203003

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation
Bureau of Hazardous Site Control
Additions/Change to Registry Summary of Approvals

Site Name Hexagon Labs DEC I.D. Number 203003

Current Classification 2a

Activity: ☐ Add as Class ___ ☒ Reclassify to 2 ☐ Delist Category ___ ☐ Modify ___

Approvals:

Regional Hazardous Waste Engineer	Yes	☑	No	☐	
NYSDOH	Yes	☑	No	☐	
DEE	Yes	☑	No	☐	
BHSC: a. Investigation Section	Yes	☑	No	☐	
b. Site Control Section	Robert J. Marino		Date	9/2/93	
c. Director	[signature]		Date	12/7/93	
DHWR Assistant Director	Charles M. Goddard		Date	12/17/93	

For Proposed Class 2a Site Only:

Anticipated Action: _____

_____

By Whom: _____

Time Frame: _____

10/23/91

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

Original-BHSC
Copy-REGION
Copy-DEE
Copy DOH
Copy-PREPARER

REGISTRY SITE CLASSIFICATION DECISION

1. SITE NAME	2. SITE NO	3. TOWN/CITY/VILLAGE	4. COUNTY
Hexagon Labs	203003	Eastchester (Bronx)	Bronx

5. REGION: 2

6. CLASSIFICATION: Current 2A Proposed 2 Modify

7. LOCATION OF SITE (Attach U.S.G.S Topographic Map showing site location)

a. Quadrangle	b. Site Latitude	Longitude	c. Tax Map Number
Mt. Vernon / Flushing	40 52' 13"	73 49' 34"	600 000 2052 830 030

8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations)
The site is a former chemical manufacturing plant located in a densely populated urban area of the Eastchester section of the Bronx County.
The plant was in operation between 1946 and 1988, producing various chemicals and pharmaceuticals. The building has not been well maintained since closure of the plant; this coupled with the deteriorating condition of drums of raw materials abandoned on site led to the current removal action by EPA. This action will not include any soil or groundwater investigation.

a. Area __1___ acres b. EPA ID Number D053659074_____

c. Completed ( )Phase I ( )Phase II ( )PSA ( )RI/FS (X)PA/SI ( )Other

9. HAZARDOUS WASTES DISPOSED

U077, ethylene dichloride* U019, benzene* U037, chlorobenzene
U220, toluene* U079, 1,2-dichloroethene* U228, trichloroethylene
U239, xylene* COMPOUNDS FOLLOWED BY (*) HAVE BEEN STORED ON SITE IN
U080, methylene chloride* UNDERGROUND STORAGE TANKS; ALL HAVE BEEN FOUND IN SOILS
U080, dichloromethane* OR GROUNDWATER ON SITE.

10. ANALYTICAL DATA AVAILABLE

a. ( )Air (X)Groundwater ( )Surface Water (x)Soil ( )Waste ( )EPTox (X)TCLP

b. Contravention of Standards or Guidance Values
The following compounds were found in a 15 foot hydrocarbon layer in an abandoned production well on site (Table 4.9, attached):
U077, ethylene dichloride, 350 ppm U220, toluene, 6300 ppm
U239, xylene, 14,000 ppm B001, Aroclor 1242, 47.3 ppm

11. JUSTIFICATION FOR CLASSIFICATION DECISION
There are numerous documented instances of hazardous materials migrating through soils and groundwater from the site. The most disturbing documented event occurred in August of 1992 when three people entered a 5 foot deep trench to shut off water to the site; they were overcome by fumes and required rescue and hospital treatment.EPA will not be investigating soil or groundwater at the site as there are no known nearby potable water sources. Ethylene dichloride, toluene, and xylene were found in a hydrocarbon layer on top of groundwater beneath the site at levels up to 14000 ppm; methylene chloride, dichloromethane, benzene, and 1,2 dichloroethene were found in liquid seeping from the site. All seven compounds were stored on site in underground storage tanks as pure product feedstocks. In addition to the potential threat to human health at the site, the Hutchison River is located less than 1/2 mile east of the site, and contains a regulated wetland that is home to threatened and endangered species.

12. SITE IMPACT DATA

a. Nearest surface water: Distance _800__ft. Direction ___E____ Classification __SB_____
b. Nearest Groundwater: Depth ___17_ft. Flow Direction _ENE____ ( )Sole Source ( )Primary ( )Principal
c. Nearest water supply: Distance _>3 mi. Direction ____N___ Active ( )Yes ( )No
d. Nearest building: Distance __ 0__ft. Direction ___E_____ Use __wholesale dairy_____

e. In State Economic Development Zone?	( )Y (x)N	i. Controlled site access?	(x)Y ( )N
f. Crops or livestock on site?	( )Y (x)N	j. Exposed hazardous waste?	(X)Y ( )N
g. Documented fish or wildlife mortality?	( )Y (x)N	k. HRS Score _____	
h. Impact on special status fish or wildlife resource?	( )Y (x)N	l. For Class 2: Priority Category	_1___

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
Louis Wiener	Short Hills, N.J.	

16. PREPARER

Cynthia L Whitfield — Revised 12/6/93
Signature Date

Environmental Engineer I, BHSC
Name, Title, Organization

17. APPROVED

Charles M Goddard 12/17/93
Signature Date

Ass't Dir
Name, Title, Organization

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Center for Environmental Health 2 University Place Albany, New York 12203-3399

Mark R. Chassin, M.D., M.P.P., M.P.H.
Commissioner
Paula Wilson
Executive Deputy Commissioner

OFFICE OF PUBLIC HEALTH
Sue Kelly
Executive Deputy Director
William N. Stasiuk, P.E., Ph. D.
Center Director

April 16, 1993

Mr. Earl Barcomb, P.E., Director
Bureau of Hazardous Site Control
NYS Department of Environmental Conservation
50 Wolf Road, Room 212
Albany, New York 12233

RE: Classification Package (Reclass)
Hexagon Labs, Site I.D. #203003
(T) Eastchester, Bronx County

Dear Mr. Barcomb:

My staff have reviewed the classification package proposing to reclassify the Hexagon Lab site from 2a to 2. The information provided indicates the presence of sub-surface soil and groundwater contamination which may potentially create hazardous vapors. This volatile organic contamination poses a potential threat to utility crews or remedial workers that may encounter sub-surface contamination during ground intrusive activities on or immediately adjacent to this site.

Based on our review of this information, we concur with the reclassification of this site from 2a to 2 as further investigation of the sub-surface soil and groundwater contamination is necessary. Enclosed is the signed decision form.

If there are any questions, please contact Mr. Steven Bates at (518) 458-6305.

Sincerely,

G. Anders Carlson

G. Anders Carlson, Ph.D.
Director
Bureau of Environmental Exposure
Investigation

lmw/93103PRO0018

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233 7010

Thomas C. Jorling
Commissioner

MAR 17 1993

G. Anders Carlson, Ph.D.
Director
Bureau of Environmental Exposure
New York State Department of Health
Two University Place
Albany, NY 12203-3399

Dear Dr. Carlson:

Enclosed is a proposed Registry Classification package for Hexagon Labs, Site #203003. The current site classification is 2a; the proposed classification is Class 2 based on the documented presence of hazardous waste and significant threat as defined in Part 375-1.4(a)(1)(vi), where the nearness of the site to places of work or other area where individuals may be present poses a significantly increased risk to the public health.

Since a determination must be made by the Department of Health, we are submitting the enclosed proposed classification package for your review, and in the event that you concur, request that you enclose a written statement supporting the determination of significant threat.

If you have any questions or comments on the package, the contact person in my bureau is Cynthia Whitfield; you may reach her at 457-0638.

Sincerely,

Earl H. Barcomb, P.E.
Director
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

Enclosure

cc: M. Schuck, DOH - w/enc.
R. Marino, w/enc.
C. Whitfield, w/enc.
T. Reamon, w/o enc.

BUREAU OF ENVIRONMENTAL EXPOSURE INVESTIGATION
SITE STATUS SUMMARY

SITE ID/SITE NAME: 203003/Hexagon Laboratories
MUNICIPALITY/COUNTY: Bronx/Bronx
CLASS: 2a
DOH RANK:
STATE RANK:

BACKGROUND:

The Hexagon Laboratories, Inc. site is a one acre inactive chemical manufacturing facility. Intermediate medicinals, pharmaceuticals, and industrial organic chemicals were manufactured on-site from 1946-1988. A sample of material collected from the sump-pump pit in 1981 by NYSDEC revealed benzene (0.75 ppm), chlorobenzene (0.65 ppm), ethylbenzene (0.17 ppm), methylene chloride (0.61 ppm), and trichloroethylene (0.043 ppm). The US EPA has carried out an emergency removal action which included the removal of all containerized hazardous substances.

ACTIVITIES:

- 4/93 - USEPA completed emergency removal of all containerized hazardous substances.
- 8/92 - DEP and City Water Dept. workers were overcome by fumes while entering a trench on-site to shut off water to the site.
- 7/92- USEPA has started an emergency removal action of containerized wastes.
- 6/92 - Draft PSA released for review.
- 1/92 - NYSDOH site visit with NY City Dept. of Env. Protection (DEP).

PENDING ACTIONS:

The site is proposed for change of classification from a 2a to a 2.

HEALTH ASSESSMENT:

Access to the approximatly one acre plant site is restricted by a chain-link fence, locked doors, a watch dog, and 24-hr. security. A 2-story brick building covers most of the property with a small side lot littered with abandoned storage tanks. There is little, if any, exposed surface soil. Volatile organic contaminants remaining in sub-surface soils and groundwater pose a potential threat to utility crews or remedial workers that may encounter sub-surface contamination during excavation activities on or immediately adjacent to the site. [redacted] **three workers were overcome by fumes after entering a trench to shut off water to the site.** Although groundwater may be contaminated, public water serves the area.

CONTACT:

DOH Technical Lead:	Maureen Schuck	Phone: 518-458-6305
DOH Community Outreach:	Nina Knapp	Phone: 518-458-6402
DEC Project Manager:	Shaminder Singh	Phone: 718-482-4996

10/19/92 mes(20570320)
[redacted]

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

CLASSIFICATION WORKSHEET

SITE NAME: Hexagon Labs **SITE NO.:**203003 **COUNTY:** Bronx **REGION:** 2

1. Documentation of Hazardous Waste Disposal? [x] Yes (go to 2) [ ] No (Stop) [ ] Unknown (Stop)

2. Consequential Amount of Hazardous Waste? [x] Yes (go to 3) [ ] No (Stop) [ ] Unknown (go to 3)

3. Does 6 NYCRR Part 375-1.4(a)(1) apply? [ ] No (go to 4) [ ] Unknown (go to 4)
[x] Yes - as indicated below ---- **CLASS 2** (go to 5)

Hazardous waste disposal has resulted in or is reasonably foreseeable to result in:

( ) a. a significant adverse impact upon endangered species, threatened species, or species of concern.

( ) b. a significant adverse impact upon protected streams, tidal wetlands, freshwater wetlands, or coastal zone habitats.

( ) c. a bioaccumulation in flora or fauna that results in significant ecotoxicological effects or results in a recommendation to limit human consumption.

( ) d. levels of contamination that cause significant adverse acute or chronic effects to fish, shellfish, crustacea, or wildlife.

( ) e. a significant adverse impact to the environment due to fire, spill, explosion, or a reaction generating toxic gases, vapors, fumes, mists, or dust.

(x) f. a determination by either ATSDR or NYSDOH that there is a significantly increased risk to the public health due to hazardous waste disposal near areas where people or water supplies may be present.

Explanation:

4. Does 6 NYCRR Part 375-1.4(a)(2) apply? [ ] No ---- **CLASS 3** (Stop) [ ] Unknown ---- **CLASS 2a** (Stop)
[ ] Yes - as explained below ---- **CLASS 2** (go to 5)

Explanation:

5. Factor(s) considered in making this determination: Documented instances of migration of wastes from this site, at least one of which has resulted in harm to human health. Although many wastes previously present on site are currently being removed by EPA, there is no work planned to address the issues of soil and groundwater contamination. Both media are known to be significantly contaminated. Although there are no currently known groundwater users within a three mile area, change of use of the site or surrounding areas could pose a grave risk to human health. Current area construction has resulted in the release of harmful vapors from the soil.

SUMMARY

Hazardous Waste Disposal?	[x] Yes	[ ] No	[ ] Unknown
Consequential Hazardous Waste? ..	[x] Yes	[ ] No	[ ] Unknown
Significant Threat Determination?	[x] Yes	[ ] No	[ ] Unknown

PROPOSED CLASSIFICATION: CLASS 2

Signature **Date** **Name, Title, Organization**

10/6/92

NEW YORK STATE DEPARTMENTS OF ENVIRONMENTAL CONSERVATION AND HEALTH
INACTIVE HAZARDOUS WASTE DISPOSAL, SITE PRIORITY RANKING WORKSHEET

SITE I.D. 203003 SITE NAME Hexagon Labs

Priority I - Sites for which remediation should supersede all other Class 2 sites. Priority I can be assigned if any one of the following questions can be answered affirmatively.

a) Has a public or private water supply which is currently in use been contaminated or threatened?.... ☐

b) Has human exposure to contaminants (or the potential for exposure) been identified which represents a significant health risk as determined by DOH?..... ☒

c) Has bioaccumulation of site contaminants in flora or fauna resulted in a health advisory?..... ☐

d) Are site contaminants present at levels that are acutely toxic to fish or wildlife or that have caused documented fish or wildlife mortality?..... ☐

☒ (1)

[If 1 or more boxes are checked, check this box]

Priority II - Important Sites. Priority II will be assigned if any of the following questions can be answered affirmatively.

a) Has a Class A or AA surface water body, primary or principal aquifer been contaminated or threatened without affecting an existing water supply?..... ☐

b) Has bioaccumulation of site contaminants in flora or fauna resulted in actionable levels (but not a health advisory)?..... ☐

c) Are contaminants at levels chronically toxic to fish/wildlife?..... ☐

d) Have endangered, threatened or rare species, significant habitats, designated coastal zone or regulated wetlands been impacted by releases from the site?..... ☐

☐ (2)

[If 1 or more boxes are checked, check this box]

Priority III - will be assigned unless one or more of the site prioritization criteria, specified above, apply to a site. After remedial needs for Priority I and II sites have been accommodated, remediation of sites under this category can be considered. If Priority III, check box 3. ☐ (3)

Enter the number of the priority box checked 1, 2, or 3 here..... 1 (4)
This is the site's priority rank.

FACTORS

IJC Factor - If the sites has been identified by the International Joint Commission (IJC) as a component in a remedial action plan, subtract (1) from the value in box 4 and enter the result in box 5..... ☐ (5)

	Yes	No
EDZ Factor - If the site is within a New York State designated Economic Development Zone (EDZ) should this fact cause the site priority to be raised?.....	☐	☐
Community Support Factor - If the site has been targeted for local government-supported development by a developer willing to sign a consent order with DEC to finance investigation and remediation should this fact cause the site priority to be raised?.....	☐	☐

If either "yes" box is checked, subtract 1 from the value in box 4 and enter the result into box 6. If "no" is checked, the value in box 6 equals box 4 (or box 5 if applicable). If both IJC and EDZ/Community Support factors apply, only 1 (not 2) will be subtracted from the value in box 4. The resultant value in box 6 will never be less than 1..... ☐ (6)

	Yes	No
IRM NOTE: Should this site be considered a candidate for an Interim Remedial Measure (IRM) as defined by 6NYCRR Part 375-1.3n?	☐	☐

If "yes" please explain why: _____

Preparer CYNTHIA WHITFIELD Date 4/30/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: ~~2a~~ 2 REGION: 2 SITE CODE: 203003
EPA ID:

NAME OF SITE : Hexagon Laboratories
STREET ADDRESS: 3536 Pear Tree Avenue

TOWN/CITY:	COUNTY:	ZIP:
Bronx	Bronx	10475

SITE TYPE: Open Dump- Structure-X Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Hexagon Laboratories
CURRENT OWNER ADDRESS.: 3536 Pear Tree Road, Bronx, NY
OWNER(S) DURING USE...: Multiple Owners during use
OPERATOR DURING USE...: ** Multi - Site Operators **
OPERATOR ADDRESS.....: * * * * *
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1956 To Present

SITE DESCRIPTION:
Hexagon Laboratories, Inc. is located in the Eastchester section of the Northeast Bronx. The plant site is located south of Boston Post Road, north of the New England Thruway and west of the Hutchinson River in an area close to other buildings, both industrial and residential.
Hexagon Laboratories operated as a chemical manufacturing facility and stored and produced a number of compounds and chemicals, medicinal and pharmaceutical, for industrial and commercial use until 1988. There are a total of 30 underground storage tanks that were installed between 1956 and 1978. The tanks, which remain onsite, were used for storage of several organic and inorganic acids, halogens and solvents, including: alcohols, aphtha, benzene, toluene, methylene, and chloride. The plant has a history of chemical spillage; seven of these tanks failed tank integrity tests in 1977. A fifteen foot layer of hydrocarbons was found in an onsite well in 1987. Over one hundred drums were found abandoned on site during an inspection in 1991.
Shallow groundwater and bedrock ~~are~~ characterize ~~of~~ the area. Extensive groundwater contamination exists in and around the facility. Some wastewater was discharged into the NYC sewer system. This contributed to a sewer collapse in 1986. A State Funded Phase I (PSA) is completed. EPA ~~is~~ conducting an emergency removal action at the site by stablizing all the laboratory chemicals. In 1992 three people were overcome with fumes, while attemping to shut water off at this site, these individuals required rescuing and hospitilization.
In additional to the threat to human health at the site, ~~the~~ a regulated wetland that is home to threatened and endangered species is located ½ mile east of the site along the Hutchison River.

TYPE	QUANTITY (units)
Organic and Inorganic Acids	Unknown
Halogens	"
Alcohols	"
Naphtha	"
Benzene	"
Toluene	"
Methylene Chloride	"

in the excavation

SITE CODE: 203003

ANALYTICAL DATA AVAILABLE:
Air- Surface Water- Groundwater-X Soil-X Sediment-

CONTRAVENTION OF STANDARDS:
Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress-X Completed-
NATURE OF ACTION: EPA Funded IRM

GEOTECHNICAL INFORMATION:
SOIL TYPE:
GROUNDWATER DEPTH:

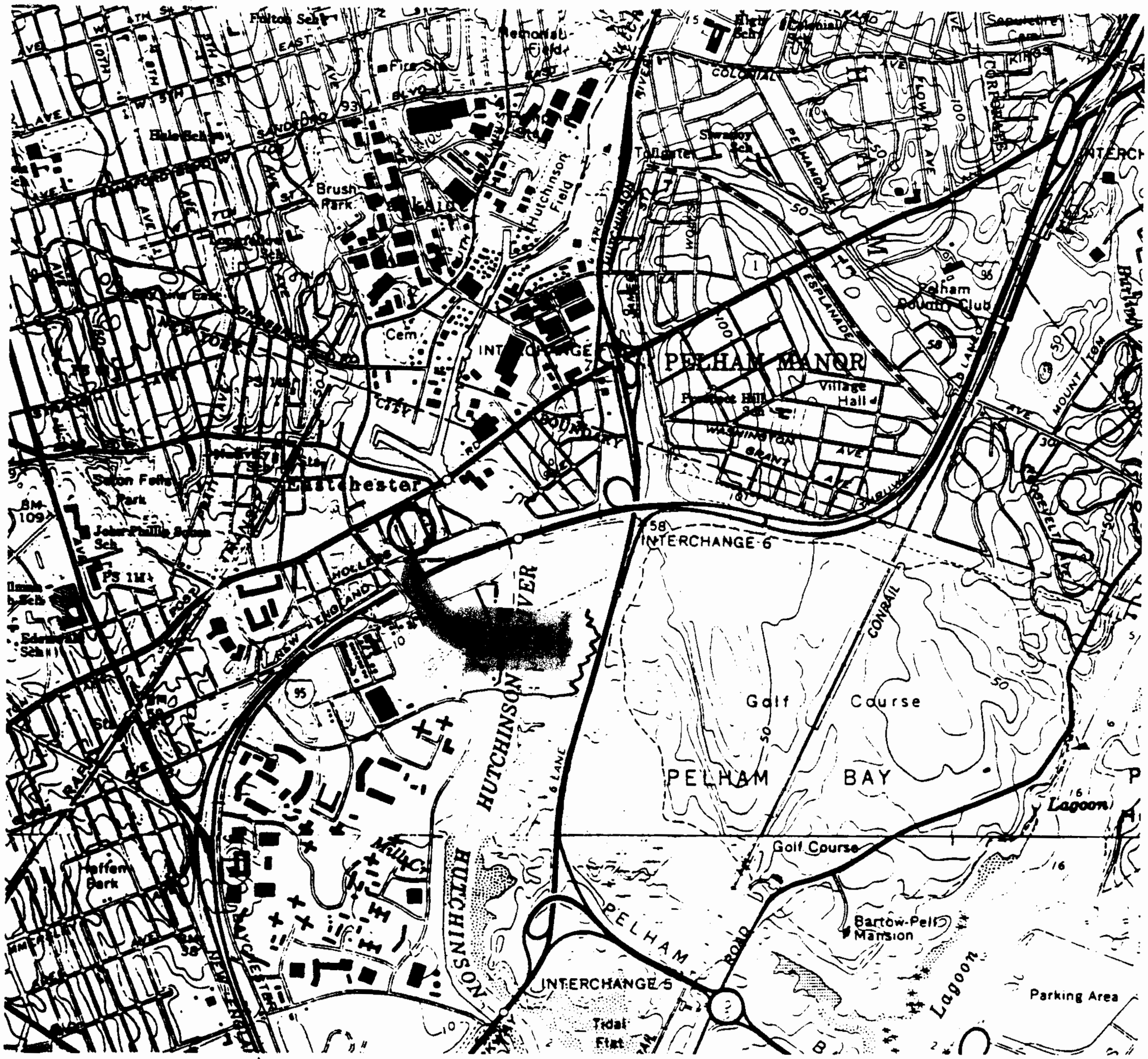
ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

EPA has undertaken a removal action to mitigate the health and environmental threat posed by improper storage of incompatible chemicals A large layer of contamination exist at the groundwater interface, but there are no known use of groundwater in this area.

ASSESSMENT OF HEALTH PROBLEMS:

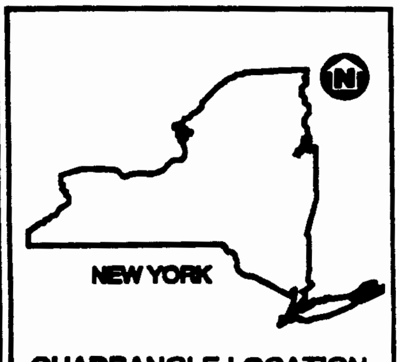
Access to the approximate one acre, closed plant site is restricted by a chain-link fence, locked doors, a watch dog, and 24-hr. security. A 2-story brick building covers most of the property with a small side lot littered with abandoned storage tanks. There is little, if any, exposed surface soil. Direct contact exposures to on-site chemical residues or drummed wastes stored on the premises would appear remote. It is assumed groundwater is contaminated, however, public water services the area. The site is in an industrial setting, close to two auto salvage yards. Since the plant is closed, no further hazardous releases or sewer explosions are foreseen. Sewer or Water Department crews could potentially be exposed to residual chemicals under the streets within the combined sewers, sewer/waterline beddings, or soils during activities involving subsurface excavations. Previously, three workers were overcome by fumes after entering a trench to shut off water to the site.

FIGURE 4.1



SOURCE: U.S.G.S. 7.5 SERIES TOPOGRAPHIC MAPS; MOUNT VERNON AND FLUSHING, N.Y. QUADRANGLES,1966,PHOTOREVISED 1979.

SCALE
0 2000 4000 FT.



QUADRANGLE LOCATION

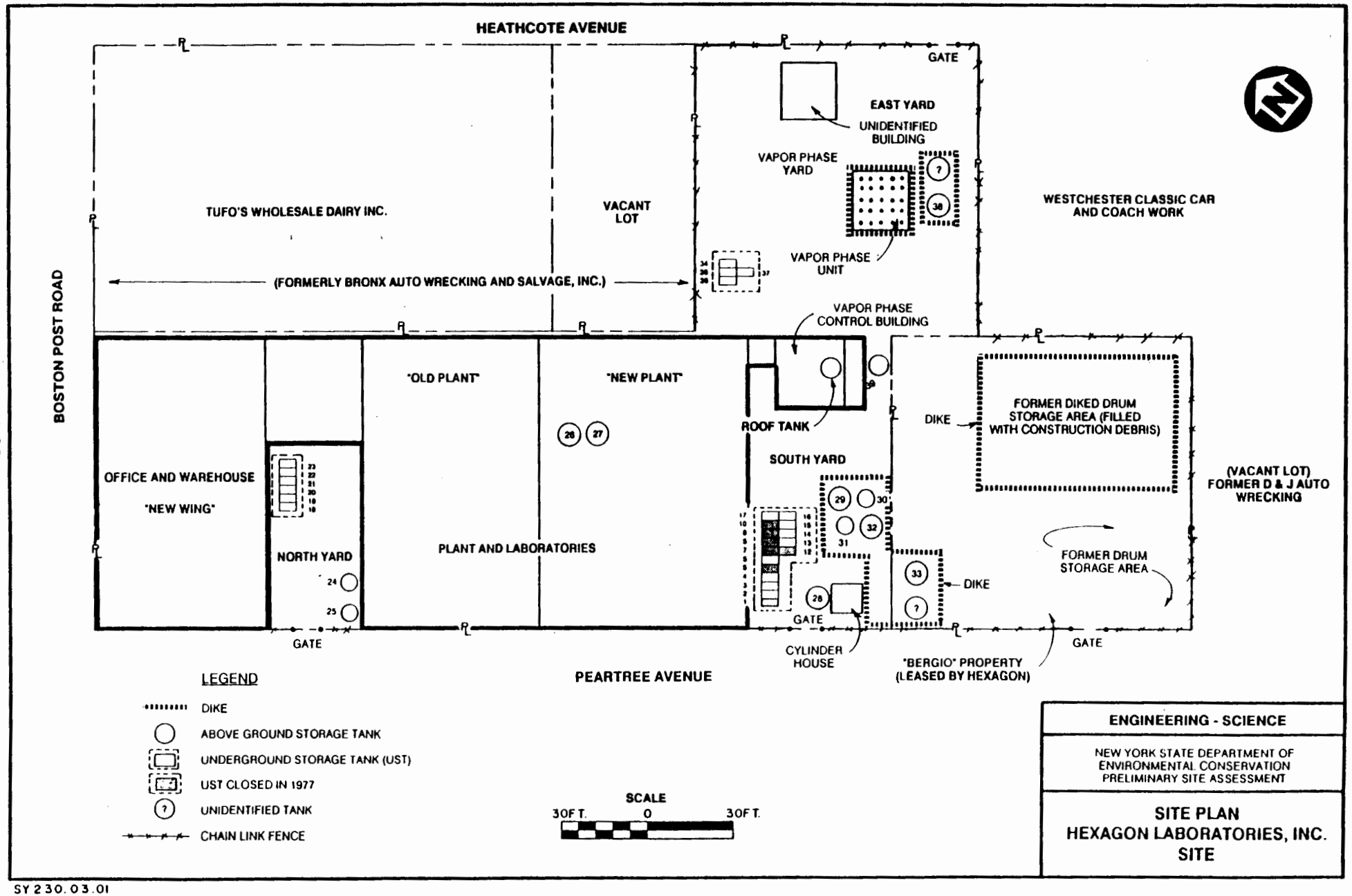
LATITUDE: 40°53'13"
LONGITUDE: 73°49'34"

ENGINEERING-SCIENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PRELIMINARY SITE ASSESSMENT

SITE LOCATION
HEXAGON LABORATORIES, INC. SITE

FIGURE 4.2



ENGINEERING - SCIENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

SITE PLAN
HEXAGON LABORATORIES, INC. SITE

SY 2 30.03.01

U.S. ENVIRONMENTAL PROTECTION AGENCY

INITIAL POLLUTION REPORT

I. HEADING

Date: July 31, 1992
From: Nick Magriples/Bob Montgomery
To: W. Muzynski, EPA
R. Salkie, EPA
J. Witkowski, EPA
S. Becker, EPA
J. Marshall, EPA
E. Schaaf, EPA
C. Whitfield, NYSDEC
J. Wuthenow, NYCDEP
J. Sevinsky, NYS Attorney General
ERD, Washington, (E-Mail)
TAT
K. Callahan, EPA
G. Zachos, EPA
V. Pitruzzello, EPA
J. Russo, EPA
W. Mugdan, EPA
C. Goddard, NYSDEC
A. Rockmore, NYSDEC
E. Catenzaro, NYCDEP
Subject: Hexagon Laboratories, Bronx, New York
POLREP NO.: Polrep One (1)

II. BACKGROUND

SITE/SPILL NO.: AD
D.O. NO.: 0026-02-031
RESPONSE AUTHORITY: CERCLA/SARA
NPL STATUS: non-NPL
ACTION MEMORANDUM STATUS: pending
START DATE: 07/29/92

III. SITE INFORMATION

Incident Category

Abandoned Chemical Manufacturing Facility

Site Description

A. Site Description

Hexagon Laboratories is an inactive facility located at 3536 Peartree Avenue in the Eastchester section of Bronx County, New York. It is situated in a densely populated urban area with approximately 381,000 people within a three-mile radius.

Hexagon was a chemical manufacturing firm which produced medicinal chemicals and pharmaceuticals. Hexagon began operation in 1946 and ended in 1988. The company went bankrupt and since then the facility has been "guarded" by a former employee of the company.

B. Description of Threat

The containers and laboratory chemicals stored at the site

pose a significant threat to public health. Due to the types of chemical stored at the site (see below), their age and extreme incompatibilities, the potential for a release is great if the materials are disturbed. There have been reports of access onto the property by vagrants and drug addicts, which poses a threat to their health, and increases the risk to the workers/residents in the area should the containers in the buildings be disturbed. A release or disturbance of the materials could potentially result in a fire/explosion, with the result being a highly toxic plume.

Removal Site Evaluation Results

On July 29, the On-Scene Coordinators (OSCs) and the Technical Assistance Team (TAT) conducted a site visit to initiate the assessment of the building's contents. Access was provided by the watchman (a former employee of Hexagon) for the site that is reportedly paid by a former owner. A partial inventory from the NYCDEP, and old lists of chemicals used and wastes generated at the site provided a guide for the types of materials at the site. The initial site entry revealed hundreds of drums and over one thousand laboratory chemicals.

The chemicals are raw materials, chemical intermediates, mother liquors and wastes from the former operation. Based on the inventories and other available information, the chemical hazards include; potentially explosive materials, shock sensitives, water and air reactives, poisonous cylinders, carcinogens, flammables, oxidizers and corrosives. All are stored together haphazardly. Portions of the buildings inside present physical hazards due to no lighting and flooding. Although most of the drums are in what used to be the office building, there are many other containers scattered throughout many small and difficult to access rooms.

As of July 31, an inventory completed by TAT and the OSCs revealed approximately 600 various sized containers (10 to 55-gallon drums and various sized fiber containers), as well as at least 2,500 laboratory chemicals. Of the twenty-seven above and underground tanks, at least one is reported to contain some type of waste material. The tanks were not checked for contents.

IV. RESPONSE INFORMATION

Planned Removal Actions

Due to the potential for a serious release, the OSC requested verbal authorization to initiate an emergency removal action on Wednesday, July 29, 1992 at 1440 hours and subsequently was provided with $150,000 in contract mitigation funds and a $250,000 project ceiling. ETI was selected as the Emergency Response Cleanup Contractor (ERCS) contractor.

The purpose of this initial action is to initially stabilize the site to lessen the potential threats that exist. Additional funds will be necessary in the future to remove these threats completely.

Situation

A. Current Situation

See discussion below.

B. Removal Actions to Date

On July 29, at approximately 1700 hours, two security guards hired by ETI arrived at the site for around-the-clock duty to supplement the watchman and dog present at the facility. The additional security guards were necessary due to the type of neighborhood and the repeated entries onto the site by vagrants and drug-addicts.

The ERCS response manager (RM) arrived at the site on Thursday, July 30, 1992 and was requested to provide a chemist on the following day. A small puddle (four inches) of mercury discovered in one of the yards was accumulated, bottled and placed in the building. The area where the spill was found was covered with plastic sheeting.

On Friday, July 31 a chemist arrived to inspect certain containers that posed the concern of being shock sensitive. Although there are a number of these containers in the building, a visual inspection at this time revealed one that appears to be in poor condition. Due to its location amongst other drums, it was decided not to disturb it till further equipment and personnel were available. A daily work order was issued to the RM on July 31 to provide personnel and materials to initiate site prep and stabilization activities on Monday, July 3. Subcontracting for electrical power and other ancillary equipment have been initiated.

C. Enforcement

Through contacts with the Office of Regional Counsel (ORC) on July 30, it was determined that access to the site for further intrusive removal activities, outside of the assessment, was not available. Through activities conducted at the site by the OSCs, and with the assistance of ORC and the civil investigator, the alleged "owner" of the facility was located in the early evening of July 30. Although this person denies ownership, an access agreement was drafted by ORC and the OSC that same evening and was forwarded to the owner's attorney on the morning of Friday, July 31.

TAT visited the County Seat on July 31 to obtain tax maps and a copy of the deed to the property.

Next Steps

As discussed above, further activities to stabilize the site, such as overpacking damaged containers and segregating, will

V. SITUATION

A. Removal Actions to Date

On August 03, 1992, site set up, utilities and other logistical operations commenced. Utilities and logistics include: phone service, water, sanitary, power etc. It wasn't until August 26, that site set up was completed. In the meantime, the site Health and Safety Plan (HASP) was under development. The OSC used ERT's computer program titled "HASP". This document received much scrutiny by EPA, TAT and ERCS. The OSC provided, for comment, the HASP to Ms. Donna Haseman, I.H. of EPA's Facility's Management Section. Ms. Haseman provided an in depth review of the plan and also performed a field inspection on August 20, 1992. The HASP was finalized on August 25, 1992.

Due to a ruptured gate valve in the fire water suppression system within the building, the OSC contacted the NYCDEP to ascertain if they could provide assistance in shutting off the water to the facility. On August 24, representatives from the DEP and the Water Dept. arrived to attempt to stop the flow. A trench was dug at the main to shut the water off. While accessing the five foot deep trench, three workers were overcome with vapors and were subsequently sent to the hospital. DEP personnel did not follow any standard operating procedure for entering a confined space. At this time the water is still on and the trench is still open, thereby creating a potential safety hazard for pedestrians and vehicles.

Site sampling activities were set to commence on August 24, 1992. However ETI was not ready. The OSC is concerned with the Sampling and QA/QC Plans submitted by them. After five drafts the plans are still not finalized. On August 26, the OSC issued a stop work order and sent all non essential personnel to the hotel. The OSC than worked with the chemist, response manager and program management to develop plans that are acceptable. Via conversation with Mr. P.J. Smith (ETI), it was agreed that the following charges are not acceptable: 1) Personnel hours for all people except the PCT from 8/27 thru 8/30. 2) Hotel and per diem charges for the same time frame. 3) All equipment on standby. 4) Provisional rate to be established for the lab trailer. 5) Spot checks to be performed by a senior chemist or the QA/QC Officer on a regular routine basis. OSC apprised the contract officer and project officer of the situation and informed that his level of comfort with ETI is very low. All parties are to meet on site on September 2, 1992.

V. SITUATION

A. Removal Actions to Date

Sampling activities commenced on September 2, 1992. Compatibility testing of all samples retrieved, also commenced shortly thereafter. As of this date greater than 400 samples have been retrieved and analyzed. Most of the drums were retrieved from the lower warehouse, however quite a few exist in the plant.

On September 4, 1992, Winston Environmental along with the NYCDEP arrived to complete the excavation in the street in order to access the water main. Water was than completely shutoff to the site and the hole was backfilled. On September 11, 1992 the EPA received a formal request from Mr. John Wuthenow, Deputy Director, Division of Hazardous Material Management, NYCDEP to address a situation wherein elevated levels of volatile compounds were detected in the trench. The OSC recommends that this referral should go to the NYSDEC for consideration. The NYSDEC may be assessing this site for listing purposes and therefore the data that the NYCDEP has accumulated may benefit their assessment. EPA performed a preliminary assessment/site investigation in July, 1988 and subsequently did not receive a high enough rating to make the NPL. That assessment report revealed that off-site migration of contaminants could not impact a potable water source. Therefore the pathway for human exposure through the groundwater, is not present. As a result, there is little justification for performing a time critical removal action to assess subsurface migration, within EPA's Removal Program.

On September 9, 1992 an additional $400,000 was obligated to complete Phase I activities.

Next Steps

Phase I activities include the sampling, on-site compatibility testing and offsite disposal analysis of all containers on the premises. Phase I activities are anticipated to take at least six to eight more weeks.

V. SITUATION

A. Removal Actions to Date

During this interim phase (December 11, 1992 thru present) activities conducted off-site include the completion of the disposal analytical and compilation of waste profiles of all waste streams for disposal and recycling purposes. Intermittent checks of the site and security were performed by the TAT team.

The OSC, with counsel from ORC, interviewed an employee of Hexagon for the purposes of obtaining information on PRPs. It is anticipated that information request letters will be developed.

Apparently the Hazardous Waste Compliance Branch has no file of substantial value on Hexagon and therefore can not assist in the pursuit of enforcement, against Hexagon, under their RCRA statute.

OSC has completed the final draft of the restart Action Memo to procure additional funding for the transportation and disposal of the hazardous substances previously staged.

Around the clock security continues to be maintained.

Next Steps

It is anticipated that Removal activities will commence on February 1, 1993. Activities planned will include the transferring of the bulk tank and sump liquids, the removal of subsequent still bottoms, the evaluation of overhanging pipes for storage of liquids, the crushing of unknown lab chemicals and the transportation and disposal of all material.

Proposed activity will not include the decommissioning of the facility or any exploratory soil and groundwater testing.

V. COST INFORMATION

Estimated costs for the removal action as of December 3, 1992 are as follows:

ERCS Contractor	$535,000
TAT Contractor	$90,000
Intramural Direct Costs(Regional)	$50,000
TOTAL	$675,000
PROJECT CEILING	$925,000
PERCENT OF FUNDS REMAINING	73%

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

DRAFT

PRELIMINARY SITE ASSESSMENT

Hexagon Laboratories, Inc. Site
New York City

Site No. 203003
Bronx County

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233

Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation

Michael J. O'Toole, Jr., P.E., Director

By:

ENGINEERING-SCIENCE, INC.
LIVERPOOL, NEW YORK

MAY 1992

Hexagon was a "very clean company", that the hazardous waste storage area was paved and in good condition, and that the plant was a "very well run and strictly regulated plant as to safety and health regulations", following inspections conducted in 1981 and 1982 (NYSDEC, 1981a and 1982a).

During a subsequent inspection in 1982, a NYSDEC inspector observed seven drums showing signs of deterioration, including drums of benzoic acid and solid diethyl ketone (DEK). The inspector noted that containment for spills or runoff from the drum storage area consisted of two tanks with gravel-lined bottoms for percolation (NYSDEC, 1982b).

Administrative violations, including missing USEPA hazard codes, no documented facility contingency or emergency plans, no documented personnel training, missing manifests, and unlabeled waste drums; were identified during later inspections (NYSDEC, 1985b and NYSDEC, 1984a). A Notice of Violation was issued by NYSDEC in 1987 for exceedence of small quantity generator limits, including storage for over 90 days and total quantity in excess of 8,800 gallons (NYSDEC, 1987b).

During an inspection conducted in 1987, a NYCDEP inspector reported that spilled chemicals were in the drum storage area, and that hazardous waste storage areas were not diked (NYCDEP, 1987).

A subsequent investigation in 1987, requested by NYSDEC, revealed a 15-foot hydrocarbon layer in an abandoned on-site well (LBG, 1987). The hydrocarbon layer was measured with a sonic interface detector. A sample of the material in the well was collected and analyzed by Nytest Environmental, Port Washington, New York. A summary of results is presented in Table 4.6. The following organic compounds were detected: ethylene dichloride at 350 ppm, toluene at 6,300 ppm, xylene at 14,000 ppm, and Aroclor 1242, a PCB congener, at 47 ppm (NYTEST, 1987).

The Hexagon site was referred to NYSDEC, Division of Hazardous Waste Remediation, in April 1988 for listing as an Inactive Hazardous Waste Site, and referred to the NYSDEC, Division of Environmental Enforcement, for acting as a Treatment, Storage and Disposal facility without authorization (NYSDEC, 1988a and 1988b).

In June 1988, a NYCDEP inspector reported that all on-site USTs had been emptied and cleaned, with the exception of two tanks of methanol that were to be used to clean reactor vessels (NYCDEP, 1988).

NYCDEP personnel inspected the site during February 1990, in response to a high pH discharge to the City sewer system. The inspectors identified "extremely hazardous materials" on-site (NYCDEP, 1990a). Four liquid samples were collected from three ASTs, and a sample was collected from the sewer system. The samples were analyzed by NYCDEP, but results were inconclusive for material content, due to limitations of the infrared (IR) scan method used. A pH of 14 was detected in two of four samples collected from the tanks and a pH of 8 was detected in sample collected from the sewer. Long chain aromatic esters and/or acids were identified in two of the tank samples. No correlation between the tank samples and the sewer sample was identified.

A follow-up inspection was conducted by NYCDEP in July 1990. A previously unidentified chemical storage area was located adjacent to the laboratories in the "New Plant". "Extremely hazardous materials", including explosives, water reactive metals, poisons, and compressed gas cylinders; were subsequently removed from the site by the New York City Police Department Bomb Squad (Table 4.1) (NYCDEP, 1990a).

Potential Contamination Along the East Property Line

Complaints of strong odors and liquids seeping through the east and north walls of the Hexagon site were first reported to NYSDEC by Bronx Auto Wrecking and Salvage, Inc. (BAWS) in 1980 (NYSDEC, 1981b). BAWS reported that liquids periodically seeped from the Hexagon plant along the entire length of the east wall. Much of this area could not be inspected during the December 1991 because a structure has been constructed immediately adjacent to the Hexagon plant.

Samples of liquids seeping along the east wall of the old and new plant structures were collected by an employee of BAWS during 1981, and submitted to NYSDEC for analysis. Detected analytes reportedly include benzene, dichloromethane, 1,2-dichloroethylene, toluene, and esters of fatty acids and acetic acid. No concentrations were reported in the documents obtained during the file search, however. No seepage was observed during a follow-up inspection conducted in March 1981; however, a newly installed sump pump, apparently intended to pump liquids seeping from the Hexagon plant to the sewer system, was observed along the east wall of the Hexagon building where the seepage had been sampled.

A foul smelling liquid was observed by a NYSDEC inspector along the east wall of the Hexagon plant during a subsequent visit in April 1981 (NYSDEC, 1981a). A sample of the material was collected from the sump pump pit, and analyzed by Nytest Environmental Inc. Table 4.6 presents the analytical results. Detected compounds include: benzene at 0.755 parts per million (ppm), chlorobenzene at 0.653 ppm, ethylbenzene at 0.171 ppm, methylene chloride at 0.613 ppm, and trichloroethylene at 0.429 ppm (NYTL, 1981).

In 1981, Leggette, Brashears and Graham, Inc. prepared a report regarding the seepage from the Hexagon plant and possible migration of chemical substances from the site to adjacent properties (LBG, 1981). The letter report indicated that fluids were leaking from two locations along the east wall, and from one location along the north wall. The leak along the north wall was attributed to repairs on the City's sewer or water system, conducted on Boston Post Road in 1982 (Hexagon, 1982b). NYSDEC subsequently recommended sealing floor surfaces in the production areas with epoxy coating to prevent leakage to the east walls through cracks in the floors of production areas (Hexagon, 1982a). A Notice of Violation and Hearing was issued to Hexagon by NYSDEC in October 1982 regarding the leaking fluid along east property line (NYCDEP, 1982a). Interior floors, trenches, and pits were reportedly lined with an epoxy coating to seal cracks and openings.

Soil samples were collected from the BAWS property during 1989 in preparation for the sale of the property to Tufo's Wholesale Dairy, Inc. (Tufo's). Three soil samples were collected from unspecified locations by BAWS for a property transfer audit, and analyzed by the Extraction Procedure (EP) for metals and pesticides. Table

4.7
~~4.8~~ presents a summary of the analytical results. None of the analytes were detected at concentrations above regulatory limits (ITL, 1989).

Another soil sample was collected from an unspecified location by Tufo's in preparation for construction of a warehouse, and analyzed by the Toxicity Characteristic Leaching Procedure (TCLP) method. Table ~~4.9~~ 4.8 presents a summary of the analytical results. None of the organic compounds were detected above the method detection limit (PA, 1990). Barium and mercury were detected at concentrations well below applicable federal limits. Tufo's constructed a warehouse covering three-quarters of the former BAWS site in 1990-91. An employee of Joe and Andy's Auto Body, located at the south end of the Hexagon block, stated he had seen "green gook" oozing from the ground during construction of the Tufo's warehouse (ES, 1991).

Contamination from Sewer Discharge

High explosivity levels have been reported in the public sewer line located southwest of the site along Peartree Avenue since 1966, and heavy corrosion was noted at Hexagon's discharge point (NYSDEC, 1986c). The sewer system in this area reportedly collapsed in 1986 (NYSDEC, 1986e). Following the collapse, NYSDEC requested that Hexagon install monitoring wells and conduct groundwater sampling in response to past releases from their site. The matter was negotiated, but the plant was apparently closed before a plan could be implemented.

Potential Contaminant Release by On-Site Explosion

A release of n,n-dimethylaniline, isopropylalcohol, and methyl chloride reportedly occurred on June 30, 1986 as a result of a ruptured high pressure release disk located on top of the manufacturing area. N,n-dimethylaniline was not identified as a stored or raw material used on-site, or a finished product manufactured at the site in other documents obtained during the record search (i.e., is not included in Tables 4.1, 4.3, 4.4, 4.5). Two workers at the adjacent junk yard located south of the site, D and J Auto Wrecking, reported skin reactions from exposure. Most of the lost materials were reportedly recovered during the subsequent clean-up. NYSDOH, NYSDEC, and NYCDEP concluded that no additional cleanup was necessary, based on results of follow-up soil samples collected from the junk yard (NYSDEC, 1986d).

4.5 SITE ASSESSMENT

4.5.1 Presence of Hazardous Waste

Available data indicate that hazardous wastes may be stored in drums and laboratory containers at the Hexagon Laboratories, Inc. site; however, the data gathered during the record search are insufficient to confirm the presence of hazardous waste at the site.

Approximately 100 drums and numerous chemical containers were observed in the warehouse and laboratory areas of the Hexagon plant during the December 1991 site inspection. Many of the drums and containers were not labeled, and the record search did not produce analytical results that could be used to identify the materials in the drums and containers. As a result, the materials in the drums could not be determined during Task 1.

TABLE 4.1

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL		LOCATION	REFERENCE
108-03-02	1-nitropropane		Laboratories	HEXAGON, 1987
107-06-2	1,2-dichlorethane		Laboratories	ES, 1991
106-99-0	1,3-butadiene (compressed gas)		Laboratories	NYCDEP, 1990a
78-78-4	2-methyl-1-butane		Laboratories	HEXAGON, 1987
75-85-4	2-methyl-2-butanol		Laboratories	HEXAGON, 1987
107-87-9	2-pentanone		Laboratories	HEXAGON, 1987
not listed	5-chloro-2-pentanone		Laboratories	ES, 1991
75-07-0	acetaldehyde		Laboratories	HEXAGON, 1987
64-19-7	acetic acid		Laboratories	HEXAGON, 1987
108-24-7	acetic anhydride		Laboratories	HEXAGON, 1987
67-64-1	acetone		Laboratories	ES, 1991
75-05-8	acetonitrile		Laboratories	HEXAGON, 1987
75-36-5	acetyl chloride		Laboratories	HEXAGON, 1987
107-02-8	acrolein		Laboratories	HEXAGON, 1987
107-13-1	acrylonitrile		Laboratories	NYCDEP, 1990a
6484-52-2	ammonium nitrate		Laboratories	HEXAGON, 1987
7664-41-7	anhydrous ammonia (compressed gas)		Laboratories	NYCDEP, 1990a
103-32-2	benzylaniline		Laboratories	NYCDEP, 1990a
17-3-2	benzene		Laboratories	ES, 1991
98-88-4	benzoyl chloride		Laboratories	HEXAGON, 1987
not listed	benzoyl cyanide		Laboratories	NYCDEP, 1990a
94-36-0	benzoyl peroxide		Laboratories	HEXAGON, 1987
193-32-2	benzylaniline		Laboratories	NYCDEP, 1990a
not listed	bisdiphenyl methyl ether	\2	Laboratories	NYCDEP, 1990a
10294-34-5	boron trichloride (compressed gas)		Laboratories	NYCDEP, 1990a
7637-07-2	boron trifluoride (compressed gas)		Laboratories	NYCDEP, 1990a
7726-95-6	bromine		Laboratories	HEXAGON, 1987
not listed	bromobenzyl cyanide		Laboratories	NYCDEP, 1990a
357-57-3	brucine		Laboratories	NYCDEP, 1990a
not listed	butanol		Laboratories	HEXAGON, 1987
not listed	butyl ether	\2	Laboratories	NYCDEP, 1990a
96-48-0	butyrolactone		Laboratories	ES, 1991
630-08-0	carbon monoxide (compressed gas)		Laboratories	NYCDEP, 1990a
not listed	chloride		Laboratories	HEXAGON, 1987
7782-50-5	chlorine (compressed gas)		Laboratories	NYCDEP, 1990a
not listed	chlorophenol		Laboratories	NYCDEP, 1990a
not listed	chloropyridene		Laboratories	NYCDEP, 1990a
7790-94-5	chlorosulfonic acid		Laboratories	HEXAGON, 1987
1333-82-0	chromic anhydride		Laboratories	HEXAGON, 1987
120-92-3	cyclopentanone		Laboratories	HEXAGON, 1987
64-17-5	denatured alcohol		Laboratories	HEXAGON, 1987
60-29-7	diethyl ether		Laboratories	HEXAGON, 1987
96-22-0	diethyl ketone		Laboratories	HEXAGON, 1987

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL		LOCATION	REFERENCE
64-67-5	diethyl sulfate		Laboratories	NYCDEP, 1990a
124-40-3	dimethylamine (compressed gas)		Laboratories	NYCDEP, 1990a
123-91-1	dioxane	\2	Laboratories	NYCDEP, 1990a
110-05-4	di-tertiary butyl peroxide		Laboratories	HEXAGON, 1987
141-78-6	ethyl acetate		Laboratories	HEXAGON, 1987
141-97-9	ethyl acetoacetate		Laboratories	ES, 1991
64-17-5	ethyl alcohol (95%)		Laboratories	ES, 1991
60-29-7	ethyl ether	\2	Laboratories	NYCDEP, 1990a
105-56-6	ethylcyanoacetate		Laboratories	NYCDEP, 1990a
75-21-8	ethylene oxide (compressed gas)		Laboratories	NYCDEP, 1990a
462-06-6	fluorobenzene		Laboratories	NYCDEP, 1990a
7664-93-9	fuming sulfuric acid		Laboratories	HEXAGON, 1987
110-00-9	furan		Laboratories	HEXAGON, 1987
142-82-5	heptane		Laboratories	HEXAGON, 1987
110-54-3	hexane		Laboratories	HEXAGON, 1987
302-01-2	hydrazine (37%)		Laboratories	HEXAGON, 1987
10035-10-6	hydrobromic acid		Laboratories	HEXAGON, 1987
7647-01-0	hydrochloric acid		Laboratories	HEXAGON, 1987
1333-74-0	hydrogen		Laboratories	HEXAGON, 1987
10035-10-6	hydrogen bromide (compressed gas)		Laboratories	NYCDEP, 1990a
7647-01-0	hydrogen chloride (compressed gas)		Laboratories	NYCDEP, 1990a
7722-84-1	hydrogen peroxide		Laboratories	HEXAGON, 1987
772-84-1	hydrogen peroxide (30%)		Laboratories	HEXAGON, 1987
7783-06-4	hydrogen sulfide (compressed gas)		Laboratories	NYCDEP, 1990a
not listed	hydroiodic acid		Laboratories	HEXAGON, 1987
115-11-7	isobutylene (compressed gas)		Laboratories	NYCDEP, 1990a
67-63-0	isopropyl alcohol		Laboratories	HEXAGON, 1987
108-20-3	isopropyl ether	\2	Laboratories	NYCDEP, 1990a
not listed	isporopyl		Laboratories	HEXAGON, 1987
8032-32-4	ligroin		Laboratories	HEXAGON, 1987
not listed	lithium aluminum hydrate		Laboratories	HEXAGON, 1987
7782-89-0	lithium amide		Laboratories	NYCDEP, 1990a
not listed	lithium metal		Laboratories	NYCDEP, 1990a
7439-95-4	magnesium		Laboratories	HEXAGON, 1987
not listed	metallic sodium		Laboratories	HEXAGON, 1987
124-63-0	methanesufonyl chloride		Laboratories	HEXAGON, 1987
67-56-1	methanol		Laboratories	HEXAGON, 1987
74-83-9	methyl bromide (compressed gas)		Laboratories	NYCDEP, 1990a
not listed	methyl cellosolene (sic)		Laboratories	HEXAGON, 1987
74-87-3	methyl chloride (compressed gas)		Laboratories	NYCDEP, 1990a
78-93-3	methyl ethyl ketone		Laboratories	HEXAGON, 1987
not listed	methyldiisocyanate		Laboratories	NYCDEP, 1990a
75-04-7	monoethylamine (compressed gas)		Laboratories	NYCDEP, 1990a

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL		LOCATION	REFERENCE
74-89-5	monomethylamine (compressed gas)		Laboratories	NYCDEP, 1990a
7697-37-2	nitric acid		Laboratories	HEXAGON, 1987
79-24-3	nitroethane		Laboratories	HEXAGON, 1987
not listed	nitromethanol		Laboratories	HEXAGON, 1987
not listed	octadecyl ether	\2	Laboratories	NYCDEP, 1990a
109-66-0	pentane		Laboratories	HEXAGON, 1987
127-18-4	perchloroethylene		Laboratories	NYCDEP, 1990a
101-84-8	phenyl ether	\2	Laboratories	NYCDEP, 1990a
7664-38-2	phosphoric acid		Laboratories	HEXAGON, 1987
1314-53-3	phosphorous pentoxide		Laboratories	HEXAGON, 1987
7789-60-8	phosphorous tribromide		Laboratories	HEXAGON, 1987
7719-12-2	phosphorous trichloride		Laboratories	HEXAGON, 1987
not listed	pinacolyl alcohol		Laboratories	ES, 1991
3811-04-9	potassium chlorate		Laboratories	HEXAGON, 1987
151-50-8	potassium cyanide		Laboratories	NYCDEP, 1990a
7778-50-9	potassium dichromate		Laboratories	HEXAGON, 1987
7722-64-7	potassium permanganate		Laboratories	HEXAGON, 1987
not listed	p-toluene sulfonyl		Laboratories	HEXAGON, 1987
7440-02-0	raney nickel		Laboratories	HEXAGON, 1987
not listed	red phosphorous		Laboratories	HEXAGON, 1987
not listed	sodium aluminum diethyl dihydride		Laboratories	NYCDEP, 1990a
7782-92-5	sodium amide		Laboratories	HEXAGON, 1987
16940-66-2	sodium borohydride		Laboratories	NYCDEP, 1990a
7646-67-7	sodium hydride		Laboratories	HEXAGON, 1987
not listed	sodium metal		Laboratories	NYCDEP, 1990a
124-41-4	sodium methoxide		Laboratories	NYCDEP, 1990a
124-41-4	sodium methylate		Laboratories	NYCDEP, 1990a
7446-09-5	sulfur dioxide (compressed gas)		Laboratories	NYCDEP, 1990a
7664-93-9	sulfuric acid		Laboratories	HEXAGON, 1987
7791-25-5	sulfuryl chloride		Laboratories	HEXAGON, 1987
109-99-9	tetrahydrofuran		Laboratories	ES, 1991
7719-09-7	thionyl chloride		Laboratories	HEXAGON, 1987
108-88-3	toluene		Laboratories	HEXAGON, 1987
121-44-8	triethylamine		Laboratories	ES, 1991
76-05-1	trifluoroacetic acid		Laboratories	HEXAGON, 1987
75-50-3	trimethylamine (compressed gas)		Laboratories	NYCDEP, 1990a
75-35-4	vinylidene chloride		Laboratories	NYCDEP, 1990a
1330-20-7	xylene		Laboratories	HEXAGON, 1987
64706-54-3	1-bepridil		Warehouses	NYCDEP, 1991
not listed	2-2-dimethylpropon-1,3-diamine		Warehouses	NYCDEP, 1991
504-29-0	2-aminopyridine		Warehouses	HEXAGON, 1987
not listed	2-chloropyridine		Warehouses	HEXAGON, 1987
not listed	3-aminohyridine-2-chloride		Warehouses	NYCDEP, 1991

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL	LOCATION	REFERENCE
not listed	3-aminohyridine-2-chloro	Warehouses	NYCDEP, 1991
not listed	3-dimethylamino phenol n-n-dimethyl-3-amino	Warehouses	NYCDEP, 1991
not listed	3-dimethylaminophenol	Warehouses	NYCDEP, 1991
not listed	3-macaplopropionic acid	Warehouses	NYCDEP, 1991
not listed	3-methyl mercapto	Warehouses	HEXAGON, 1987
not listed	4-chlor-benzenesulfonye chloride (sic)	Warehouses	NYCDEP, 1991
not listed	4-chloro 2-tolueine (sic)	Warehouses	NYCDEP, 1991
132-22-9	4-chlorophenyl-n,n-dimethyl-2-pyridinepropanamine	Warehouses	NYCDEP, 1991
not listed	acetic acid, glacial	Warehouses	HEXAGON, 1987
79-06-1	acrylamide	Warehouses	NYCDEP, 1991
not listed	ADAPIC acid (sic)	Warehouses	NYCDEP, 1991
1344-28-1	alundum sheres	Warehouses	NYCDEP, 1991
67485-29-4	Amdro	Warehouses	NYCDEP, 1991
67485-29-4	Amdro Step II	Warehouses	NYCDEP, 1991
not listed	amine (2 deg.)	Warehouses	NYCDEP, 1991
not listed	aminobenzoic acid	Warehouses	NYCDEP, 1991
7664-41-7	ammonia, aq	Warehouses	HEXAGON, 1987
12124-97-9	ammouim bromide (sic)	Warehouses	NYCDEP, 1991
123-11-5	anisic aldehyde	Warehouses	HEXAGON, 1987
105-13-5	anisyl alcohol	Warehouses	HEXAGON, 1987
not listed	antipyrin phenazon phenazone	Warehouses	NYCDEP, 1991
65-85-0	benzoic acid	Warehouses	NYCDEP, 1991
not listed	benzyphentermine HCL	Warehouses	NYCDEP, 1991
not listed	benzyphentomine	Warehouses	NYCDEP, 1991
64706-54-3	bepridil	Warehouses	NYCDEP, 1991
not listed	biosperse	Warehouses	NYCDEP, 1991
not listed	biphenyl waste	Warehouses	NYCDEP, 1991
not listed	bromacetyl bromide	Warehouses	NYCDEP, 1991
7726-95-6	bromine	Warehouses	HEXAGON, 1987
not listed	buprofen	Warehouses	NYCDEP, 1991
78-92-2	butanol-sec	Warehouses	HEXAGON, 1987
not listed	Catalyst Carries	Warehouses	NYCDEP, 1991
not listed	catalyte	Warehouses	NYCDEP, 1991
1310-73-2	caustic soda	Warehouses	NYCDEP, 1991
1310-73-2	caustic soda, pels.	Warehouses	HEXAGON, 1987
not listed	CD-19 (95%)	Warehouses	HEXAGON, 1987
not listed	celite	Warehouses	NYCDEP, 1991
36653-82-4	cetyl alcohol	Warehouses	NYCDEP, 1991
123-03-5	cetyl pyrididinuim chloride (sic)	Warehouses	NYCDEP, 1991
7782-50-5	chlorine gas	Warehousea	HEXAGON, 1987
71-55-6	chlorothene (1,1,1-trichlor)	Warehouses	HEXAGON, 1987
77-92-9	citric acid	Warehouses	NYCDEP, 1991
not listed	copper cyanide	Warehouses	NYCDEP, 1991

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL	LOCATION	REFERENCE
not listed	copper sulfate monohydrate	Warehouses	NYCDEP, 1991
not listed	CPM #21-129E	Warehouses	NYCDEP, 1991
not listed	CPM #21-144G	Warehouses	NYCDEP, 1991
98-82-8	cumene	Warehouses	HEXAGON, 1987
not listed	cumene frush	Warehouses	NYCDEP, 1991
7758-89-6	cuprous chloride	Warehouses	HEXAGON, 1987
108-94-1	cyclohexanone	Warehouses	HEXAGON, 1987
not listed	Darco G60	Warehouses	HEXAGON, 1987
not listed	dephenhydramine	Warehouses	NYCDEP, 1991
not listed	Dequest 2041	Warehouses	NYCDEP, 1991
not listed	Destino Destination	Warehouses	NYCDEP, 1991
not listed	diethyl phenyl malonate	Warehouses	HEXAGON, 1987
109-89-7	diethylamine	Warehouses	HEXAGON, 1987
not listed	diiso butylene	Warehouses	HEXAGON, 1987
68-12-2	dimethyl formamide	Warehouses	HEXAGON, 1987
67-68-5	dimethyl sulfoxide	Warehouses	NYCDEP, 1991
not listed	dimethylbenzyl carbinol	Warehouses	NYCDEP, 1991
58-73-1	diphenhydramine	Warehouses	NYCDEP, 1991
not listed	diphenhydramine monocitrate	Warehouses	NYCDEP, 1991
not listed	diphenyloxide	Warehouses	NYCDEP, 1991
not listed	DIPPN tosylate	Warehouses	NYCDEP, 1991
not listed	di-tertiary butyl peroxide	Warehouses	NYCDEP, 1991
80-06-8	DMC solution	Warehouses	NYCDEP, 1991
not listed	DMC-HCL	Warehouses	HEXAGON, 1987
not listed	dodecene	Warehouses	HEXAGON, 1987
not listed	DR special cracking catalyst	Warehouses	NYCDEP, 1991
not listed	EPI	Warehouses	NYCDEP, 1991
not listed	Ethoguad O/12 (sic)	Warehouses	HEXAGON, 1987
141-78-6	ethyl acetate	Warehouses	NYCDEP, 1991
75-04-7	ethylamine	Warehouses	NYCDEP, 1991
107-06-2	ethylene dichloride	Warehouses	HEXAGON, 1987
107-21-1	ethylene glycol	Warehouses	NYCDEP, 1991
107-15-3	ethylenediamine	Warehouses	HEXAGON, 1987
7705-08-0	ferric chloride	Warehouses	NYCDEP, 1991
64-18-6	formic acid	Warehouses	HEXAGON, 1987
not listed	Fronter project	Warehouses	NYCDEP, 1991
110-00-9	furan	Warehouses	HEXAGON, 1987
not listed	GGE	Warehouses	NYCDEP, 1991
not listed	guaicacol	Warehouses	HEXAGON, 1987
93-14-1	guaifenesin	Warehouses	NYCDEP, 1991
113-00-8	guanidine	Warehouses	NYCDEP, 1991
142-82-5	heptane	Warehouses	HEXAGON, 1987
not listed	hexamethlene diamine	Warehouses	HEXAGON, 1987

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL	LOCATION	REFERENCE
not listed	hexamethylamine diamine solution	Warehouses	NYCDEP, 1991
not listed	hexyl	Warehouses	NYCDEP, 1991
not listed	HYD #75-43A	Warehouses	NYCDEP, 1991
10035-10-6	hydrobromic acid	Warehouses	HEXAGON, 1987
not listed	hydrofol acid	Warehouses	NYCDEP, 1991
7647-01-0	hydrogen chloride	Warehouses	HEXAGON, 1987
7722-84-1	hydrogen peroxide	Warehouses	HEXAGON, 1987
1333-74-0	hydrogen (cylinder)	Warehouses	HEXAGON, 1987
not listed	hyflo filter aid	Warehouses	HEXAGON, 1987
15687-27-1	ibuprofen #323-1R	Warehouses	NYCDEP, 1991
79-31-2	isobutyric acid	Warehouses	HEXAGON, 1987
75-26-3	isopropyl bromide	Warehouses	HEXAGON, 1987
143-07-3	lauric acid	Warehouses	HEXAGON, 1987
7782-89-0	lithium amide	Warehouses	NYCDEP, 1991
7439-95-4	magnesium chips	Warehouses	NYCDEP, 1991
1309-42-8	magnesium hydroxide	Warehouses	NYCDEP, 1991
18917-89-0	magnesium salicylate	Warehouses	NYCDEP, 1991
110-16-7	maleic acid	Warehouses	NYCDEP, 1991
108-31-6	maleic anhydride	Warehouses	NYCDEP, 1991
532-03-6	methocarbamol	Warehouses	NYCDEP, 1991
74-87-3	methyl chloride	Warehouses	HEXAGON, 1987
17560-51-9	metolazone	Warehouses	NYCDEP, 1991
not listed	monomer-K crude	Warehouses	NYCDEP, 1991
not listed	NEO Base Crude	Warehouses	NYCDEP, 1991
98-92-0	niacinamide	Warehouses	NYCDEP, 1991
not listed	N-N-Diethyldodecanamide	Warehouses	NYCDEP, 1991
not listed	NUCHAR	Warehouses	NYCDEP, 1991
not listed	n,n-dimethyl-n,n-aniline	Warehouses	HEXAGON, 1987
not listed	OXEME - 2nd crop	Warehouses	NYCDEP, 1991
30525-89-4	paraformaldehyde	Warehouses	HEXAGON, 1987
not listed	paraldehyde	Warehouses	NYCDEP, 1991
not listed	paraphenetidine	Warehouses	NYCDEP, 1991
not listed	pathalide (recrystallized)	Warehouses	NYCDEP, 1991
5798-79-8	p-bromobenzylcyanide	Warehouses	NYCDEP, 1991
not listed	p-chlorbenzald	Warehouses	NYCDEP, 1991
not listed	p-chloro benzaldehyde	Warehouses	HEXAGON, 1987
not listed	penacalone catalyst	Warehouses	NYCDEP, 1991
not listed	penazone dichleral	Warehouses	NYCDEP, 1991
not listed	PG-2 Complex Activator	Warehouses	NYCDEP, 1991
108-45-2	phenol	Warehouses	HEXAGON, 1987
92-84-2	phenothiazine	Warehouses	NYCDEP, 1991
122-09-8	phentermine in toluene	Warehouses	NYCDEP, 1991
not listed	phentermine (2nd crop)	Warehouses	NYCDEP, 1991

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL	LOCATION	REFERENCE
7664-38-2	phosphoric acid	Warehouses	HEXAGON, 1987
not listed	PHPIA	Warehouses	NYCDEP, 1991
not listed	phthalide	Warehouses	HEXAGON, 1987
75-98-9	pivalic acid	Warehouses	HEXAGON, 1987
62-38-4	PMA	Warehouses	NYCDEP, 1991
not listed	p-methoxy toluene	Warehouses	HEXAGON, 1987
584-08-7	potassium carbonate	Warehouses	NYCDEP, 1991
7722-64-7	potassium permanganate	Warehouses	NYCDEP, 1991
not listed	procainamide	Warehouses	NYCDEP, 1991
93-55-0	propiophenone	Warehouses	NYCDEP, 1991
not listed	PTFMBA (recovered)	Warehouses	NYCDEP, 1991
106-49-0	p-toluidines flaked tech	Warehouses	NYCDEP, 1991
not listed	p-triflouromethyl benzaldehyde	Warehouses	NYCDEP, 1991
1330-20-7	p-xylene	Warehouses	HEXAGON, 1987
not listed	pyridine 2(p-chlorobenzyl)	Warehouses	NYCDEP, 1991
91-84-9	pyrilamine base	Warehouses	NYCDEP, 1991
not listed	pyrilamine secondary	Warehouses	NYCDEP, 1991
not listed	QD Base #65-68R	Warehouses	NYCDEP, 1991
7440-02-0	Raney nickel active catalyst in water	Warehouses	NYCDEP, 1991
not listed	recrystalized phthalide	Warehouses	NYCDEP, 1991
69-72-7	salicylic acid	Warehouses	NYCDEP, 1991
497-19-8	soda ash	Warehouses	HEXAGON, 1987
7782-92-5	sodamide	Warehouses	HEXAGON, 1987
144-55-8	sodium bicarbonate	Warehouses	NYCDEP, 1991
7631-90-5	sodium bisulfate	Warehouses	NYCDEP, 1991
7647-15-6	sodium bromide	Warehouses	NYCDEP, 1991
7647-14-5	sodium chloride	Warehouses	HEXAGON, 1987
143-33-9	sodium cyanide	Warehouses	NYCDEP, 1991
7646-69-7	sodium hydride	Warehouses	NYCDEP, 1991
124-41-4	sodium methylate	Warehouses	HEXAGON, 1987
7632-00-0	sodium nitrite	Warehouses	NYCDEP, 1991
not listed	syasol (95%)	Warehouses	HEXAGON, 1987
not listed	tannic acid	Warehouses	NYCDEP, 1991
not listed	tartic acid	Warehouses	NYCDEP, 1991
not listed	tetrahydro furan	Warehouses	NYCDEP, 1991
not listed	TFMB Turning	Warehouses	NYCDEP, 1991
7719-09-7	thionylchloride	Warehouses	NYCDEP, 1991
50-52-2	thioridazine	Warehouses	NYCDEP, 1991
50-52-2	thioridazine flushing	Warehouses	NYCDEP, 1991
not listed	TMPOL #155-166-1	Warehouses	NYCDEP, 1991
not listed	toluic acid #335-2	Warehouses	NYCDEP, 1991
121-44-8	triethylamine	Warehouses	HEXAGON, 1987
not listed	trimethyl ammonium chloride	Warehouses	HEXAGON, 1987

TABLE 4.1 (CONTINUED)

STORED MATERIALS \1
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL	LOCATION	REFERENCE
not listed	trimethyl phenyl ammonium chloride	Warehouses	NYCDEP, 1991
not listed	uniquat	Warehouses	HEXAGON, 1987
not listed	unknowns	Warehouses	NYCDEP, 1991
not listed	waste chemicals	Warehouses	NYCDEP, 1991

Note: Chemicals with a "NYCDEP, 1991" reference were inventoried after the plant closure.
\1 Table provides a listing of materials known to have been stored on-site, but does not necessarily indicate materials that still exist on-site. An inventory of materials still on-site was not conducted as part of this investigation.
\2 Reportedly removed by NYCPD Bomb Squad (NYSDEC, 1990a).

TABLE 4.2

TANK STORAGE (HEXAGON, 1987)
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY NEW YORK

CAS #	Chemical Name	Capacity	UST/AST[1]	Number
1310-73-2	25% Caustic Soda	2800 gal.	AST	25
1310-73-2	25% Caustic Soda	1400 gal.	AST	26
1310-73-2	25% Caustic Soda	2800 gal.	AST	29
1310-73-2	50% Caustic Soda	1400 gal.	AST	27
67-64-1	Acetone	1000 gal.	UST	2
67-64-1	Acetone	1500 gal.	UST	18
96-22-0	Diethyl Ketone	2500 gal.	UST	34
96-22-0	Diethyl Ketone	2500 gal.	UST	35
96-22-0	Diethyl Ketone	2500 gal.	UST	36
96-22-0	Diethyl Ketone	2500 gal.	UST	37
107-06-2	Ethylene Dichloride	500 gal.	UST	13
107-06-2	Ethylene Dichloride	500 gal.	UST	14
7664-93-9	Sulfuric Acid	2800 gal.	AST	24
67-63-0	Isopropyl Alcohol	1000 gal.	UST	3
67-63-0	Isopropyl Alcohol	1500 gal.	UST	19
67-63-0	Isopropyl Alcohol	1500 gal.	UST	23
67-56-1	Methanol	1000 gal.	UST	4
67-56-1	Methanol	1500 gal.	UST	22
75-09-2	Methylene Chloride	500 gal.	UST	17
–	Mixed Acid	6500 gal.	AST	32
7647-01-0	Muriatic Acid #1	8000 gal.	AST	30
7647-01-0	Muriatic Acid #2	2000 gal.	AST	31
7727-37-9	Nitrogen Gas	20,000 lbs.	AST	28
79-09-4	Propionic Acid	6500 gal.	AST	33
79-09-4	Propionic Acid or Crude Propiophenone	2500 gal.	AST	38
93-55-0	Propiophenone	5000 gal.	AST	39
108-88-3	Toluene	500 gal.	UST	6
108-88-3	Toluene	500 gal.	UST	11
108-88-3	Toluene	500 gal.	UST	15
108-88-3	Toluene	500 gal.	UST	16
108-88-3	Toluene	1500 gal.	UST	20
1330-20-7	Xylene	1500 gal.	UST	21

[1] UST = underground storage tank; AST = above ground storage tank

TABLE 4.3

RAW MATERIALS
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	Chemical	Reference
71-55-6	1,1,1-trichloroethane	EM, 1986
67-64-1	acetone	HEXAGON, 1987
65-85-0	benzoic acid	NUS, 1987
1310-73-2	caustic soda	HEXAGON, 1987
96-22-0	diethyl ketone	HEXAGON, 1987
107-06-2	ethylene dichloride	HEXAGON, 1987
7783-06-4	hydrogen sulfide	HEXAGON, 1987
67-63-0	isopropyl alcohol	NUS, 1987
67-56-1	methanol	HEXAGON, 1987
75-09-2	methylene chloride	EM, 1986
7647-01-0	muriatic acid	HEXAGON, 1987
7727-37-9	nitrogen gas	HEXAGON, 1987
62-53-3	N-N-dimethylonile	NUS, 1987
79-09-4	propionic acid	HEXAGON, 1987
93-55-0	propiophenone	HEXAGON, 1987
7664-93-9	sulfuric acid	HEXAGON, 1987
108-88-3	toluene	EM, 1986
1330-20-7	xylene	EM, 1986

TABLE 4.4

FINISHED PRODUCTS (HEXAGON, 1987)
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

PRODUCT NAME	PRODUCT NAME
2–phenoxylmethyl benzoic acid	ibuprofen
2,5–dimethoxytetrahydroforan	INP
3–dimethylamino phenol	magnesium
acrylamide	magnesium chips
aspartic acid	magnesium salicylate
benzoic acid	maleate
bepridil–HCL	maleic anhydride
bromoacetyl bromide	methocarbanol
bromphiramine	mono benzyl phenyl malonate
B.P. base	mono chloro pinacolone
Celite 512	neostigmine mothyl sulfate
cetyl pyridinium chloride	niacinamide
cetylpyridinium	ninhydrin
chloropheniramine maleate	n,n–diethyl dodecanumide
citric acid	para methoxyphenyl acetic acid
copper sulfate	partially chesinated magnesium salicylate
dac monomer	phentermine
dexbrompheniramine maleate	phenyl malonic acid
dextrochloropheniramine base	phenyl trimethyl ammonium chloride
dextrochloropheniramine maleate	pinacolone
diethyl ketone	pinacolyl alcohol
dimethyl caxbumyl chloride	PMP (2–Isovalerylindane–1,3–dione)
diphenhydiroadine HCL	polycarbophil
diphenhydiroadine mono citrate	potassium permaganate
dopamine hcl	propiophenone
Drewsperse 738	pyromeletic acid
fenfluramine	Q.D. Base
Flocon 247	sodium bisulfite
GGE	sodium bromide
guaifenesin	special cracking catalyst
homotropine hydrobromide	succinaldehyde sodium bisulfite
HRXYL	tripinone base
hydrindantin	trisamino methane

TABLE 4.5

WASTES GENERATED ON-SITE
HEXAGON LABORATORIES, INC. SITE
BRONX COUNTY, NEW YORK

CAS #	CHEMICAL	PHYSICAL STATE	CODE	CHARACTERISTIC	REFERENCE
67-64-1	acetone	Liquid	F003	--	NYSDEC, 1987a
67485-29-4	amdro waste	--	D002	Corrosive	HEXAGON, 1985
64706-54-3	bepridil (UN 1993)	Liquid	D001	Flammable	HEXAGON, 1986
71-55-6	chlorothene (UN 1037)	Liquid	D002	Flammable	HEXAGON, 1986
not listed	dibromo butanol	--	F002	--	HEXAGON, 1985
not listed	diisobutylene	Liquid	D001	Flammable	HEXAGON, 1986
not listed	diisopropyl pheniramine nitril	--	D001	--	HEXAGON, 1985
not listed	diparaxylene	Liquid/Solid	D001	Flammable	HEXAGON, 1986
not listed	diparaxylene oxide	Liquid	D001	Flammable	HEXAGON, 1986
not listed	diphenol oxide	Solid	D001	Flammable	HEXAGON, 1986
75-35-4	ethylene dichloride	Liquid	D001	Flammable	HEXAGON, 1986
not listed	floor strippings	--	D001	--	HEXAGON, 1985
not listed	lead contaminated sewer sludge	Solid	D008	--	NYSDEC, 1987a
67-56-1	methanol	Liquid	F003	--	NYSDEC, 1987a
not listed	nitrile (Step II)	Liquid	--	Ignitable	HEXAGON, 1986
not listed	paramethoxy aceto nitrile	--	D000	--	HEXAGON, 1984
not listed	paramethoxy phenyl acetic acid	Liquid	D001	Flammable	HEXAGON, 1986
not listed	paramethoxyl phenyl acetonitrile	--	D001	--	HEXAGON, 1985
not listed	spent activated carbon	Solid	D001	--	NYSDEC, 1987a
not listed	still bottom waste	--	F001-F005	--	NYSDEC, 1987a
108-88-3	toluene	Liquid	U220	Flammable	HEXAGON, 1986
not listed	toluene ethylene dichloride	Solid	D001	Flammable	HEXAGON, 1986
not listed	trimethyl phenyl ammonium chloride	--	--	--	HEXAGON, 1985
not listed	UN 1760	--	D002	Corrosive	HEXAGON, 1986

TABLE 4.7

SOIL SAMPLE ANALYTICAL RESULTS BY EP TOX METHOD FOR FORMER BRONX AUTO WRECKING AND SALVAGE, INC. (ITL, 1989) HEXAGON LABORATORIES, INC. SITE BRONX COUNTY, NEW YORK

PARAMETER \1	UNITS	REGULATORY LIMIT	SAMPLE #1	SAMPLE #2	SAMPLE #3
Arsenic	ppb	5000	–	–	–
Barium	ppb	100,000	5000	4000	6000
Cadmium	ppb	1000	–	–	–
Chromium	ppb	5000	1	2	5
Lead	ppb	5000	6.3	0.6	12.4
Mercury	ppb	200	–	–	–
Selenium	ppb	1000	–	–	–
Silver	ppb	5000	–	–	–
Endrin	ppb	20	1	–	–
Lindane	ppb	400	–	–	–
Methoxychlor	ppb	10,000	2	–	1
Toxaphene	ppb	500	8	1	50
2,4,–D	ppb	10,000	40	50	60
2,4–TP	ppb	1000	50	80	80
Total hydrocarbon	ppb	–	4500	4500	5700

\1 = Analysis for BAWS by Independent Testing Laboratories, Inc., College Point, New York, July, 1989 (ITL, 1989).
– = Not detected above method detection limit.

TABLE 4.8

SOIL SAMPLE ANALYTICAL RESULTS BY TCLP METHOD
FOR FORMER BRONX AUTO WRECKING AND SALVAGE, INC. (PA, 1990)
HEXAGON LABORATORY SITE
BRONX COUNTY, NEW YORK

PARAMETER \1	UNITS	CONCENTRATION
Acetone	ppb	1.0 U
Benzene	ppb	1.0 U
n-Butylalcohol	ppb	1.0 U
Carbon disulfide	ppb	1.0 U
Carbon tetrachloride	ppb	1.0 U
Chlorobenzene	ppb	1.0 U
Chloroform	ppb	1.0 U
1,2-Dichloroethane	ppb	1.0 U
1,1-Dichloroethylene	ppb	1.0 U
Ethyl acetate	ppb	1.0 U
Ethyl benzene	ppb	1.0 U
Ethyl ether	ppb	1.0 U
Isobutanol	ppb	1.0 U
Methanol	ppb	1.0 U
Methylene chloride	ppb	1.0 U
Methyl ethyl ketone	ppb	1.0 U
Methyl isobutyl ketone	ppb	1.0 U
Tetrachloroethylene	ppb	1.0 U
Toluene	ppb	1.0 U
1,1,1-Trichloroethylene	ppb	1.0 U
Trichlorofluoromethane	ppb	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	1.0 U
Vinyl chloride	ppb	1.0 U
Xylene	ppb	1.0 U
Total cresol	ppb	1.0 U
1,4-Dichlorobenzene	ppb	1.0 U
2,4-Dinitrotoluene	ppb	1.0 U
Hexachlorobenzene	ppb	1.0 U
Hexachloro-1,3-butadiene	ppb	1.0 U
Hexachloroethane	ppb	1.0 U
Nitrobenzene	ppb	1.0 U
Pentachlorophenol	ppb	1.0 U
Pyridine	ppb	1.0 U
2,4,5-Trichlorophenol	ppb	1.0 U
2,4,6-Trichlorophenol	ppb	1.0 U
Aroclor 1016	ppb	1.0 U
Aroclor 1221	ppb	1.0 U
Aroclor 1232	ppb	1.0 U
Aroclor 1242	ppb	1.0 U
Aroclor 1248	ppb	1.0 U
Aroclor 1254	ppb	1.0 U
Aroclor 1260	ppb	1.0 U
Arsenic	ppb	1.0 U
Barium	ppb	380
Cadmium	ppb	30 U
Chromium	ppb	20 U
Lead	ppb	50 U
Mercury	ppb	0.7
Selenium	ppb	1 U
Silver	ppb	20 U
Flashpoint	(ppb) ?	100

U = Compound analyzed for but not detected.
\1 = Analysis for Tufo's Dairy by Pednault Associates, Inc., Bohemia, New York, October 1990 (PA, 1990).

TABLE 4.6

SAMPLE ANALYTICAL RESULTS FOR SAMPLE FROM LIQUID SEEPING FROM HEXAGON (NYTL, 1981) HEXAGON LABORATORIES, INC. SITE BRONX COUNTY, NEW YORK

PARAMETER \1	UNITS	CONCENTRATION
Acrolein	ppb	10 U
Acrylonitrile	ppb	10 U
Benzene	ppb	755
Bis (chloro–methyl) ether	ppb	10 U
Bromoform	ppb	10 U
Carbon tetrachloride	ppb	10 U
Chlorobenzene	ppb	653
Chlorodibromomethane	ppb	10 U
Chloroethane	ppb	10 U
2–Chloroethylvinyl ether	ppb	10 U
Chloroform	ppb	10 U
1,1–Dichloroethane	ppb	10 U
1,2–Dichloroethane	ppb	10 U
1,1–Dichloroethylene	ppb	10 U
1,2–Dichloropropane	ppb	10 U
1,2–Dichloropropylene	ppb	10 U
Ethylbenzene	ppb	171
Methyl bromide	ppb	10 U
Methyl chloride	ppb	10 U
Methylene chloride	ppb	613
1,1,2,2–Tetrachloroethane	ppb	10 U
Tetrachloroethylene	ppb	10 U
Toluene	ppb	10 U
1,2–trans–Dichloroethylene	ppb	10 U
1,1,1 –Trichloroethane	ppb	10 U
1,1,2–Trichloroethane	ppb	10 U
Trichloroethylene	ppb	429
Trichlorofluoromethane	ppb	10 U
Vinyl chloride	ppb	10 U

\1 = Analysis for NYSDEC by New York Testing Laboratories, Inc., Westbury, New York, April 1981 (NYTL, 1981).
U = Compound analyzed for but not detected. Posted concentration is the method detection limit.