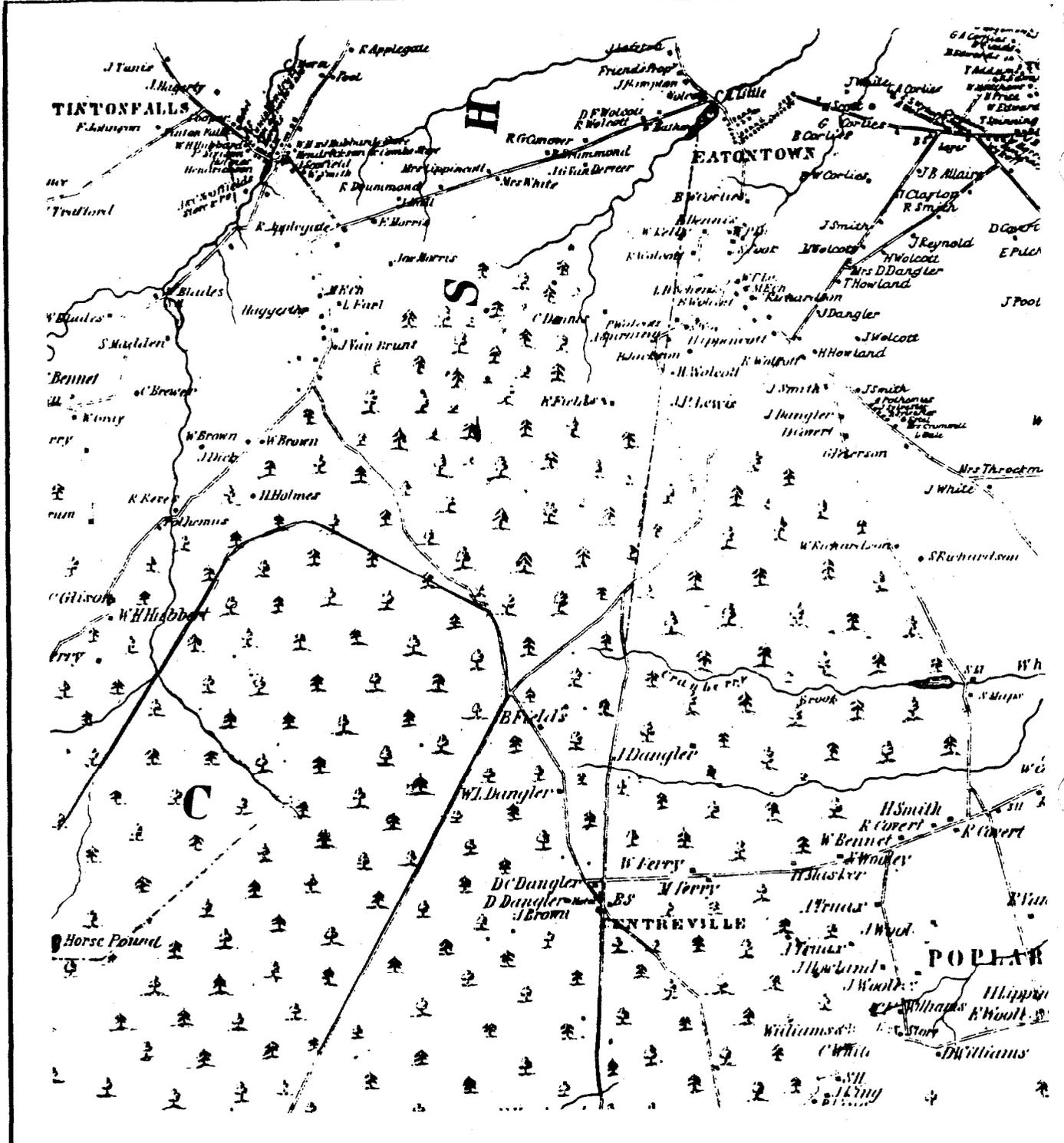
TABLE 5-2 (Continued)

INORGANIC TARGET ANALYTE LIST (TAL)

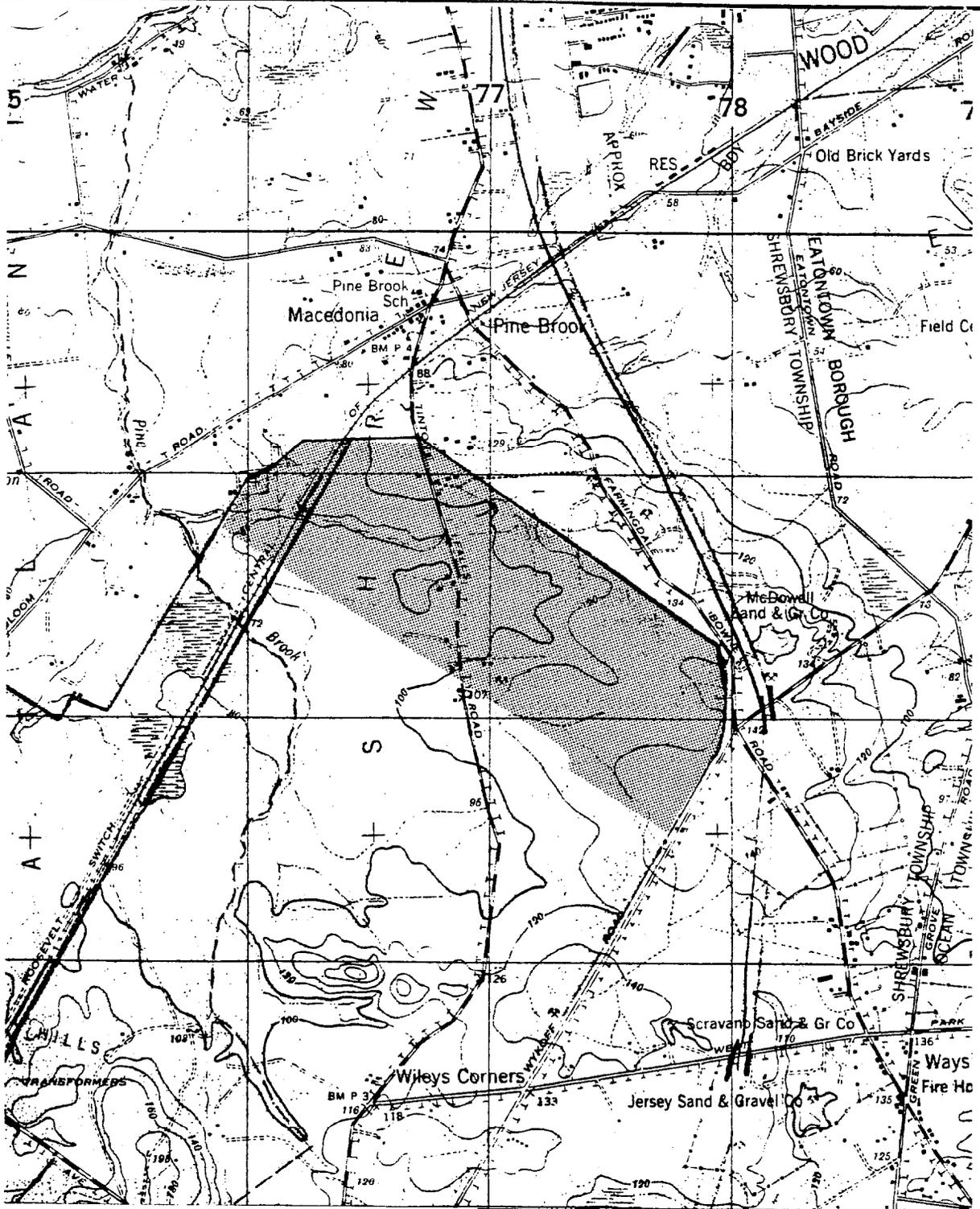
Analyte

Aluminum
Antimony
Arsenic
Barium
Beryllium
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
Cyanide

APPENDIX A
HISTORICAL MAPS AND PHOTOGRAPHS



ENSR ENSR Consulting and Engineering	
1851 WAYSIDE AREA EARLE WEAPONS STATION Monmouth County, New Jersey	
DRAWN: SOR	DATE: August 22, 1991
FILE NO.:	CHECKED:
PROJECT NO.:	REV:

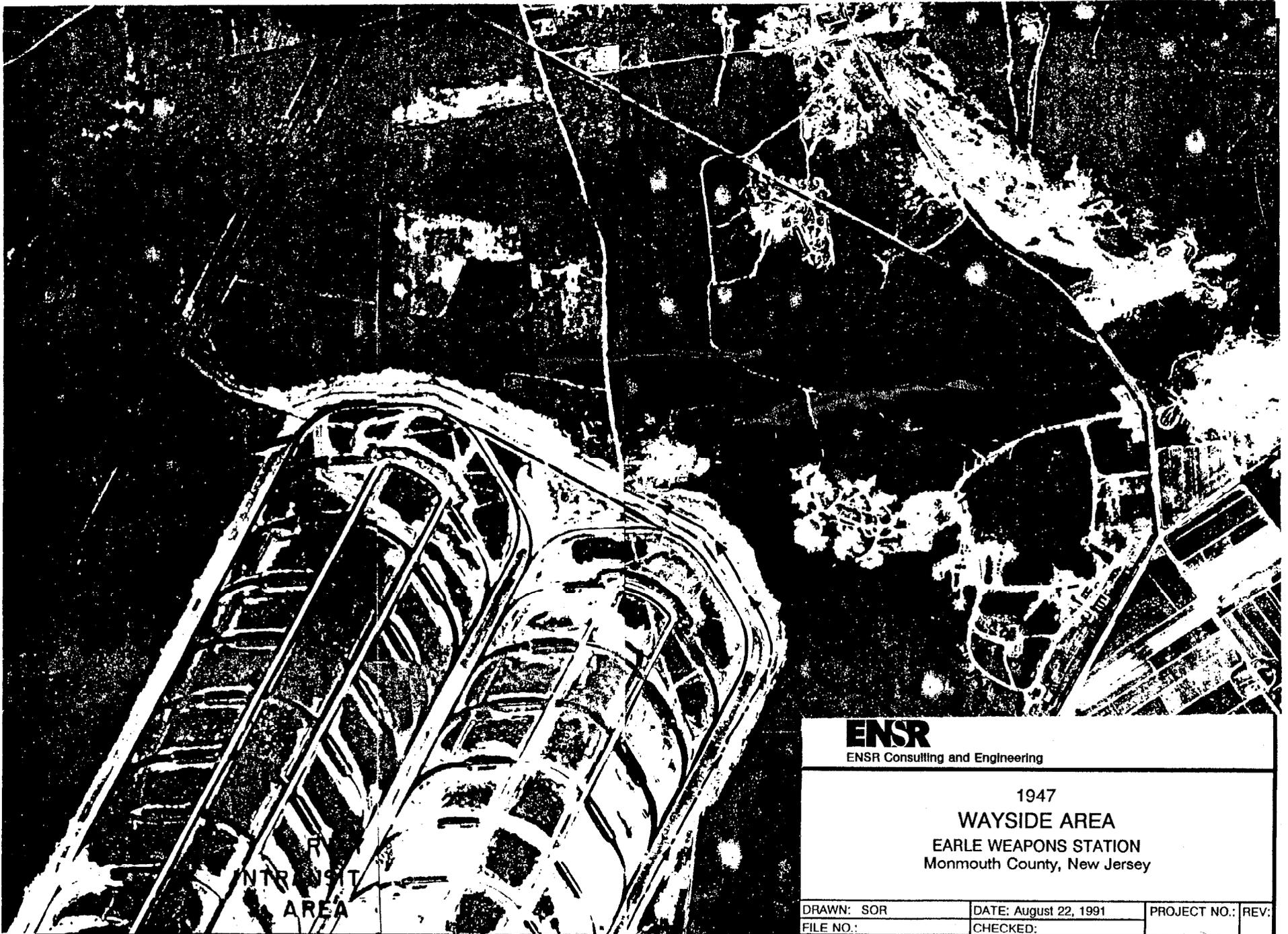


 Area of Investigation

ENSR
ENSR Consulting and Engineering

CIRCA 1947
WAYSIDE AREA
EARLE WEAPONS STATION
Monmouth County, New Jersey
(Based on 1941 Air Photo)

DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV.:
FILE NO.:	CHECKED:		



ENSR

ENSR Consulting and Engineering

1947

WAYSIDE AREA

EARLE WEAPONS STATION
Monmouth County, New Jersey

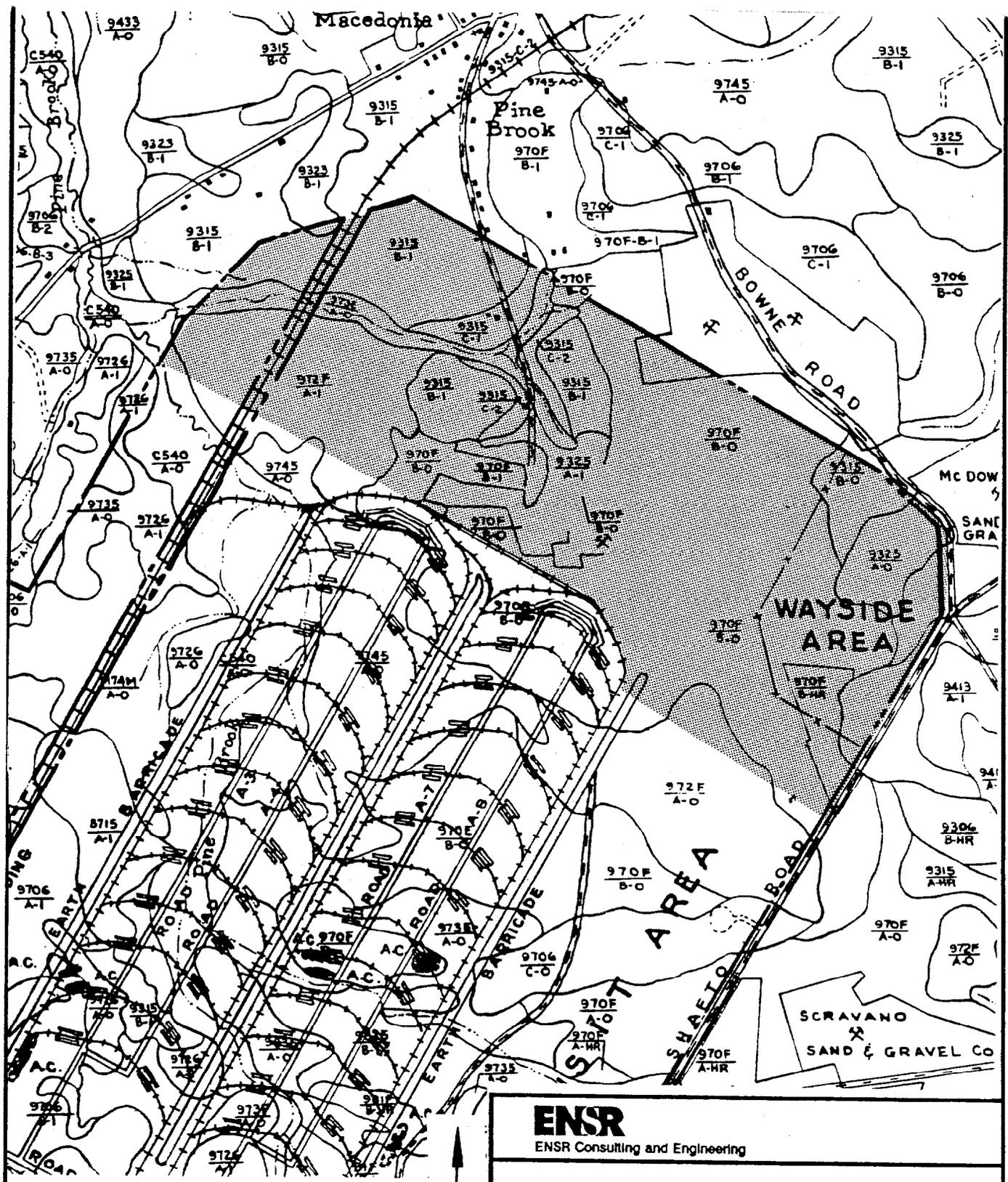
DRAWN: SOR

DATE: August 22, 1991

PROJECT NO.: REV:

FILE NO.:

CHECKED:



 Area of Investigation



<p>ENSR ENSR Consulting and Engineering</p>		
<p>1952 WAYSIDE AREA EARLE WEAPONS STATION Monmouth County, New Jersey</p>		
<p>DRAWN: SOR</p>	<p>DATE: August 22, 1991</p>	<p>PROJECT NO.: REV:</p>
<p>FILE NO.:</p>	<p>CHECKED:</p>	



ENSR

ENSR Consulting and Engineering

1956

WAYSIDE AREA

EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR

DATE: August 22, 1991

PROJECT NO.: REV:

FILE NO.:

CHECKED:



ENSR

ENSR Consulting and Engineering

1956

WAYSIDE AREA

EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR

DATE: August 22, 1991

PROJECT NO.: REV:

FILE NO.:

CHECKED:

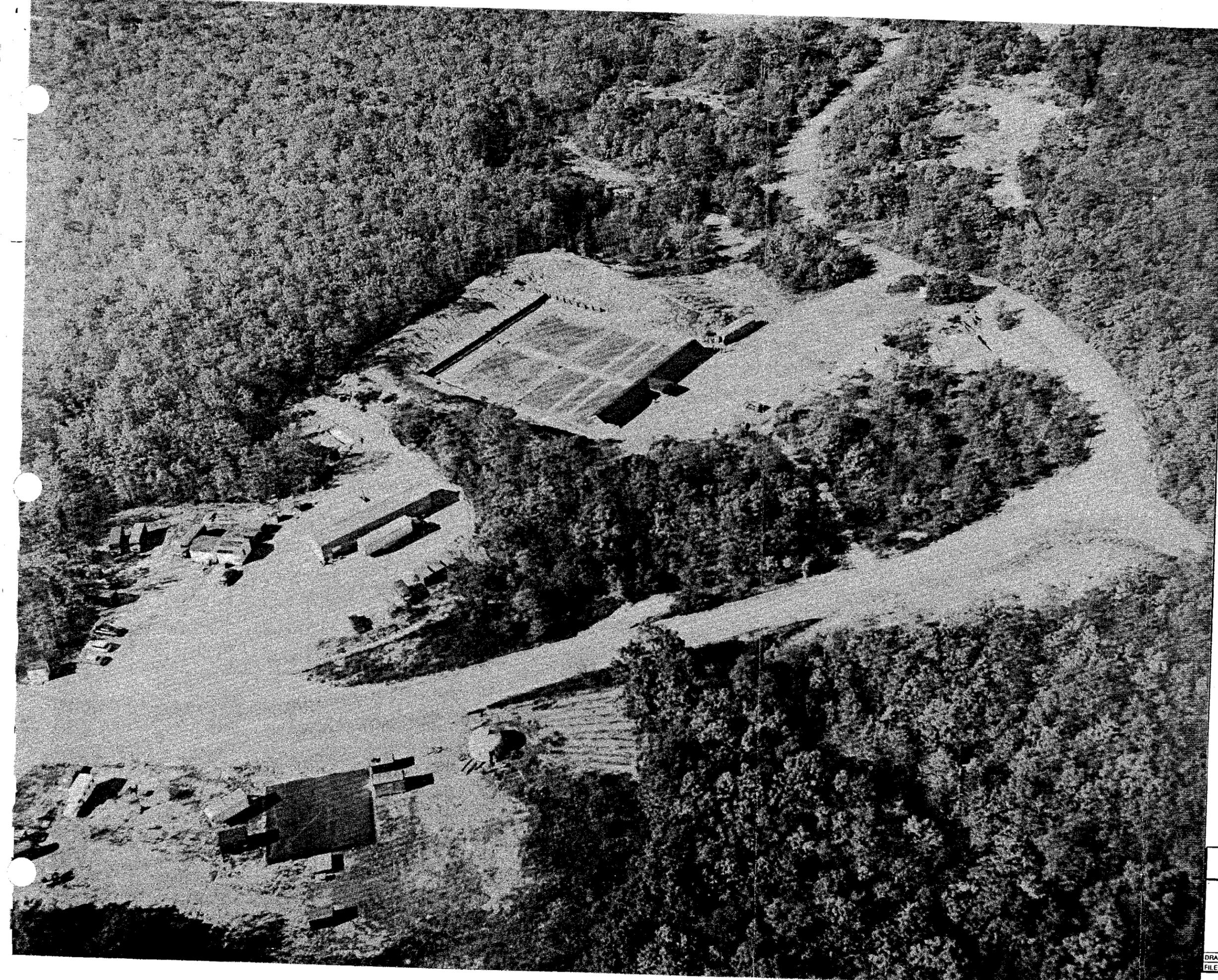
AERIAL VIEW OF WAYSIDE AREA PISTOL RANGE
AND GECOM-EMI BUILDING LOOKING NORTHEAST



ENSR ENSR Consulting and Engineering			
1962 WAYSIDE AREA EARLE WEAPONS STATION Monmouth County, New Jersey			
DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		

00175AB5Z

AERIAL VIEW OF WAYSIDE AREA POSTOL RANGE
AND GECON-EMI BUILDING LOOKING WEST

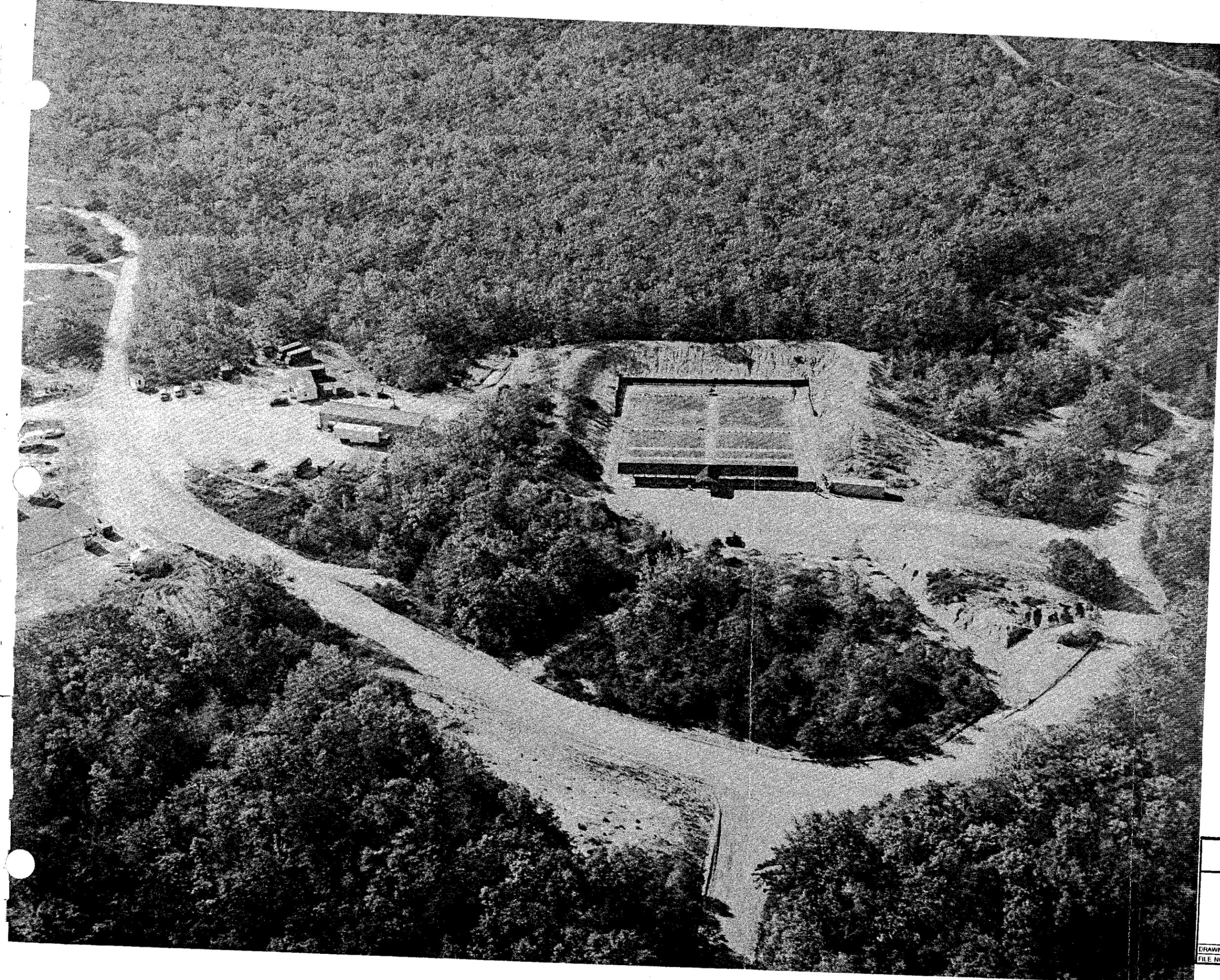


ENSR
ENSR Consulting and Engineering

1962
WAYSIDE AREA
EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		

AERIAL VIEW OF WAYSIDE AREA PISTOL RANGE
AND CECOM-EMI BUILDING LOOKING SOUTHWEST



ENSR ENSR Consulting and Engineering			
1962 WAYSIDE AREA EARLE WEAPONS STATION Monmouth County, New Jersey			
DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		

AERIAL VIEW OF WAYSIDE AREA PISTOL RANGE AND CECOM-EMI BUILDING LOOKING EAST (CORNER OF WAYSIDE AND SHAFTO ROAD NEAR TOP OF PHOTO, POSSIBLE WASTE DISPOSAL AREA NEAR BOTTOM CENTER)

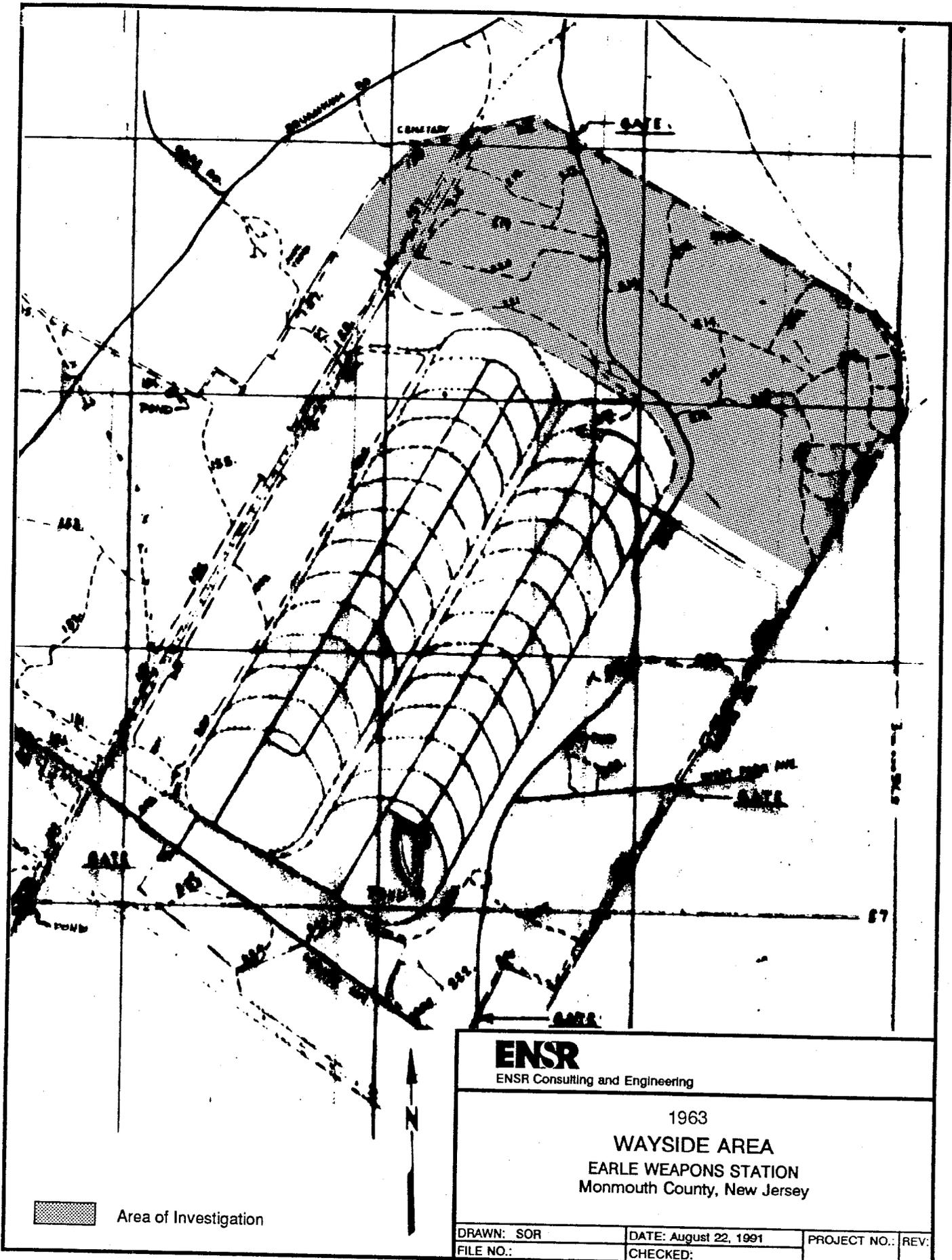


ENSR ENSR Consulting and Engineering			
1962 WAYSIDE AREA EARLE WEAPONS STATION Monmouth County, New Jersey			
DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		

AERIAL VIEW OF WAYSIDE AREA PISTOL RANGE
AND CECOM-EMI BUILDING LOOKING SOUTH



ENSR ENSR Consulting and Engineering			
1962 WAYSIDE AREA EARLE WEAPONS STATION Monmouth County, New Jersey			
DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		

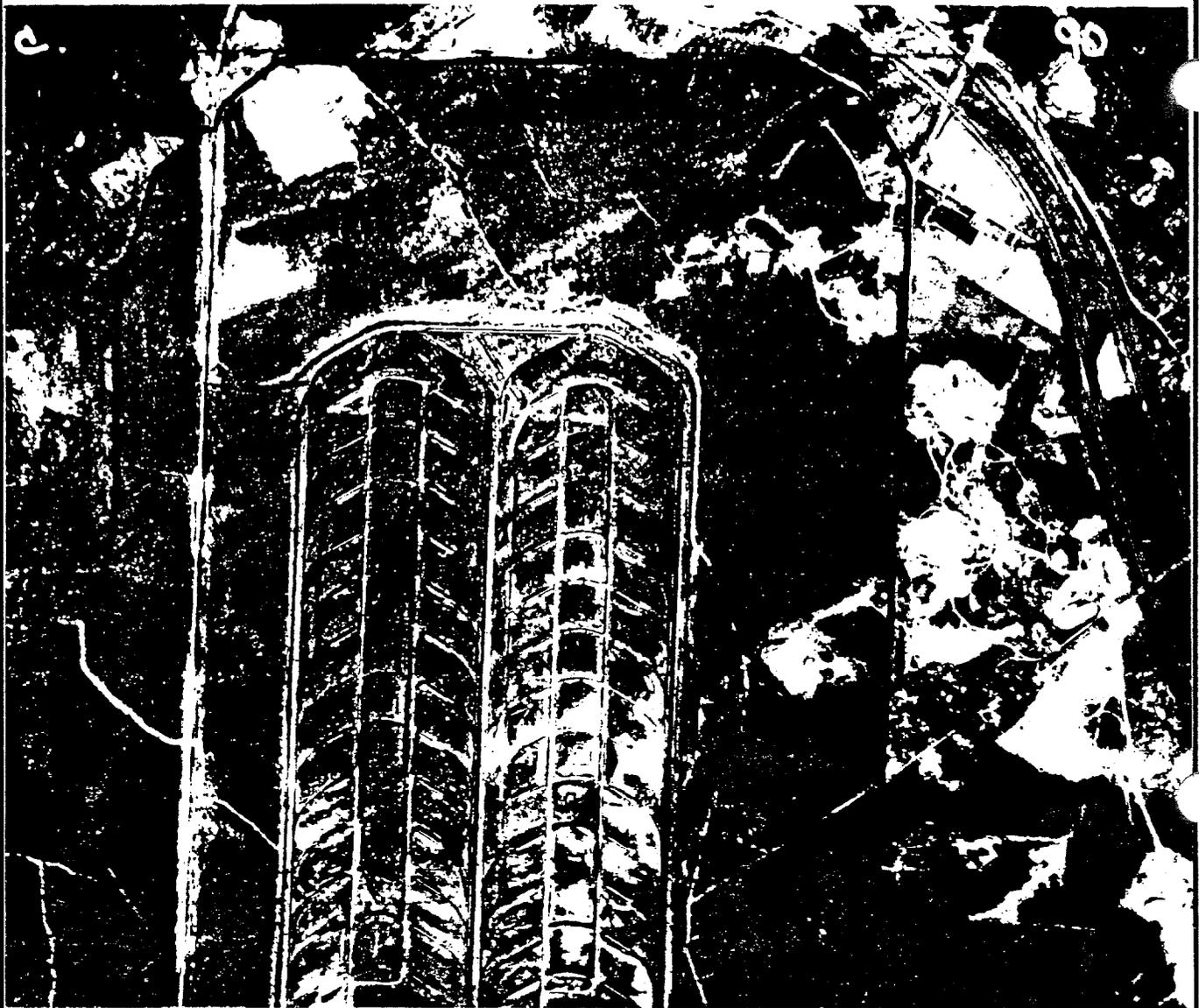


 Area of Investigation

ENSR
ENSR Consulting and Engineering

1963
WAYSIDE AREA
EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		



ENSR

ENSR Consulting and Engineering

1969

WAYSIDE AREA

EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV.
FILE NO.:	CHECKED:		



1978
WAYSIDE AREA
EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		



ENSR

ENSR Consulting and Engineering

1984

WAYSIDE AREA
EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR

DATE: August 22, 1991

PROJECT NO.: REV:

FILE NO.:

CHECKED:



ENSR

ENSR Consulting and Engineering

1987

WAYSIDE AREA

EARLE WEAPONS STATION
Monmouth County, New Jersey

DRAWN: SOR	DATE: August 22, 1991	PROJECT NO.:	REV:
FILE NO.:	CHECKED:		

APPENDIX B
UNDERGROUND TANK PERMIT



Underground Storage Tank

Registration Certificate

US ARMY FORT MONMOUTH
WAYSIDE AREA
C/O DEH BLDG #167
ATTN SELEM EH
FORT MONMOUTH NJ 07703

DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
CN 029
TRENTON, NEW JERSEY 08625

UST No. 0192477

The above listed facility has complied with P.L. 1986,c.102 and has duly registered with the NJDEP.
(Facility name and location if different than above)

NAME: US ARMY
ADDRESS: DEH BLDG #167
ATTN: SELFM EH
FORT MONMOUTH NJ 07703

PRODUCT(S)
STORED: HOME HEATING OIL (NO. 2)

SITE MANAGER: DINKERRAI DESAI

TELEPHONE: 201-532-1475

TANKS: 3

EFFECTIVE DATE: 10/01/90 EXPIRATION DATE: 09/30/91

THIS FORM MUST BE AVAILABLE FOR INSPECTION AT THE FACILITY AT ALL TIMES

New Jersey Department of Environmental Protection

APPENDIX C
REFERENCES

APPENDIX C

REFERENCES

PERSONS INTERVIEWED

Mr. Bingham, Army Historian, Fort Monmouth, NJ. (908)-532-1101.

Jack Cochrel, Mason and Hanger, Lexington, Kentucky. (606)-223-2277.

Dinkerrai Desai, Environmental Division Director, Fort Monmouth Army Base, NJ, (908)-532-1475.

Ed Devlin, Deputy Plans, Training and Mobilization Officer, Fort Monmouth, NJ. (908)-532-7832

Jim Evans, Department of Interior, Minerals Management, 703-787-1547.

Tom Gentile, Station Forester, Naval Weapons Station Earle, BH, C-29, Colts Necks, NJ 07722-5000.

Greg Goepfert, Environmental Division Director, Naval Weapons Station Earle, NJ.
(908) 577-2515.

Michael Guigno, Engineer, Fort Monmouth Army Base, NJ, (908)-532-1475.

Nella Hartog, Public Affairs Officer, Chaplain School, Fort Monmouth, NJ.

Brian Helland, Engineer in Charge, Naval Facilities Engineering Command, Philadelphia, PA.
(215)-897-6280.

Laurie Kam, Project Manager, Master Planning & Real Property Branch, Fort Monmouth Army Base, NJ, (908)-532-1474.

William Matthaey, Naval Weapons Station Earle, (908)-577-2515.

Jim Nash, Chapman Inc. (formerly of Mason and Hanger), 25 West Highland Ave, P.O. Box 603, Atlantic Highland, NJ, 07716. (908)-291-7773.

George Rochkovsky, Fort Monmouth, NJ. (908)-532-4359.

Reggie Sears, Engineering and Housing Division, Fort Monmouth Army Base, NJ. (908)-532-1360.

Unidentified spokesperson for Henry Kearny, Public Affairs Officer at Communications-Electronics Command (CECOM), Fort Monmouth, NJ, (908)-532-1624.

Kevin Ganson, Monmouth County Planning Department, Hall of Records Annex, E Main St, Freehold NJ 908-431-7460.

DOCUMENTS REVIEWED

Letter from Jack Cochrane, Navy Department, Bureau of Yards and Docks, Washington, D.C. to Colonel Peter Coors, Director, Real Estate Division, Corps of Engineers, War Department, Washington, D.C., May 23, 1947. Re: Permission for Army to use section of NAD-Earle.

Natural Features Study for Monmouth County, Monmouth County Environmental Council, April 1975, Reprinted January 1988.

Letter from Ira Wilder, Chief, Releases Control Branch, Land Pollution Control Division of U.S. Environmental Protection Agency, to Captain P.S. Benson, Commanding Officer, Naval Weapons Station Earle, March 22, 1985. Re: Request for approval to field test an in-situ treatment unit at Wayside Area.

"Preliminary Environmental Assessment for Inert Field Test of The EPA In-Situ Containment and Treatment Unit at Naval Weapons Station Earle", Prepared by Mason and Hanger-Silas Mason Company, Inc. under Contract to US EPA, March 22, 1985.

Memorandum from P.S. Benson, Commanding Officer, Naval Weapons Station Earle, to Commanding Officer, Northern Division, Naval Facilities Engineering Command, May 7, 1985. Re: Environmental Protection Agency Use of Wayside Area.

A Concise History of Fort Monmouth, New Jersey, Prepared by the Staff of the Historical Office, US Army Communications-Electronics Command, Fort Monmouth, New Jersey, July, 1985.

"Effectiveness of Two Insecticides in Controlling Ixodes dammini (Acari: Ixodidae) Following an Outbreak of Lyme Disease in New Jersey", Terry L. Schulze et. al., Journal of Medical Entomology, 24: 420-424 (1987). Re: Tick Study

M&L Power Systems Maintenance, Inc., PCB-in-Oil Test Analysis, October and November, 1989. Re: PCB Results for Transformers in the Wayside Area

Water Resources Data, New Jersey, Water Year 1990, Volume 2, Ground-Water Data, US Geological Survey Water-Data Report NJ-90-2.

Inventory of Transformers in the Wayside Area (handwritten), prepared by Fort Monmouth personnel, Date unknown.

Monmouth County Waste Disposal Sites, database printout, April 22, 1991.

U.S. EPA CERCLIS List, August 1, 1990.

AERIAL PHOTOGRAPHS

Aerial Photographs of Army Intransit Area, September 19, 1947.

Aerial Photographs of Wayside Area, November 6 and 11, 1956.

Aerial View of the Wayside Area Pistol Range including adjacent buildings, No. 28-043-4874/sig 62, Photographer J.A. Ruane, USA EMSA, Pictorial Section. (5 photos) October 22, 1962.

Aerial Photographs of Wayside Area, May, 1963.

Aerial Photographs of Wayside Area, November, 1969.

Aerial Photographs of Wayside Area, June 16, 1978.

Aerial Photographs of Wayside Area, 1984.

Aerial Photographs of Wayside Area, March 24, 1987.

Aerial Photographs of the Wayside Area, Monmouth County Planning Department, Nos. N3348 29-344 and 30-447, March 21, 1990.

MAPS

Map of Monmouth County New Jersey, Published by J.B. Shields, 1851.

US Geological Survey Topographic Map, Fort Monmouth and Vicinity, NJ, 1943.

Soil Conservation Survey of U.S. Naval Ammunition Depot, June 1952.

"Relocation of Bldg. T-156 & S-156-A from Coles Signal Laboratory to the Wayside Area", Plan No. 6787-A, Office of the Post Engineer, Fort Monmouth, New Jersey, March 21, 1955.

Proposed Airstrip, N.A.D. Earle Area, Plan No. 7742, Prepared by Office Of the Post Engineer, Fort Monmouth, NJ, February 20, 1956.

Proposed Airstrip, N.A.D. Earle Area, Plan Nos. 7742-A and 7742-D, Prepared by Office Of the Post Engineer, Fort Monmouth, NJ, March 30, 1956.

Fire Lanes and Patrol Roads, US Naval Ammunition Depot Earle, May 1963. Prepared by Department of the Navy, Bureau of Yards and Docks.

Fire Lanes and Patrol Roads (Revisions), Naval Weapons Station Earle, Department of the Navy, Naval Facilities Engineering Command, Drawing No. 3-SK-594, May 9, 1977.

US Geological Survey Topographic Map, Long Branch, NJ, 7.5 minute quadrangle, dated 1954, Photorevised 1981 based on 1976 aerial photographs.

"Wayside Reverse Read Photo As Provided by Topographic Data Consultants", (detailed topographic map of site area), Date ca. 1978.

Fort Monmouth-Wayside Area, Set of maps dated October 13, 1978. Drawing No. 18-02-01, File Nos. 7529-1421 to 7529-1427. Prepared by Tectonic Architects, Engineers and Planners, Somerville, NJ, and US Army Corps of Engineers. Revised September 1987 by Candeub, Fleissig and Associates, Inc.

- General Site Map
- General Road Map
- General Utility Map
- General Electrical Map
- General Telephone Map
- Intransit Area Site Plan

Monmouth County Waste Disposal Sites, Prepared by the Monmouth County Planning Board, October 1990, revised March 1991.

List of Installation Restoration Sites at NWS Earle, October 1989.

Report and Map by Roy F. Weston, Inc. describing Installation Restoration Sites at NWS Earle, January 7, 1991.

APPENDIX D

NPDES PERMIT FOR SOIL WASHING STUDY



RECEIVED
MASON & HANGER
LEONARDO, N.J. 07737

AUG 18 1986

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
P.O. BOX CN 029
TRENTON, NEW JERSEY 08625

George G. McCann, P.E.
Acting Director

WATER QUALITY MANAGEMENT

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

AUG 14 1986

Mr. Richard P. Traver
U.S. E.P.A.
Releases Control Branch
Raritan Depot
Woodbridge Ave.
Edison, New Jersey 08837-3679

Re: Emergency NJPDES Permit for the Functional Shakedown of the
In Situ Containment Treatment Unit (ISCTU), NJ0061352

Dear Mr. Traver:

Attached is an emergency New Jersey Pollutant Discharge Elimination System (NJPDES) permit that has been issued pursuant to N.J.A.C. 7:14A-1 et seq. This NJPDES permit is issued under the authority of the New Jersey Water Pollution Control Act and upon issuance of the permit shall supersede any previously existing ground water monitoring requirements that the above named facility may have implemented.

Please be aware of the following provisions of this permit:

- 1) Any existing wells must be certified by a licensed New Jersey Professional Engineer, a duly authorized representative, or an executive officer, and must be surveyed by a licensed New Jersey Land Surveyor. If the construction details or location are unknown or cannot be determined, then a new well must be drilled.
- 2) New Jersey State well permits shall be obtained for all new wells and any existing wells that were drilled without valid well permits.
- 3) Samples must be analyzed by a New Jersey Certified laboratory at the frequency and for the parameters specified in the permit.
- 4) Data must be submitted on the enclosed state forms. Data which is not submitted on the state forms does not meet the reporting requirements of this permit. Data submitted for water

analysis from uncertified wells is likewise unacceptable and does not fulfill the reporting requirements of the permit.

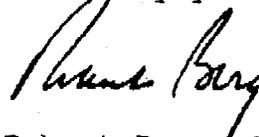
5) Please be advised that failure to meet the conditions of the permit can result in the imposition of substantial administrative, civil, and criminal penalties.

The appearance of the public notice in the newspapers marks the commencement of the mandatory 30-day public comment period required by Section 8.1 of the NJPDES regulations. During this time frame, both the permittee and concerned citizens may offer comments regarding the terms and conditions of this permit. All comments must be submitted within the appropriate time frame and in writing to:

Administrator
NJDEP Division of Water Resources
Water Quality Management Element
CN-029
Trenton, New Jersey 08625

If you have any questions regarding this permit, please contact Tracy Wagner of the Land Application of Wastewater Section of the Bureau of Ground Water Discharge Permits at (609) 292-0424.

Sincerely yours,



Robert Berg, Chief
Bureau of Ground Water
Discharge Permits

WQM151
Enclosures



CN 402
 Trenton, N.J. 08625



PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.

Permit No. NJ# 0061352	Issuance Date July 24, 1986	Effective Date July 28, 1986	Expiration Date October 26, 1986
Name and Address of Applicant US Environ Protection Agency Releases Control Branch Woodbridge Avenue Edison, New Jersey	Location of Activity/Facility Naval Weapons Station Earle Wayside Road (Rt 38) Tinton Falls, New Jersey Monmouth County	Name and Address of Owner US Environ Protection Agency Office of Research & Develop Hazardous Wst. Engin Research Lab Cincinnati, Ohio 45268	
Issuing Division WATER RESOURCES	Type of Permit EMERGENCY NJPDES	Statute(s) N.J.S.A. 58:10A-1 et seq.	Application No.

This permit requires

The U.S.E.P.A. to pump uncontaminated ground water and discharge this water back to the site via infiltration-percolation lagoons, subsurface injection and a leach field as part of a test of their Mobile In Situ Containment Treatment Unit. A water soluble fluorescent dye (non toxic at the concentration to be used) or sodium chloride will be mixed with the recharge water to trace its path through the soil, back to the recovery well.

RECEIVED
 MASON & HANGER
 LEGAL CO., R.L. 67737

AUG 18 1986

Approved by the Department of Environmental Protection

[Signature]
 ARNOLD SCHIFFMAN, ADMINISTRATOR
 WATER QUALITY MANAGEMENT

DATE

* The word permit means "approval, certification, registration, etc."

(GENERAL CONDITIONS ARE ON THE REVERSE SIDE.)

APPENDIX E

RESPONSE TO FREEDOM OF INFORMATION ACT REQUEST



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, NEW YORK 10278

SEP 17 1991

Angela Mathur
Environmental Scientist
ENSR Consulting and Engineering
35 Nagog Park
Acton, MA 01720

Re: Freedom of Information Request (2) RIN-2261-91

Dear Ms. Mathur:

This is in response to your August 23, 1991 letter requesting any files on the Wayside Area at the Naval Weapons Station (NWS) Earle, Colts Neck, New Jersey and the Estey Manufacturing Company, Tinton Falls, New Jersey.

The U.S. Environmental Protection Agency does not have any files on the Wayside Area at the NWS Earle, however, enclosed is a Preliminary Assessment conducted by the New Jersey Department of Environmental Protection and Energy dated May 12, 1987 for the Estey Manufacturing Company.

If you have any questions concerning this matter, please contact me at (212) 264-6609.

Sincerely yours,

Paul G. Ingrisano
Paul G. Ingrisano
Project Manager
Federal Facilities Section

Enclosure



Preliminary Assessment

Estey Metal Products, Inc.
Shafto & Way Side Roads
Tinton Falls Borough/Monmouth County
New Jersey
EPA # NJD042910901



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: NJ 02 SITE NUMBER: D042910901-

II. SITE NAME AND LOCATION

01 SITE NAME (Include common or recognized name of site)
Estey Metal Products, Inc.

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Shafto & Way Side Road

03 CITY: Tinton Falls Borough

04 STATE: NJ 05 ZIP CODE: 07724 06 COUNTY: Monmouth 07 COUNTY CODE: 13 08 CONG DIST:

09 COORDINATES LATITUDE: 40 15 57 LONGITUDE: 74 04 31
Block: 120 Acreage: 35.11
Lot: 1-A, 2-A

10 DIRECTIONS TO SITE (Starting from nearest public road)
From Trenton, take Route 195 East to Exit #16. Proceed East on Route 537 to Route # 18 South to Wayside Avenue Exit. Turn left on Wayside Road to Shafto Road.

III. RESPONSIBLE PARTIES

01 OWNER (if known)
Tennsco Corporation

02 STREET (Business, Mailing, Residential)
P.O. Box 606

03 CITY: Dickson

04 STATE: TN 05 ZIP CODE: 37055 06 TELEPHONE NUMBER: ()

07 OPERATOR (if known and different from owner)

08 STREET (Business, Mailing, Residential)

09 CITY:

10 STATE: 11 ZIP CODE: 12 TELEPHONE NUMBER: ()

13 TYPE OF OWNERSHIP (Check one)
 A. PRIVATE B. FEDERAL: _____ (Agency name)
 C. STATE D. COUNTY E. MUNICIPAL
 F. OTHER: _____ (Specify)
 G. UNKNOWN

14 OWNER OPERATOR NOTIFICATION ON FILE (Check one)
 A. RCRA 3001 DATE RECEIVED: _____ MONTH DAY YEAR
 B. UNCONTROLLED WASTE SITE (RCRA 102) DATE RECEIVED: _____ MONTH DAY YEAR
 C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION BY (Check one)
 YES DATE: 7, 1, 80 MONTH DAY YEAR
 NO
 A. EPA B. EPA CONTRACTOR C. STATE D. OTHER CONTRACTOR
 E. LOCAL HEALTH OFFICIAL F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
 A. ACTIVE B. INACTIVE C. UNKNOWN

03 YEARS OF OPERATION
1978 | Present
BEGINNING YEAR ENDING YEAR
 UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Epoxy powder coatings containing lead and barium, liquid paint residue, oil sludge and waste lubricating oil.
Attachment A, D

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

A potential exists for direct contact, domestic well contamination and worker exposure/injury from the hazardous materials that may remain on site.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Constituents and Exposure)
 A. HIGH (Inspection required promptly) B. MEDIUM (Inspection required) C. LOW (Inspect on site through base) D. NONE (No further action needed. Submit current assessment form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT: Donald Knabe, Chief

02 OF (Agency/Organization): Monmouth County Reg. Health Comm. #1

03 TELEPHONE NUMBER: 201 229-0866

04 PERSON RESPONSIBLE FOR ASSESSMENT: Frank Faranca, HSMS IV

05 AGENCY: NJDEP 06 ORGANIZATION: DHWM/BPA 07 TELEPHONE NUMBER: 609 633-2219 08 DATE: 5, 12, 87 MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D042910901

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Approximately 200 drums of epoxy powder paint and liquid paint were dumped on a lot owned by Estey Metal Products, Inc. NJDEP Personnel sampled the waste which was later determined to be hazardous. Attachment A

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
There is no surface water in the immediate vicinity of the Estey site.
Map 1

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE 7-11-80) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Several dozen steel drums, some of which were open, were observed to have a strong paint like odor. Waste was removed in August, 1980. Attachment A, C

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Several of the open drums were clearly marked "flammable when exposed to air." The flash point of similar waste paint drums found inside the building was found to be 56°F. Attachment A, D

E. ACCESS CONTROL 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
There are no site access controls to prevent unauthorized personnel from entering the property. Attachment E

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
A 5/6/87 site reconnaissance revealed five (5) steel drums dumped on lot 120, Block 2A. The drums appeared to be empty except for one (1) which was 5% full. Attachment E

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
A potable well is located 1/4 mile from the facility and supplies water to a health center. A potential for drinking water contamination exists if migration of the liquid paint/solvents occurred before clean up. Attachment F

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Approximately 220 drums of waste paint with a flash point of 56°F are currently being stored inside the facility. This material is considered hazardous due to ignitability. Attachment D

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
A potential for population exposure exists through direct contact and residential well contamination.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION
01 STATE 02 SITE NUMBER
NJ D042910901

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 J DAMAGE TO FLORA 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

Five (5) abandoned 55-gallon drums were observed on a 5/6/87 site reconnaissance. However, the soil did not appear stained and the vegetation did not appear stressed. Attachment E

01 K DAMAGE TO FAUNA 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION (Include location of incident)

The soil in the dumping area was removed to a depth of six (6) inches in August 1980 under County Health Department and NJDEP supervision. Post-remedial soil sampling was never conducted to determine if site is "clean". Attachment A

01 L CONTAMINATION OF FOOD CHAIN 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

Two heavy metals, lead and barium were detected in the waste epoxy powder coatings abandoned on site. These compounds are capable of bioaccumulating if they enter the food chain. Attachment A

01 M UNSTABLE CONTAINMENT OF WASTES 02 OBSERVED (DATE: 7/11/80) POTENTIAL ALLEGED
(Specify location, quantity, nature, condition)

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Approximately 240 metal and cardboard drums were abandoned by Estey Corporation. The drums were severely deteriorated and their contents were spilled on the ground. Waste and contaminated soil was removed in August 1980. Attachments A, C

01 N DAMAGE TO OFFSITE PROPERTY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

A potential exists for damage/contamination of residential potable wells.

Map 5, Attachment F

01 O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

There does not appear to be any storm sewers in the vicinity of the dump site.

Attachment E

01 P ILLEGAL UNAUTHORIZED DUMPING 02 OBSERVED (DATE: 3/16/80) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

A private citizen reported the unauthorized dumping of approximately 120 drums of an unknown chemical behind Estey Corporation.

Attachment A

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS

I. TOTAL POPULATION POTENTIALLY AFFECTED: _____

V. COMMENTS

A site follow-up is recommended to determine if the 220 drums of waste paint were shipped to Tennessee.

V. SOURCES OF INFORMATION (Give address, telephone, name, date, author, title, location)

See references for sources of information.

ESTEY METAL PRODUCTS, INC.
SHAFTO & WAYSIDE ROADS
TINTON FALLS BOROUGH/MONMOUTH COUNTY
NEW JERSEY
EPA # NJD042910901

Estey Metal Products, Inc. is a sheet metal stamping facility located at 1457 Shafto Road, Tinton Falls Borough, Monmouth County, New Jersey. Estey is presently owned by Tennsco Corporation and has been in operation since 1978. This company was previously designated a hazardous waste generator pursuant to the Resource Conservation and Recovery Act. Since that time the company has undergone a chapter 11 bankruptcy proceeding, a change in ownership, and a delisting to a small quantity generator.

The facility is located in the Teatiray Cohansey Sand formation which is chiefly quartz sand with local beds of clay and gravel. The geographic location of the facility in relation to public water supply is outside of the Monmouth Consolidated Water Company Supply. Residential drinking wells are located within $\frac{1}{2}$ mile of this facility and a potential for their contamination exists. There also is no visible surface water in the immediate vicinity of Estey Metal Products. A 5-6-87 site reconnaissance conducted by the writer revealed that there are no site access controls to prevent unauthorized personnel from entering the property.

Historically, this facility has had several problems with disposing of its waste products. On 3-16-80 a private citizen reported the dumping of approximately 120 drums of an unknown chemical behind Estey Corporation. By 7-11-80 the number of abandoned drums had increased to approximately 200 in number. The NJDEP and the Monmouth County Regional Health Commission investigated the site and determined that the drums and the land that they were located on was owned by Estey Corporation. The NJDEP took samples of the drums which contained either an epoxy powder paint or liquid waste paint. The samples were analyzed by the New Jersey Division of Laboratories and Epidemiology which classified the waste as hazardous for having levels of barium and lead exceeding the New Jersey maximum contaminant level for the classification of waste. In August, 1980, an on-site cleanup was conducted by Estey Corporation in which the contaminated soil was removed to six inches in the dumping area. A post-remedial soil sampling was never conducted to determine if residual contamination still exists.

In September, 1984, approximately 800 drums of epoxy powder coating were transported off-site to the Monmouth County Landfill. This waste was stored inside the building and was determined to be non-toxic based upon an E.P. Toxicity Test conducted by the U.S. Testing Company during August, 1984.

More recently a 11-7-86 RCRA site inspection was conducted by the NJDEP which revealed several waste products. The investigation revealed that Estey Metals has three (3) main waste streams. The first is an oil sludge that is generated during the degreasing of metal shelf parts. The second waste generated is waste oil which is used to lubricate various machines, and the third waste stream is the generation of contaminated epoxy paint powder from their electrostatic painting operation.

A problem also exists at Estey Metal Products which is not associated with the normal operation of the company. The original Estey Metals Corporation which operated at this facility utilized liquid paint instead of the electrostatic painting operation which is in use today. Prior to Estey's chapter 11 bankruptcy approximately 220 drums of liquid paint were stored inside the main building. This waste paint is at least 6 years old and was determined to be hazardous due to ignitability. A sample of the liquid paint was analyzed by U.S. Testing Company, Inc. and revealed a flash point as low as 56°F. This waste is still being stored on-site, however, it is anticipated that it will be transported to the company's headquarters within several weeks.

A 5-6-87 site reconnaissance was conducted by the NJDEP which revealed additional waste problems. The area of the 1980 drum dump was examined to determine if any traces of residual contamination were visible. It was observed that since the time of clean-up, various forms of solid waste including five (5) empty drums were dumped on-site. However, no signs of stained soil or stressed vegetation were observed. The investigator immediately notified the County Regional Health Commission and Mr. Vincent Monesco, Estey's Plant Manager. Mr. Monesco assured the NJDEP that the site will be immediately cleaned up.

The recommendations for the facility include:

1. A follow up investigation to determine if the 220 drums of waste paint were removed.
2. A Post - Remedial soil sampling of the dumping area to determine if residual contamination exists.
3. Pending the results of the soil sampling a ground water monitoring program may be required.

Hours worked: 37 hours

Submitted by:

Frank Faranca, HSMS IV
NJDEP/DHWM/BPA
MSCA Project

ESTEY METAL PRODUCTS, INC.
TINTON FALLS BOROUGH/MONMOUTH COUNTY
NEW JERSEY

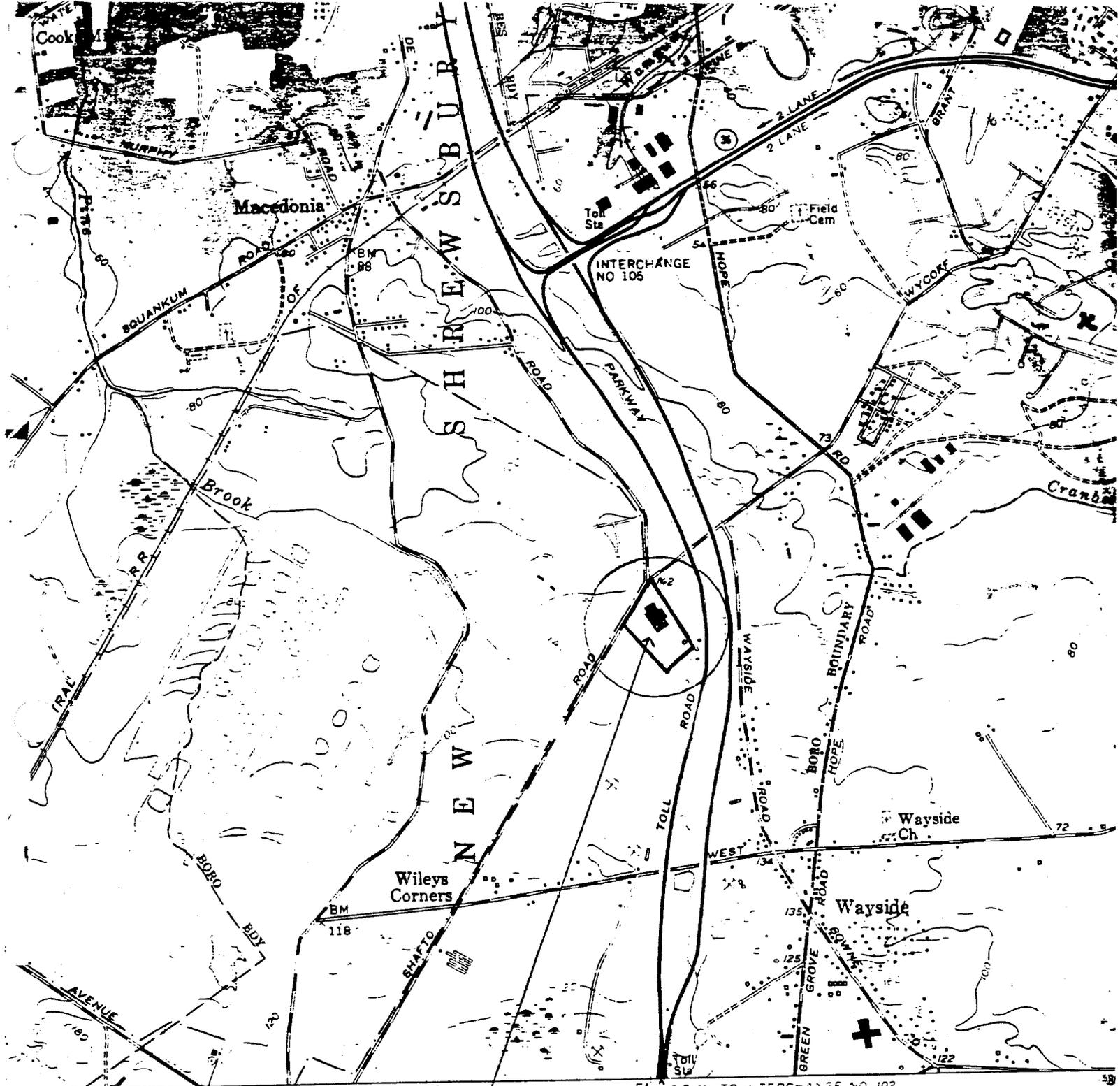
REFERENCE:

I. MAPS

1. USGS TOPOGRAPHIC MAP (LONG BRANCH QUADRANGLE)
2. COUNTY MAP
3. STATE ATLAS MAP (SHEET 29)
4. STATE ATLAS MAP (GEOLOGIC OVERLAY - SHEET 29)
5. STATE ATLAS MAP (WATER SUPPLY OVERLAY - SHEET 29)
6. STATE LOCATOR MAP
7. TAX MAP - BOROUGH OF TINTON FALLS

II. ATTACHMENTS

- | | | | | |
|----|---------------------------------|---------|----|----------|
| A. | HISTORICAL | 3-16-80 | TO | 11-10-80 |
| B. | HISTORICAL | 1-20-81 | TO | 3-31-82 |
| C. | HISTORICAL | 8-8-84 | TO | 10-5-84 |
| D. | HISTORICAL | 11-7-86 | TO | PRESENT |
| E. | MEMO TO FILE FROM FRANK FARANCA | | | |
| F. | NJDEP WELL RECORD INFORMATION | | | |

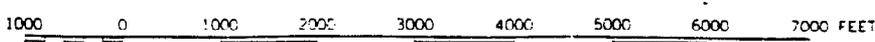
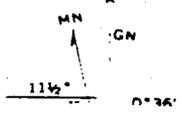


ny Map Service
 by the Geological Survey
 and New Jersey Geodetic Survey
 in part compiled from aerial photographs
 shown by planimetric surveys 1944
 Geological Survey 1954
 on USCGS chart R24 (1953)

ESTEY METAL PRODUCTS, INC.
 SHAFTO & WAYSIDE ROADS
 TINTON FALLS BOROUGH / MOUNTAIN CO.

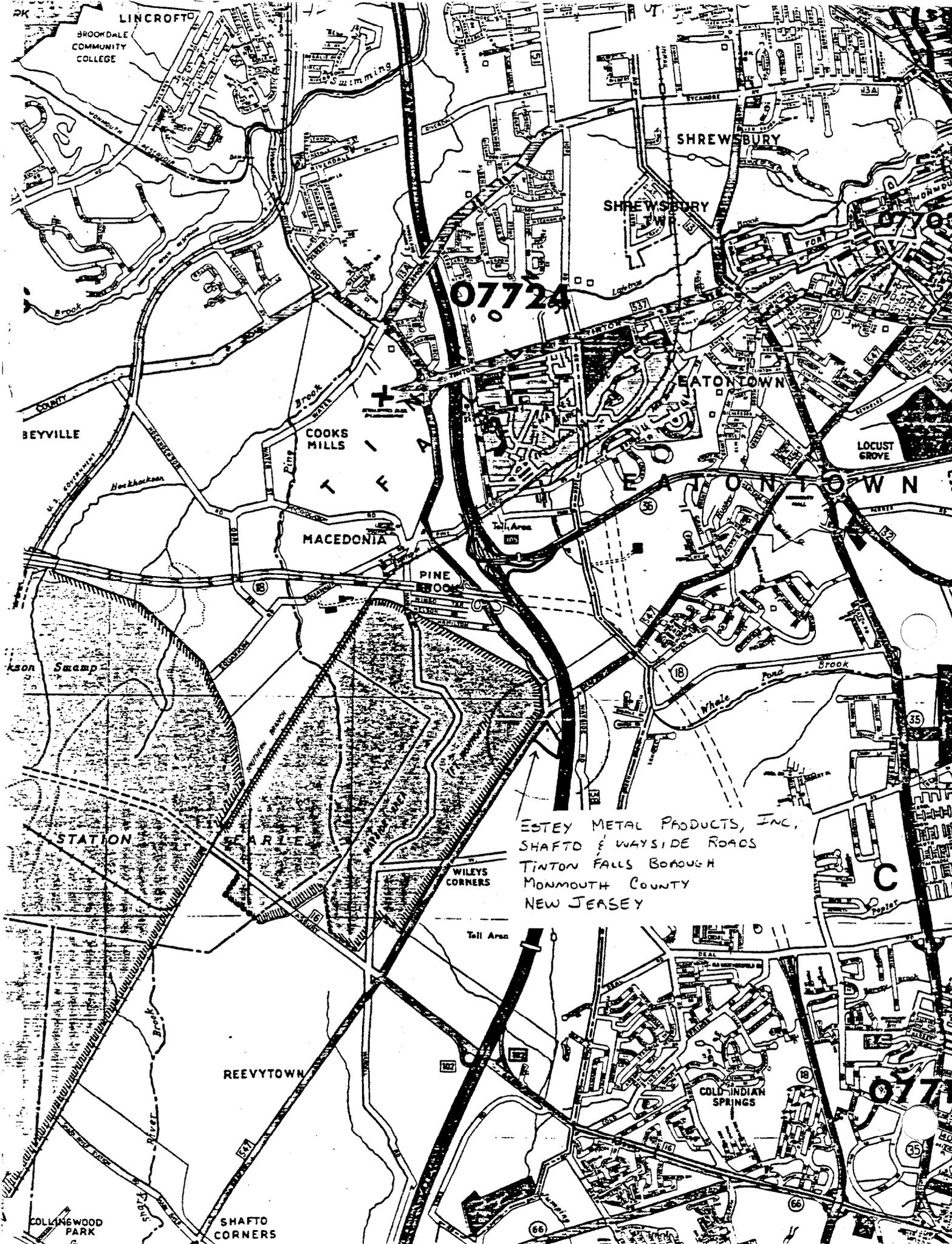
NEW JERSEY
 EPA # NJD042910901
 LATITUDE : 40° 15' 57"
 LONGITUDE : 74° 04' 31"

SCALE 1:24,000



CONTOUR INTERVAL 20 FEET

LONG BRANCH, N. J.
 N4015-W7358/7.5x9.5



07724

ESTEY METAL PRODUCTS, INC.
SHAFTO & WAYSIDE ROADS
TINTON FALLS BOROUGH
MONMOUTH COUNTY
NEW JERSEY

07724



ESTEY METAL PRODUCTS, INC.
 SHAFTO & WAYSIDE ROADS
 TINTON FALLS BOROUGH / MONMOUTH

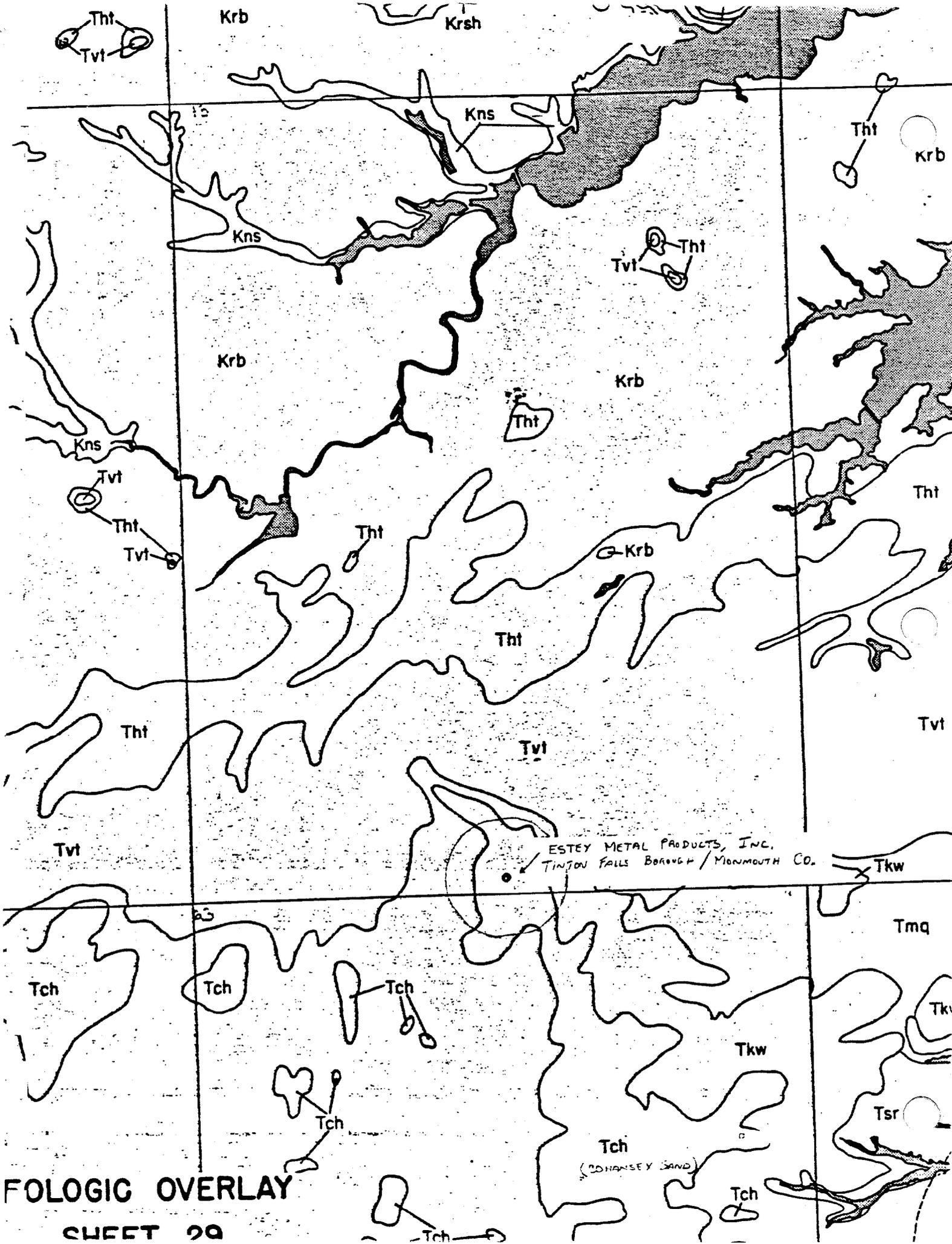
Scale: 1 Mile to an Inch.
 Miles



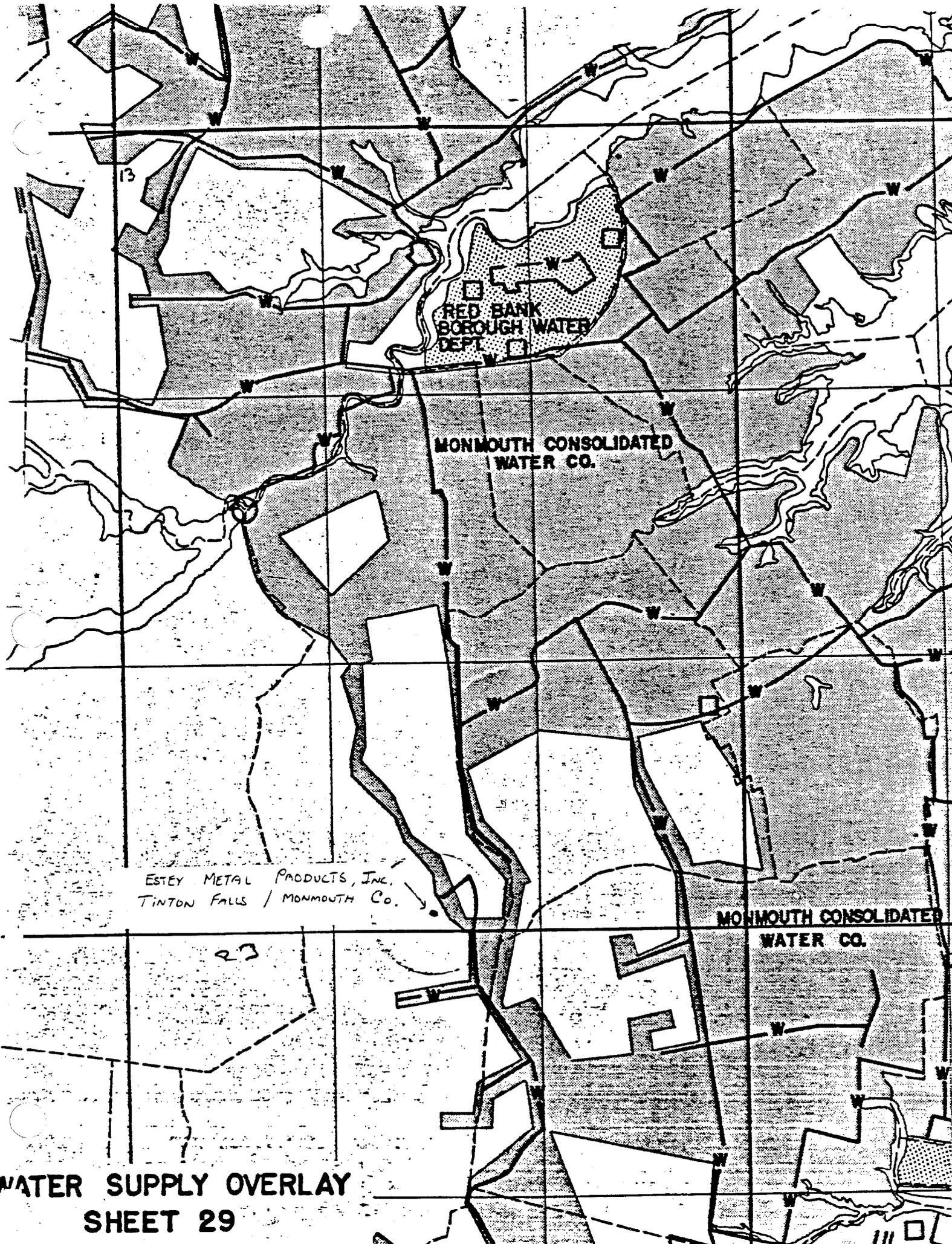
Contour interval: 10 feet

STATE ATLAS MAP

SHEET 29
 TOPOGRAPHIC SERIES



FOLOGIC OVERLAY
SHEET 29



RED BANK
BOROUGH WATER
DEPT.

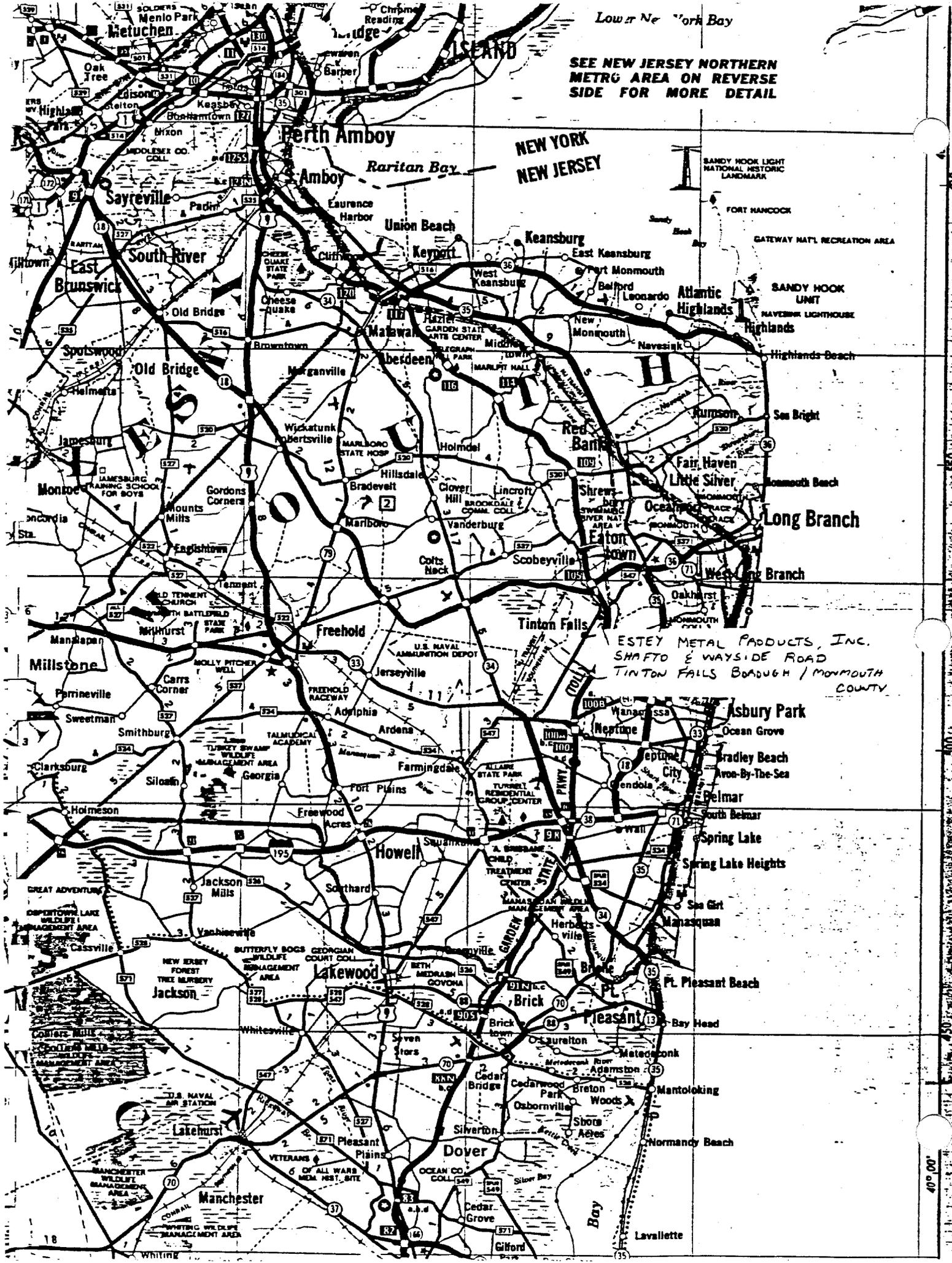
MONMOUTH CONSOLIDATED
WATER CO.

ESTEY METAL PRODUCTS, Inc.
TINTON FALLS / MONMOUTH Co.

MONMOUTH CONSOLIDATED
WATER CO.

Lower New York Bay

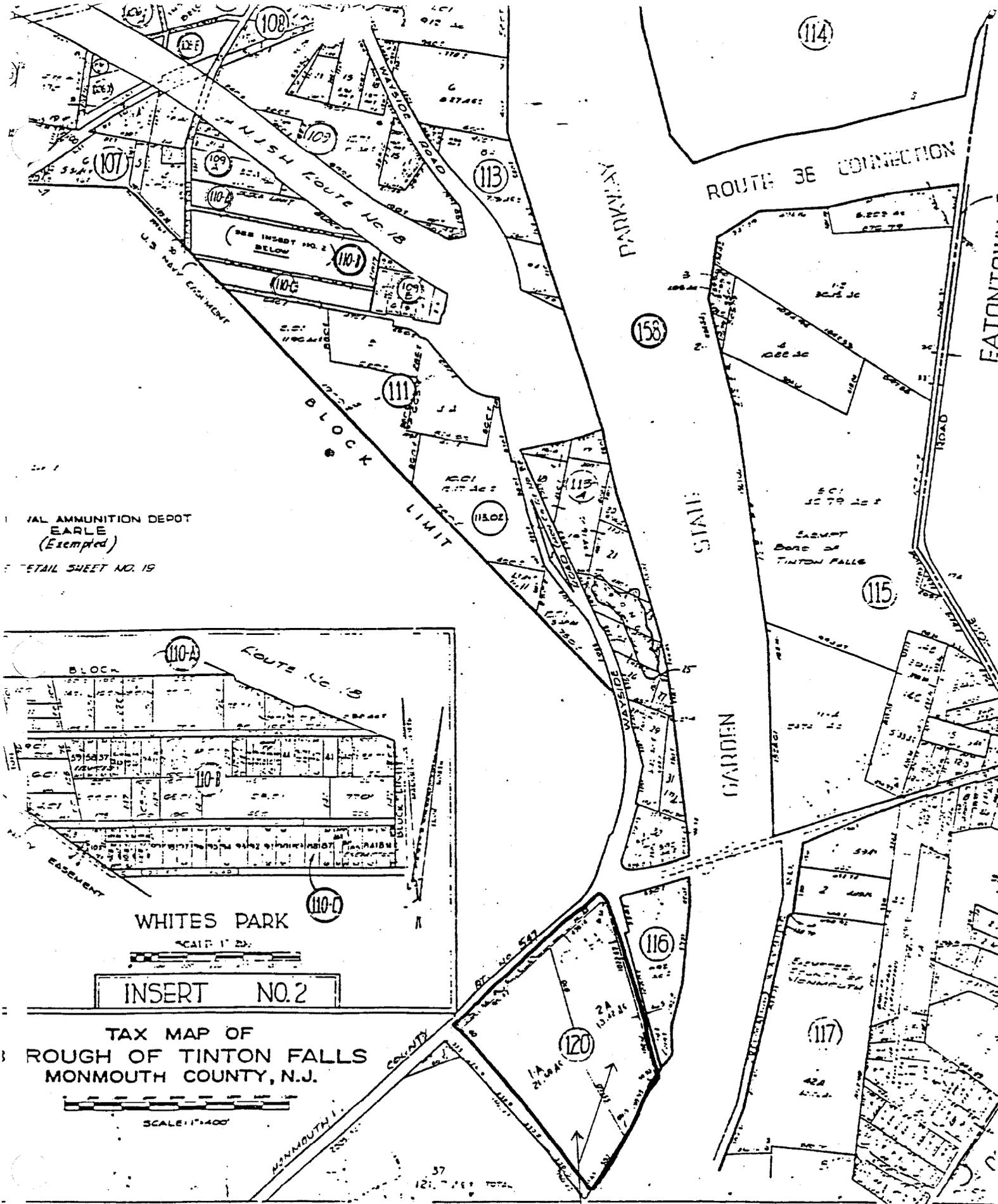
SEE NEW JERSEY NORTHERN METRO AREA ON REVERSE SIDE FOR MORE DETAIL



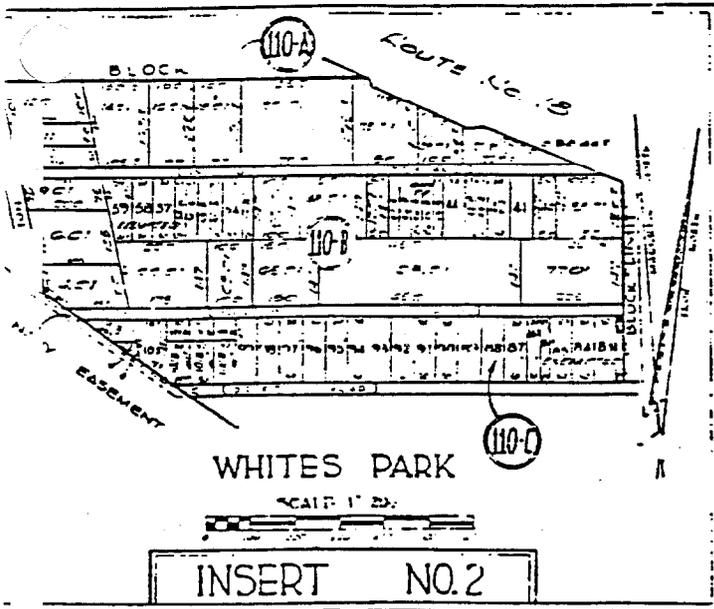
NEW YORK
NEW JERSEY

ESTEY METAL PRODUCTS, INC.
SHAFTO & WAYSIDE ROAD
TINTON FALLS BOUGH / MONMOUTH COUNTY

800
500
300
40° 00'



AMMUNITION DEPOT
EARLE
(Exempted)
DETAIL SHEET NO. 19



TAX MAP OF
ROUGH OF TINTON FALLS
MONMOUTH COUNTY, N.J.
SCALE: 1" = 400'

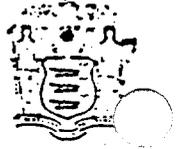
ADJOINING SHEET

ESTEY METAL PRODUCTS, INC.
SHAFT & WAYSIDE ROADS

Let's protect our earth



NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF HAZARDOUS SUBSTANCES CONTROL



OIL AND HAZARDOUS MATERIALS SPILL REPORT

INITIAL REPORT

OHMP CASE NUMBER

80-3-6-12

Date of spill: Unknown
Municipality: Tinton Falls
Receiving waters: Ground Water?
Tributary to:
Reported by: Private citizen
Telephone: (see attached)
Address:
Affiliation:

Time of spill: Unknown
Type of material: Unknown - Chemical
Quantity: 120 drums - approximately
Source: Unknown
Location of spill: Behind Estey Corporation
(street, road, etc.) *Wayside Rd.*
Cause: Dump
Date of report: 3/16/80
Time of report: 1700
Report taken by: E. Liu
Hot Line:

Initial Action

AGENCY	TELEPHONE No.	NOTIFIED		AGENCY	TELEPHONE No.	NOTIFIED	
		YES	NO			YES	NO
Coast Guard/EPA	800 424-8802	<input type="checkbox"/>	<input checked="" type="checkbox"/>	State Police CD/DC	609 882-2000	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fish & Game	609 292-6635 201 236-2313	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solid Waste	609 292-9877	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Basin Manager	609 292-0566(A) -0686(R) -0576(D) -0604(P)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Air Pollution	609 292-6724	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Shellfish Notified	609 292-0566	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pesticides Control	609 292-5890	<input type="checkbox"/>	<input checked="" type="checkbox"/>
				Affected Water Supplies		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Investigation (on scene) (telephone)

Name of investigator: E. Liu
Date of investigation: 3/6/80
Station:
Time:

Persons contacted:

Name	Affiliation	Telephone
1		
2		
3		

Samples: Yes ___ No ___ Photos: Yes ___ No ___

Report of investigation and recommended containment and cleanup:

Memo in Spill File

Approximately 120 drums on site. 2/3 of drums are carboard drums. Some empty, some solid spilled on ground. Solids are yellow and grey in color. One (1) drum is from DuBois Chemical. Another drum from Schenecady Chemical, label also warns of prolong inhalation and skin contact. Also flammable when exposed to air. Dump site appears to be active.

MONMOUTH COUNTY REGIONAL HEALTH COMMISSION 1 1

ROBERT R. CRELIN, V.M.D.
Health Officer

KENNETH RAU
Boro of Eatontown

EILEEN VAUGHN
Boro of Highlands

SIDNEY B. JOHNSON
Boro of Monmouth Beach

FELIX J. FOGGIA
Boro of Oceanport

Oceanport Village Plaza
269-B Oceanport Avenue
Post Office Box 192
Oceanport, New Jersey 07757
Telephone: 229-0866

Contractual Services

Borough of Allenhurst

Borough of Deal

Borough of Interlaken

July 10, 1980

ROBERT REDFIELD
Boro of Sea Bright

PAUL ROMAN
Boro of Shrewsbury

STEPHEN W. CLUNEY
Shrewsbury Township

EILEEN McCARTHY
Boro of Tinton Falls

DR. HARRY VINEBURG
Boro of West Long Branch

F.P. Tucker, Jr., President
Estey Metal Products Corporation
Wayside Road & Shafto Road
Tinton Falls, New Jersey 07724

Dear Mr. Tucker:

On July 10, 1980 an inspection of your premises was conducted by this department and the following conditions were observed.

- * { 1. Numerous 55 gallon drums are stored at the rear and side of your premises containing various quantities of unknown liquids or chemicals.
- 2. Several containers are opened and contain a visible liquid.
- 3. Refuse and unknown liquid substances are stored on the ground exposed to vandalism and the weather.

The above conditions are violations of local and/or state regulations.

Our records indicate an inspection of your premises made on January 1, 1980 you were verbally notified of the above conditions.

Our records indicate subsequent inspections showed no signs of progress of the removal of these drums and therefore, you are hereby notified to correct these conditions on or before August 1, 1980. Failure to adhere to the terms of this NOTICE will cause this department to institute legal action.

Very truly yours,

Donald M. Knabe
Donald M. Knabe
Sanitary Inspector

DMK/g

Hand delivered by Inspector Knabe
on July 1980

Received by _____

MONMOUTH COUNTY REGIONAL HEALTH COMMISSION No. 1

Report of Inspection of illegal dumping (chemical containers) on property in woods

Location of Establishment Wayside Road & Shafto Road, Tinton Falls N.J.

(Street)

Date of Inspection July 10, 1980 Time started: 10:15 am Thursday morning

Name of Operator Estey Metal Products Corporation

Address of Operator Wayside Road & Shafto Road, Tinton Falls, N.J. 07724

(Street)

Person Interviewed Persons involved in the investigation:

Sidney Johnson Jr. & Donald Knabe employed by the MCRHC #1

Ken Branson & Dave May employed by the Asbury Park Press

President Estey Corp. F.P. Tucker & Production Manager Fred Weekly & Vice-Pres.

Thomas Nicholas

Thomas Brady & Wayne Howitz Inspectors with the Hazardous Waste Division of the State Dept. of Environmental Protection.

Approximate time events occurred:

10:15 am Notified by phone (Asbury Park Press) of possible illegal waste dump on property near Shafto and Wayside Roads. Said property was described as being just south of Estey Corp.

10:40 Made contact with Dave May (Asbury Park Press Reporter) at Tinton Falls Boro Hall.

11:00 Don Knabe, Sid Johnson Jr., employees of the MCRHC # 1 and Dave May arrived at the site where the alleged unlawful dumping occurred. Investigation revealed approx. 240 drums were being stored above ground on the site. Of this total approx. 60 drums were metal containers holding 55 gallons and the other containers (approx. 180 in number) were made of cardboard. Many of these cardboard type containers were in poor and deteriorating condition due to exposure to the elements and a multitude were leaking their unknown contents onto the ground. Unable to identify contents of drums at this time, due to inability of finding exterior markings or labels on the containers. Possibility exists that these containers belong to Estey Co. because of their known use of similar containers for storage of waste materials and also these containers were very similar in appearance to waste containers presently being stored onsite at rear of Estey building. Reporter and Sid Johnson both took numerous pictures of the dumping area.

12:00 Visited Estey Corp. and toured the rear storage areas and made investigation of exterior property surrounding company. Attempted to talk to Estey's Corporate Officers specifically, ~~XXXXXXX~~ President F.P. Tucker Jr. or Fred Weekly, Production Manager at plant. Both men were out to lunch at this time. Stated that we would return at approx. 1:30 pm to try again.

MONMOUTH COUNTY REGIONAL HEALTH COMMISSION No. 1

Report of Inspection of _____ PAGE 2 _____

Location of Establishment _____
(Street)

Date of Inspection _____

Name of Operator _____

Address of Operator _____
(Street)

Person Interviewed _____

Approximate time events occurred: _____

~~12:30 pm~~ Returned office - Phoned DEP Chemical & hazardous wastes Division and notified them of the problem. Said inspector would be dispatched to visit scene. Wrote up violation notice that will be hand delivered to Estey Corp. this afternoon.

2:00 Returned to Estey Corp. - Donald Knabe hand delivered violation notice to Fred Weekly, Production Manager. One additional photograph taken of rear storage area that has not been cleaned up as yet and is subject of the violation notice.

2:15 Revisited illegal dump site. Present at this time were Sid Johnson Jr., Don Knabe, Ken Branson, Fred Weekly, Thomas Brady, and Wayne Howitz. At this time Mr. Weekly stated that the containers belonged to Estey Corp. and that the property on which the containers were stored also belonged to the company. Discussion of type chemicals used and that the containers held ensued. Estey Corp. will analysis every container, tag each one and see that a certified scavenger carts them away. Manifest-Destination Permit System will be employed to insure that the wastes are properly disposed of. In discussion with DEP inspectors it was decided that MCRHC #1 would supervise the clean-up of the illegal dump site.

3:30 Returned to office.

~~ATTACHED TO REPORT IS COPIES OF THE FOLLOWING:~~

- ~~Violation Notice Signed By Fred Weekly.~~
- ~~Pictures taken of scene on July 10, 1980.~~
- ~~Info regarding Asbury Park Press reporters: Dave May # 800/ 822-9770 and Ken Branson~~
- ~~Info regarding DEP Inspectors from Hazardous Waste Division.~~
- ~~Article that appeared in the ~~XXXXXX~~ Asbury Park Press on July 11, 1980.~~
- ~~This story paralleled the complaint investigation.~~

