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Site Name (Subject):	OLD ATC REFINERY
Site ID (Document ID):	NCD986186518
Document Name (DocType):	Correspondence (C)
Report Segment:	2
Description:	DWQ Correspondence, June 1991 - 2001
Date of Document:	10/15/2001
Date Received:	
Box: *Enter SF and # with no spaces*	SF10,909
Access Level:	PUBLIC
Division:	WASTE MANAGEMENT
Section:	SUPERFUND
Program (Document Group):	SERB (SERB)
Document Category:	FACILITY

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FILE REVIEW LOG

People other than employees of this office are required to sign this log. Please list who you represent and date this log in order to help us safeguard this public record. Thank you for your cooperation.

Name	Company/Affiliation	Date
Jim Pappas	CB+T	1.11.91
Joe Calliff	Environmental Strategies	11/14/91
Ronda Pierce	SMI	6/14/92
Thomas Pewton	Thomas Pewton	4/16/96
[illegible]	RKF	4/15/99
[illegible]	Colorado Terminals	7/23/01
Matthew D. Smith	ECS, Ltd	10/5/01

FILE REVIEW LOG

People other than employees of this office are required to sign this log. Please list who you represent and date this log in order to help us safeguard this public record. Thank you for your cooperation.

Name	Company/Affiliation	Date
Ronda Pinner	Specialized Marine, Inc.	6/11/92
David Benton	EII	10/5/92
Thomas Peyton	Thomas Peyton	4/16/96
Karen Card	RAE	4/15/99
Dan Higgs	Colonial Terminals	7/23/01

REPUBLIC REFINING COMPANY

RON HART
Production Supervisor

801 SURRY STREET • P.O. BOX 5485 • STATION 1
WILMINGTON, N.C. 28403-4155 • (919) 762-2431

Don Bucks
201 798: 2353
Environmental Specialist
Chevron

KOCH
KOCH FUELS INC

JAMES H. STRICKLAND
TERMINAL MANAGER
WILMINGTON TERMINAL

P.O. Box 3958 ▪ Wilmington, North Carolina 28406
919/799-0180

CG&T
CORPORATION

WILLIAM L. TRACY
President

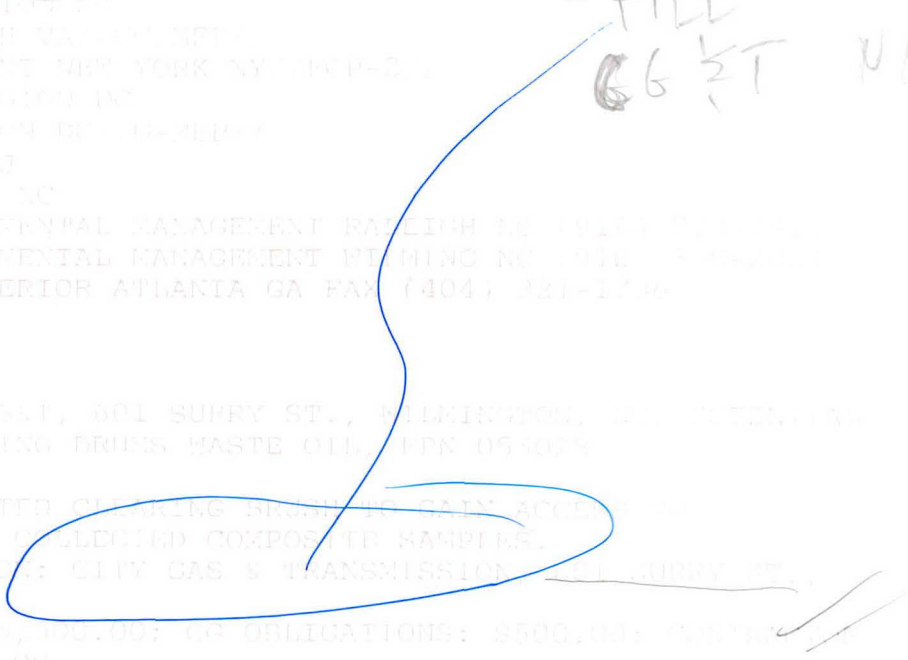
301 EAST MAIN STREET • SUITE 950 • LEXINGTON, KENTUCKY 40507 • (606) 255-8621

Grant R. Mays
Terminal Manager

AMOCO

Amoco Oil Company
Post Office Box 1696
Wilmington, North Carolina 28402
919-799-0483

FILE
GG ½T UH Co.



File: CG&T

DIVISION OF ENVIRONMENTAL MANAGEMENT

GROUNDWATER SECTION

MEMORANDUM

To: Rick Shiver

From: Brian Wagner BW
Groundwater Section, Central Office

Date: 10-21-94

Subject: ATC Refinery Site

DEM Project # _____

The enclosed information is for your review and records. No additional comments are necessary.

If you have any questions, please call me at (919)733-3221, ext. 406.

baw/rcrafyi.doc

SUPERFUND EE/CA REMOVAL PROPOSED PLAN FACT SHEET

Region 4

OLD ATC REFINERY SITE

Wilmington, New Hanover County, North Carolina

October 1994

This fact sheet is not to be considerd a technical document but has been prepared in order to provide the public with a better understanding of the possible treatment alternatives and site conditions.

INTRODUCTION

The Environmental Protection Agency (EPA), Region IV has concluded that the risk of human health and the environment posed by the Old ATC Refinery Site warrants an action under the Federal Superfund Program.

EPA has completed the Engineering Evaluation/Cost Analysis (EE/CA) at the Old ATC Refinery Site located in Wilmington, North Carolina. The EE/CA identified the nature and extent of possible contamination in soils above the groundwater table, determined the human and ecological risk associated with contamination present at the site, and looked at options for addressing any contamination found.

EPA is publishing this EE/CA Proposed Plan fact sheet to provide an opportunity for public review and comment on all clean-up options under consideration for the Site. EPA will host a public meeting on **October 26, 1994 at the New Hanover County Public Library at 7:00 p.m.** to present the results of the investigation and EPA's proposal for in-situ (meaning "in place") bioremediation with stabilization for contaminants located at the Site.

EPA encourages the public to review the Site documents that make up the Administrative Record. These documents include all the information used by EPA in making its decision. The Administrative Record is available at the following locations:

New Hanover County Public Library
201 Chestnut Street
Wilmington, North Carolina 28401
Phone: (910) 341-4390

and

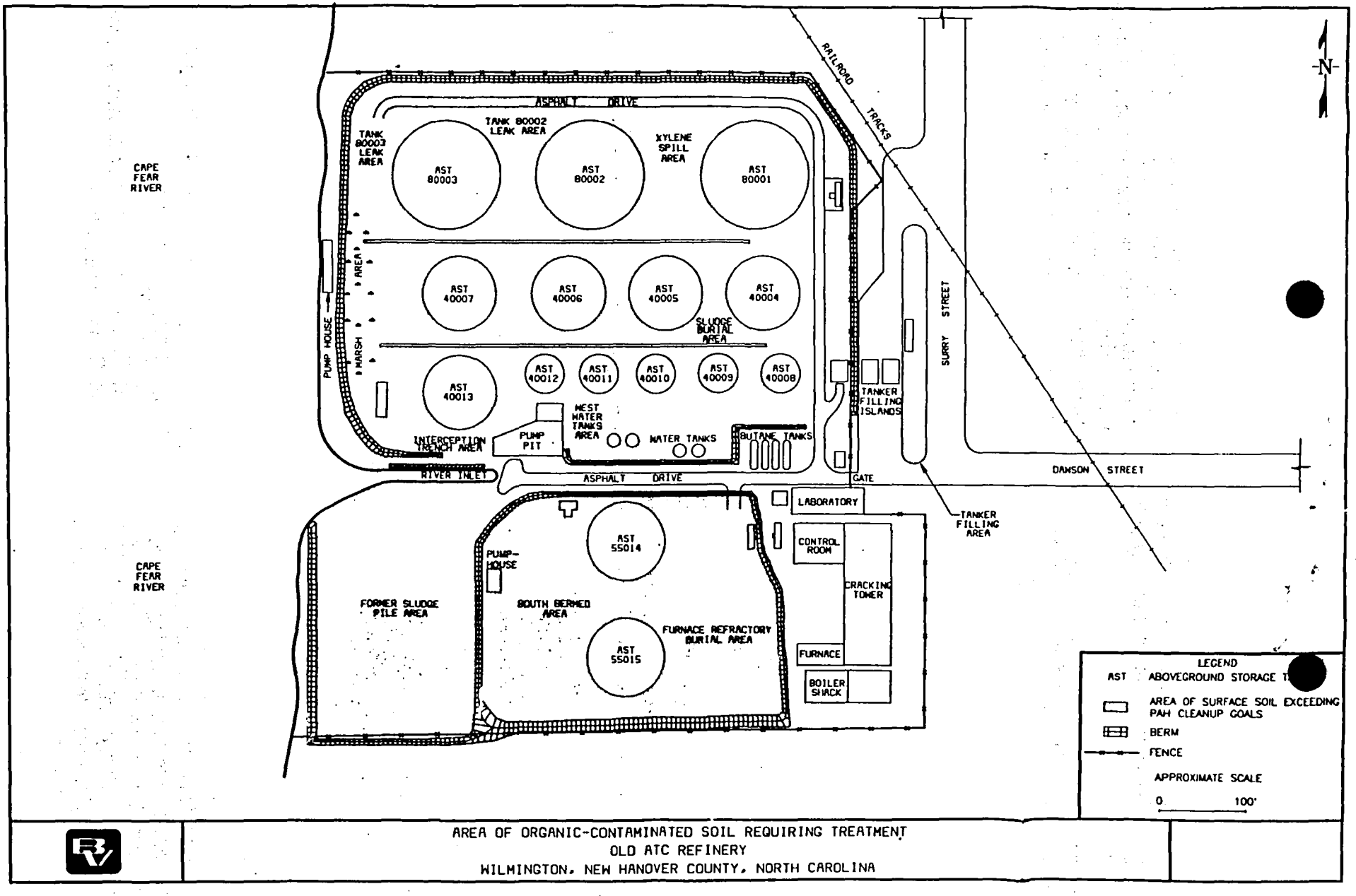
U.S. EPA Record Center
345 Courtland Street, NE.
Atlanta, Georgia 30365
Phone: (404) 347-0506

Fact Sheet Contents:

- Site Map
- Background
- Engineering Evaluation/Cost Analysis Summary
- Streamlined Risk Assessment
- Recommended Removal Action
- Places to Get Information
- EPA Address to Send Comments

PUBLIC MEETING

DATE: October 26, 1994
TIME: 7:00 pm - 9:00 pm
LOCATION: New Hanover County Public Library
201 Chestnut Street
Wilmington, North Carolina
(Meeting Room Upstairs in Library)



AREA OF ORGANIC-CONTAMINATED SOIL REQUIRING TREATMENT
OLD ATC REFINERY
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA

BACKGROUND INFORMATION

The Old ATC Refinery is an abandoned facility located on Surry Street in Wilmington, North Carolina, that operated from 1971 to 1986. The refinery's operation included the production of naphtha fuel #2 and #6 oil as well as kerosene. The current owner, City Gas and Transmission (CG&T), of Lexington, Kentucky is in bankruptcy.

In July 1987, the company was given a Notice of Violation (NOV) from the North Carolina Department of Environmental, Health and Natural Resources (NCDEHNR), due to #6 fuel oil leaking from valves stemming from fuel storage tanks. The NOV ordered CG&T to "cease all discharges of petroleum products onto the lands of the State and to excavate all contaminated materials and/or soils."

In 1991, the U.S. Coast Guard became involved with the Site when oil was discovered leaching from the banks of the drainage canal. Responding under the authority of the Oil Pollution Act, the U.S. Coast Guard to preventative action preventing the oil in the canal from entering into the Cape Fear River.

In April 1992, oil was discovered leaking from a failed gasket into the south bermed area of the site. Approximately 18,000 gallons of oil were removed form the bermed area. The U.S. Coast Guard suspected that the leak occurred during cargo transfers at the neighboring Sprague refinery. Sprague shared transmission lines with CG&T. The lines were capped to prevent a recurrence of the leak.

A Superfund Preliminary Assessment was conducted in 1991 and the Site Inspection was conducted in 1992. Based on the guidance "Setting Priorities for NPL Sites", dated October 28, 1992 and the Preliminary Hazardous Ranking System (HRS) score, the Old ATC Refinery is an NPL caliber site.

The Old ATC Refinery is located on approximately 13 acres of land adjoining the Cape Fear River and consists of a tank farm, refinery, laboratory, workshop and office building. The area surrounding the Site is industrial. There is evidence of stressed vegetation around some of the storage tanks and in the area of the former sludge pile. Access to the site is restricted by a fence and locked gate.

ENGINEERING EVALUATION/ COST ANALYSIS SUMMARY

The Field Investigation of the EE/CA was conducted at the Old ATC Refinery Site during the week of April 18, 1994, and during the week of June 21, 1994. This included the collection of surface water, sediment, surface soil, and subsurface soil samples. All samples were analyzed for metals and PAHs (polyaromatic hydrocarbons). Lead and PAHs were detected in both the surface soil and the subsurface soil on-Site. Arsenic and Manganese are also contaminants of concern.

SOILS

Based on the results of the field sampling three clean-up alternatives for soil were evaluated in the EE/CA.

Alternative 1: No Action. By law, EPA is required to evaluate a "No Action" alternative to serve as a basis against which other alternatives can be compared. The "No Action" alternative does not reduce the risk calculated nor is any cleanup action taken.

Alternative 2: Soil Washing. With this alternative the soil would be excavated and fed into a washing unit. The washing fluid might be composed of a non-toxic, water-based detergent solution.

Alternative 3: In-Situ Bioremediation with Soil Stabilization. With this alternative, contaminated soil would be tilled to a depth of 2 feet (below land surface) and treated with oxygen, nutrients and possibly microbial bacteria. Soil stabilization will be implemented to immobilize metals-contaminated soil.

CONTAINERIZED WASTE

There are a number of containers on Site containing varying waste materials. The following alternatives are applicable for addressing containerized waste including petroleum wastes and solvents:

(1) No Action
(2) Disposal in a RCRA hazardous waste landfill
(3) Removal and destruction

Alternative (1). The "No Action" alternative would leave the Site as is and no funds would be used for monitoring, contrc! or removal of containerzied wastes. This alternative serves as a baseline for comparison with the other alternatives.

Alternative (2) - Disposal in a RCRA Hazardous Waste Landfill. *Containerized* wastes would be transported off site and disposed in a RCRA hazardous waste landfill. Pretreatment of wastes could be required prior to disposal.

Alternative (3) - Removal and Destruction. Containerized wastes would be transported to a commercial off site incinerator or fuel recycler for thermal destruction. The ash residue would be *disposed in an appropriate landfill.* Damaged containers would be properly packed and secured prior to shipment to prevent a release during transport.

STREAMLINED RISK ASSESSMENT (SRE)

Risk assessment is older than EPA itself, and is a complex process by which scientists determine the harm that an individual substance can inflict on human health or the environment. For human health risk assessment, the process takes place in a series of steps that begins by identifying the particular hazard(s) of the substance. Subsequent steps examine "dose-response" patterns and human exposure pathways, and the conclusion is a "risk characterization" that is both quantitative and qualitative. The risk characterization then becomes one of the factors considered in deciding whether and how the substance will be regulated. In simple terms, a risk assessment estimates the degree of harm people will face if exposed to a particular level or quantity of a substance. A risk assessment evaluation is performed as part of the remedial activities to assess hazard conditions at all Superfund sites.

RECOMMENDED REMOVAL ACTION

SOILS

EPA staff, after careful evaluation and screening of possible treatment technologies, are **proposing the Alternative #3: In-Situ Bioremediation with Stabilization option as the preferred cleanup method for the Old ATC Refinery Site.** This remedy would treat and remove organics from the soil and would stop further movement/spreading of metals contaminating the soil. (In-situ means to treat in place.) Alternative #3 could be implemented within the 1-year and $2,000,000 statutory limits imposed on non-time critical removal actions by the National Contingency Plan.

Alternative #1: NO ACTION option was used as a baseline alternative, and would not be considered as a remedy since it would not reduce, remove or destroy contamination at the Site. This alternative is always considered when screening possible technologies.

Alternative #2 Soil Washing remedy would reduce surface soil contamination to levels below risk based cleanup goals, but would not encapsulate metals-contaminated soil. Due to the significant amount of excavation and earthmoving required to implement the soil washing alternative, its cost exceeds the statutory limit for removal action expenditure of $2,000,000.

CONTAINERIZED WASTE

Removal and disposal is a common method for addressing containerized waste and has been demonstrated technically feasible. Alternative 2 would not pose significant difficulties during implementation. Waste removal, transportation, and disposal contractors are widely available and are capable of characterizing and removing wastes. Removal of all containerized wastes could be accomplished in less than one year.

COMMUNITY PARTICIPATION

The purpose of the Engineering Evaluation/Cost Analysis is to determine the extent of contamination and the best method of cleanup. Public participation is an intregal part of this process in helping the Agency to determine the best treatment technology. It provides the public an opportunity to comment on EPA's Proposed Removal Action at the Old ATC Refinery. By law, the public is provided a 30-day comment period (**October 13 - November 10**) in which to submit written or oral comments regarding the Proposed Removal Action. All supporting information located in the Administrative Record located in the New Hanover County Public Library.

If you cannot attend the public meeting on October 26th, please provide us with your written comments no later than midnight November 10, 1994, and mail to:

Beverly Hudson, Remedial Project Manager
or Diane Barrett, Community Relations Specialist
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365
Phone: 1-800-435-9233
or (404)347-7791 ext. 4111

All comments received from the public, both oral and written, and all technical data developed during the Superfund process will be considered in making the final selection. EPA will provide a written response to comments received and make the Responsiveness Summary available in the Action Memorandum which will be available in the information repository. Additional information may be obtained by contacting the above-mentioned officials.

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the Engineering Evaluation/Cost Analysis for the Old ATC Refinery Site is important in helping EPA select an Alternative to significantly reduce risk at the Site. Please use the space below to write you comments, then mail to Beverly T. Hudson or Diane Barrett. A response to your comments will be included in the Action Memorandum.

Comments Submitted By:

Name _____

Address _____

MAILING LIST

If you know of someone that would like to be added to the **Old ATC Refinery Site** mailing list, please have them complete this form and return to the EPA Atlanta office to the attention of Diane Barrett. If you have an address change or would like your name deleted from the mailing list, please indicate these changes below. Thank you.

NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

ADDITION ____ CHANGE ____ DELETION ____

Region 4

U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

North Superfund Remedial Branch
Diane Barrett, Community Relations Coord.
Beverly Hudson, Remedial Project Manager

U.S. OFFICIAL MAIL
ATLANTA OCT 12'94 6A
PENALTY FOR PRIVATE USE $300
U.S.POSTAGE ≈ 0.29 ≈
6091696

Official Business
Penalty for Private Use $300

RECEIVED
OCT 17 1994
DIV. OF ENVIRONMENTAL MGMNT.
DIRECTOR'S OFFICE

S/F ATC0065
PRESTON HOWARD, DIRECTOR
DIVISION OF ENVIRONMENTAL MANAGEMENT
NC DEPARTMENT OF ENVIRONMENT, HEALTH
& NATURAL RESOURCES
P.O. BOX 29535, 512 SALISBURY RD.
RALEIGH NC 27626-0535

Please forward to:
Rick Shiver
Wilm. Reg. Office

MICHAEL F. EASLEY
ATTORNEY GENERAL

State of North Carolina
Department of Justice
P. O. BOX 629
RALEIGH
27602-0629

Reply to: DANIEL D. ADDISON
CITIZENS' RIGHTS DIVISION
(919) 733-4726

October 14, 1994

Mr. Donald R. Arthur
125 Rutledge Dr.
Wilmington, North Carolina 28412

Dear Mr. Arthur:

Your recent letter to Wanda Bryant was referred to me for a response.

Your complaint concerning the improper disposal of waste and the impact that waste had on you and other employees appears to fall into two legal areas: hazardous waste disposal and occupational safety and health. Consequently, I am referring copies of your letter to the North Carolina Division of Environmental Management and the Occupational Safety and Health Division of the Department of Labor for follow-up action. You may contact those divisions directly at the addresses below.

Sincerely,

Daniel D. Addison

Daniel D. Addison
Associate Attorney General
for Citizens' Rights

cc: Mr. Ken Schuster
DEM Regional Supervisor
3800 Barrett Drive
Suite 101
Raleigh, North Carolina 27609

Mr. Charles Jeffress, Director
Occupational Safety and Health Division
Seaboard Building
413 N. Salisbury Street
Raleigh, North Carolina27603

Donald R. Arthur
125 Rutledge Dr.
Wilmington, NC. 28412

10-12-94

Wanda G Bryant Senior Attorney Gene
Citizens Rights Division
Attorney General
P.O. Box 269
Raleigh, NC. 27602

To whom it may concern:

I Donald R. Arthur Sr. was employed by Titan Petroleum, who's name was later changed to ATC Petroleum Co. Inc. in Wilmington, NC. from April 1972-August 1983. My Job title was maintenance Supervisor.

Occasionally the maintenance department would clean petroleum storage tanks. We would clean sludge tank bottoms and rusty scales from inside tanks. Some of the sludge was buried in unprotected pits at the refinery site. Other sludge was transported to the New Hanover Air Port Burn Pit for disposal.

Some of the tanks we cleaned were used for leaded gasoline in the earley 1970's.

During my employment we would clean tubes inside the furnace, these tubes had a build-up sulfur and vanadium.

We would use brooms to sweep the build up on the tubes.

The furnace was an enclosed area measuring 14'X14'X35' with no ventolation.

After working in the furnace we would have flu like symptoms for several days.

After complaining to management on many occasions about getting sick we began washing inside the furnace with a fire hose,washing the sulfur and vanadium into the ground.

We never had any traning and no one warned us we were working with toxic waste.

The company officials knew they were breaking the law. This was a criminal act for not warning the employees of the health problems they could have after being exposed to toxic waste with no safety equipment.

Several men have died with cancer lung problems and heart attacks.

I want to file a citizens complaint for criminal intent for disposing toxic waste in unprotected areas and endangering the health and welfare of the residents of New Hanover county against ATC Petroleum Co. Inc. a subsidiary of Axel Johnson Inc.

Sincerly

Donald R. Arthur

AFFIDAVIT

I, DANIEL GOTTOVI, M.D., being first duly sworn, depose and say upon personal knowledge, the following:

As Donald Arthur, Sr.'s personal physician, I have been furnished with a copy of the report prepared by Hanna Assefa, Environmental Chemist, State of North Carolina, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, Raleigh, North Carolina, dated 8 October 1991, and attached and incorporated into my affidavit as Exhibit "A".

It is my opinion that Donald Arthur, Sr.'s medical disability is a direct result of his exposure to the multiple chemicals shown in the report prepared by Hanna Assefa.

Donald Arthur, Sr.'s present medical disability consists of organic brain syndrome, loss of olfactory sense, debilitating neuropsychological state, chronic bronchitis, and pulmonary disease. He will suffer increasing disability as a result of his exposure to these multiple chemicals.

DANIEL GOTTOVI, M.D. (SEAL)

Sworn to and subscribed before me
this the 14th day of October, 1991.

NOTARY PUBLIC

My commission expires: 6/92

N.C. Department of Environment, Health, and Natural Resources

Telephone Log

Date: 5/20/94

Sheet 1 of 1

Time: 1:33 to 1:37 ☐ am ☑ pm

Call: Placed ☑ Received ☐ Returned ☐

PROJECT: CG&T	COUNTY: NH
CONVERSATION WITH: Beverly Hudson	TELEPHONE: (404) 347-7791
AFFILIATION: EPA contact	

CONTENT OF CONVERSATION:

Site has not been placed on NPL list.
They have compiled an "expanded" report that concerns mainly source removal-assessment (soils).
Groundwater assessment activity is not planned at this time.
An "Environmental Engineering Cost..." Report will be generated that addresses source removal.

cc: _____

Filed By: _____

N.C. Department of Environment, Health, and Natural Resources

Telephone Log

Date: 5/19/94

Sheet 1 of 1

Time: 8:37 to 8:40 ☑ am ☐ pm

Call: Placed ☑ Received ☐ Returned ☐

PROJECT: CG&T	COUNTY: NH
CONVERSATION WITH: McCarthy / Porter	TELEPHONE: (910) 343-4567
AFFILIATION: MSO	

CONTENT OF CONVERSATION: I called to see what was happening @ CG&T, as Unocal was going to start pump/treat of groundwater soon. No groundwater pump/treat is occurring at CGT. They think that the site has been placed on the National Priorities List, and the EPA has started assessment activities.

The EPA contact is:
Beverly Hudson
(404) 347-7791

cc: _____

Filed By: Reed

PLS FILE

U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV

OLD ATC REFINERY SITE
ENGINEERING EVALUATION/COST ANALYSIS
KICK-OFF MEETING

APRIL 18, 1994
7:00 P.M. - 9:00 P.M.

NEW HANOVER COUNTY PUBLIC LIBRARY
WILMINGTON, NORTH CAROLINA

AGENDA

- Introduction and Welcome
- Superfund Process Overview
- Community Relations
- Site Background Information
- Engineering Evaluation/Cost Analysis
- Tentative Schedule of Events
- Question and Answer Period

REGULATORY HISTORY

- THE REFINERY PURCHASED IN 1970
- THE FACILITY PRODUCED NAPHTHA FUEL OIL AND KEROSENE
- YEARS OF OPERATIONS - 1971 TO 1986

REGULATORY HISTORY

- JULY 1987 - FUEL OIL LEAK
- MARCH 13, 1991 - OIL SPILL
- July 8, 1991 - OIL SHEEN ON SURFACE WATER
- APRIL 1992 - OIL LEAK
- MARCH & OCT. 1991 - SITE ASSESSMENT/INSPECTION
- SEPTEMBER 9, 1992 - EXPANDED SITE INSPECTION

LARGE VOLUMES OF WASTE ONSITE INCLUDING:

- TANK BOTTOM/WASTE OIL IN TANKS;
- A 2000 GALLON TANK OF TETRAETHYL LEAD (LEAKING);
- AN API SEPARATOR WITH WASTE OIL SLUDGE;
- ABOUT 20 55-GALLON DRUMS OF CAUSTIC CHEMICALS;

- UNKNOWN CHEMICALS IN THE BOILER SHACK;
- WASTE SOIL SLUDGE AND SLUDGE PILES
- THE FURNACE REFRACTORY DEPOSITION AREA, LEAKING VALVES,
- ALLEGED RUSTY SCALES AND TANK BOTTOMS.

WASTE TYPES AND QUANTITY PRESENT ON SITE

THE SITE IS CONTAMINATED WITH SEVERAL HEAVY METALS SUCH AS:

LEAD, COPPER, NICKEL, BARIUM, VANADIUM, ARSENIC,

CADMIUM, MANGANESE, MERCURY, ZINC

AND POLYAROMATIC HYDROCARBONS (PAHs)

SUPERFUND ACCELERATED CLEANUP MODEL (SACM)

- IMPLEMENTED TO MAKE SUPERFUND CLEANUP MORE TIMELY AND EFFICIENT

  - IMMEDIATE RISK REDUCTION
  - WORK MORE EFFICIENTLY
  - ELIMINATE DUPLICATIVE STEPS

EE/CA Process

Engineering Evaluation/ Cost Analysis (EE/CA)

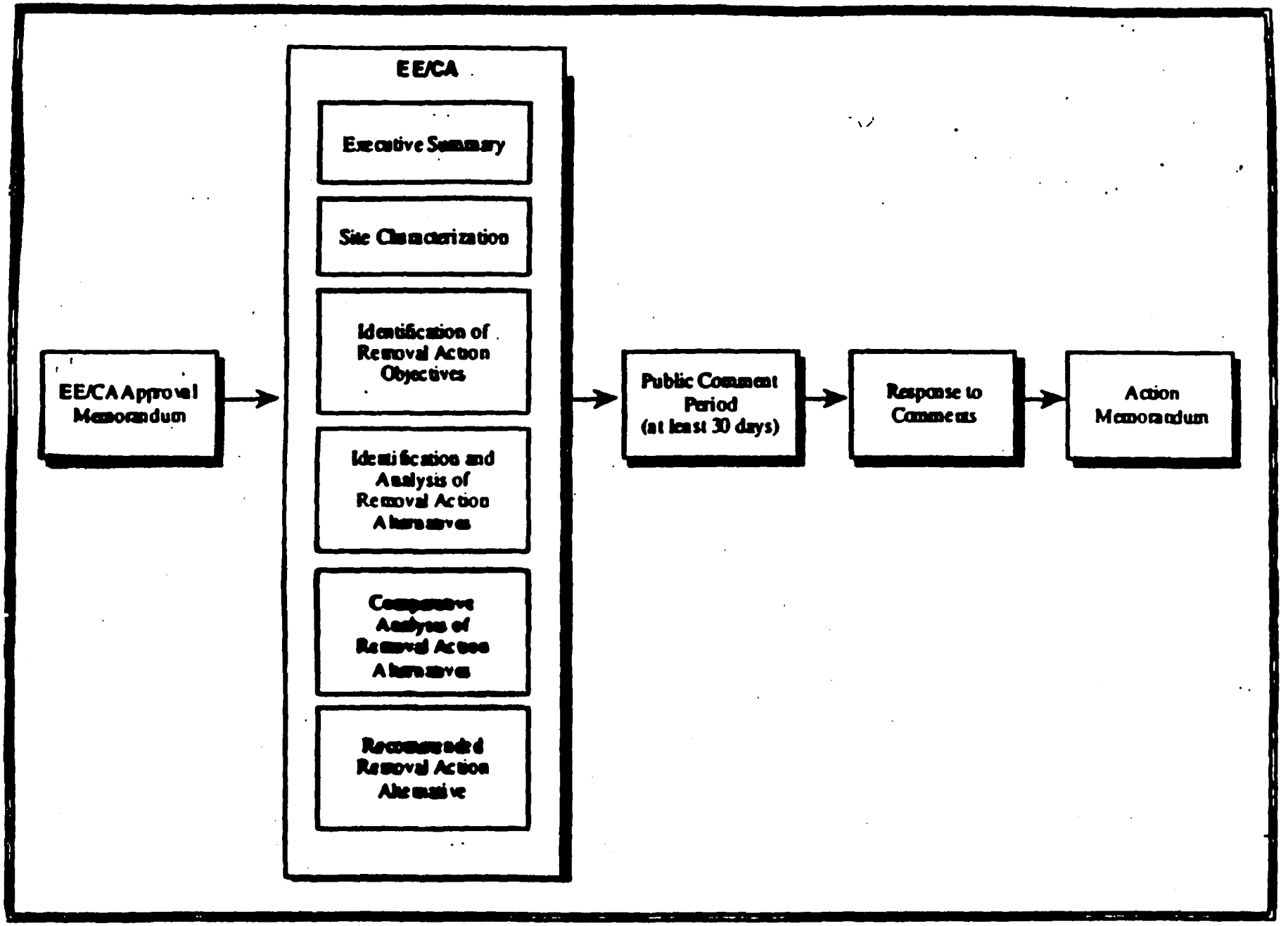
- EXECUTIVE SUMMARY
- SITE CHARACTERIZATION
- IDENTIFICATION OF REMOVAL OBJECTIVES

EE/CA Process

- IDENTIFICATION AND ANALYSIS OF REMOVAL OBJECTIVES

- COMPARATIVE ANALYSIS OF REMOVAL ACTION ALTERNATIVES

- RECOMMENDED REMOVAL ACTION ALTERNATIVE


EE/CA
Executive Summary
Site Characterization
Identification of Removal Action Objectives
Identification and Analysis of Removal Action Alternatives
Comparative Analysis of Removal Action Alternatives
Recommended Removal Action Alternative
EE/CA Approval Memorandum
Public Comment Period (at least 30 days)
Response to Comments
Action Memorandum

TENTATIVE SCHEDULE OF EVENTS

- FIELD WORK BEGIN APRIL 1994
- EE/CA COMPLETED - LATE SUMMER
- EE/CA RELEASED FOR PUBLIC COMMENT - EARLY FALL
- REMOVAL COMPLETED - MARCH 1995

Region 4

SUPERFUND FACT SHEET

OLD ATC REFINERY

Wilmington, New Hanover County, North Carolina

April 1994

INTRODUCTION

The purpose of this fact sheet is to introduce and explain the Superfund program, what activities will occur at the Site in the near future, and provide a brief history for the Old ATC Refinery in our effort to inform and keep the public involved.

Actions taken by the U.S. Environmental Protection Agency are in compliance with applicable laws and regulations governing the Superfund program. These laws and regulations governing EPA activities are: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, Superfund Amendments and Reauthorization Act (SARA) of 1986, and the National Oil and Hazardous Substances Contingency Plan (NCP) of 1990.

SITE HISTORY

The 12± acre Old ATC Refinery is located at 601 Surry Street, Wilmington, North Carolina, on the east bank of the Cape Fear River. The facility consists of a tank farm, refinery, laboratory, workshop and office building. The area surrounding the Site is industrial and is located near downtown Wilmington.

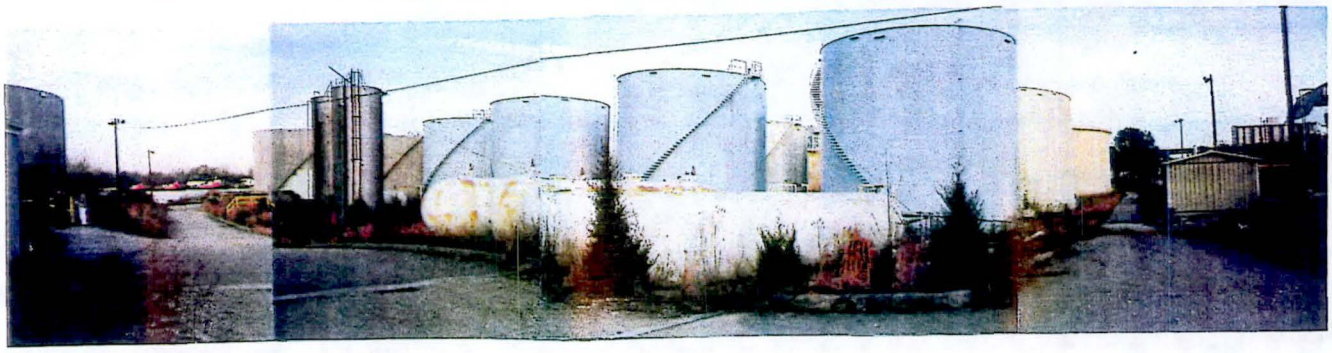
The property was purchased in 1970 by Pace Oil of Winston-Salem, North Carolina. Pace Oil leased the property to Titan Oil in 1971 who built the refinery and operated the facility under a ten year lease. During that ten year period Titan Oil underwent a name change to ATC Petroleum. The refinery shut down in 1980 or 1981. Republic Oil was formed in January 1985 as a joint venture between Pace Oil and Primary Oil. The refinery operated for 13 months and went bankrupt in February 1986. In March 1986 City Gas and Transmission (CGT) of Lexington, Kentucky, purchased the property but never operated the refinery. In December 1990, Wyandotte Tribal Petroleum, Inc. began making arrangements to purchase the property and reopen the refinery. However, because of problems with on-site contamination at the facility, they decided in April 1991 not to purchase the property. The current owner, City Gas and Transmission has since filed for bankruptcy. The Site has not operated since 1986.

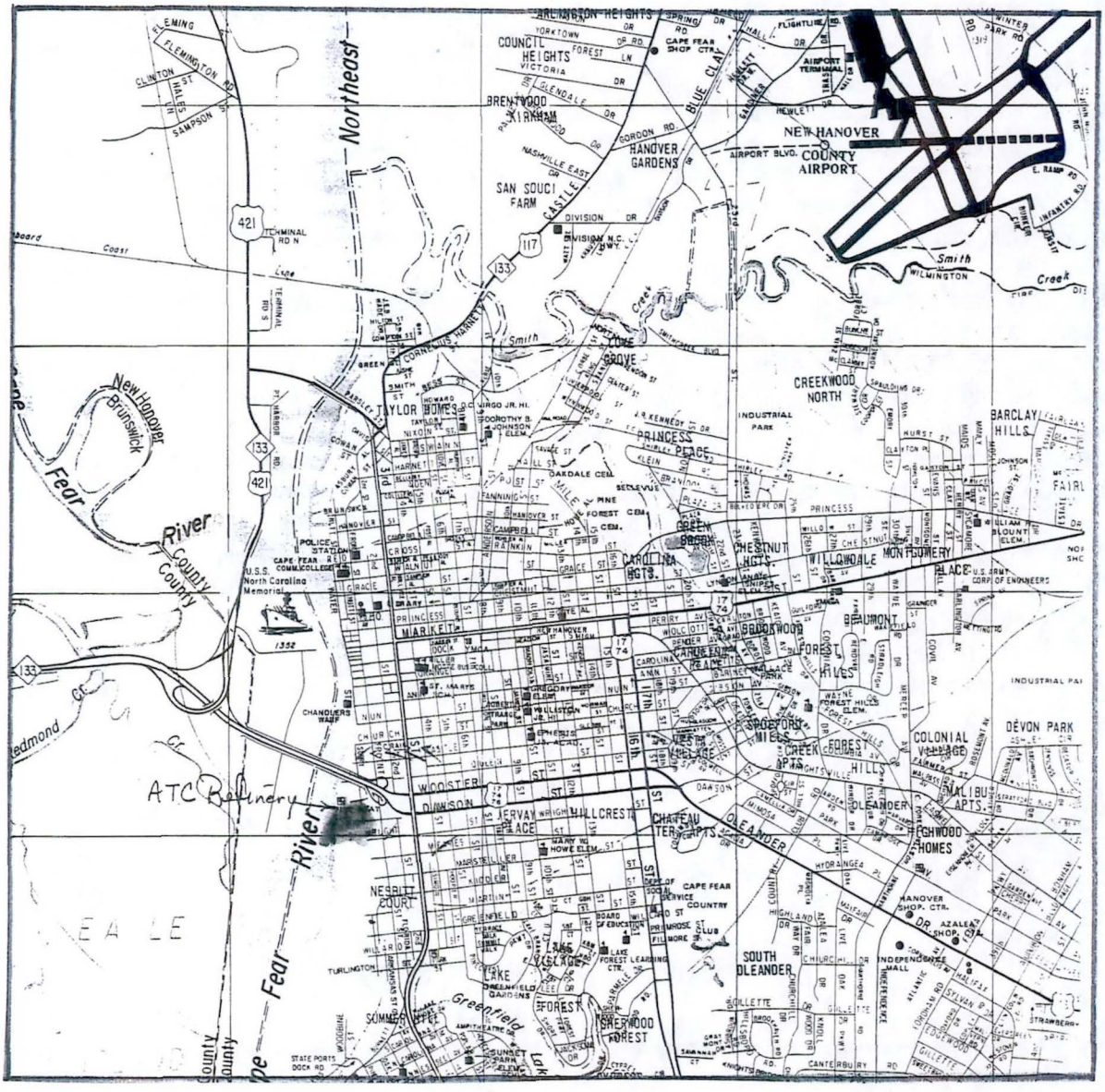
The refinery processed Venezuelan crude oil to produce naphtha #2, and #6 fuel oil, and a blending of products to produce Kerosene. The by-product of the production process created a sludge. Waste disposal practices in the past are not known. However, reports from past employees indicate wastes were improperly disposed of on Site. Such practices consisted of sludge buried in pits on Site along the river, lines running from various tanks leaked product onto the ground, two oil-water separators were contaminated, sludge was taken off site to other locations for burial or use, and other wastes were buried on-site. Reportedly, waste disposal practices were not properly managed.

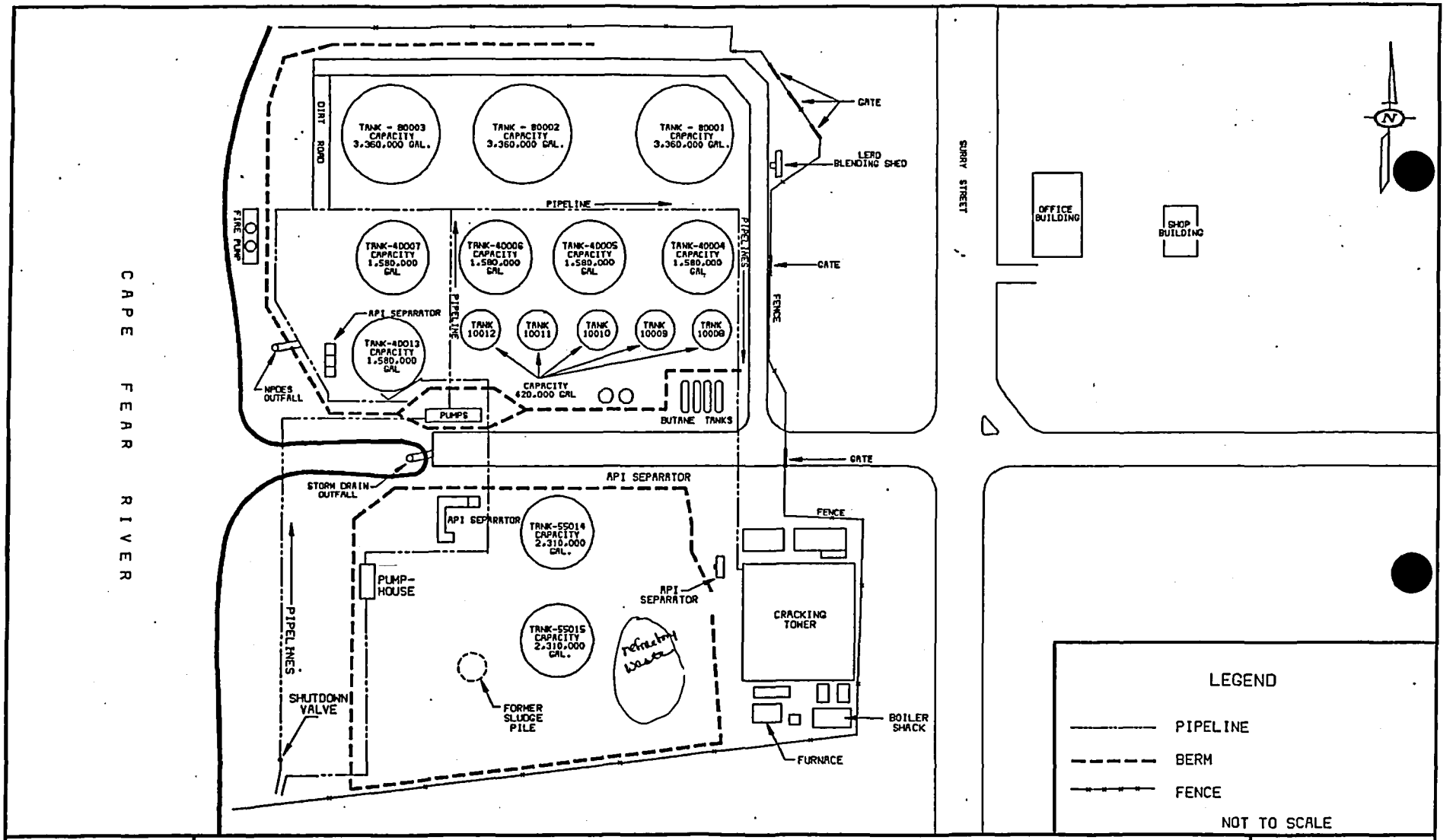
COME JOIN US FOR A KICK-OFF MEETING

April 18, 1994
beginning at 7:00 P.M.

New Hanover County Public Library




Northeast
Cape Fear River
New Hanover County
Brunswick County
ATC Refinery
NEW HANOVER COUNTY AIRPORT
AIRPORT BLVD.
ARLINGTON HEIGHTS
COUNCIL HEIGHTS
BRENTWOOD
HANOVER GARDENS
SAN SOUCI FARM
CASTLE
DIVISION
BLUE CLAY
Smith Creek
WILMINGTON
CREEKWOOD NORTH
INDUSTRIAL PARK
PRINCESS PLACE
TAYLOR HOMES
BARCLAY HILLS
CAROLINA HGTS.
CHESTNUT HGTS.
WILLOWDALE
MONTGOMERY PLACE
BEAUMONT
BROOKWOOD
FOREST HILLS
COLONIAL VILLAGE
DEVON PARK
MALIBU APTS.
HIGHWOOD HOMES
OLEANDER
MARKET
WOOSTER
DUNSON
JERVAY PLACE
MILLCREST
CHATEAU TER. APTS.
NESBITT COURT
SOUTH OLEANDER
HANOVER SHOP. CTR.
AZALEA SHOP. CTR.
INDEPENDENCE MALL
CAPE FEAR SERVICE COUNTRY CLUB
LAKE FOREST
SHERWOOD FOREST
SUMMER PLACE
Greenfield Lake
CANTERBURY RD
421
133
117



BASIC SCIENCE AND TECHNOLOGY CORP

SITE LAYOUT MAP
OLD ATC REFINERY
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA

CONTAMINANTS AND REGULATORY ACTIONS TAKEN

Contamination has been found in both the soil and groundwater. The contaminants of concern that we know of to date are: arsenic, barium, chromium, copper, lead, mercury, nickel, selenium, silver, vanadium and some volatile organic compounds. An investigation of the Site which includes taking numerous samples of the soil, subsurface soil, surface water, sediment, groundwater and air and then analyzing the data from the sampling needs to be conducted in order to verify the different contaminants present, their locations, and estimated quantities. It has already been determined that the contamination at the Site has gotten into the soil and groundwater which in turn has effected the Cape Fear River.

The U.S. Coast Guard has responded on four specific occasions to reported and visual pollution coming from the Old ATC Refinery Site. These incidences covered:

- #6 fuel oil leaking from a valve in a line between two tanks and the product saturating the soil in that area;
- the discovery of a 500-gallon sludge pile that because of heavy rain had created an oily sheen run-off that flowed into a drainage canal and then into the Cape Fear River;
- oil leaking from the banks of the drainage canal on Site into the river; and
- approximately 18,000 gallons of oil leaked from a failed gasket into a bermed land area on Site.

The State of North Carolina issued a Notice of Violation for each incident to the owners of the facility. The U.S. Coast Guard also implemented clean-up actions to stop the flow of contaminants from their sources.

The North Carolina Department of Environment, Health and Natural Resources (NCDEHNR) conducted a Screening Site Investigation in October 1991. Following compilation of all data gathered during the 1991 investigation, a contractor was hired by the EPA to conduct an expanded site inspection in September 1992. Since then EPA has been involved in efforts to locate past owners to solicit their cooperation in cleaning up the Site that they owned, leased and/or operated. The EPA Region IV Atlanta office has also conducted preliminary Site visits/inspections in order to prepare plans and documentation for cleaning up the Site.

WHAT IS SUPERFUND?

In 1980 Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, more commonly known as Superfund). This act authorizes EPA to investigate and respond to releases of hazardous substances that may endanger public health, welfare, and the environment. The 1980 law set up a trust fund of $1.6 billion to pay for the investigations and clean up sites where parties responsible for the problems are unable or unwilling to pay for or clean up the site. In October 1986, Congress amended and reauthorized the Superfund law and also increased the size of the fund to approximately $8.5 billion. This amendment is known as the Superfund Amendments and Reauthorization Act (SARA). For those sites where the responsible party(ies) are able and willing to pay for and conduct the steps to clean up the site, EPA is involved in the Superfund process in an enforcement capacity to ensure the responsible party(ies) conduct the clean up as agreed.

After a site is initially discovered, it is inspected, usually by the State. The State or EPA then scores the site using a numerical ranking system known as the Hazard Ranking System (HRS). The following criteria are used in this system to determine if a site should be added to the list of sites fundable by Superfund which are on the National Priorities List (NPL).

- possible health threats to the human population;
- possible hazards/risks (e.g., from direct contact, inhalation, fire or explosion) created by the substances at the site;
- potential for the substances at the site to contaminate the air or drinking water supplies; and
- potential for the substances to the site to pollute or harm the environment.

The State usually requests that a site be put on EPA's National Priorities List; however, EPA may also initiate and carry out these procedures at sites. Those sites with Hazard Ranking System scores of 28.5 or greater are recommended for placement on the National Priorities List (NPL). The NPL is a roster of the nation's worst hazardous waste sites posing a threat to human health or the environment. Every site on the NPL qualifies for Federal Superfund money. The Old ATC Refinery Site has not been placed on the National Priorities List (NPL) as yet, but is an NPL caliber site.

If a site or any portion of a site poses an imminent threat to public health or the environment at any time, EPA may

"emergency removal." This consists of short-term immediate actions to remove and or treat the substances creating the threat, i.e., response to "classical emergencies" resulting from oil and hazardous substance spills and life threatening and environmental emergencies such as a fire and/or explosion at hazardous waste sites. EPA has categorized removal actions in three ways: emergency, time-critical and non-time-critical, based on the type of situation, the urgency and threat of the release or potential release, and the subsequent time frame in which the action must be initiated. Emergency and time-critical removal actions respond to releases requiring action within six months; non-time-critical removal actions respond to releases requiring action that can start later than six months after the release. These types of removal actions are taken by the Superfund Emergency Response and Removal Branch, and in many cases precede the long-term remedial action which can take 5-7 years or longer.

SUPERFUND ACCELERATED CLEANUP MODEL (SACM) NON-TIME CRITICAL ACTION

The EPA has recently developed and is implementing (1994) a streamlined way to clean up hazardous waste sites known as **SACM**. The purpose of **SACM** is to make Superfund cleanups more timely and efficient. This is being accomplished through more focus on the front end of the process and better integration of all Superfund program components. This approach involves:

- a continuous process for assessing site-specific conditions and the need for action;
- cross-program coordination of response planning;
- prompt risk reduction through early action (removal or remedial);
- appropriate cleanup of long-term environmental problems;
- early public notification and participation; and
- early initiation of enforcement activities.

Since the Superfund program began in 1980, EPA has learned through experience what works. The accelerated cleanup model incorporates five essential elements:

- one-step site screening and risk assessment,
- Regional Decision Teams to "traffic cop" all sites,
- early action to reduce immediate risk,
- long-term cleanup to restore the environment,
- enforcement, community relations, and public involvement throughout the process.

Traditionally, Superfund cleanups are performed after long periods of site studies and assessments have been conducted. The heart of **SACM** is an approach that fosters immediate action at a site, at the same time that necessary studies and assessments are being conducted. Regional Decision Teams of site managers, risk assessors, community relations coordinators, regional attorneys and other experts decide whether a site requires early action (taking less than five years), long-term action (5 years and longer), or a combination of both. Any short-term work required to correct immediate public health or environmental threats will be done while a site is studied. Besides removing hazardous materials to prevent human contact, these early actions include taking precautions to keep contaminants from moving off site and restricting access to the site. The goals of SACM are (1) to accelerate response, (2) improve cost-effectiveness, and (3) achieve rapid risk reduction in a manner consistent with "enforcement first."

For this Site, the Agency will be implementing the **SACM** approach to remediate contamination at the Site. The diagram for **SACM** is featured following this section outlining steps in the process. The following major steps are for non-time critical removal actions:

- A **"removal site evaluation"** is conducted to identify the source and nature of the release or threatened release of hazardous materials, and to assess the threat to public health, the magnitude of the threat and the factors necessary to determine the need for a removal action.

- An **EE/CA (Engineering Evaluation/Cost Analysis) Approval Memorandum** is prepared after the site evaluation has been completed. This memorandum serves three functions: 1) secure EPA management approval and funding to conduct the EE/CA, 2) documentation that the situation meets the National Contingency Plan criteria for initiating a removal action and that the proposed action is non-time-critical, and 3) it includes detailed information pertaining actual or threatened releases of hazardous substances or pollutants from the site that may present an imminent and/or substantial endangerment; general information pertaining to the site background; threats to public health, welfare, or the environment posed by the site which includes expected changes in the situation if no action is taken; enforcement activities related to the site; and estimated project costs. This is a preliminary documents outlining the possibility of contamination.

- Then the **EE/CA** must be completed which identifies the objectives of the removal action and an analysis of the various alternatives that may be used to meet the objectives for cost, effectiveness, and implementability. The **EE/CA** should provide definitive information on the locations of hazardous substances/contaminants; quantity, volume, size or magnitude of the

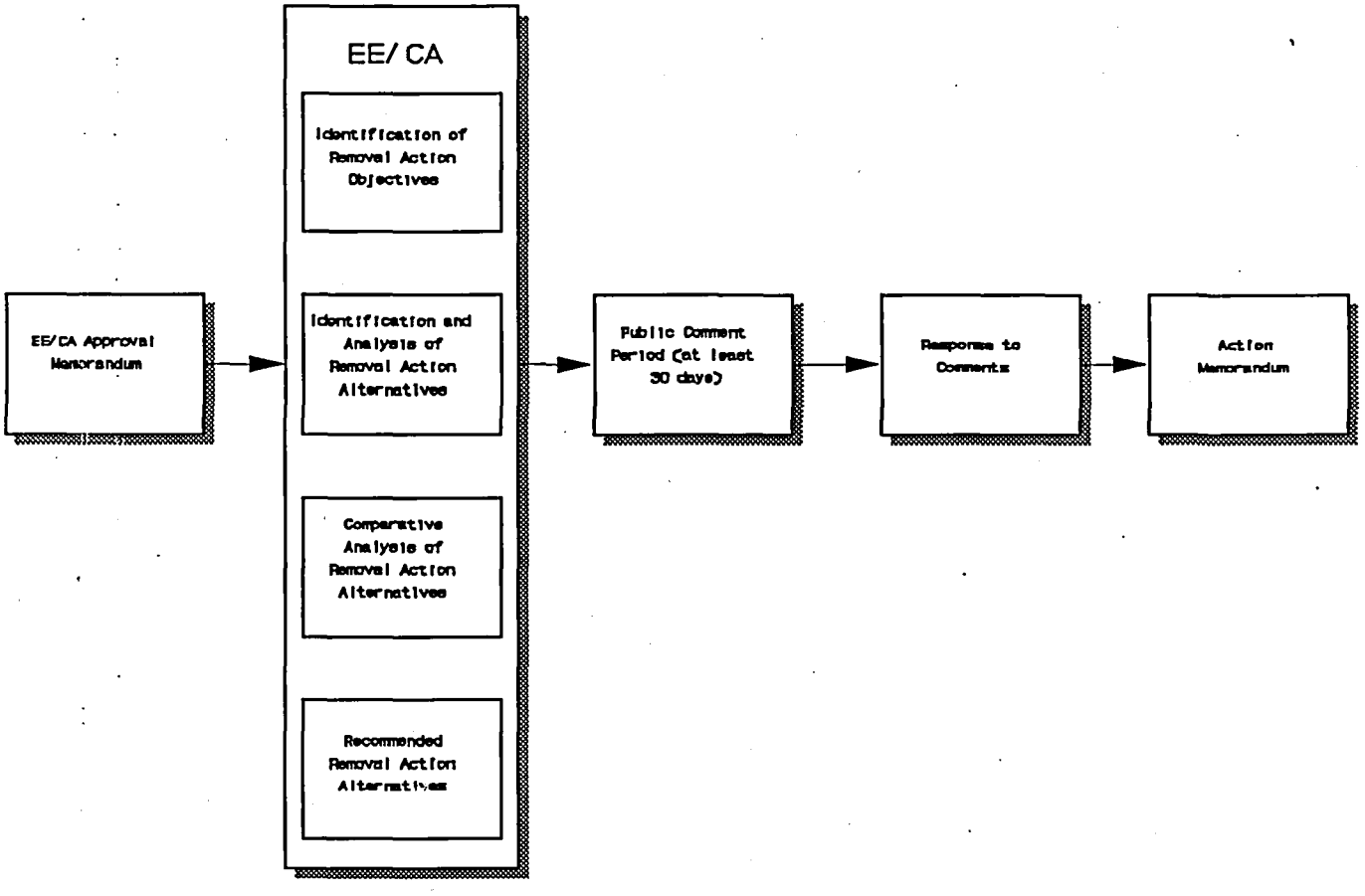
contamination; physical and chemical characteristics of the contaminants; and risks presented by the site; and various alternatives available for treating the contaminants. Recommendations made during this phase are based upon: past engineering reports; early State and local government involvement reports; a preliminary assessment of the site; past removal actions; health-based risk assessment; any Environmental Impact Statements; past enforcement actions taken by either local, state or federal agencies; employee interviews; newspaper articles; and any company documents available that reflect past plant operating procedures, manufacturing processes, product and waste disposal practices; reports from the U.S. Geological Survey; and reports from the U.S. Coast Guard pertinent to this site and actions that they have taken.

- A public notice describing the **EE/CA** and its availability to the public, and a 30-day public comment period must be published in a major local newspaper. EPA will respond to all comments received.

- An **Action Memorandum** is prepared providing a concise, written record of the decision for selecting the remedy. This document along with others developed during the process are placed in an information repository for public viewing. The documents for this site will be housed in the New Hanover County Public Library.-

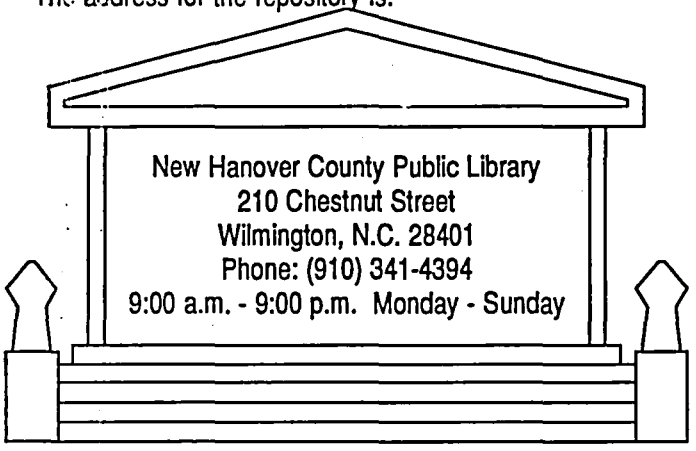
Ongoing community relations activities during the process include interviews, public meetings, updated fact sheets, continual updating of mailing list, newspaper notices, and other activities intended to keep citizens and officials informed and involved and to encourage public input. These activities are scheduled throughout the course of the cleanup process. Specific activities vary from site to site depending upon the level and nature of concern of the public. For easy access to this office we have set up the **1-800-435-9233 telephone number** to enable citizens to contact the office at any time there is a question, incident or some questionable action that needs to be reported.

EE/CA Development Process



INFORMATION REPOSITORY

EPA has established an **Information repository** at the New Hanover County Public Library which will house copies of the documents developed during the Superfund process. The public is encouraged to read this information. The address for the repository is:



PUBLIC INVOLVEMENT

We encourage citizens that are interested in this Site to become involved by attending meetings, reading available documents about the Site and providing the Agency with your comments. After the Site has been thoroughly sampled and the data documented, EPA will provide the public with a fact sheet stating the results of the sampling and what the possible options are for treating/cleaning up the Site. At that time we will conduct another public meeting to discuss these results. A 30-day public comment period will be held to receive your comments concerning which cleanup alternative is preferred.

EPA has developed a community relations program under Superfund to respond to citizens' concerns and needs for information as well as to enable residents and officials of a site community to participate in decision-making. At the beginning of the SACM/Superfund process a Community Relations Plan (CRP) is prepared that identifies interested parties and their concerns and questions about the Site. The Plan is prepared based upon discussions with local leaders, government officials, media, environmental groups, and private citizens. In response to their concerns and the level of interest present in the community, the Plan identifies techniques EPA will use to communicate effectively with the public as action at the Site progresses. These communication efforts include telephone contacts, informal and/or formal meetings, news releases, display ads in area newspaper(s), public notices, fact sheets and providing documents for public reading which are kept in the information repository. Once completed a copy of the Community Relations Plan will be placed in the repository.

GLOSSARY

This glossary defines terms often used by the U.S. Environmental Protection Agency (EPA) when describing activities occurring in the Superfund process though not necessarily used in this document. These definitions apply specifically to the Superfund program and may have other meanings when used in different circumstances. Underlined words included in various definitions are defined separately in the glossary.

Administrative Record: A file which is maintained and contains all information used by the lead agency to make its decision on the selection of a response action under CERCLA. This file is to be available for public review and a copy is to be established at or near the site, usually at one of the information repositories. Also, a duplicate file is held in a central location, such as a Regional or State office.

Aquifer: An underground rock formation composed of materials such as sand, soil, or gravel that can store and supply ground water to wells and springs. Most aquifers used in the United States are within a thousand feet of the earth's surface.

Carcinogen: Any substance that can cause or contribute to the production of cancer.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health and/or the environment. The term "cleanup" is often used broadly to describe various response actions or phases of remedial responses such as the remedial investigation/feasibility study.

Comment Period: A time period during which the public can review and comment on various documents and EPA actions.

Community Relations Plan (CRP): Formal plan for EPA community relations activities at a Superfund site. The CRP is designed to ensure citizen opportunities for public involvement at the site, determine those activities which will provide for such involvement, and allow citizens the opportunity to learn about the site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law passed by Congress in 1980 and modified

in 1986 by the Superfund Amendments and Reauthorization Act. The Acts created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work; or
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

Contaminant: Any physical, chemical, biological, or radiological substance or matter that has an adverse affect on air, water or soil.

Cost Recovery: A legal process where potentially responsible parties can be required to pay back the Federal government for money it spends on any cleanup actions.

Downgradient: The direction that groundwater flows, similar in concept to 'downstream' for surface water, such as a river.

Ground Water: The supply of fresh water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In aquifers, ground water occurs in sufficient quantities that it can be used for drinking water, irrigation and other purposes.

Hazard Ranking System (HRS): A scoring system used to evaluate potential relative risks to public health and the environment from releases or threatened releases of hazardous substances. EPA and States use the HRS to calculate a site score, from 0 to 100, based on the actual or potential release of hazardous substances from a site through air, surface water, or ground water. This score (28.5 or higher) is the primary factor used to decide if a hazardous waste site should be placed on the National Priorities List.

Hazardous Substance: Any material that poses a threat to public health and/or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

Hydrology: The science dealing with the properties, movement, and effects of water found on the earth's surface, in the soil and rocks below, and in the atmosphere.

Information Repository: A file containing current information, technical reports, reference documents, and TAG application information regarding a Superfund site. The information repository is usually located in a public building that is convenient for local residents -- such as a public school, city hall, or library.

Monitoring Wells: Special wells drilled at specific locations on or off a hazardous waste site where ground water can be sampled at selected depths and studied to determine such things as the direction in which ground water flows and the types and amounts of contaminants are present.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The Federal regulation that guides determination of the sites to be corrected under the Superfund program and the program to prevent or control spills into surface waters or other portions of the environment. (NCP revised in February 1990.)

National Pollutant Discharge Elimination System (NPDES): A provision of the Clean Water Act which prohibits the discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state or (where delegated) a tribal government on an Indian reservation allowing a controlled discharge of liquid after it has undergone treatment.

National Priorities List (NPL): EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response using money from the Trust Fund. The list is based primarily on the score a site receives on the Hazard Ranking System (HRS). EPA is required to update the NPL at least once a year.

Parts Per Billion (ppb)/Parts per Million (ppm): Units commonly used to express low concentrations of contaminants. For example, 1 ounce of trichloroethylene (TCE) in 1 million ounces of water is 1 ppm; 1 ounce of TCE in 1 billion ounces of water is 1 ppb. If one drop of TCE is mixed in a competition-size swimming pool, the water will contain about 1 ppb of TCE.

Plume: A visible or measurable discharge of a contaminant from a given point of origin; can be visible or thermal in water, or visible in the air as, for example, a plume of smoke. A three dimensional zone within the groundwater that contains contaminants and generally moves in the direction of, and with groundwater flow.

Potentially Responsible Party (PRP): An individual(s) or company(ies) (such as owners, operators, transporters, or generators of hazardous waste) potentially responsible for, or contributing to, the contamination problems at a Superfund site. Whenever possible, EPA requires PRPs, through administrative and legal actions, to clean up hazardous waste sites they have contaminated.

Preliminary Assessment: The process of collecting and reviewing available information about a known or suspected hazardous waste site or release. EPA or States use this information to determine if the site requires further study. If further study is needed, a site inspection is undertaken.

Remedial Project Manager (RPM): The EPA or State official responsible for overseeing the long-term remedial response activities.

Remedial Response: A long-term action that stops or substantially reduces a release or threatened release of hazardous substances that is serious, but does not pose an immediate threat to public health and/or the environment.

Removal Action: An immediate action taken over the short-term to address a release or threatened release of hazardous substances.

Resource Conservation and Recovery Act (RCRA): A Federal law that established a regulatory system to track hazardous substances from the time of generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

Response Action: A CERCLA-authorized action at a Superfund site involving either a short-term removal action or a long-term remedial response that may include, but is not limited to, the following activities:

- Removing hazardous materials from a site to an EPA-approved, licensed hazardous waste facility for treatment, containment, or destruction.
- Containing the waste safely on-site to eliminate further problems.
- Destroying or treating the waste on-site using incineration or other technologies.
- Identifying and removing the source of ground water contamination and halting further movement of the contaminants.

Responsiveness Summary: A summary of oral and/or written public comments received by EPA during a comment period on key EPA documents, and EPA's responses to those comments. The responsiveness summary is a key part of the Record of Decision, highlighting community concerns for EPA decision-makers.

Risk Assessment: Estimating the degree of harm people will face if exposed to a particular level or quantity of a substance.

Sediment: The sand or mud found at the bottom and sides of bodies of water, such as creeks, rivers, streams, ponds, lakes and swamps. Sediments typically consist of soil, clay, silt, plant matter, and sometimes gravel.

Site Inspection (SI): The collection of information from a Superfund site to determine the extent and severity of hazards posed by the site. It follows and is more extensive than a preliminary assessment. The information is used to score the site with the Hazard Ranking System to determine whether response action is needed.

Superfund: The program operated under the legislative authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also referred to as the Trust Fund, to carry out the EPA solid waste emergency removal and long-term remedial activities.

Superfund Accelerated Cleanup Model (SACM): A program developed by EPA to streamline and speed

up the cleanup process of hazardous waste sites. It is designed to decrease the number of years to treat contamination as well as get the cleanup process started more quickly.

Superfund Amendments and Reauthorization Act (SARA): Modifications to CERCLA enacted on October 17, 1986.

Surface Water: Bodies of water that are above ground, such as rivers, lakes, and streams.

Treatment, Storage, and Disposal Facility (TSD Facility): Any building, structure, or installation where a hazardous substance has been treated, stored, or disposed. TSD facilities are regulated by EPA and States under the Resource Conservation and Recovery Act.

Volatile Organic Compound: A group of chemical compounds composed primarily of carbon and hydrogen that are characterized by their tendency to evaporate (or volatilize) into the air from water or soil. VOCs are substances that are contained in common solvents and cleaning fluids. Some VOCs are know to cause cancer.

MORE INFORMATION?

For more information about the Site and future activities that will occur on site, please contact the following:

Beverly Hudson, Remedial Project Manager
Diane Barrett, Community Relations Specialist
U.S. E.P.A., Region 4
North Superfund Remedial Branch
345 Courtland Street, NE
Atlanta, GA 30365
Phone: 800-435-9233

MAILING LIST

Your name has been added to this Site mailing list because you live within the vicinity of the Old ATC Refinery or your name has been provided as someone that might have an interest in the Site. If you know of someone that would like to have their name added to this list, please have them complete this form and return to the EPA office in Atlanta attention Diane Barrett, Community Relations Specialist at the above address. There are also spaces provided below for change of address and deletion notification.

NAME _____

ADDRESS _____

CITY, STATE, ZIP CODE _____

PHONE _____

ADDITION_____ **CHANGE**_____ **DELETION**_____

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION
WILMINGTON REGIONAL OFFICE

FILE CODE: Sprague Energy COUNTY: New Hanover

SUMMARY: Sprague asked questions about what type of assessment they needed to perform. Gave them a copy of our latest CSA guidance. Sprague will need an extra week to respond, should be here by 11-15-92: they plan to hire a consultant. Sprague replaced a leaky flange gasket on pipeline @ C&T. They will block off lines from their dock to C&T soon.*

PREPARED BY: B. Reed DATE: 11/2/92 MEETING LOCATION: WiRO

SHEET 1 OF 1

*will notify us in writing when this task is performed.

ATTENDANCE ROSTER

Please print your name below:

Date: 11/2/92
Time: 1:45 - 2:10pm

NAME	REPRESENTING	TELEPHONE
Bruce Reed	NCDEM	(919) 395-3900
BOB BLANCHARD	Sprague Energy	603 431 1000
RON HART	SPRAGUE ENERGY	(919) 251-1020
RICK SHIVER	NCDEM	(919) 395-3900

State of North Carolina
Department of Environment, Health, and Natural Resources
Wilmington Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Bob Jamieson
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

Groundwater Section

October 5, 1992

Mr. Ron Hart
Sprague Energy
2250 Shipyard Boulevard
Suite 8
Wilmington, North Carolina 28403-6070

Subject: Response to Your Proposed Pipeline Agreement
CG&T Facility
Incident No. 3493
Wilmington
New Hanover

Dear Mr. Hart:

Your proposal sounds reasonable to us. Thank you for your quick response to this serious situation.

Sincerely,

Kirk W. McDonald, PG
Hydrogeologist

KWM/jp

cc: WiRO-GWS ✓

\KIRK\HART.OCT
10/05/92

127 Cardinal Drive Extension, Wilmington, N.C. 28405-3845 • Telephone 919-395-3900 • Fax 919-350-2004

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County New Hanover
Quad No. DD-31, h Serial No. _____
Lat. 341327 Long. 775708

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

RW

Lab Number 8 2G-8321
Date Received 9/20/92 Time 1200
Rec'd by: HMLL From: Bus, Courier
Other _____
Date Entry By: uc Ck. RS
Date Reported: 9-29-92

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO,
WSRO, Kinston FO, Other _____
Shipped by: Bus, Courier, Other _____
Collector(s): McDonald, May Date 7-21-92 Time 11:00 AM Purpose: Baseline, Complaint, Compliance, LUST, Other response to spill
(circle one)

FIELD ANALYSES

pH 400 _____ Spec. Cond. 94 _____ at 25° C
Temp. 10 _____ °C Odor petroleum
Appearance with oil Taste _____
Field Analysis By: McDonald, Mayo

Owner CG+T by US Coast Guard
Location or site CG+T site off of Front St. in Wilmington
Description of sampling point Recovery Well RW
Sampling Method bailer (Pump, bailer, etc.) Sample Interval upper surficial aquifer
Remarks Caution: These samples are very contaminated - collected underneath free product (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l	✓	Ag - Silver 1077 < 5.0	ug/l	Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l	✓	Al - Aluminum 1105 110	ug/l	Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l	✓	Ba - Barium 1007 14	ug/l	Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l	✓	Ca - Calcium 916 21	mg/l	
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l	✓	Cd - Cadmium 1027 < 3.0	ug/l	Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²	✓	Chromium: Total 1034 < 25	ug/l	
	Turbidity 76	NTU		Sulfate 945	mg/l	✓	Cu - Copper 1042 2.2	ug/l	X Base/Neutral Extractable Organics
				Sulfide 745	mg/l	✓	Fe - Iron 1045 6200	ug/l	X Acid Extractable Organics
						✓	Hg - Mercury 71900 < 0.20	ug/l	
X	pH 403 7.5	units				✓	K - Potassium 937 1.2	mg/l	X Purgeable Organics (VOA bottle)
	Alkalinity to pH 4.5 410	mg/l				✓	Mg - Magnesium 927 1.5	mg/l	
	Alkalinity to pH 8.3 415	mg/l				✓	Mn - Manganese 1055 450	ug/l	1,2 - Dibromoethane (EDB)
	Carbonate 445	mg/l				✓	Na - Sodium 929 3.1	mg/l	
	Bicarbonate 440	mg/l		NH_3 as N 610	mg/l	✓	Ni - Nickel 1067 < 10	ug/l	X free product sample, identify major constituents and product type S, V
X	Arsenic: Total 1002 < 10	ug/l		TKN as N 625	mg/l	✓	Pb - Lead 1051 270	ug/l *	
	Carbon dioxide 405	mg/l		$NO_2 + NO_3$ as N 630	mg/l	✓	Se - Selenium 1147 < 5.0	ug/l	
	Chloride 940	mg/l		P: Total as P 665	mg/l	✓	Zn - Zinc 1092 25	ug/l	
	Chromium: Hex 1032	ug/l							
	Color: True 80	Pt-Co							
	Cyanide 720	mg/l							

Lab Comments: * WQ STANDARD 25 ug/l

CG+T - NH

For Dissolved Analysis - submit filtered sample and write "DIS" in block
White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 2G821

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR RSK
DATE 8/4/92
ENTERED BY JH
CHECKED BY DS

SAMPLE TYPE: WATER ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l	
75-35-4	1,1-Dichloroethene	0.75		U
75-09-2	Methylene Chloride	0.25		U
156-60-5	trans-1,2-Dichloroethene	0.75		U
75-34-3	1,1-Dichloroethane	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U
67-66-3	Chloroform	0.25		U
74-97-5	Bromochloromethane	0.75		U
71-55-6	1,1,1-Trichloroethane	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U
79-01-6	Trichloroethene	0.25		U
78-87-5	1,2-Dichloropropane	0.25		U
75-27-4	Bromodichloromethane	0.25		U
74-95-3	Dibromomethane	1		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U
79-00-5	1,1,2-Trichloroethane	0.25		U
127-18-4	Tetrachloroethene	0.25		U
142-28-9	1,3-Dichloropropane	0.25		U
124-48-1	Dibromochloromethane	0.75		U
106-93-4	1,2-Dibromoethane	1		U
108-90-7	Chlorobenzene	0.25		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U
75-25-2	Bromoform	0.5		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U
96-18-4	1,2,3-Trichloropropane	0.25		U
108-86-1	Bromobenzene	1		U
95-49-8	2-Chlorotoluene	0.25		U
106-43-4	4-Chlorotoluene	0.25		U
541-73-1	1,3-Dichlorobenzene	0.25		U
106-46-7	1,4-Dichlorobenzene	0.25		U
95-50-1	1,2-Dichlorobenzene	0.25		U
96-12-8	1,2-Dibromo-3-Chloropropane	1		U
120-82-1	1,2,4-Trichlorobenzene	0.25		U
87-68-3	Hexachlorobutadiene	0.25		U
87-61-6	1,2,3-Trichlorobenzene	0.75		U
1634-04-4	Methyl-tert-butyl ether	5		U
71-43-2	Benzene	1	7.3 E	
108-88-3	Toluene	1	2.2 E	
100-41-4	Ethyl benzene	1	D	
108-38-3	m,p-Xylenes	1	D	
95-47-6	o-Xylene	1		U
100-42-5	Styrene	1		U
98-82-8	Isopropylbenzene	1		U
103-65-1	n-Propylbenzene	1		U
108-67-8	1,3,5-Trimethylbenzene	1	2.1 E	
98-06-6	tert-Butylbenzene	1		U
95-63-6	1,2,4-Trimethylbenzene	1	1.6 E	
135-98-8	sec-Butylbenzene	1		U
99-87-6	p-isopropyltoluene	1		U
104-51-8	n-Butylbenzene	1	14 E	
91-20-3	Naphthalene	1	2.6 E	

TQL- Target Quantation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/l
NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/ELCD.	
SIXTY-EIGHT UNIDENTIFIED PEAKS DETECTED BY GC/PID.	

COMMENTS:

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER:2G821 SUPERVISOR RJK LAB #:2G821
DATE : 8/19/92

REPORTED BY DM
CHECKED BY BG ENTERED BY LL
REVIEWED BY BG CHECKED BY DS

SAMPLE TYPE: OTHER DILUTION FACTOR : 200

CAS NUMBER	TQL X 200	ANALYTE NAME	CONC. UG/L
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U
534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U

CG&T - NH

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SEP. 29 1992
Wilmington Regional Office
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SPRAGUE ENERGY
2250 Shipyard Blvd., Suite 8
Wilmington, NC 28403-6070
Tel. 919-452-4400
Fax 919-452-3117

ENERGY AND MATERIAL HANDLING SINCE 1870

Mr. Richard Getty
City Gas & Transmission Corp.
Paris, Kentucky

Sept. 24, 1992

Dear Mr. Getty:

Per your request during our telephone conversation on Sept.21, 1992, I offer this agreement.

With regards to removing the interconnecting piping details between Sprague's dock lines and CG&T's lines at the foot of the dock, Sprague agrees to the following.

At such time that CG&T is ready to receive product by water at its Wilmington facility, Sprague will make arrangements to re-connect the affected pipelines, provided that we receive sufficient written notice. I would require twenty-one (21) days notice prior to a vessel arriving at the dock in order to have this work completed.

I hope this addresses the concerns of CG&T Management and results in a favorable and quick response.

I will appreciate your advising me with regard to the above proposal as quickly as possible. Sprague is very interested in resolving this leaking pipeline situation.

Sincerely,

Ron Hart
Terminal Manager
Sprague Energy Corp

cc: Rick Shiver, NCDEHNR
Bob Blanchard, Sprague Energy

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County New Hanover
Quad No. DD-31, 4 Serial No. _____
Lat. 341327 Long. 775708

SAMPLE PRIORITY
☑ ROUTINE ☐ EMERGENCY

MW-21

Lab Number 8 [illegible]
Date Received 8/20/92 Time 1200
Rec'd by: HMH From: Bus, Courier
Other _____
Date Entry By: DN Ck. DS
Date Reported: Aug 20, 92

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO,
WSRO, Kinston FO, Other _____
Shipped by: Bus, Courier, Other _____
Collector(s): Mayo, McDonald Date 7-21-92 Time 11:40am Purpose: Baseline, Complaint, Compliance, LUST, Other response to spill

FIELD ANALYSES

pH 400 _____ Spec. Cond. 94 at 25° C
Temp. 10 _____ °C Odor Free Product
Appearance _____ Taste _____
Field Analysis By: McDonald Mayo

Owner CG+T by US Coast Guard (circle one)
Location or site CG+T off of Front St in Wilmington
Description of sampling point Monitoring well MW-21
Sampling Method bailer (Pump, bailer, etc.) Sample Interval upper Surficial aquifer
Remarks Free Product sample (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 1077	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 1105	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		Ba - Barium 1007	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ca - Calcium 916	mg/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Cd - Cadmium 1027	ug/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm^2		Chromium: Total 1034	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cu - Copper 1042	ug/l		Base/Neutral Extractable Organics
				Sulfide 745	mg/l		Fe - Iron 1045	ug/l		Acid Extractable Organics
							Hg - Mercury 71900	ug/l		
	pH 403	units					K - Potassium 937	mg/l		Purgeable Organics (VOA bottle)
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 927	mg/l		
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 1055	ug/l		1,2 - Dibromoethane (EDB)
	Carbonate 445	mg/l					Na - Sodium 929	mg/l		
	Bicarbonate 440	mg/l		NH_3 as N 610	mg/l		Ni - Nickel 1067	ug/l	X	free product sample identity, major constituents all product type
	Arsenic: Total 1002	ug/l		TKN as N 625	mg/l		Pb - Lead 1051	ug/l		
	Carbon dioxide 405	mg/l		$NO_2 + NO_3$ as N 630	mg/l		Se - Selenium 1147	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Zn - Zinc 1092	ug/l		
	Chromium: Hex 1032	ug/l								
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

RECEIVED
AUG 25 1992
Wilmington Regional Office
DEM

Lab Comments: _____

CG+T - NH

GW-54 REV. 3/92 For Dissolved Analysis - submit filtered sample and write "DIS" in block
White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER: 2G822 SUPERVISOR REK LAB #: 2G822
DATE : 8/20/92

REPORTED BY MO
CHECKED BY PTM ENTERED BY JH
REVIEWED BY PTS CHECKED BY SDS

SAMPLE TYPE: OTHER DILUTION FACTOR : 200

CAS NUMBER	TQL X 200	ANALYTE NAME	CONC. UG/L
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U
534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U

86-30-6	10	N-NITROSODIPHENYLAMINE	U
101-55-3	10	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	10	HEXACHLOROBENZENE	U
87-86-5	50	PENTACHLORO PHENOL	U
85-01-8	10	PHENANTHRENE	U
120-12-7	10	ANTHRACENE	U
84-74-2	10	DI-N-BUTYL PHTHALATE	U
206-44-0	10	FLUORANTHENE	U
129-00-0	10	PYRENE	U
85-68-7	10	BUTYLBENZYL PHTHALATE	U
91-94-1	20	3,3'-DICHLOROBENZIDINE	U
56-55-3	10	BENZO(A)ANTHRACENE	U
218-01-9	10	CHRYSENE	U
117-81-7	10	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	10	DI-N-OCTYL PHTHALATE	U
205-99-2	10	BENZO(B)FLUORANTHENE	U
207-08-9	10	BENZO(K)FLUORANTHENE	U
50-32-8	10	BENZO(A)PYRENE	U
193-39-5	10	INDENO(1,2,3-CD)PYRENE	U
53-70-3	10	DIBENZO(A,H)ANTHRACENE	U
191-24-2	10	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 2G822

ANALYSIS OF FREE PRODUCT BY GC/MS INDICATES A DIESEL (FUEL OIL) RANGE PETROLEUM PRODUCT.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

CO+T - NH

RECEIVED

JUL 30 1992

Wilmington Regional Office
DEM

SPRAGUE ENERGY

2250 Shipyard Blvd., Suite 8
Wilmington, NC 28403-6070
Tel. 919-452-4400
Fax 919-452-3117

ENERGY AND MATERIAL HANDLING SINCE 1870

Mr. Richard J Getty
City Gas & Transmission Corp.
Paris, Kentucky 40361

July 28, 1992

Dear Mr. Getty,

Enclosed are two drawings which identify and resolve the cross connection details involving the #6 fuel oil dock lines at our facilities in Wilmington, NC.

DWG-A identifies the dock lines and reflects the basic relationship of tanks, lines and property boundaries.

DWG-B identifies the section of piping to be removed and the installation of blind flanges on the block valves.

The pipeline evacuation and cross connection removal will be performed by an outside contractor. The cost of this work will be for Sprague's account.

I shall wait for your approval of this proposed work prior to commencing.

Sincerely,

Ron Hart

Ron Hart
Terminal Manager
SPRAGUE ENERGY CORP

cc: Rick Shiver
Bob Blanchard

enclosures

UNOCAL
762-6615 } JIM DILLON

7/13/92

* SYSTEM SHUT DOWN
REMEDIATION PLAN IN OUR OFFICE FOR APPROVAL (NPDES MODIFICATION) ETC.

* RON HART,
MET W/TOM DICKEY ON SITE
HART SPOKE WITH GETTY • WROTE LETTER TO GETTY WEEK 7/6/92 RE: CLOSING OFF LINES FROM SPRAGUE

CG&T - NH

Telephone 484-2279 Area Code 606

Richard J. Getty

Attorney at Law

1685 Millersburg Road Paris, Kentucky 40361

July 13, 1992

Mr. Ron Hart,
Terminal Manager
Spraugue Energy Corp.
2250 Shipyard Blvd. Suite 8
Wilmington, NC 28403-6070

Dear Mr. Hart:

At this time I wish to acknowledge receipt of your letter under date of July 9, 1992 wherein you request permission from the City Gas and Transmission to evacuate the two No. 6 fuel oil dock lines and remove the cross connection devices.

This is to advise that I have discussed the same with Mr. Elmer Good of the City Gas and Transmission Corporation and he has agreed to the same.

I will appreciate it if you can advise us as to your work plan and also as to when the work has been completed.

By carbon copy of this letter to Mr. Rick Shriver, PG, Division of Environmental Management, NCDEHNR I am advising him as to the foregoing.

Very truly yours,

RICHARD J. GETTY

RJG:kjs

cc: Mr. Rick Shriver
Mr. Elmer Good, c/o Haben Ind
Mr. David Brule, Esq.
Mr. Pat McDonald

hart.cit

RECOMMENDATIONS FOR FUTURE ACTIONS AT THE CITY GAS & TRANSMISSION SITE, WILMINGTON, NC

INTRODUCTION

The City Gas & Transmission (CG&T) facility is an abandoned petroleum storage and refining site located along the east bank of the Cape Fear River in the city of Wilmington, North Carolina. The current owner, City Gas & Transmission Corporation, is in bankruptcy proceedings. Several environmental problems were reported for the site, including an oily discharge into a tidal ditch which leads directly into the Cape Fear River. The owners initiated a site assessment and installed a series of monitoring wells and a recovery well in April 1991. The contractor terminated all site activities after they determined that the owner was not able to pay for their services.

The U.S. Coast Guard (USCG) Marine Safety Office (MSO) in Wilmington, N.C., took over the site for removal of contaminated materials and contractor services for recovery and disposal of the oily discharge. The Scientific Support Coordinator from the National Oceanic and Atmospheric Administration (NOAA) was asked to assist in site assessment and make recommendations on the range of options for further USCG activity at the site. This report is a summary of the work completed to-date on the possible sources of the oily discharge into the Cape Fear River and recommendations on approaches to control the discharge. It does not address other possible contaminants and sources of pollution at the site.

A complete file on the site was prepared by staff from MSO Wilmington and Mr. Gary Ott of NOAA. After review of these files the site was visited on 29 November 1991 by Dr. Jacqueline Michel, of Research Planning, Inc. (RPI), with MSO Wilmington staff. RPI is under contract to NOAA to provide technical assistance during oil spills. The cleanup contractor was on-site, conducting the daily pumping of wells which had free product present. This material was being stored in a tank truck for later disposal.

RESULTS

The following problems were identified as needing further assessment:

- Confirmation of the source of the oil discharging into the tidal ditch.
- Analysis of the data on thickness of free product in the wells.
- Analysis of groundwater flow directions.

1) **Confirmation of the source of the oil discharging into the tidal ditch.**

This problem is complex, yet it is very important that it be resolved before any other actions are undertaken. Previous studies by the USCG oil identification laboratory had shown that the source could not be confirmed through chemical fingerprinting of the discharge and on-site tanks. Tank 13 was the most likely candidate (Fig. 1), but the past practices of storing the recovered product in Tank 13 made it impossible to use chemical means to confirm this. During blending operations, different products are moved around quite frequently, and the long operating history of the site by various owners means that a variety of products could have been stored in any tank.

Another possible source was a pump manifold system adjacent to the area, which had free-floating oil. The liquid level in the concrete structure around the manifold changed frequently, so there was a potential for a leak of oily water and oil from this source. However, the structure presently holds only small amounts of oil. A third possible source was leakage from underground piping leading to or from any tank and the pump manifold system. There were no obvious piping sources, but there were several drains around Tank 13 which could not be followed to a final destination.

The source must be determined by the nature of the underground plume, or by a tracer test. The oil could have been leaching into the ditch for a long period of time before the first report in April 1991, so this problem is not necessarily recent. Existing monitoring wells indicated that the plume did not extend to the east and west of Tank 13. Thus, during the site visit, it was decided to install three more monitoring wells to confirm that there are not additional, upgradient sources to the north of Tank 13. These wells were installed in December 1991.

It was also recommended that piping diagrams for the facility be obtained, and an electromagnetic survey of the ground around the tank/manifold should be

conducted to search for possible underground piping sources. To-date, it has not been possible to obtain either of these data.

2) Analysis of the data on thickness of free product in the wells.

When the initial monitoring and recovery wells were installed by CG&T, the thickness of free product was measured on 19 April 1991 by Clark Environmental Services, Inc. These data are shown in Figure 1. Clark had recommended the location for the recovery well (RW) as shown on Figure 1, and this well had been pumped intermittently. Note that wells 11 and 12 had over 3 feet of product and well 15 had 0.2 feet. Less than 1 foot of product was found in wells 3, 4, and 5, on either side of the recovery well. Less than 0.1 foot of product was found in wells 6, 7, 13, and 22. All other wells had no visible free product on the watertable.

MSO Wilmington had the amount of free product in the wells measured on 3, 6, 10, and 13 December 1991. The measurements on 3, 6, and 10 December were taken both before and after pumping of selected wells for product removal. Pumping was terminated on 10 December, so the 13 December data represent product thicknesses after a period of 3 days without pumping. The thicknesses for 3 December 1991 are shown in Figure 2, along with the change from the thicknesses initially measured on 4 April 1991. Note that there were significant decreases in free product thicknesses for wells 11, 12, and the recovery well between the two periods. These wells had been pumped initially in April/May 1991 and again in November/ December once the site was taken over by the USCG.

Two wells showed significant increases; well 15 went from 0.2 to 3.25 feet, and well 21 went from 0 to 0.75 feet. The increase in these wells was particularly of concern because the presence of oil in wells around the pump manifold system further strengthened it as a candidate source.

Figure 3 shows the thickness of free product in wells before pumping measured on 6, 10, and 13 December. Note that only those wells with oil were measured. After pumping, thicknesses were at or very close to zero in all wells. The thickness of free product changed very little over this time period, except for wells 11, 12 and 15. It appears that perhaps the measurements for wells 11 and 12 were switched on 10 December. Of note was the significant reduction in oil in well 15, after a high measurement of 3.25 feet. It is likely that this well was contaminated by a local source or oil was poured down the well at some time. There has been evidence of unauthorized access to the property and obvious changes to pump

positions, etc., noticed by MSO Wilmington staff over time. Once the well was pumped, only traces amount of oil remained.

It is important to note on Figures 2 and 3 that oil has never been reported in wells 1, 2, 8, 9, 10, 16, 17, 18, 19, 20, and 23. The three new wells north of Tank 13 did not have any free product present. These wells define the extent of the plume, showing that the underground oil contamination is confined to the area south of Tank 13. The greatest thicknesses have consistently been in wells 11 and 12, and well 4 has contained up to 1 foot. The recovery well has not contained significant amounts of oil since the USCG began tracking product thicknesses, though it has been pumped the greatest amount.

3) Analysis of groundwater flow directions.

One key component to interpretation of the available data and identification of the oil source is an understanding of the groundwater flow direction on site. A surveyor was contracted to provide accurate elevations of the lip of each well, relative to mean sea level (MSL), so that the elevation of the watertable in each well could be accurately determined. This survey was completed on 3 January 1992. Depths to the watertable in each well was measured on 8 January 1992 at both low and high tide. Previous surveys had shown that there were significant changes in the watertable over a tidal cycle, as expected since the wells were placed so close to the Cape Fear River and in permeable, sandy sediments.

Figures 4 and 5 show the watertable elevations, groundwater contours, and groundwater flow for the high and low tide conditions. There was very little change in the watertable contours at elevations of 3 feet and higher. The horizontal position of the 1- and 2-foot contours shifted 2-30 feet between high and low tide. The contours indicate groundwater flow from the north/northeast, with concentration of flow in the vicinity of well 12.

It is also interesting to note that the contours show lowest elevations in the area where a rise pipe extends out of the bank into the tidal ditch. This rise pipe is located just east of the position of the recovery well, at about mean tide level. When MSO Wilmington staff first inspected the site, digging around this drain pipe resulted in the release of large amounts of oil. It appears that this rise pipe is acting as a conduit along which groundwater (and oil) preferentially drains, creating a zone of depression. The presence of this zone of concentrated flow may facilitate the concentration of oil for recovery.

Groundwater flow patterns also indicate that the pump manifold may be a source of recharge water (and perhaps oil?). Note that there is a bulge in the water-table contour just west of the manifold system, indicated by wells 21 and 22. This bulge indicates that there is a source creating a small mound in the watertable. Based on casual observations of the water levels in the pump manifold system by MSO Wilmington staff, the concrete structure fills up during rainy weather and then slowly empties. There is a small amount of free oil floating on the water in the concrete structure, but not nearly enough to be a source of the underground plume. It is still possible that there is a leak in one of the pipes, but this possibility has not been further evaluated (due to lack of piping diagrams and subsurface surveys for underground pipes).

CONCLUSIONS

Based upon the results to-date, the following conclusions can be made:

1) Tank 13 is the most likely candidate as the source of the oil. Trends in the thickness of free product and groundwater flow directions indicate that other tanks are not viable sources. The only other possible sources are underground piping under or near Tank 13 and the pump manifold system. It is very possible that underground pipes could be leaking, but we have no data on their presence in the area or their possible connection to other tanks.

2) Once the source has been removed, recovery of the remaining oil underground should be accomplished by installation of a recovery well in the vicinity of well 12. Groundwater flow is concentrated in this area, so that oil floating on the watertable should also be concentrated there. Placement of the recovery well away from the shoreline should also slow the rate of discharge along the tidal ditch by reversing the flow during pumping towards the well.

3) The pump manifold system should be further evaluated to determine if it could be a source of oil (observe changes in water and oil levels), and efforts should continue to obtain piping diagrams. Routing of the the oily water routinely to the oil/water separator was considered, but the presence of a "water bottom" in the concrete structure might prevent oil from entering the groundwater system. Removal of the water to prevent groundwater recharge might also slow flushing of oil from the system once the source is removed.

CONCLUSIONS

Based upon the results to-date, the following conclusions can be made:

1) Tank 13 is the most likely candidate as the source of the oil. Trends in the thickness of free product and groundwater flow directions indicate that other tanks are not viable sources. The only other possible sources are underground piping under or near Tank 13 and the pump manifold system. It is very possible that underground pipes could be leaking, but we have no data on their presence in the area or their possible connection to other tanks.

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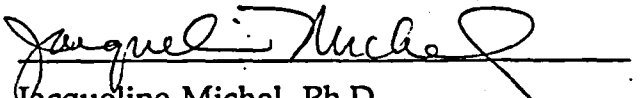
Submitted by:



Jacqueline Michel, Ph.D.
Director, Environmental Technology Div.
Research Planning, Inc.

January 1992

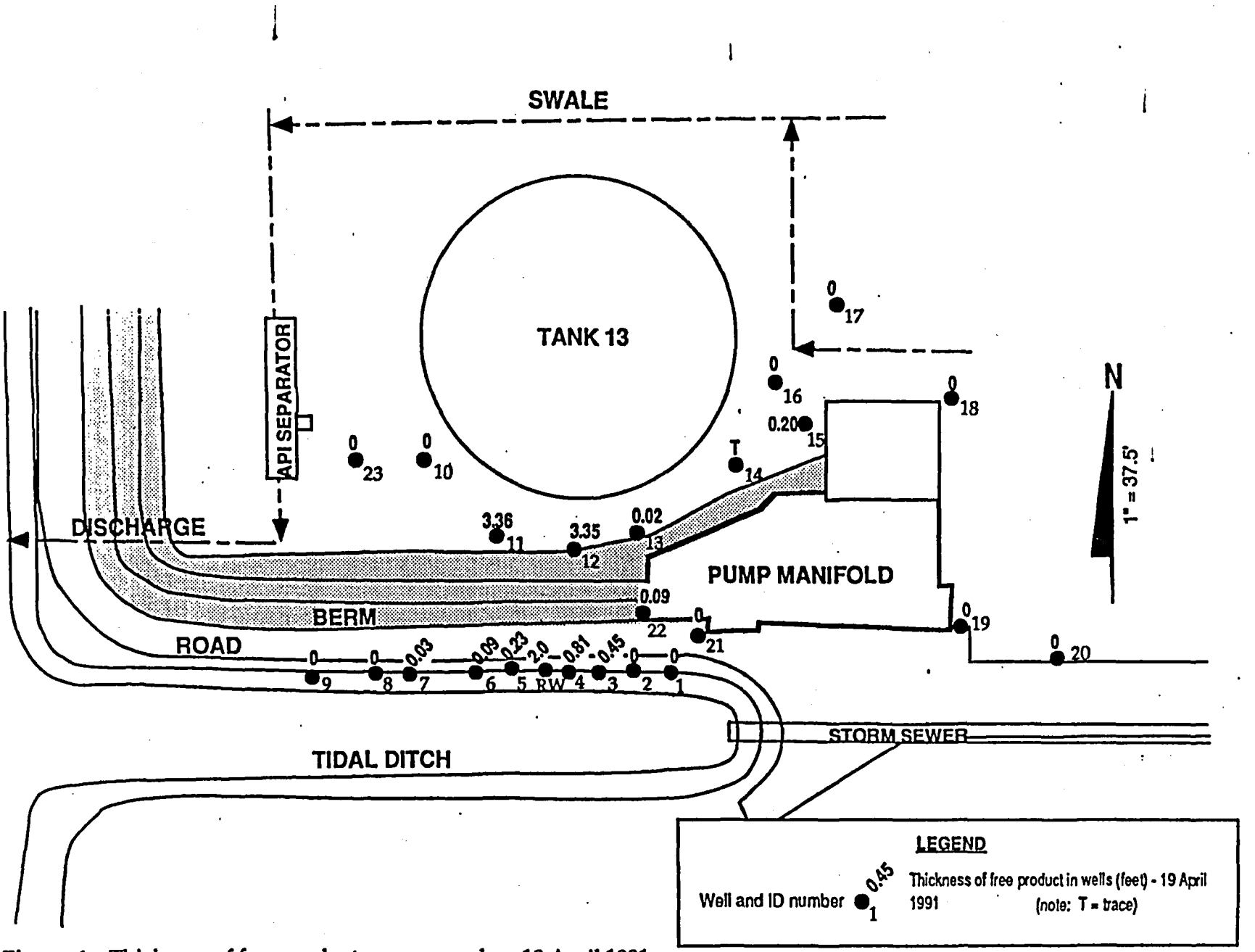


Figure 1. Thickness of free product as measured on 19 April 1991.

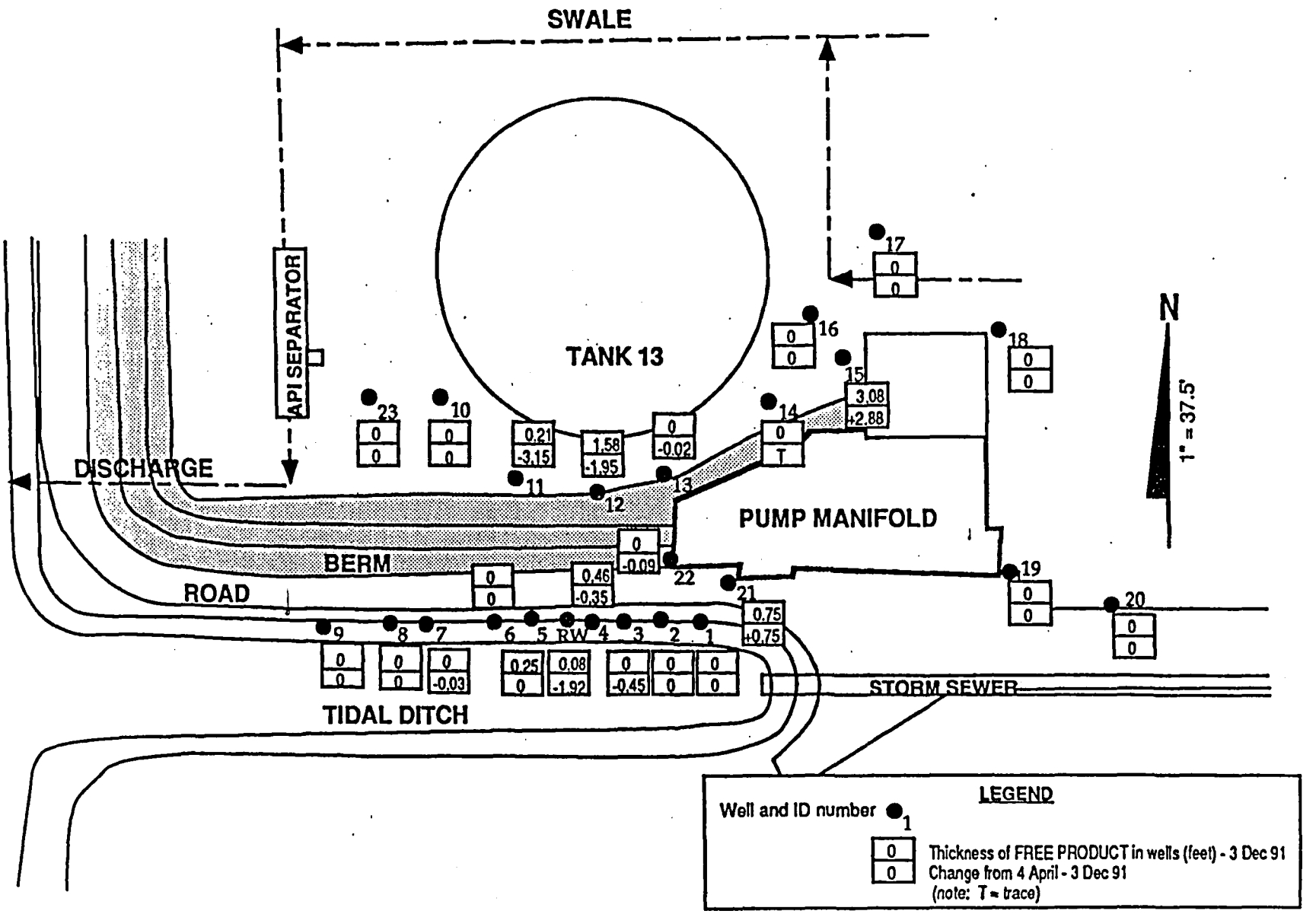


Figure 2. Thickness of free product as measured on 3 Dec 1991 and changes from 4 April 1991.

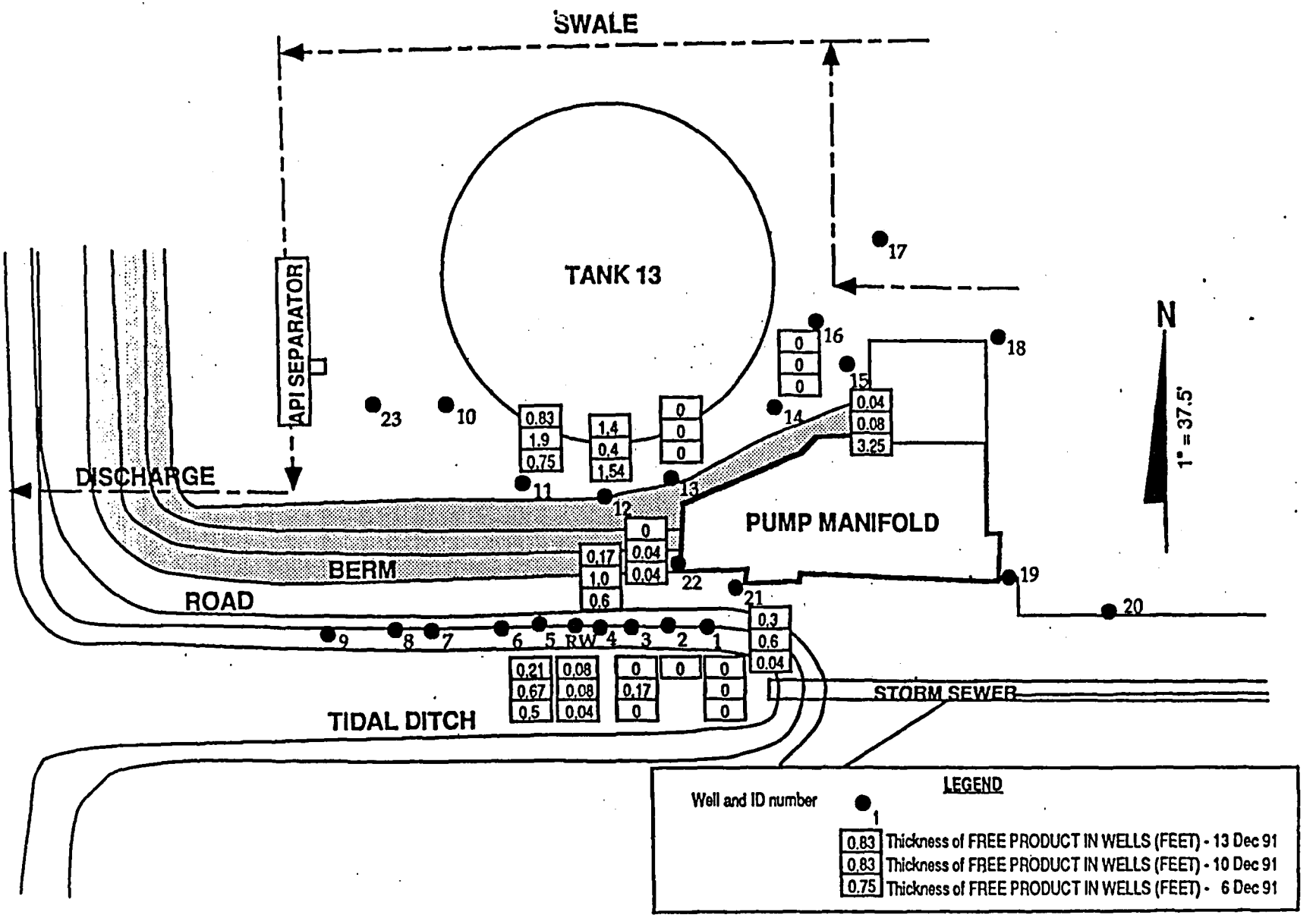


Figure 3. Thickness of free product as measured 6, 10, and 13 December 1991.

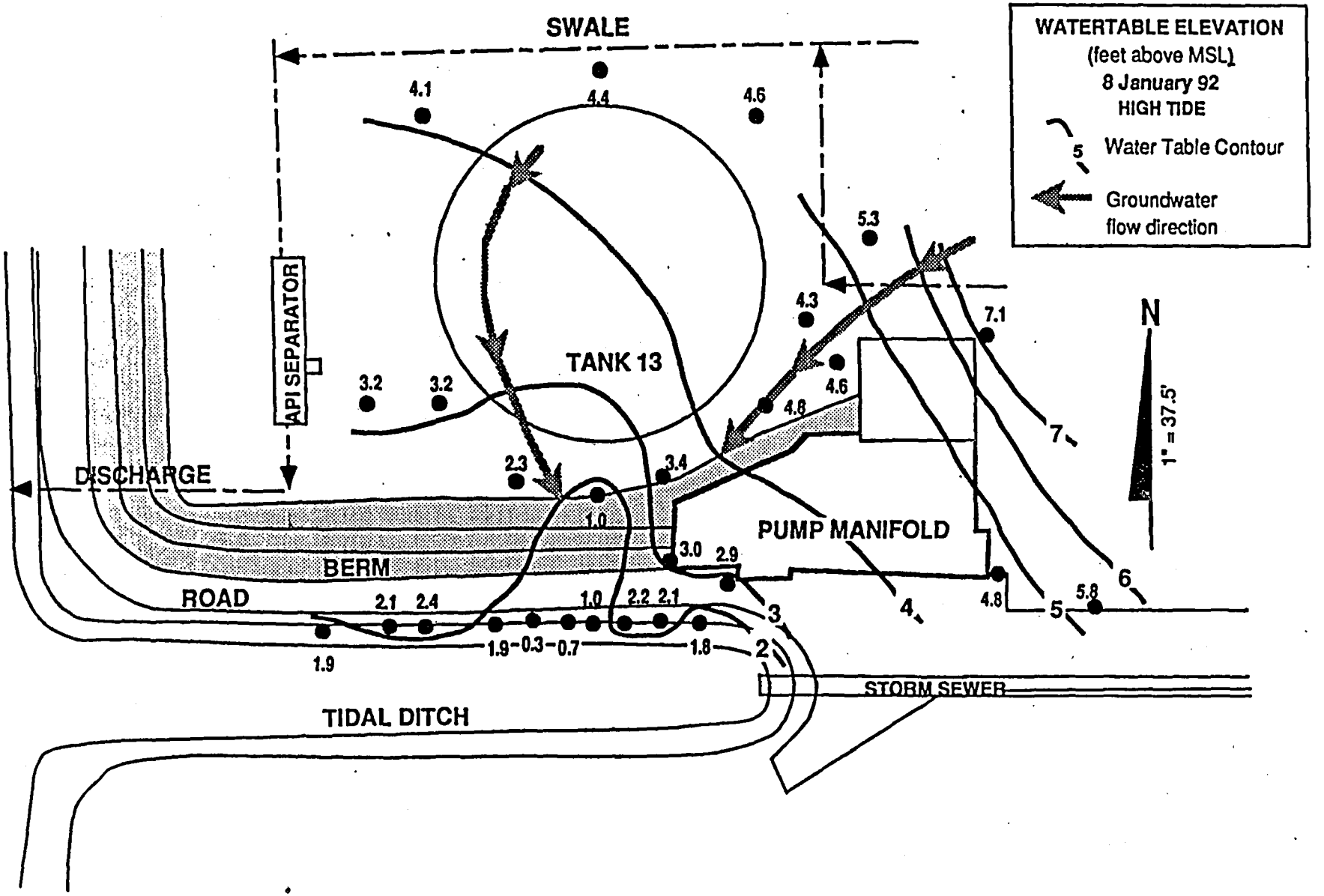


Figure 4. Watertable contours at high tide on 8 Jan 1992.

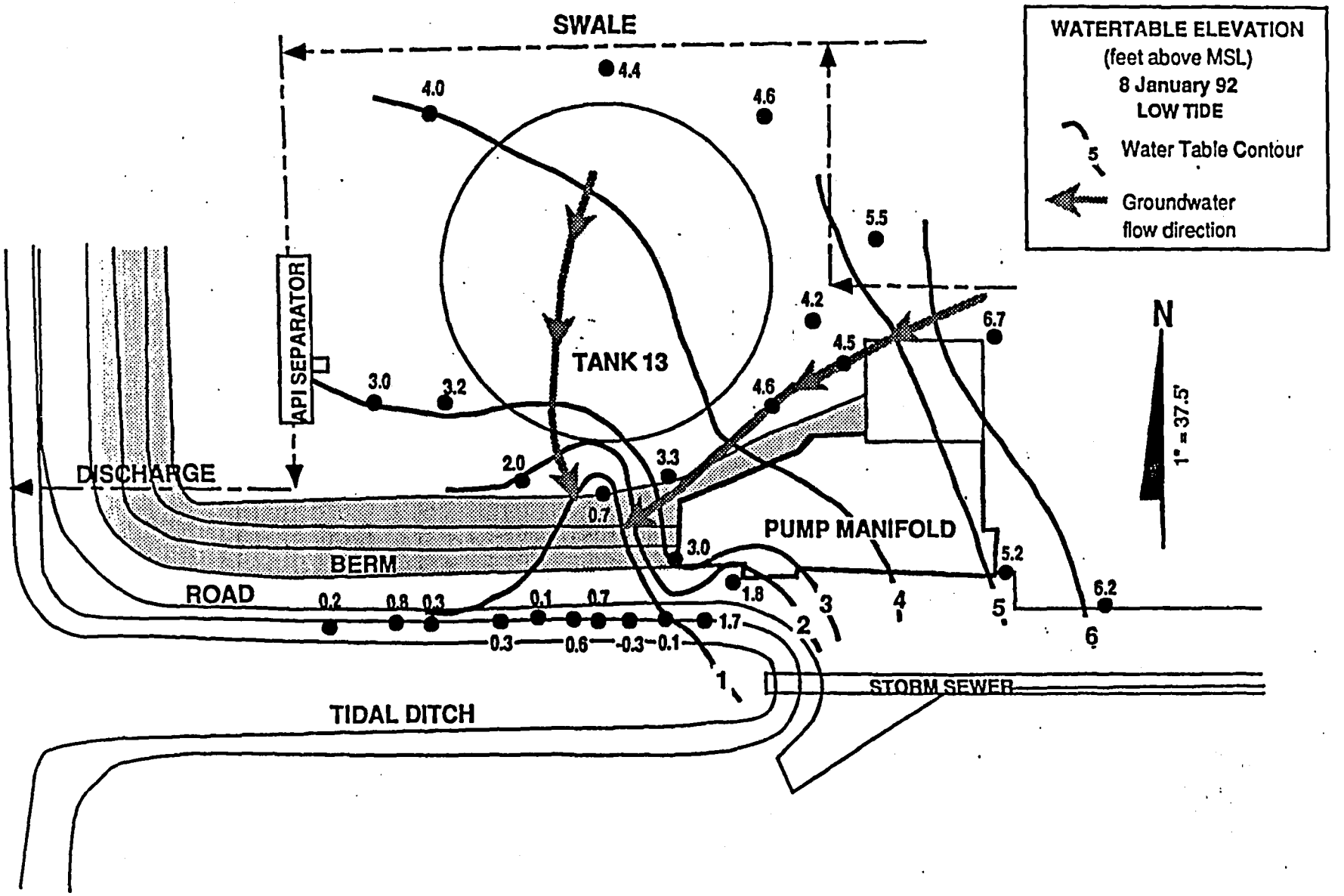


Figure 5. Watertable contour at low tide on 8 January 1992.

Post-It™ brand fax transmittal memo 7671	# of pages » 1
To Mike Williams	From B. Hart
Co.	Co.
Dept.	Phone #
Fax #	Fax #

SPRAGUE ENERGY
2250 Shipyard Blvd., Suite 8
Wilmington, NC 28403-6070
Tel 919-452-4400
Fax 919-452-3117
ENERGY AND MATERIAL HANDLING SINCE 1870

Mr Richard J Getty
City Gas & Transmission Corp
1685 Millersburg Rd
Paris, Kentucky 40361

July 9, 1992

Dear Mr Getty,

Pursuant to your request during our telephone conversation on July [illegible], 1992, I submit the following proposal (referencing a letter to you on May 22, 1992 from the [illegible] a release of No. 6 fuel oil on City Gas & Transmission property in Wilmington, NC,

Due to the physical tie-in [illegible] dock lines to Sprague Energy's dock lines, a cross connection [illegible] exist.

Sprague Energy would like [illegible] City Gas & Transmission to evacuate the two No. 6 fuel oil [illegible] lines and remove the cross connection [illegible]. By [illegible], we would eliminate the possibility of any [illegible] of this cross connection leaking through or being [illegible] opened, thereby eliminating all possibility of any product [illegible] through this cross connection.

I will appreciate your advising me with regard to the above proposal in order that I may initiate a work plan.

If you have any questions or require additional information, please contact me at (919) 251-2020.

Sincerely

Ron Hart
Terminal Manager
SPRAGUE ENERGY CORP

cc: Rick Shiver, PG
Division of Environ[illegible] Management, NCDEHNR

[illegible] Blanchard

State of North Carolina
Department of Environment, Health, and Natural Resources
Wilmington Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Bob Jamieson
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

Groundwater Section

May 22, 1992

Mr. Richard J. Getty
City Gas and Transmission Corporation
1685 Millersburg Road
Paris, Kentucky 40361

Subject: No. 6 Fuel Oil Spill
CG&T Property
Wilmington
New Hanover County

Dear Mr. Getty:

A recent release of no. 6 fuel oil occurred on CG & T property. While the release is still under investigation to determine a responsible party, it appears that a cross connection between the Sprague Energy loading lines and CG & T's piping may have been involved.

Disconnecting or blanking the cross connection would eliminate the possibility of such an occurrence. The Division of Environmental Management has no objection to that arrangement.

Sincerely,
Original Signed By:
RICK SHIVER
Rick S. Shiver, P. G.
Environmental Regional Supervisor I

cc: Ron Hart, Sprague Energy
Perry Nelson
CF
WIRO- GWS

TOM\SPRAGUE.MAY
05-21-92

127 Cardinal Drive Extension, Wilmington, N.C. 28405-3845 • Telephone 919-395-3900 • Fax 919-350-2004

GETTY
(606) 484-2279

POLLUTION INCIDENT/U.S.T. LEAK REPORTING FORM

Department of Environment, Health, Natural Resources
Division of Environmental Management
GROUNDWATER SECTION

Confirm. GW Contamination (Y/N) N
Major Soil Contamination (Y/N) Y
Minor Soil Contaminatin (Y/N) N

Incident # _____

Date Incident Occured or (Leak Detected) 5/11/92

INCIDENT DESCRIPTION

Incident Location/Name: CITY GAS & TRANSMISSION

Address: 801 SURRY St.

City/Town: WILMINGTON | County: New Hanover | Region: WiRO

Briefly Describe Incident: A leaking valve flange allowed about 18,000 gallons of # 6 Fuel Oil to escape into the South dike area. Open by pass valves at cross connection to Sprague Energy Terminal loading lines may have been the source of product.

POTENTIAL SOURCE OWNER-OPERATOR

Potential Source Owner-Operator: Ron Hart | Telephone: (919) 251-1020

Company: Sprague Energy Terminal | Street Address: 2250 Shipyard Blvd.

City: WILMINGTON | County: New Hanover | State: NC | Zip Code: 28403

OWNERSHIP
0. N/A 1. Municipal 2. Military 3. Unknown (4.) Private 5. Federal 6. County 7. State

OPERATION TYPE
0. N/A 1. Public Service 2. Agricultrural 3. Residential 4. Education./Relig. 5. Industrial (6.) Commercial 7. Mining

POLLUTANTS INVOLVED

MATERIALS INVOLVED	AMOUNT LOST	AMOUNT RECOVERED
# 6 Fuel oil	UNK	~ 18000 gal

SOURCE OF POLLUTION

PRIMARY SOURCE OF POLLUTION (Select one)
1. Intentional dump
2. Pit, pond, lagoon
3. Leak-underground
4. Spray irrigation
5. Land application
6. Animal feedlot
7. Source unknown
8. Septic tank
9. Sewer line
10. Stockpile
11. Landfill
(12.) Spill-surface
13. Well
14. Dredge spoil
15. Nonpoint source

PRIMARY POLLUTANT TYPE (Select one)
1. Pesticide/herbicide
2. Radioactive waste
3. Gasoline/diesel
(4.) Heating oil
5. Other petroleum prod.
6. Sewage/septage
7. Fertilizers
8. Sludge
9. Solid waste leachate
10. Metals
11. Other inorganics
12. Other organics

LOCATION
(1.) Facility
2. Railroad
3. Waterway
4. Pipeline
5. Dumpsite
6. Highway
7. Residence
8. Other

SETTING
1. Residential
2. Industrial
(3.) Urban
4. Rural

Site Priority Ranking: 45

D.E.M. Regional Contact: RICK SHIVER

Signature: D. R. Dickey

Date: 5/29/92

GW-61 Revised 9/91

RICK SHIVER 6-11-92

IMPACT ON DRINKING WATER SUPPLIES

WELLS AFFECTED 1. YES (2) NO

NUMBER OF WELLS AFFECTED 0

Well(s) Contaminated: (Users Name)

1.

2.

3.

4.

5.

Circle Appropriate Responses

Lab Samples Taken By: 1. DEM 2. DHS 3. Responsible Party 4. Other (5) None

Samples Taken Include: 1. Groundwater 2. Soil

LOCATION OF INCIDENT

7 1/2 Min. Quad Name WILMINGTON

Lat. : Deg : Min : Sec : 34° 18' 25" N

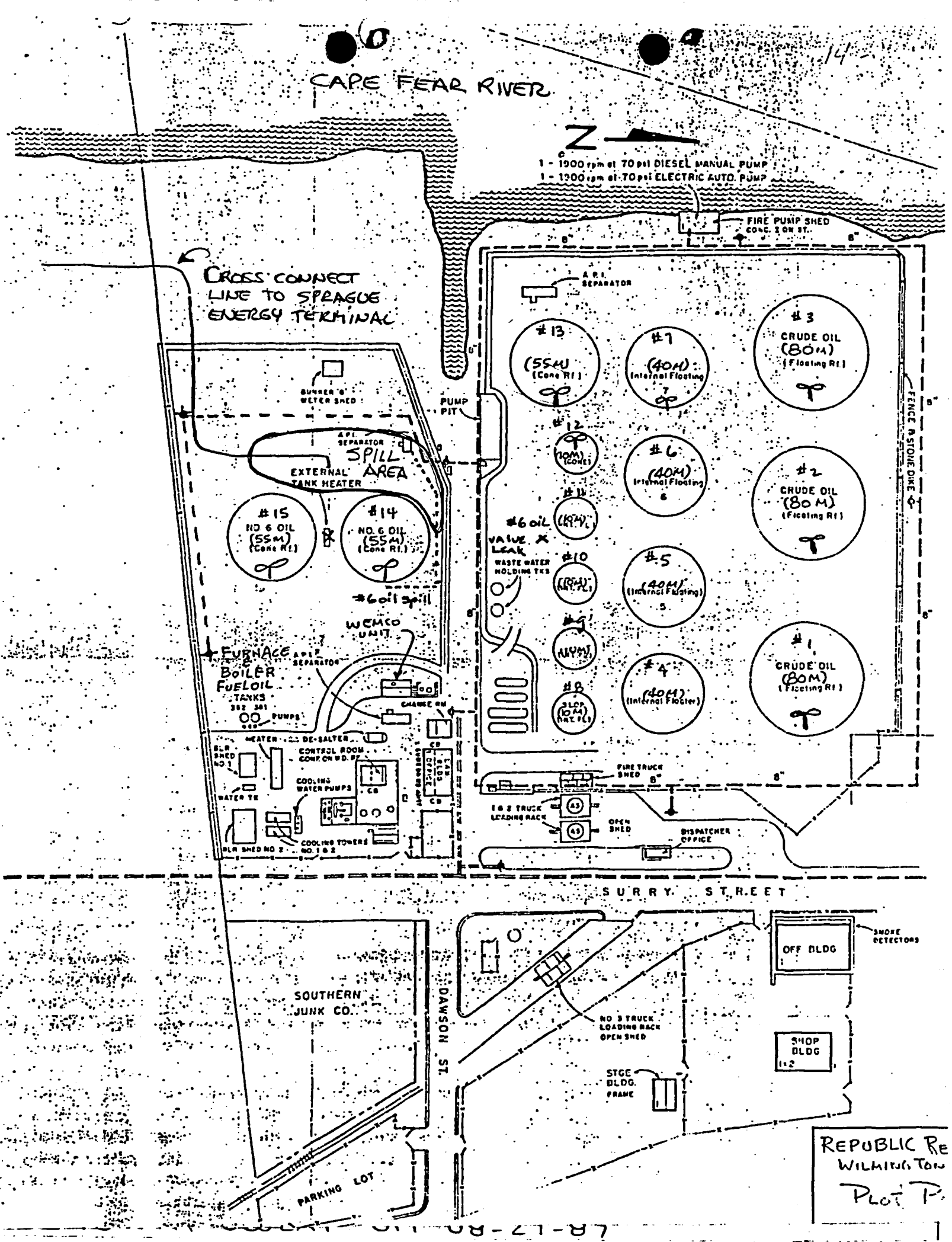
Five Min. Quad Number DD-30, y-

Long. : Deg : Min : Sec : 78° 57' 00" W

Draw Sketch of Area or Attach Additional Maps

SEE ATTACHED


228 CASTLE HAYNE 8 MI
229
545 IV SW
(CASTLE HAYNE)
230
231
FEAR
NE CAPE FEAR R.
RIVER
BRUNSWICK
NEW HANOVER
SUBSTA
SITE
WILMINGTON
REDMONDA
LUCK
LIGHT
GREENFIELD
LAKE
SLAUGHTER
MEMORIAL
RADIO TOWER
BM


CAPE FEAR RIVER
1 - 1900 rpm at 70 psi DIESEL MANUAL PUMP
1 - 1900 rpm at 70 psi ELECTRIC AUTO. PUMP
FIRE PUMP SHED
CONC. 2 ON ST.
CROSS CONNECT LINE TO SPRAGUE ENERGY TERMINAL
A.P.I. SEPARATOR
#13 (55M) (Cone Rf.)
#7 (40M) Internal Floating
#3 CRUDE OIL (80M) (Floating Rf.)
BUNKER 'B' METER SHED
PUMP PIT
#12 (10M) (CONE)
#6 (40M) Internal Floating
#2 CRUDE OIL (80M) (Floating Rf.)
FENCE & STONE DIKE
EXTERNAL TANK HEATER
SPILL AREA
#15 NO. 6 OIL (55M) (Cone Rf.)
#14 NO. 6 OIL (55M) (Cone Rf.)
#11 (10M)
#6 oil spill
#6 oil
valve leak
WASTE WATER HOLDING TKS
#10 (10M)
#5 (40M) Internal Floating
WEMCO UNIT
#9 (10M)
#1 CRUDE OIL (80M) (Floating Rf.)
FURNACE & BOILER FUEL OIL TANKS
382 381
PUMPS
A.P.I. SEPARATOR
#8 SLOP (10M) FIXED RF.
#4 (40M) Internal Floater
CHEMICAL RM
HEATER
DE-SALTER
BLR SHED NO. 1
CONTROL ROOM
COOLING WATER PUMPS
WATER TR
FIRE TRUCK SHED
1 & 2 TRUCK LOADING RACK
OPEN SHED
DISPATCHER OFFICE
BLR SHED NO. 2
COOLING TOWERS
SURRY STREET
SOUTHERN JUNK CO.
DAWSON ST.
OFF BLDG
SMOKE DETECTORS
NO. 3 TRUCK LOADING RACK OPEN SHED
SHOP BLDG
STGE BLDG. FRAME
PARKING LOT
REPUBLIC RE
WILMINGTON
PLOT P

Incident Name: City Gas + Transmission Region/County: WiRO / New Hanover

Groundwater Incident File # _____ Ranking Performed by: TDiCey

Date: 5/29/92

NORTH CAROLINA
GROUNDWATER CONTAMINATION INCIDENT MANAGEMENT
SITE PRIORITY RANKING SYSTEM

(To be completed by Regional Office)

		Points Awarded
I.	IMMINENT HAZARD ASSESSMENT	
A.	Explosion - free product in confined areas or vapor phase product detected at or above 20% of the lower explosive limit; award 50 points total	0
B.	Fire - free product subject to ignition in exposed areas such as surface water impoundments, streams, excavations, etc.; award 50 points total	0
II.	EXPOSURE ASSESSMENT	
A.	Contaminated Drinking Water Supplies	
1.	Private, domestic water supply well containing substances in con centrations exceeding Class GA underground water quality standards; award 10 points per well	0
2.	Public or institutional water supply well containing substances in concentrations exceeding Class GA underground water quality standards; award 30 points per well	0
3.	Exceedances of Class WS-1 surface water quality standards as a result of groundwater discharge; award 20 points per surface water body impacted	0
4.	If a water supply well identified in items II.A.1 and II.A.2 cannot be replaced by an existing public water supply source requiring hook-up only; award additional 10 points per irreplaceable well	0
B.	Threat to Uncontaminated Drinking Water Supplies	
1.	Private, domestic water supply well located within 1500 feet down gradient of contaminant source; award 10 points per well	0
2.	Public or institutional water supply well located within 1/2 mile downgradient of contaminant source; award 15 points per well	0
3.	Raw surface water intake for public water supply located within 1/2 mile downgradient of contaminant source; award 5 points per water supply system	0
4.	If any well identified in items II.B.1 and II.B.2 is located within 250 feet of contaminant source; award additional 20 points total	0
C.	Vapor Phase Exposure	
1.	Product vapors detected in inhabitable building(s); award 30 points total	0

(cont.)

Points Awarded

2. Product vapors detected in other confined areas (uninhabitable buildings, sewer lines, utility vaults, etc.); award 5 points total — 0

III. CONTAMINANT HAZARD ASSESSMENT (chemical groups are categorized based on toxicity, mobility and persistance in the environment). Evaluate the most hazardous substances detected and select only one of the following:

A. Award 30 points total if contaminants detected are identified with any of the following groups: — 0

1. Aromatic (Benzene) Acids
2. Aromatic Hydrocarbons (Benzene Derivatives)
3. Sulfonated Hydrocarbons
4. Halogenated Hydrocarbons
5. Alkaloids
6. Anilines
7. Phenols
8. Aldehydes
9. Ketones
10. Organic Sulfur Compounds (Sulfides, Mercaptans)
11. Organometallic Compounds
12. Cyanides
13. Esters
14. Metal Salts, Including Heavy Metals

B. Award 20 points total if contaminants detected are identified with any of the following groups: — 20

1. Aliphatic (Fatty) Acids
2. Alcohols
3. Aliphatic Hydrocarbons (Petroleum Derivative)
4. Pyridines
5. Thiocyanides
6. Mineral and Metal Acids
7. Mineral and Metal Bases
8. Oxides
9. Sulfides

C. Award 10 points total if contaminants detected are identified with any of the following groups: — 0

1. Aliphatic Amines and Their Salts
2. Sugars and Cellulose
3. Carbon and Graphite

IV. SOURCE ASSESSMENT

A. Free product thickness of ≥ 1/4 inch detected on water table in observation or monitoring well; award 20 points total — 0

B. Contaminated Soil (select only one answer)

1. Soil saturated with product (saturation determined by release of free liquid upon compaction of a soil sample by hand pressure); award 10 points total — 10

(cont.)

Points Awarded

2. Soil exhibiting organic vapor content above 100 ppm as measured by organic vapor or volatile organic detection equipment; award 5 points total — 0

C. Uncontrolled or Unabated Primary Source (including dumpsites, stockpiles, lagoons, land applications, septic tanks, landfills, underground and above ground storage tanks, etc.)

1. Suspected or confirmed source remains in active use and continues to receive raw product, wastewater or solid waste; award 20 points per source — 0

2. Active use of suspected or confirmed source has been discontinued or source was caused by a one-time release of product or waste, however, source continues to release product or contaminants into the environment; award 10 points per source — 0

V. ENVIRONMENTAL VULNERABILITY ASSESSMENT

A. Vertical Contaminant Migration - Literature or well logs indicate that no confining layer is present above bedrock or above twenty feet below land surface; award 10 points total — 10

B. Horizontal Contaminant Migration - Data or observations indicate that no discharge points or aquifer discontinuities exist between the source and the nearest downgradient drinking water supply; award 10 points total — 0

C. Hydraulic Gradient Is Determined by (select only one answer):

1. Calculations based on groundwater level measurements; award 10 points total — 0

2. Observation of significant recharge/discharge features in the vicinity of contaminant source and local topographic features; award 5 points total — 5

3. Observation of local topographic features only; award 0 points — 0

D. Existing Groundwater Quality

1. Analytical test(s) performed on groundwater sample(s) obtained from site confirm presence of substances in concentrations exceeding Class GA underground water quality standards; award 10 points total — 0

2. Source(s) identified in Section IV constitute the only known source(s) of contamination resulting in exposure or potential exposure identified in Section II; award 10 points total — 0

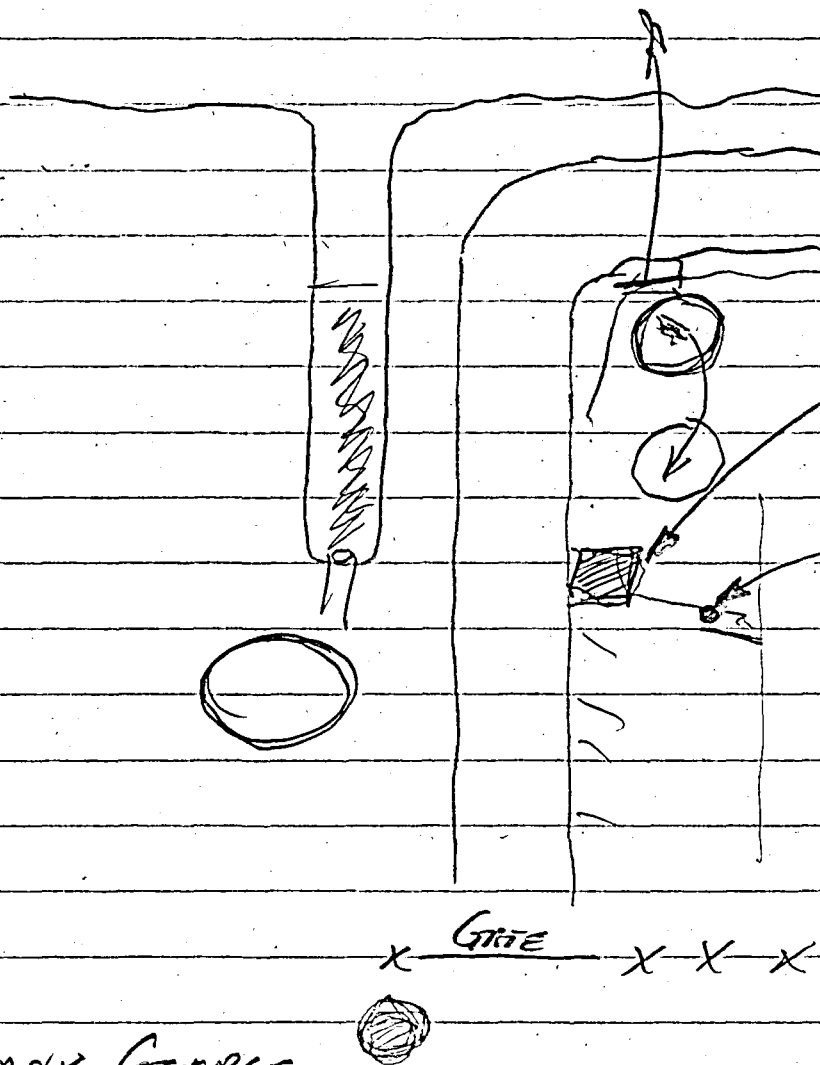
TOTAL POINTS AWARDED — 45

ZCZC
NC
NC DE MW
P 11 Z MAR 92
FM COGARD MSO WILMINGTON NC
TO CCGDFIVE PORTSMOUTH VA//MEP//
INFO COMCOGARD MLC LANT NEW YORK NY//FCP//
COMCOGARD NPFC WASHINGTON DC
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC
COGARD NSFCC ELIZABETH CITY NC
COGARD AST FORT DIX NJ
COMDT COGARD WASHINGTON DC//G-MEP/G-CAM//
ZEN/NC DIV OF ENVIRONMENTAL MANAGEMENT RALEIGH NC
ACCT CG-W2GERC
BT
UNCLAS//16465//
POLREP EIGHTEEN LEACHING OIL, CITY GAS & TRANSMISSION CORP. REFINERY, CAPE FEAR RIVER, WILMINGTON, NC, 05P-02094-91, FPN 051023

1. SITUATION:
A. LEACHING INTO DRAINAGE CANAL CONTINUES, LIGHT SHEENING ONLY.
B. CONTRACTOR CONTINUES TO MAINTAIN SORBENTS IN CANAL.
2. ACTION TAKEN:
A. LIQUID CONTENTS OF TANK #13 TRANSFERRED TO TANK #11 WHICH HAS BEEN CERTIFIED AS BEING TIGHT. SAMPLE TAKEN OF REMAINING SLUDGE IN TANK #13 AND FORWARDED TO LAB BEFORE TANK IS TO BE MUCKED OUT.
B. ON 6 & 9 MARCH, MSO INVESTIGATORS MET WITH TWO FORMER ATC EMPLOYEES WHO STATED THAT THERE WAS BURIED HAZARDOUS WASTES ON SITE. THEY IDENTIFIED SEVERAL LOCATIONS WHERE HAZARDOUS MATERIALS AND CONTAMINATED EQUIPMENT WERE REPORTEDLY BURIED DURING THE LATE 1970'S AND EARLY 1980'S.
C. ON 9 MARCH DURING VISIT TO SITE BY ONE OF THE FORMER ATC EMPLOYEES, LOCAL TV MEDIA REPORTED POSSIBLE PAST DUMPING OF HAZARDOUS WASTES AT THE SITE.
D. INSTALLATION OF NEW RECOVERY WELL COMPLETED ON THE SOUTH SIDE OF TANK #13.
E. ON 9 MARCH, MSO CONTACTED EPA ATLANTA TO ADVISE THEM OF POTENTIAL BURIED HAZARDOUS WASTES ON-SITE.
F. TO DATE, $177K EXPENDED UNDER FPN 051023. PROJECT CEILING IS NOW $230K.
G. W/X: CLR/TEMP: 55AM-60PM/VIS: 15/WIND: VARIABLE
3. FUTURE PLANS AND RECOMMENDATIONS:
A. CONTINUE INVESTIGATION INTO VALIDITY OF ALLEGATIONS OF BURIED HAZARDOUS WASTES ON-SITE.
B. TAKE SAMPLE FROM RECOVERY WELL AND TEST FOR TOTAL METAL CONTENT. IF HIGH READINGS ARE FOUND, WILL PURSUE PASSING CLEANUP OPERATIONS UNDER CERCLA TO EPA.
C. MUCK OUT TANK #13 AFTER TANK SLUDGE SAMPLE TESTING IS COMPLETED, HAVE IT GAS FREED, AND INSPECTED FOR INTEGRITY TO DETERMINE IF IT IS THE SOURCE OF THE LEACHING INTO THE CANAL.
D. COMMENCE NEW RECOVERY WELL OPERATION AFTER TANK #13 IS COMPLETELY EMPTIED.
4. CASE PENDS.
BT
NNNN

Bob J.
Preston
Dave Adkins
Mike Williams
Tom Dicey - file

ZCZC
NC
NC DE MW
P 212225Z FEB 92
FM COGARD MSO WILMINGTON NC
TO COGDFIVE PORTSMOUTH VA//MEP//
INFO COMCOGARD MLC LANT NEW YORK NY//FCP//
COMCOGARD NPFC WASHINGTON DC
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC
COGARD NSFCC ELIZABETH CITY NC
COGARD AST FORT DIX NJ
COMDT COGARD WASHINGTON DC//G-MEP/G-CAM//
ZEN/NC DIV OF ENVIRONMENTAL MANAGEMENT RALEIGH NC
ACCT CG-W2GERC
BT
UNCLAS//16465//
POLREP SEVENTEEN LEACHING OIL, CITY GAS & TRANSMISSION CORP.
REFINERY, CAPE FEAR RIVER, WILMINGTON, NC, 05P-02094-91,
FPN 051023
1. SITUATION:
A. LEACHING INTO DRAINAGE CANAL CONTINUES, LIGHT SHEENING ONLY.
B. CONTRACTOR CONTINUES TO MAINTAIN SORBENTS IN CANAL.
2. ACTION TAKEN:
A. SURVEY FOR INTEGRITY OF TANK #11 COMPLETED. RESULTS INDICATE TANK #11 IS CAPABLE OF SAFELY HOLDING CONTENTS OF TANK #13.
B. LOCAL MEDIA REPORTS POSSIBLE PAST DUMPING OF PETROLEUM WASTE AT REMOTE SITES. A SEPARATE ANONYMOUS REPORT INDICATES THAT POTENTIAL EXISTS THAT OTHER HAZARDOUS MATERIALS HAVE BEEN BURIED ON-SITE.
C. TO DATE, $165K EXPENDED UNDER FPN 051023. PROJECT CEILING IS NOW $230K.
D. W/X: CLR/TEMP: 55AM-60PM/VIS: 15/WIND: VARIABLE
3. FUTURE PLANS AND RECOMMENDATIONS:
A. CONTINUE INVESTIGATION INTO VALIDITY OF ALLEGATIONS OF BURIED HAZARDOUS WASTE.
B. ON 240800R FEB 92, COMMENCE PUMPING OF CONTENTS FROM TANK #13 INTO TANK #11.
C. BY 28 FEB 92, ANTICIPATE INSTALLATION OF NEW RECOVERY WELL ON THE SOUTH SIDE OF TANK #13 TO RECOVER CONTAMINATED OIL REMAINING UNDERGROUND.
4. CASE PENDS.
BT
NNNN



FRANK GEORGE
791-0073

Off on Wednesday

Bob J. ———
Preston ———
Dave Adkins ———
Mike Williams ———
Tom Dicey - file

ZCZC
NC
NC DE MW
P 212225Z FEB 92
FM COGARD MSO WILMINGTON NC
TO CCGDFIVE PORTSMOUTH VA//MEP//
INFO COMCOGARD MLC LANT NEW YORK NY//FCP//
COMCOGARD NPFC WASHINGTON DC
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC
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ZEN/NC DIV OF ENVIRONMENTAL MANAGEMENT RALEIGH NC
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FPN 051023
1. SITUATION:
A. LEACHING INTO DRAINAGE CANAL CONTINUES, LIGHT SHEENING ONLY.
B. CONTRACTOR CONTINUES TO MAINTAIN SORBENTS IN CANAL.
2. ACTION TAKEN:
A. SURVEY FOR INTEGRITY OF TANK #11 COMPLETED. RESULTS INDICATE TANK #11 IS CAPABLE OF SAFELY HOLDING CONTENTS OF TANK #13.
B. LOCAL MEDIA REPORTS POSSIBLE PAST DUMPING OF PETROLEUM WASTE AT REMOTE SITES. A SEPARATE ANONYMOUS REPORT INDICATES THAT POTENTIAL EXISTS THAT OTHER HAZARDOUS MATERIALS HAVE BEEN BURIED ON-SITE.
C. TO DATE, $165K EXPENDED UNDER FPN 051023. PROJECT CEILING IS NOW $230K.
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C. BY 28 FEB 92, ANTICIPATE INSTALLATION OF NEW RECOVERY WELL ON THE SOUTH SIDE OF TANK #13 TO RECOVER CONTAMINATED OIL REMAINING UNDERGROUND.
4. CASE PENDS.
BT
NNNN

[illegible]
[illegible] COGARD MSO WILMINGTON [illegible]
[illegible] CGGRFIVE PORTSMOUTH VA//[illegible]//
[illegible] COMCOGARD MLC LANT NEW YORK [illegible]//
[illegible] COGARD [illegible] WASHINGTON DC
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC
COGARD NSFCC ELIZABETH CITY NC
COGARD ATLANTIC STRIKE TEAM FORT DIX NJ
COMDT COGARD WASHINGTON DC//G-MEP/G-CAM//
[illegible] NC DIV OF ENVIRONMENTAL MANAGEMENT RALEIGH NC
ACCT CG-W2GERC
BT
UNCLAS//16465//
POLREP TWELVE, LEACHING OIL, CITY GAS & TRANSMISSION CORP. REFINERY, CAPE FEAR RIVER, WILMINGTON, NC, 05P-02094-91, FPN 051023

1. SITUATION:
A. LEACHING INTO DRAINAGE CANAL CONTINUES, ESTIMATED LESS THAN HALF GALLON PER DAY.
B. SOUTHEAST RESPONSE & REMEDIATION (SRR) CONTINUES TO PUMP FROM RECOVERY AND OBSERVATION WELLS, APPROX 2,000 GALLONS OF EMULSIFIED OIL FROM WELLS RECOVERED INTO TANK TRUCK BETWEEN 291200R NOV & 061200R DEC.
C. THRU 061200R DEC, APPROX $51K IN SERVICES PERFORMED BY SRR.
2. ACTION TAKEN:
A. 5 DEC, RESULTS OF SAMPLES FROM THE DUMPSTER AND VAT RECEIVED FROM WESTINGHOUSE LAB IN CHARLOTTE. TCLP ANALYSIS REVEALED ELEVATED LEVELS OF LEAD, BARIUM AND CADMIUM IN SAMPLE. THESE METALS PRECLUDE LANDFILL AS NON-HAZARDOUS WASTE AND WILL DOUBLE DISPOSAL COST. AUTHORIZED SRR TO PROCEED W/DISPOSAL.
B. 5 DEC, REQUESTED D5(MEP) INCREASE PROJECT CEILING BY $70K: $40K FOR CONTRACTOR MANPOWER, INSTALLATION OF 3 MONITORING WELLS ON NORTH SIDE OF TANK #13 (SUSPECTED SOURCE) & INSTALLATION OF 1 RECOVERY WELL IN CENTER OF KNOWN PLUME; AND, $30K FOR HAZARDOUS WASTE DISPOSAL. TOTAL PROJECT CEILING TO DATE: $130K.
C. W/X: SCT-BKN-OVC/TEMP: 23AM-60PM/VIS: 6/WIND: VARIABLE.
3. FUTURE PLANS AND RECOMMENDATIONS:
A. ORDER LIQUID-PROOF ROLLOFF BOXES FROM LAIDLAW ENVIRONMENTAL SERVICES TO DISPOSE OF SOIL. DISPOSAL OF METAL CONTAMINATED SOIL EXPECTED WITHIN 5 DAYS. LAIDLAW WILL ACCEPT THE WASTE, BLEND IT WITH WASTES FROM OTHER CUSTOMERS AND TAKE RESPONSIBILITY AS GENERATOR.
B. SRR TO PROVIDE COSTS FOR SUBCONTRACTOR TO CONDUCT ELECTRO-MAGNETIC SURVEY FOR UNDERGROUND PIPING IN AREA OF TANK #13.
4. CASE PENDS.
BT
NNNN

QSL 06:20:43:43:12:91

Preston
Rick RSS
Dave
Tom

TE
DE MW
P 021340Z DEC 91
FM COGARD MSO WILMINGTON NC
TO NC/CCGDFIVE PORTSMOUTH VA//MEP//
INFO COMCOGARD MLC LANT NEW YORK NY//FCP//
COMCOGARD NPFC WASHINGTON DC
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC
COGARD NSFC ELIZABETH CITY NC
COGARD ATLANTIC STRIKE TEAM FORT DIX NJ
COMDT COGARD WASHINGTON DC//G-MER/G-CAM//
ZEN/NC DIV OF ENVIRONMENTAL MANAGEMENT RALEIGH NC
ACCT CG-W2CERC
BT
UNCLAS//16465//
POLREP ELEVEN, LEACHING OIL, CITY GAS & TRANSMISSION CORP.
REFINERY, CAPE FEAR RIVER, WILMINGTON, NC, 05P-02094-91.
FPN 051023
1. SITUATION:
A. LEACHING INTO DRAINAGE CANAL CONTINUES, ESTIMATED LESS THAN HALF GALLON PER DAY.
B. SOUTHEAST RESPONSE & REMEDIATION (SRR) CONTINUES TO PUMP FROM RECOVERY AND OBSERVATION WELLS, APPROX 1,000 GALLONS OF EMULSIFIED OIL FROM WELLS RECOVERED INTO TANK TRUCK BETWEEN 270800R AND 291200R NOV.
C. 29 NOV, PROJECT CEILING REMAINS AT $60K. FROM 081600R NOV THRU 291200R NOV, APPROX $43K IN SERVICES PERFORMED BY SRR.
2. ACTION TAKEN:
A. 28 NOV, SRR DISPOSED OF APPROX 6K GALS EMULSIFIED OIL IN TANK TRUCK RECOVERED FROM THE WELLS, DRUMS & VAT AS OF 22 NOV.
B. 29 NOV, RPI REP ON SCENE, CONTINUED SSC'S SITE SURVEY. REP PROVIDED EXCELLENT RECOMMENDATIONS FOR FUTURE ACTIONS BASED ON A HYDROGEOLOGIST'S PERSPECTIVE; REPORT TO FOLLOW.
C. W/X:OVC/ 01/TEMP 45AM-75PM/ WIND: 10 KTS FROM SOUTH
3. FUTURE PLANS AND RECOMMENDATIONS:
A. RESULTS OF SAMPLE TESTING TO PERMIT LANDFILL DISPOSAL OF CONTENTS OF CONTAINERS NOT RECEIVED 29 NOV, EXPECT TO BE AVAILABLE 2 DEC & THEN DISPOSAL WILL BE IMPLEMENTED.
B. SRR WILL SUBMIT PLAN TO DRILL OBSERVATION WELLS ON BACK SIDE OF TANK #13, ADJACENT TO DRAINAGE CANAL, AS POTENTIAL SOURCE OF UNDERGROUND CONTAMINATION.
C. SRR WILL RELOCATE RECOVERY WELL FROM BANK OF CANAL TO MIDDLE OF SUSPECTED PLUME LOCATED AT LOW SIDE OF TANK #13.
D. SRR WILL CONDUCT SUB-SURFACE SURVEY FOR UNDERGROUND PIPING IN WAY OF TANK #13.
E. SRR WILL PROVIDE SOUNDINGS FOR ALL WELLS, BOTH BEFORE AND AFTER PUMPING FROM WELLS, FOR FOSC & RPI REVIEW.
4. CASE PENDS.
BT
NNNN

TOP 02 13:46:44:12:91

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

FAX TRANSMITTAL RECORD

From: _____, Solid Waste Management Division

_____, Solid Waste Section

_____, Hazardous Waste Section

Hanna Asseff, Superfund Section

Date: 09/25/91

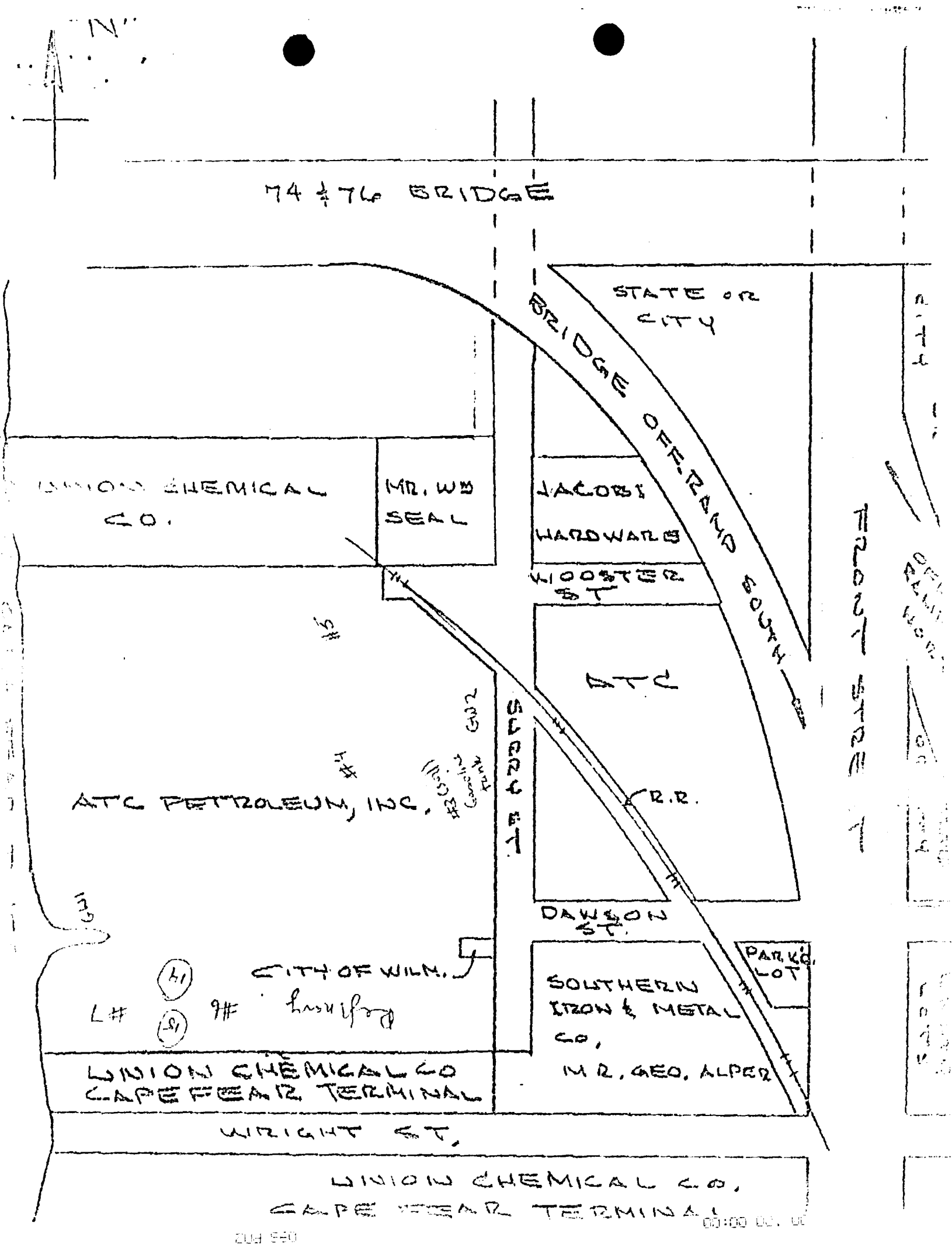
To: Rick Shiver

Re: ATC Refinery

No. of Pages (Including Cover) 26

Confirm receipt of document(s)

Division of Solid Waste Management	(919)733-4996	_____
Hazardous Waste Section	(919)733-2178	_____
Superfund Section	(919)733-2801	✓
Solid Waste Section	(919)733-0692	_____


74 & 76 BRIDGE
STATE OR CITY
BRIDGE OFF-RAMP SOUTH
FRONT STREET
UNION CHEMICAL CO.
MR. WM SEAL
JACOBI HARDWARE
HOOSTER ST
ATC
SCOTT ST
ATC PETROLEUM, INC.
R.R.
DAWSON ST
CITY OF WILM.
PARKG. LOT
SOUTHERN IRON & METAL CO,
MR. GEO. ALPER
UNION CHEMICAL CO
CAPE FEAR TERMINAL
WRIGHT ST,
UNION CHEMICAL CO.
CAPE FEAR TERMINAL

1.7 Summary Trip Report (15)

On June 6, 1991, Mark Durway, Dave Lilley, and Hanna Assefa of the North Carolina Superfund, visited the Old ATC Refinary Site to conduct sampling of the site. They met with Don Arthur a former employee of the refinery ofsite, and he provided the approximate whereabouts of chemical contamination on the site. Sampling was conducted as follows

1) Sample 1 was taken from recovery well on site located near the Cape Fear River

2) Sample 2 from well point installed upgradient from recovery well.

3) Sample 3 from surface soil under the former leaded gasoline line.

4) Sample 4 from surface soil from behind tank # 8.

5) Sample 5 from surface soil from Xylene spill.

6) Sample 6 from surface soil from behind the refinary.

7) Sample 7 from surface soil composite behind tanks 14 & 15.

DIVISION OF HEALTH SERVICES
SOLID A[illegible]AZARDOUS WASTE MANAGEMENT [illegible]NCH

Chain of Custody Record CERCLA

Hazardous Waste Materials

RECEIVED
SEP 6 1991
SUPERFUND SECTION

cation of Sampling: ___Generator ___Transporter ___Treatment Facil:
___Storage Facility ___Disposal Facility ___Landfill
___Other:

pany's Name (OLD) ATC REFINARY Telephone (919) 763-9800

ress 601 - Sunny St WILMINGTON N.C

llector's Name Hanna Asset Telephone (919) 733-2801
signature

e Sampled 06/06/91 Time Sampled 1400 - 1800

n of Process Generating Waste

l Information

e Sample No. 16238 12639 16240 16241 16242 16243 16244

in of Possession:

signature	Environmental Chemist title	06/06/91 / 06/07/91 inclusive dates
signature	Chemist title	7 June 91 inclusive dates
signature	title	inclusive dates

sults reported

signature	Chemist title	29 Aug 91 date

nstructions: Complete all applicable information including signatures, and submit with analysis request forms.

[illegible]

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

RECEIVED
SEP 6 1991
SUPERFUND SECTION

Site Number 65D 986 187 128 Field Sample Number 16248

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1530

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	#3
___ Surface water (2)	___ Liquid (6)	
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
✓ Arsenic	<2
✓ Barium	21
✓ Cadmium	<10
___ Chloride	
✓ Chromium	<20
___ Copper	
___ Fluoride	
___ Iron	
✓ Lead	55
___ Manganese	
✓ Mercury	≥ 0.13
___ Nitrate	
✓ Selenium	<1
✓ Silver	<20
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ Arsenic	<0.01
✓ Barium	0.96
✓ Cadmium	<0.08
✓ Chromium	<0.10
✓ Lead	<0.50
✓ Mercury	<0.02
✓ Selenium	<0.005
✓ Silver	<0.10

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received ____ Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed ____ Lab Number 011958 JUL 1991

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N.C. Department of Environment, Health & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 16241

Name of Site OLD ATC REFINARY Site Location Wilmington RECEIVED

Collected By H. Asseta ID# 78 Date Collected 05/06/91 Time 1610

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	#4
___ Surface water (2)	___ Liquid (6)	
_X_ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
✓ Arsenic	2
✓ Barium	31
✓ Cadmium	<1.0
___ Chloride	
✓ Chromium	<2.0
___ Copper	
___ Fluoride	
___ Iron	
✓ Lead	80
___ Manganese	
✓ Mercury	0.19
___ Nitrate	
✓ Selenium	<1
✓ Silver	<2.0
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Date Received ____ Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed ____ Lab Number 011959 JUN 1991

CPD891:

SUPERFUND SECTION

Inorganic Compounds	Results(mg/l)
✓ Arsenic	<0.01
✓ Barium	0.76
✓ Cadmium	<0.08
✓ Chromium	<0.10
✓ Lead	<0.50
✓ Mercury	<0.02
✓ Selenium	<0.005
✓ Silver	<0.10

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

90d 860

00:00 00. 00 TOT

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number RECEIVED

Name of Site OLD ATC REFINARY Site Location Wilmington, NC 1991

Collected By H. Asseta ID# 76 Date Collected 06/06/91 SUPERFUND SECTION

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	#5
___ Surface water (2)	___ Liquid (6)	
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
✓ Arsenic	<2
✓ Barium	7
✓ Cadmium	<15
___ Chloride	
✓ Chromium	<20
___ Copper	
___ Fluoride	
___ Iron	
✓ Lead	20
___ Manganese	
✓ Mercury	<0.1
___ Nitrate	
✓ Selenium	<1
✓ Silver	<20
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Date Received ___ Reported by ___

Date Extracted ___ Date Reported ___

Date Analyzed ___ Lab Number 011970 JUN 12 91

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ Arsenic	<0.01
✓ Barium	0.51
✓ Cadmium	<0.08
✓ Chromium	<0.10
✓ Lead	<0.50
✓ Mercury	<0.02
✓ Selenium	<0.005
✓ Silver	<0.10

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

RECEIVED
SUPERFUND SECTION

Site Number 65D 986 187 128 Field Sample Number 16243 1001

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 76 Date Collected 06/06/91 Time 1720

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	#6
___ Surface water (2)	___ Liquid (6)	
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)	(mg/kg)
✓ Arsenic		2
✓ Barium		40
✓ Cadmium		<15
* Chloride		
✓ Chromium		22
___ Copper		
___ Fluoride		
___ Iron		
✓ Lead		350
___ Manganese		
✓ Mercury		1.10
___ Nitrate		
✓ Selenium		<1
✓ Silver		<20
___ Sulfates		
___ Zinc		
___ pH		
___ Conductivity		
___ TDS		
___ TOC		
✓ Vanadium		2,100

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ Arsenic	<0.01
✓ Barium	0.36
✓ Cadmium	<0.08
✓ Chromium	<0.10
✓ Lead	<0.50
✓ Mercury	<0.02
✓ Selenium	<0.005
✓ Silver	<0.10
✓ vanadium	9.22

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received ___ Reported by ___

Date Extracted ___ Date Reported ___

Date Analyzed ___ Lab Number 011971 JUN 1991

CPD89E

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00:00 00, 00 TOT

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

RECEIVED
1991
SUPERFUND SECTION

Site Number 65D 986 187 128 Field Sample Number 1625

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1800

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	#7
___ Surface water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
✓ Arsenic	6
✓ Barium	601
✓ Cadmium	<15
___ Chloride	
✓ Chromium	<20
___ Copper	
___ Fluoride	
___ Iron	
✓ Lead	200
___ Manganese	
✓ Mercury	0.28
___ Nitrate	
✓ Selenium	<1
✓ Silver	<20
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
✓ vanadium	35

Date Received ___ Reported by ___

Date Extracted ___ Date Reported ___

Date Analyzed ___ Lab Number 011972 JUL 1991

CPD59E

60d 860

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ Arsenic	<0.01
✓ Barium	0.60
✓ Cadmium	<0.08
✓ Chromium	<0.10
✓ Lead	<0.50
✓ Mercury	<0.02
✓ Selenium	<0.005
✓ Silver	<0.10
✓ vanadium	<0.10

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

00:00 00. 00 101

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14921

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 05/06/91 Time 1400

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
X Ground water (1)	___ Solid (5)	GW1
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	acidified

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

RECEIVED
AUG 14 1991
SUPERFUND SECTION

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 Reported by John L. Nave

Date Extracted ____ Date Reported 8-12-91

Date Analyzed 8-8-91 mw Lab Number 912131

CPD89E

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14922

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1400

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
X Ground water (1)	___ Solid (5)	GW1
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

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SUPERFUND SECTION

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BD Reported by ____

Date Extracted 6.27.91 AA,NH,W6 Date Reported ____

Date Analyzed 7-30-91 BD Lab Number 912132

CPD30E

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14923

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1445

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
X Ground water (1)	___ Solid (5)	GW 2
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	acidified

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SUPERFUND SECTION

Organic Chemistry

Parameter	Results (mg/l)
X P&T:GC/MS	
___ Acid:B/N Ext	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/l) (mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results (mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results (mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BO Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 8-8-91 mw Lab Number 912133
(DPD80)

N.C. Department of Environment, Health & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14924

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseter ID# 78 Date Collected 06/06/91 Time 1445

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
✓ Ground water (1)	___ Solid (5)	GW2
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

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SUPERFUND SECTION

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BD Reported by

Date Extracted 6-27-91 AA, Jm, NN Date Reported

Date Analyzed 7-30-91 BD Lab Number 912134

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N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14925

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseff ID# 78 Date Collected 06/06/91 Time 1530

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	+3
___ Surface water (2)	___ Liquid (6)	
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

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SUPERFUND SECTION

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
✓ Acid,B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BD Reported by

Date Extracted 7-11-91 AA BNA PT Date Reported

Date Analyzed 7-30-91 8-8-91 Lab Number 912135
BD TW

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N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14926

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1610

Agency: ____ Hazardous Waste ____ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	#4
____ Surface water (2)	____ Liquid (6)	
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	
____	
____	
____	
____	

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Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
X Acid:B/N Ext	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	
____	

Date Received JUN 7 1991 BD Reported by

Date Extracted 7-11-91 AA Date Reported

Date Analyzed BNA 7-31-91 Bd PT 8-9-91 TW Lab Number 912136

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N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14927

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 76 Date Collected 06/06/91 Time 1645

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	#5
___ Surface water (2)	___ Liquid (6)	
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
✓ P&T:GC/MS	
✓ Acid/B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

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SUPERFUND SECTION

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BD Reported by

Date Extracted 7-11-91 AA BNA PT Date Reported

Date Analyzed 7-31 91 8-9-91 Lab Number 912137
BD MW

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N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65 D 986 187 128 Field Sample Number 14928

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1720

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	6
___ Surface water (2)	___ Liquid (6)	
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
X Acid/B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

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JUN 7 1991
SUPERFUND SECTION

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BD Reported by

Date Extracted 7-11-91 AA (BNA) PT Date Reported

Date Analyzed 7-31-91 BC 8-9-91 mw Lab Number 912138

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N.C. Department of Environment, Health & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65D 986 187 128 Field Sample Number 14929

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseta ID# 78 Date Collected 06/06/91 Time 1800

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	7
___ Surface water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
✓ P&T:GC/MS	
✓ Acid/B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	RECEIVED
___ Mercury	
___ Selenium	
___ Silver	
___	SUPERFUND SECTION

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received JUN 7 1991 BD Reported by

Date Extracted 7-11-91 AA (BNA PT) Date Reported

Date Analyzed 7-31-91 (BD) 8-9-91 (TW) Lab Number 912139

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N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number D 986 187 128 Field Sample Number 14930

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Asseff ID# 78 Date Collected 06/06/91 Time —

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	Trip
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
X Other (4)	___ Other (8)	acidified

Organic Chemistry

Parameter	Results (mg/l)
X P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/l) (mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Date Received JUN 7 1991 BQ Reported by

Date Extracted Date Reported

Date Analyzed PT 8-8-91 mw Lab Number 912140

CPD89E

TCLP Compounds

Inorganic Compounds	Results (mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

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JUN 7 1991
SUPERFUND SECTION

Organic Compounds	Results (mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

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SOLID [redacted] HAZARDOUS WASTE MANAGEME[redacted]RANCE

Chain of Custody Record

Hazardous Waste Materials

cation of Sampling: ___Generator ___Transporter ___Treatment Fac
___Storage Facility ___Disposal Facility ___Landfill
___Other: _____

pany's Name OLD ATC REFINERY Telephone (919) 763-9800

dress 601 Surry Street, Wilmington N.C

llector's Name Hanna Assefa Telephone (919) 733-2801
signature

te Sampled 06/06/91 Time Sampled 1400 - 1900

pe of Process Generating Waste _____

eld Information

RECEIVED
AUG 16 1991
SUPERFUND SECTION

eld Sample No. 14921 14922 14923 14924 14925 14926 14927
14928 14929 14930 14931 HA 06/07/91 _____ _____

ain of Possession:

Hanna Assefa	Environmental Chemist	06/06/91/06/07/91
signature	title	inclusive dates
William DeMent	Chemist	6-7-91
signature	title	inclusive dates
_____	_____	_____
signature	title	inclusive dates

esults Reported

John R. Neal	Chemist	8-12-91
signature	title	date

nstructions: Complete all applicable information including signatures, and submit with analysis request forms.

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

(1)

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES — COMPOUND	LAB NO	912132	912134	912135	912136	912137	912138
	FIELD #	14922	14924	14925	14926	14927	14928
	TYPE	(1)	(1)	(3)	(3)	(3)	(3)
	UNITS	µg/l ~~mg/kg~~	µg/l ~~mg/kg~~	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg
N-nitrosodimethylamine	10/330	U	U	U	U	U	U
bis(2-chloroethyl)ether							
2-chlorophenol							
phenol							
1,3-dichlorobenzene							
1,4-dichlorobenzene							
1,2-dichlorobenzene							
bis(2-chloroisopropyl)ether							
hexachloroethane							
N-nitroso-di-n-propylamine							
nitrobenzene							
isophorone							
2-nitrophenol							
2,4-dimethylphenol							
bis(2-chloroethoxy)methane							
2,4-dichlorophenol							
1,2,4-trichlorobenzene							
naphthalene		18			330K	1,333	
hexachlorobutadiene		U			U	U	
4-chloro-m-cresol							
hexachlorocyclopentadiene							
2,4,6-trichlorophenol							
2-chloronaphthalene		10K			667	667	
acenaphthylene		U			U	U	
dimethyl phthalate		U			U	U	
2,6-dinitrotoluene		10K			1,333	333	
acenaphthene		U			U	U	
2,4-dinitrophenol	50/1650						
2,4-dinitrotoluene	10/330						
4-nitrophenol	50/1650						
fluorene	10/330	10K			3,500	2,000	
4-chlorophenylphenylether		U			U	U	
diethyl phthalate							
4,6-dinitro-o-cresol	50/1650						
diphenylamine							
azobenzene							
4-bromophenylphenylether	10/330						
hexachlorobenzene	10/330						
pentachlorophenol	50/1650						
phenanthrene	10/330	10K			8,833	43,333	
anthracene		U			U	6,333	
dibutyl phthalate		U			U	U	
fluoranthene		12			5,333	15,667	

MDL
H_2O/SOIL

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

N.C. Division of Health Services
DHS 3068-0 (4/86 Laboratory)

(2)

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DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
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ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES COMPOUND	LAB NO	912132	912134	912135	912136	912137	912138
	FIELD #	14922	14924	14925	14926	14927	14928
	TYPE	(1)	(1)	(3)	(3)	(3)	(3)
	UNITS	ug/l ~~ppm~~/kg	ug/l ~~ppm~~/kg	~~ppm~~ ug/kg	~~ppm~~ ug/kg	~~ppm~~ ug/kg	~~ppm~~ ug/kg
pyrene	10/330	20	U	U	25,000	16,667	U
benzidine	50/1650	U			U	U	
butyl benzyl phthalate	10/330					U	
benz(a)anthracene						2,000	
chrysene		10K			2,000	3,333	
3,3-dichlorobenzidine	50/1650	U			U	U	
bis(2-ethylhexyl)phthalate	10/330						
di-n-octyl phthalate	10/330						
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene		50K			1650K	1650K	
benzo(a)pyrene		50K			1650K	1650K	
indeno(1,2,3-cd)pyrene		U			U	1650K	
dibenzo(a,h)anthracene						CHANGED	
benzo(g,h,i)perylene						1650K	
aniline	50/1650	U	U	U	U	U	U
benzoic acid							
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene		55			667	2,667	
2-methylphenol		U			U	U	
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline							
4-nitroaniline							
2,4,5-trichlorophenol							
HYDROCARBONS	+/-	+	-	-	+	+	-

SUPERFUND SECTION

MDL
H2O/SOIL

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1/ - Tentative identification.
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N.C. Division of Health Services
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DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

(3)

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	912139					
	FIELD #	14929					
COMPOUND	TYPE	(3)	( )	( )	( )	( )	( )
	UNITS	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg
N-nitrosodimethylamine	10/330	U					
bis(2-chloroethyl)ether							
2-chlorophenol							
phenol							
1,3-dichlorobenzene							
1,4-dichlorobenzene							
1,2-dichlorobenzene							
bis(2-chloroisopropyl)ether							
hexachloroethane							
N-nitroso-di-n-propylamine							
nitrobenzene							
isophorone							
2-nitrophenol							
2,4-dimethylphenol							
bis(2-chloroethoxy)methane							
2,4-dichlorophenol							
1,2,4-trichlorobenzene							
naphthalene							
hexachlorobutadiene							
4-chloro-m-cresol							
hexachlorocyclopentadiene							
2,4,6-trichlorophenol							
2-chloronaphthalene							
acenaphthylene							
dimethyl phthalate							
2,6-dinitrotoluene							
acenaphthene	↓						
2,4-dinitrophenol	50/1650						
2,4-dinitrotoluene	10/330						
4-nitrophenol	50/1650						
fluorene	10/330						
4-chlorophenylphenylether	↓						
diethyl phthalate							
4,6-dinitro-o-cresol	50/1650						
diphenylamine	↓						
azobenzene							
4-bromophenylphenylether	10/330						
hexachlorobenzene	10/330						
pentachlorophenol	50/1650						
phenanthrene	10/330						
anthracene	↓						
dibutyl phthalate							
fluoranthene		↓					

MDL
H_2O/SOIL

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
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N.C. Division of Health Services
DHS 3068-O (4/86 Laboratory)

(4)

STATE LABORATORY OF PUBLIC HEALTH
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P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	912139					
	FIELD #	14929					
COMPOUND	TYPE	(3)	( )	( )	( )	( )	( )
	UNITS	~~ug/L~~ µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg
pyrene	10/330	U					
benzidine	50/1650						
butyl benzyl phthalate	10/330						
benz(a)anthracene	↓						
chrysene							
3,3-dichlorobenzidine	50/1650						
bis(2-ethylhexyl)phthalate	10/330						
di-n-octyl phthalate	10/330						
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene							
benzo(a)pyrene							
indeno(1,2,3-cd)pyrene							
dibenzo(a,h)anthracene							
benzo(g,h,i)perylene	↓	↓					
aniline	50/1650	U					
benzoic acid	↓	↓					
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene	↓						
2-methylphenol							
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline	↓						
4-nitroaniline							
2,4,5-trichlorophenol		↓					

MDL
H2O/SOIL

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L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

N.C. Division of Health Services
DHS 3068-O (4/86 Laboratory)

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	912131	912133	912135	912136	912137	912138
	FIELD #	14921	14923	14925	14926	14927	14928
COMPOUND	TYPE	(1)	(1)	(3)	(3)	(3)	(3)
	UNITS	(ug/l) ug/kg	(ug/l) ug/kg	ug/l (ug/kg)	ug/l (ug/kg)	ug/l (ug/kg)	ug/l (ug/kg)
chloromethane	ID ppb	U	U	U	U	U	U
bromomethane	↓	|	|	|	|	|	|
dichlorodifluoromethane	5 ppb	|	|	|	|	|	|
vinyl chloride	|	|	|	|	|	|	|
chloroethane	|	|	|	|	|	|	|
methylene chloride	|	|	|	|	|	|	|
trichlorofluoromethane	|	|	|	|	|	|	|
ethene, 1,1-dichloro	|	|	|	|	|	|	|
ethane, 1,1-dichloro-	|	|	|	|	|	|	|
1,2-trans-dichloroethene	|	|	|	|	|	|	|
chloroform	|	|	|	|	|	|	|
ethane, 1,2-dichloro-	|	|	|	|	|	|	|
ethane, 1,1,1-trichloro-	|	|	|	|	|	|	|
carbontetrachloride	|	|	|	|	|	|	|
bromodichloromethane	|	|	|	|	|	|	|
propane, 1,2-dichloro-	|	|	|	|	|	|	|
1,3-trans-dichloropropene	|	|	|	|	|	|	|
trichloroethylene	|	|	|	|	|	|	|
chlorodibromomethane	|	|	|	|	|	|	|
benzene	|	|	|	|	|	|	|
ethane, 1,1,2-trichloro-	↓	|	|	|	|	|	|
1,3-cis-dichloropropene	10 ppb	|	|	|	|	|	|
2-chloroethyl vinyl ether	↓	|	|	|	|	|	|
bromoform	5 ppb	|	|	|	|	|	|
ethane, 1,1,2,2-tetrachloro-	|	|	|	|	|	|	|
ethene, tetrachloro-	|	|	|	|	|	↓	|
toluene	|	|	|	|	|	427	|
chlorobenzene	|	|	|	|	|	U	|
ethylbenzene	↓	↓	↓	↓	↓	1020	↓
acetone	10 ppb	U	U	U	U	U	U
2-butanone	10	|	|	|	|	|	|
carbondisulfide	5	|	|	|	|	|	|
2-hexanone	10	|	|	|	|	|	|
4-methyl-2-pentanone	10	|	|	|	|	|	|
styrene	5	|	|	|	|	|	|
vinyl acetate	10	|	|	|	|	↓	|
xylenes (total)	5 ↓	↓	↓	↓	↓	55,405J	↓
Hydrocarbons	⊕/⊖	⊕	⊖	⊖	⊕	⊕	⊖
	↑MDL↑						

J - Estimated value.
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L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.
C - SUSPECT LAB CONTAMINATION.
N.C. Division of Health Services

DHS 3068-O (4/86 Laboratory)

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	912139	912140				
	FIELD #	14929	14930				
COMPOUND	TYPE	(3)	(ok)	( )	( )	( )	( )
	UNITS	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg
chloromethane	10 ppb	U	U				
bromomethane	↓						
dichlorodifluoromethane	5 ppb						
vinyl chloride							
chloroethane							
methylene chloride							
trichlorofluoromethane							
ethene, 1,1-dichloro							
ethane, 1,1-dichloro-							
1,2-trans-dichloroethene							
chloroform			13				
ethane, 1,2-dichloro-			U				
ethane, 1,1,1-trichloro-							
carbontetrachloride							
bromodichloromethane							
propane, 1,2-dichloro-							
1,3-trans-dichloropropene							
trichloroethylene							
chlorodibromomethane							
benzene							
ethane, 1,1,2-trichloro-							
1,3-cis-dichloropropene	10 ppb						
2-chloroethyl vinyl ether	↓						
bromoform	5 ppb						
ethane, 1,1,2,2-tetrachloro-							
ethene, tetrachloro-							
toluene							
chlorobenzene							
ethylbenzene							
acetone	10 ppb	U	U				
2-butanone	10						
carbondisulfide	5						
2-hexanone	10						
4-methyl-2-pentanone	10						
styrene	5						
vinyl acetate	10						
xylenes (total)	5						
Hydrocarbons	(+) (-)	(-)	(-)				
	↑MDL↑						

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L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.
C - SUSPECT LAB CONTAMINATION.

N.C. Division of Health Services

DHS 3068-O (4/86 Laboratory)

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION
WILMINGTON REGIONAL OFFICE

FILE CODE: CG+T COUNTY: NH

SUMMARY: Met with Russell Ratliff who has been given the job of cleaning up CG+T site. He will provide a copy of his written plan + update us weekly.

PREPARED BY: Dickey DATE: 9/24/91 MEETING LOCATION: DEM

SHEET 1 OF 1

ATTENDANCE ROSTER

Please print your name below:

Date: 9/24/91
Time: 1030

NAME	REPRESENTING	TELEPHONE
T. R. DICKEY	DEM	395-3900
Russell A. Ratliff	Industrial Resources Corp	(800) 654-9617
M Williams	DEM-WQ	395-3900

U.S Department of Transportation
United States Coast Guard

Commanding Officer
USCG Marine Safety Office

272 North Front St.
Suite 500
Wilmington, NC 28401-3907

FTS: 671-4423
COML: 919-343-4423

FACSIMILE SERVICES

DATE: 18 Sep 91

NUMBER OF PAGES INCLUDING THIS PAGE: 7

TO: Tom Dickey RM NR/OFF SYM: MA DEM

TELE NR: LOCATION:

FAX NR: 919-350-8064 VERIFICATION NR:

FROM (NAME): LTJG Dean Fiorig (OFF SYM): AOPS TELE NR: 919-343-4562

REMARKS: THIS MACHINE WILL RECEIVE AND TRANSMIT "UNCLASSIFIED" ONLY

2 LTRS IN COAST FOR YOUR [illegible]: (A) LTR FROM CITY WILL LOOK
TO SEE IF CAROLINA BOTE IS WILLING TO ACCEPT THIS AS A GOOD
[illegible] TO PROCEED, (B) LTR FROM NANTICOKE TRIBE STATING
THEY ARE NOT RESPONSIBLE PARTY

Phone 484-2279 RICHARD J. GETTY Area Code 606

ATTORNEY AT LAW

1685 Millersburg Road Paris, Kentucky 40361

FAX NUMBER 6 0 6 - 4 8 4 - 2 2 7 9

FAX TRANSMISSION SHEET

FAX NUMBER : 919 343 ~~7703~~ 4423

DATE : 9-16-91

SENT TO : Captain Craig F. Eisenbeis

COMPANY : U.S. Coast Guard

FROM : RICHARD J. GETTY

NUMBER OF PAGES: 3 (INCLUDING THIS TRANSMITTAL)

REPLY REQUESTED: YES _____ NO ✓

IF ALL PAGES ARE NOT RECEIVED, PLEASE CALL 606-484-2279

COMMENTS :

THANK YOU!

RICHARD J. GETTY
LAW OFFICE

Telephone 884-2279 Area Code 606

Richard J. Getty

Attorney at Law

1689 Millersburg Road Paris, Kentucky 40361

September 15, 1991

Captain Craig F. Eisenbeis
United States Coast Guard
Captain of the Port
272 North Front Street
Wilmington, NC 28401-3907

Dear Captain Eisenbeis:

This is to advise that I am in receipt of your letter addressed to the writer under date of September 4, 1991, together with copies of the letter addressed to Mr. Elmer Good under the same date.

With reference to the said letters, I wish to make the following observations.

It is my understanding that Lieutenant Commander Richardson pursuant to a conversation with Mr. Russell Ratliff has been assured that on or before Thursday, September 19, 1991, the contents of the dumpster will be removed and the contents of the oil drums will be placed in a well located in Kentucky. The well is 3,500 feet deep. It is a well which has been plugged and abandoned (a dry hole). The top of the well will be cemented after placing the oil in the same.

Mr. Ratliff is going to see that oil pollution booms are maintained and monitored at each end of the drainage channel in order to contain any oil from leaching within the drainage channel and to prevent the oil from entering the City storm drainage system or the Cape Fear River.

You are probably aware of the fact that we have taken steps to stop the oil from leaching into the drainage channel. We have also taken steps to evaluate the ground contamination causing the oil leaching problem and have implemented action to remove the surface of the leaching oil and to eliminate the continuing significant threat of an oil discharge into the drainage channel.

You are also probably aware of the fact that some of the leaching may be as a result of product from the Unocal facility leaching into the ground occupied by the City Gas & Transmission Refinery. We are also going to supply the Coast Guard a map of the facility and will make an assessment as to the piping system, pump sump and the storage tanks in order to verify the integrity of the same to contain oil without leakage or spillage. We will repair all physical facilities sources of all leakages which pose a significant threat of discharge of oil into the navigable water of the United States.

We will remove any excess oil from the facilities or the water separators and will take steps to obtain any and all necessary permits from the North Carolina Division of Environmental Management to obtain and maintain the oily water separators for as long as the oil remains on the facilities.

We will also replace all man-hole covers on the tanks.

Mr. Russell Ratliff will be contacting you upon his arrive in the Wilmington area during the week of September 16, 1991.

I realize that there has been a delay involved herein. However, you must appreciate the fact that we are in a Chapter 11 Bankruptcy Proceeding. Our funds are negligible at this time. This does not excuse the delay. However, without funds to take care of the work which has to be done, we have been unable to comply with your requests as promptly as we would have wanted to.

In the first paragraph of your letter you make reference to the fact that CG&T and Haben Industries, parent company of CG&T would assume responsibility for the cleaning of the site. We intend to do everything that is necessary relative to the same. However, we do not intend to admit liability relative to any oil spills. We feel that there is a good probability that the oil spills are caused by circumstances beyond our control and by entities other than the City Gas & Transmission Company or Haben Industries.

Trusting that we can rely upon your continued cooperation, I remain

Very truly yours,

RICHARD J. GETTY

RJG/mhb

clos.ol

LAW OFFICES
O'CONNOR, CAVANAGH, ANDERSON, WESTOVER, KILLINGSWORTH & BESHEARS
A PROFESSIONAL ASSOCIATION
SUITE 1100
ONE EAST CAMELBACK ROAD
PHOENIX, ARIZONA 85012-1656

TELEPHONE (602) 263-2400 FAX (602) 263-2900
TELEX 165 171 OCC-LAW

TUCSON OFFICE
SUITE 2200
ONE SOUTH CHURCH AVENUE
TUCSON, ARIZONA 85701-1621
FAX (602) 624 9564

SUN CITY OFFICE
SUITE B
13250 NORTH DEL WEBB BOULEVARD
SUN CITY, ARIZONA 85351-3063
FAX (602) 933 3100

WRITER'S DIRECT DIAL NUMBER
(602) 263-2554

September 13, 1991

Craig F. Eisenbeis
Captain of the Port
UNITED STATES COAST GUARD
272 North Front Street, Suite 500
Wilmington, North Carolina 28401-3907

Re: Oil Pollution Incident at the CG&T Refinery Property in Wilmington, North Carolina

Dear Capt. Eisenbeis:

This firm represents the Wyandotte Tribe of Oklahoma, a federally recognized Indian tribe and Wyandotte Tribal Petroleum, Inc. ("WTPI"), a tribal corporation chartered by the Wyandotte Tribe. Chief Leaford Bearskin has requested our assistance in responding to your correspondence dated September 4, 1991, concerning a substantial threat of discharge of oil at the CG&T Refinery in Wilmington, North Carolina. On behalf of the tribe, we wish it known that we have great concern over the environmental impact that this threat of discharge of oil from the CG&T Refinery may have. Additionally, we wish to extend whatever assistance we may be to the Coast Guard and other responding authorities insofar as sharing whatever information we may have concerning the CG&T Refinery.

Notwithstanding our concern and willingness to share information, however, it is our position that neither the Wyandotte Tribe of Oklahoma or WTPI should be considered a responsible party for the alleged substantial threat of oil discharge. There are several novel issues presented by the Coast Guard's demand on the Wyandotte Tribe and WTPI to respond to this incident. First, WTPI is a separate entity from the Wyandotte Tribe of Oklahoma and was organized and operated as such. Secondly, it is our understanding that the tribe itself had no involvement whatsoever with the CG&T Refinery property in Wilmington, North Carolina. Further any activity that WTPI was involved in was not the activity or conduct that can be characterized as "owning or operating" the CG&T facility.

LAW OFFICES
O'CONNOR, CAVANAGH, ANDERSON, WESTOVER, KILLINGSWORTH & BESHEARS
A PROFESSIONAL ASSOCIATION

WTPI'S presence and activity at the facility was limited. WTPI's presence on the site began in December 1990, when WTPI and CG&T began to negotiate the terms and conditions of WTPI's potential operation of the facility. WTPI ceased negotiations with CG&T four months later, in April 1991. During the period of time that WTPI was present at the refinery, none of the activities undertaken by WTPI can be characterized as "operating" the facility, and WTPI definitely was not the owner of the refinery.

In light of WTPI's involvement at the site, we are confused as to why the Coast Guard considers WTPI and especially the Wyandotte Tribe of Oklahoma responsible parties. It is the position of WTPI and the Tribe that neither entities were operating, controlling, or managing the facility at any time, especially during any time that oil contamination occurred. From the outset of WTPI's involvement at the facility, WTPI was engaged in investigation and continuous due diligence in reviewing all aspects of the terminal so that an informed decision could be made concerning the potential operation of the terminal by WTPI. Contrary to the characterization set forth in your letter of September 4 concerning WTPI's involvement at the refinery, the purpose behind WTPI's activities at the refinery during this entire four month period was to place WTPI in a position to gain as much knowledge through reasonable due diligence in reviewing the condition of the property and attempting to determine whether the terminal could be operational.

Any activity that may have been conducted during the period of time when WTPI was present on the property was done on behalf of CG&T. As an example of WPTI's lack of control over the actual management and operation of the facility, CG&T directed that any proceeds, however minimal, from any sales from existing residual oil at the terminal was to be accounted for with the bankruptcy court on behalf of CG&T. It is our further understanding that any activity undertaken by WTPI in regard to work and set up of the terminal and selling of any and all existing product from the terminal was directed by and permitted by CG&T and the proceeds of any sales of products was to be utilized for the restoration of the terminal and go toward expenses incurred thereby as directed by CG&T.

During WTPI's presence on the facility no new product was developed, and there were no agreements executed between CG&T, Haben Industries, and WTPI concerning the operations and management or the sale of the refinery. The terms of any and all potential agreements were constantly being reviewed, discussed, and negotiated.

Obviously the Coast Guard wishes to involve responsible parties in the clean up operation. It is the Tribe's and WTPI's understanding that the ownership and operation of the site at all times was under the direction and control of either one or more of the following, CG&T, Haben Industries and/or officers and directors of those entities. Neither the Wyandotte Tribe of Oklahoma nor WTPI are or should be considered or characterized as responsible parties. Further, under the terms of the Oil Pollution Act of 1990, the

LAW OFFICES
O'CONNOR, CAVANAGH, ANDERSON, WESTOVER, KILLINGSWORTH & BESHEARS
A PROFESSIONAL ASSOCIATION

situation presented here brings forth other issues of first impression. One of the most prominent issues presented is whether the Tribe can be a "responsible party" or "person" as those terms are defined in the Act.

We understand the Coast Guard's concern with the situation at hand and would like to cooperate in whatever method or manner is feasible and reasonable in light of the position set forth herein.

We further understand that this situation mandates prompt and efficient response by the Coast Guard, however, under the circumstances, we cannot carry out the removal action as suggested in your correspondence of September 4, 1991. We would like to schedule a meeting as soon as possible with the Coast Guard and other involved government agencies if necessary to discuss this situation and hopefully work toward resolution of the issues presented at the CG&T property as they effect the tribe and WT WTPI. We appreciate your anticipated cooperation and understanding in this matter.

Sincerely,

GLENN FELDMAN
LUCAS J. NARDUCCI
For the Firm

GF:jpc

pc: Chief Leaford Bearskin

19635003.LTR\19635-4

US Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Office

272 N. Front St.
Suite 500
Wilmington, NC
28401-3907
919 343-4881

16465
04 Sep 1991

City Gas and Transmission Corporation
c/o Mr. Richard G. Getty
Attorney at Law
1685 Millersberg Road
Paris, KY 40361

Dear Mr. Getty,

On July 8, 1991, this office issued a "Notice of Federal Interest for an Oil Pollution Incident" to City Gas & Transmission Corporation (CG&T). This notice was delivered through CG&T's bankruptcy lawyers in Lexington, KY for an oil pollution incident at the CG&T Refinery property in Wilmington, NC. As representative of CG&T Corporation, your office has been our primary contact, regarding cleanup operations at the Wilmington refinery site. In your July 17, 1991 letter to LCDR Richardson, you promised that CG&T and Haben Industries, parent company of CG&T, would assume responsibility for cleaning the site.

As of July 18, 1991, no cleanup action had been undertaken by CG&T, and oil was continuing to discharge into the navigable waters from CG&T's property. At that time, the Oil Spill Liability Trust Fund was opened to contain and remove the oil that was appearing on the surface of the drainage canal within the CG&T Refinery property. In the absence of any response by you, the Coast Guard has continued that level of response.

In your letter of August 5, 1991 to the State of North Carolina, you stated that you had made arrangements to remove the oily contents of the dumpster on the property. This has not been done and heavy rains continue to cause overflowing and subsequent contamination of the area.

Over the last several weeks, you have promised to take corrective action and assume full responsibility to clean the site, abate this oil pollution, and initiate long-term removal of ground contamination. To date, you have failed to take any action whatsoever.

Under the Oil Pollution Act of 1990, the responsible party is liable for, among other things, removal costs and damages resulting from this incident. The failure or refusal to provide all reasonable cooperation and assistance requested by the Federal On-Scene Coordinator (FOSC) will eliminate any defense, or entitlement to limited liability, which otherwise might be available under the Act.

You are advised that the following may result from your failure to properly carry out the removal actions as ordered by the FOSC. or to comply with any administrative orders necessary to protect the public health and welfare. For such failure, owners, operators or persons in charge of the facility from which the oil is discharged are subject, under the Federal Water Pollution Control Act, to a civil penalty of up to $25,000 per day of violation or up to 3 times the costs incurred by the Oil Spill Liability Trust Fund.

The following sets forth my directions to you in carrying out your removal actions:

a. Monitor and maintain oil pollution booms at each end of the drainage canal to contain leaching oil within the drainage canal and to prevent the oil from entering the city storm drain system or the Cape Fear River.

b. Stop oil from leaching into the drainage canal. Evaluate the ground contamination causing the oil leaching problem and implement action to remove the source of the leaching oil and eliminate the continuing significant threat of an oil discharge into the drainage canal.

c. Remove the dumpster, 55 gallon drums, and the large vat full of oily water mixture, from the property, and dispose of all oily contents through an approved contractor.

d. Evaluate and test the physical facility, including piping systems, pump sump, and the storage tanks, to verify the integrity of same to contain oil without leakage or spillage. Repair all physical facility sources of oil leakage which pose a significant threat of discharge of oil into the navigable waters of the United States.

e. Remove excess oil from the facility's oily water separators. Obtain necessary permits from the North Carolina Division of Environmental Management to operate and maintain the oily water separators for as long as oil remains on the facility.

If these actions are not implemented, I must consider CG&T and Haben Industries as either unwilling or unable to provide the necessary removal action to clean up the ongoing water pollution and ground contamination posing a substantial threat of discharge into the Cape Fear River at the CG&T refinery in Wilmington.

This letter advises you that if, by 12:00 (EST) on September 16, 1991, you have not initiated removal action and assumed responsibility for clean up of the CG&T refinery site, I will initiate a full federal response, the cost of which you may ultimately be responsible for.

If you have any questions regarding this matter, please contact LCDR Richardson of my staff at (919) 343-4881.

Sincerely,

CRAIG F. EISENBEIS
Captain, U. S. Coast Guard
Captain of the Port

Copy: CCGD5(m)
CG NPFC
EPA (Region IV)
NCDEM (Raleigh)

US Depo tment of Transportation
United States Coast Guard

Commanding Officer
USCG Marine Safety Office

272 North Front St.
Suite 500
Wilmington, NC 28401-3907

FTS: 671-4423
COML: 919-343-4423

FACSIMILE SERVICES

DATE: SEP 5, 1991

NUMBER OF PAGES INCLUDING THIS PAGE: 5

TO: MR. TOM DICKEY RM NR/OFF SYM: DEM

TELE NR: LOCATION: WILMINGTON, NC

FAX NR: (919) 350-2004 VERIFICATION NR:

FROM (NAME): LCDR RICHARDSON (OFF SYM): TELE NR: (919) 343-4881

REMARKS: THIS MACHINE WILL RECEIVE AND TRANSMIT "UNCLASSIFIED" ONLY

COPIES OF THREE LETTERS FAXED AND FORWARDED BY CERTIFIED MAIL FOR YOUR INFORMATION.

THANK YOU FOR YOUR ASSISTANCE AND INPUT REGARDING THIS ISSUE.

US Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Office

272 N. Front St.
Suite 500
Wilmington, NC
28401-3907
919 343-4881

16465
04 Sep 1991

Mr. Elmer Good
c/o Haben Industries
14725 Arminta Street
Van Nuys, CA 91402

Dear Mr. Good,

On July 8, 1991, this office issued a "Notice of Federal Interest for an Oil Pollution Incident" to City Gas & Transmission Corporation (CG&T). This notice was delivered through CG&T's bankruptcy lawyers in Lexington, KY for an oil pollution incident at the CG&T Refinery property in Wilmington, NC. Since that time, we have forwarded all correspondence regarding cleanup operations at the Wilmington refinery site to CG&T's lawyer, Mr. Richard Getty in Lexington, KY. In your July 10, 1991 meeting with LCDR Richardson, you promised that CG&T and Haben Industries, parent company of CG&T, would assume responsibility for cleaning the site.

As of July 18, 1991, no cleanup action had been undertaken by CG&T, and oil was continuing to discharge into the navigable waters from CG&T's property. At that time, the Oil Spill Liability Trust Fund was opened to contain and remove the oil that was appearing on the surface of the drainage canal within the CG&T Refinery property. In the absence of any response by you, the Coast Guard has continued that level of response.

In Mr. Getty's letter of August 5, 1991 to the State of North Carolina, he stated that CG&T had made arrangements to remove the oily contents of the dumpster on the property. This has <u>not</u> been done and heavy rains continue to cause overflowing and subsequent contamination of the area.

Over the last several weeks, you have promised to take corrective action and assume full responsibility to clean the site, abate this oil pollution, and initiate long-term removal of ground contamination. To date, you have failed to take any action whatsoever.

Under the Oil Pollution Act of 1990, the responsible party is liable for, among other things, removal costs and damages resulting from this incident. The failure or refusal to provide all reasonable cooperation and assistance requested by the Federal On-Scene Coordinator (FOSC) will eliminate any defense, or entitlement to limited liability, which otherwise might be available under the Act.

You are advised that the following may result from your failure to properly carry out the removal actions as ordered by the FOSC, or to comply with any administrative orders necessary to protect the public health and welfare. For such failure, owners, operators or persons in charge of the facility from which the oil is discharged are subject, under the Federal Water Pollution Control Act, to a civil penalty of up to $25,000 per day of violation or up to 3 times the costs incurred by the Oil Spill Liability Trust Fund.

The following sets forth my directions to you in carrying out your removal actions:

a. Monitor and maintain oil pollution booms at each end of the drainage canal to contain leaching oil within the drainage canal and to prevent the oil from entering the city storm drain system or the Cape Fear River.

b. Stop oil from leaching into the drainage canal. Evaluate the ground contamination causing the oil leaching problem and implement action to remove the source of the leaching oil and eliminate the continuing significant threat of an oil discharge into the drainage canal.

c. Remove the dumpster, 55 gallon drums, and the large vat full of oily water mixture, from the property, and dispose of all oily contents through an approved contractor.

d. Evaluate and test the physical facility, including piping systems, pump sump, and the storage tanks, to verify the integrity of same to contain oil without leakage or spillage. Repair all physical facility sources of oil leakage which pose a significant threat of discharge of oil into the navigable waters of the United States.

e. Remove excess oil from the facility's oily water separators. Obtain necessary permits from the North Carolina Division of Environmental Management to operate and maintain the oily water separators for as long as oil remains on the facility.

If these actions are not implemented, I must consider CG&T and Haben Industries as either unwilling or unable to provide the necessary removal action to clean up the ongoing water pollution and ground contamination posing a substantial threat of discharge into the Cape Fear River at the CG&T refinery in Wilmington.

This letter advises you that if, by 12:00 (EST) on September 16, 1991, you have not initiated removal action and assumed responsibility for clean up of the CG&T refinery site, I will initiate a full federal response, the cost of which you may ultimately be responsible for.

If you have any questions regarding this matter, please contact LCDR Richardson of my staff at (919) 343-4881.

Sincerely,

CRAIG F. EISENBEIS
Captain, U. S. Coast Guard
Captain of the Port

Copy: CCGD5(m)
CG NPFC
EPA (Region IV)
NCDEM (Raleigh)

US Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Office

272 N. Front St.
Suite 500
Wilmington, NC
28401-3907
919 343-4881

16465
04 Sep 1991

Wyandotte Tribe of Oklahoma
Post Office Box 250
Wyandotte, OK 74370

Gentlemen:

On March 13, 1991, this office issued a "Notice of Federal Interest for an Oil Pollution Incident" to City Gas & Transmission Corporation (CG&T) and Wyandotte Tribal Petroleum, Inc. (WTPI) for an oil pollution incident at the CG&T Refinery property in Wilmington, NC. This notice was received and acknowledged by Mr. Jim Pappas, General Manager of the Wilmington, NC facility for WTPI and representative of CG&T Corporation. At that time, WTPI was operating the facility with the intention of reopening the facility to handle heating fuels and light distillates. Mr. Pappas, on behalf of WTPI as operator of the facility, assumed responsibility for cleanup of the pollution incident at the facility and hired Specialized Marine, Inc., a local cleanup contractor from Wrightsville Beach, NC, to conduct the cleanup.

On March 14, 1991, Mr. Pappas submitted to this office a Clean Up Action Plan which laid out his plans for long-term cleanup of the oil pollution incident. The plan involved: removal of oil sludge dumped on the ground; a study of, and cleanup of, oil leaching into the drainage canal contained within the facility proper; and, removal of excess oil from the facility's oily water separators. Mr. Pappas proposed to place the recovered oily sludge into a dumpster and arrange for its removal and disposal within 90 days. Shortly after March 14, 1991, Specialized Marine, Inc. began drilling observation wells and an oil recovery well. Once Specialized Marine, Inc. began pumping from these wells, the discharge of oil into the drainage canal stopped.

At the end of April, WTPI decided against further control of the CG&T facility. Mr. Pappas remained on scene monitoring the cleanup and facility operation until early June when the last local representative from Wyandotte and CG&T departed the facility. Specialized Marine, Inc. continued to operate their oil recovery wells. By June 24, 1991, Specialized Marine, Inc. had removed approximately 3,000 gallons of underground contaminated oil. However, on June 25, 1991, Specialized

Marine, Inc. stopped pumping from the wells and removed its equipment from the facility since it had not been paid by either WTPI or CG&T.

On July 8, 1991, oil once again began leaching from the CG&T property into the drainage canal within the CG&T Refinery property. Since no cleanup action had been undertaken by either WTPI or CG&T, the Coast Guard Marine Safety Office opened the Oil Spill Liability Trust Fund to contain and remove the oil that was appearing on the surface of the drainage canal. In the absence of any response by you or CG&T, the Coast Guard has continued that level of response.

Under the Oil Pollution Act of 1990, the responsible party is liable for, among other things, removal costs and damages resulting from this incident. The failure or refusal to provide all reasonable cooperation and assistance requested by the Federal On-Scene Coordinator (FOSC) will eliminate any defense, or entitlement to limited liability, which otherwise might be available under the Act.

You are advised that the following may result from your failure to properly carry out the removal actions as ordered by the FOSC, or to comply with any administrative orders necessary to protect the public health and welfare. For such failure, owners, operators or persons in charge of the facility from which the oil is discharged are subject, under the Federal Water Pollution Control Act, to a civil penalty of up to $25,000 per day of violation or up to 3 times the costs incurred by the Oil Spill Liability Trust Fund. Your subsequent departure from the facility does not absolve you of responsibility for the oil contamination which occurred while you were operating this facility.

The following sets forth my directions to you in carrying out your removal actions:

a. Monitor and maintain oil pollution booms at each end of the drainage canal to contain leaching oil within the drainage canal and to prevent the oil from entering the city storm drain system or the Cape Fear River.

b. Stop oil from leaching into the drainage canal. Evaluate the ground contamination causing the oil leaching problem and implement action to remove the source of the leaching oil and eliminate the continuing significant threat of an oil discharge into the drainage canal.

c. Remove the dumpster, 55 gallon drums, and the large vat full of oily water mixture, from the property, and dispose of all oily contents through an approved contractor.

d. Evaluate and test the physical facility, including piping systems, pump sump, and the storage tanks, to verify the integrity of same to contain oil without leakage or spillage. Repair all physical facility sources of oil leakage which pose a significant threat of discharge of oil into the navigable waters of the United States.

e. Remove excess oil from the facility's oily water separators. Obtain necessary permits from the North Carolina Division of Environmental Management to operate and maintain the oily water separators for as long as oil remains on the facility.

If these actions are not implemented, I must consider Wyandotte Tribal Petroleum, Inc. as either unwilling or unable to provide the necessary removal action to clean up the ongoing water pollution and ground contamination posing a substantial threat of discharge into the Cape Fear River at the CG&T refinery in Wilmington.

This letter advises you that if, by 12:00 (EST) on September 16, 1991, you have not initiated removal action and assumed responsibility for clean up of the CG&T refinery site, I will initiate a full federal response, the cost of which you may ultimately be responsible for.

If you have any questions regarding this matter, please contact LCDR Richardson of my staff at (919) 343-4881.

Sincerely,

CRAIG F. EISENBEIS
Captain, U. S. Coast Guard
Captain of the Port

Copy: CCGD5(m)
CG NPFC
EPA (Region IV)
NCDEM (Raleigh)

E CODE: CC + T

BR CA CO DU XNH ON PE

State of North Carolina
Department of Environment, Health, and Natural Resources
Wilmington Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Bob Jamieson
Regional Manager

FAX COVER SHEET

DATE: 8-30-91

TO: HARLAN BRITT

OFFICE: DEPUTY DIRECTOR
DEM

FAX NO: (919) 733-9919

.....

FROM: RICK SHIVER

DIVISION/
SECTION: DEM - GWS - WIRO

TOTAL PAGES:
(including cover) 4

REMARKS: HERE'S A FAX COPY OF THE LETTER THAT PROMPTED THE INQUIRY FROM CONGRESS-- MAD ROSE'S OFFICE.

SENT BY: RC DATE: 8/30 TIME: 1:20

127 Cardinal Drive Extension, Wilmington, N.C. 28405-3845 • Telephone 919-395-3900 • Fax 919-350-2004

N.C. Department of Environment, Health, and Natural Resources

Telephone Log

Date: 8/20/91 Sheet 1 of 1

Time: 1100-1105 ☒ am ☐ pm Call: Placed ☐ Received ☒ Returned ☐

1. Project: CG+T County: NH

2. Conversation with: John Holloman Telephone: ( ) 202-225-2731

3. Affiliation: Congressman Rose's office

4. Content of conversation: Wanted update on CG+T problem and what the State was doing. I told him that under Oil Spill + Haz. Subs. Control Act only the person who was in control of the oil at the time of discharge could be held responsible. We can not prove at this point who that was, and if it were CG+T, how do you proceed against a bankrupt company? Also we can not yet rule out that the discharge source is not an off-site source.

I told him that the SOLID WASTE DIVISION was evaluating the site to see if it could qualify for the NPL under Superfund, but that is a long process. Also told him that we (DEM) were initiating a soil and groundwater survey, but had no trip etable to give him.

He asked if we were represented on the CG-EPA RRT and I said I was sure that NC was represented but I wasn't sure by whom.

He asked that they be kept informed of what's happening with the case.

I asked if his inquiry was the result of a constituent's concern or just curiosity? He said constituent concern and SMI wanting to know if they were going to get paid and what contracts might be awarded.

Dickey

cc: CG+T NH Co. File

FILE CODE: CITY GAS AND TRANSMISSION

BR CA CO DU X NH ON PE

SPECIALIZED MARINE, Inc.

P.O. Box 813 Wrightsville Beach, NC 28480 (919) 256-5780

13 August 1991

The Honorable Charlie Rose
ATTN: Mr. Bob Hinshaw
2320 Rayburn Office Building
Washington, DC 20515

Dear Mr. Rose:

Specialized Marine, Inc. (SMI) is a small woman-owned and operated environmental service business. We work efficiently and honestly and we take pride in our work. Our business is young and we greatly appreciate the excellent representation we have received from you and your staff in small business and government competition matters in the past.

In late March, 1991, SMI was called by Jim Pappas of Wyandotte Tribal Petroleum to respond to the CG&T refinery site located at 801 Surry Street, Wilmington, N.C. The U.S. Coast Guard was on the scene directing that petroleum sludges dumped on the ground by workers be cleaned up. During the USCG and N.C. Department of Environmental Management investigation of the site, oil was noted leaching into the water from the bank of an open storm drain ditch connected to the Cape Fear River. The facility was directed to eliminate the discharges into the ditch and river. SMI was hired to address that problem. SMI determined that the source of the oozing was a plume of petroleum floating on the water table intercepting the ditch. Consequently, Specialized Marine, Inc. installed wells, recovered over 3,000 gallons of product from the water table, stopped the seepage into the Cape Fear River, and submitted the required geological report of our findings and recommendations to Wyandotte Tribal Petroleum, CG&T and NC DEM. The Wyandotte Tribe elected to forfeit their option to purchase the property and SMI was advised that there were no funds to pay for services and materials expended during the cleanup from the Tribe or CG&T.

SMI continued to operate the recovery process and began an endless round of communications with attorneys representing CG&T in bankruptcy court in Kentucky, the Chief of the Wyandotte Tribe, the President of CG&T, and others in an attempt to collect for the services rendered. SMI notified USCG, NCDEM, Wyandotte Tribal Petroleum, and CG&T that pollution containment recovery and containment equipment and services would be withdrawn from the site due to a lack of payment. SMI discussed the possibility of funding under OPA '90 with USCG and NCDEM since the ±4 feet of oil in the wells located ±3 feet from the river constituted a potential of oil pollution, and that the owners were unable or unwilling to fund the cleanup. SMI received no ruling from the regulators and withdrew from the site on Friday June 28. The site remained unattended and abandoned until SMI was authorized by the USCG under Federal Project Number 051023 to apply sorbents in the ditch.

The major concern now is that SMI might not be utilized for further cleanup of the site due to the perception of a conflict of interest by the USCG. It is important that the recovery of the oil from the ground be continued. We do not understand the lack of aggressiveness by the overseeing agencies in this matter that allows the pollution event to continue. SMI has not litigated against any of the parties. SMI's interest is cleaning up pollution and getting paid for it. It doesn't matter if we're working for the owner or the U.S. Government, we clean it up the same way.

The impact of the unpaid bills (over $68,000.00 has far reaching ramifications to a small business like ours. We have, unfortunately, been forced to mortgage our home to pay a portion of our suppliers and subcontractors on this project. Our business and employees jobs may be devastated by this situation. It would be totally unfair if SMI would not be considered to continue this cleanup under our federal contract.

We are asking for your assistance in three matters, as follows:

1) That our work to date be considered for payment under OPA 90;

2) That we be allowed to continue the clean-up under our basic order agreement with the USCG, and

3) That some Federal action be taken to prevent Wyandotte Tribal Petroleum and CG&T from using small business and the lack of prompt action by the Federal government to shirk their responsibility to comply with environmental law.

Thank you for your time, and for your consideration in this matter.

Respectfully,

Cynthia Lea, President
Specialized Marine, Inc.

CL

TO TOM

DATE ASSIGNED 8-29-91

DATE DUE _____ DATE DONE _____

INSTRUCTIONS FYI THEN FILE.

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

FAX TRANSMITTAL RECORD

From: _____, Solid Waste Management Division

_____, Solid Waste Section

_____, Hazardous Waste Section

Jack Butler, Superfund Section

Date: 12 Aug 1991

To: Rick Shiver

Re: Old ATC Refinery

No. of Pages (Including Cover) 5

Confirm receipt of document(s)

Division of Solid Waste Management	(919)733-4996	
Hazardous Waste Section	(919)733-2178	
Superfund Section	(919)733-2801	✓
Solid Waste Section	(919)733-0692	

TO TOM

DATE ASSIGNED 8-17-91

DATE DUE _____ DATE DONE _____

INSTRUCTIONS PLEASE GET WITH BRUCE AND DESIGN A SOIL & G-W INVESTIGATION AT CCd I. THANKS.

SPECIALIZED MARINE, Inc.

P.O. Box 813 Wrightsville Beach, NC 28480 (919) 256-5780

DATE: 05 August 1991

TO: Richard Getty

FROM: Cynthia Lea, President
SPECIALIZED MARINE, INC.

RE: UNPAID INVOICES, UNSIGNED AGREEMENTS, NO ERNEST MONIES, & LACK OF GOOD FAITH BT CG&T

We appreciate the fact that CG&T has promised to pay SMI for cleanup services rendered at the Wilmington, NC facility. SMI met with Mr. Goode to establish when payment would be recieved. Mr. Goode stated that there was no money to pay with but offered stocks as securities. Since that time SMI has offered to work for CG&T if CG&T would agree to three requests. Remit earnest money, a time frame when to expect full payment, and security of payment in the form of stocks.

So far we have not recieved any earnest monies, (which Mr. Goode promised to do as soon as he returned to California - well over one month ago), or a time frame as to when to expect full payment. It has not been established as too how the stocks will be held or transferred (and this detail must be worked out prior to acceptance of any agreements). There is also the matter of two additional invoices that have not been addressed by CG&T.

In the latest phone conversations you stated that SMI would be paid weekly but that you couldn't divulge the source of this funding. The fact that weekly operating funds were available during the operation of the facility by Jim Pappas, and as you stated are available now, tells us that money is available to pay overdue invoices in full or that the influx of money has already been recieved by CG&T. Obviously a payment schedule, if nothing else, could be worked out. As I have mentioned frequently in our conversations, most businesses operate on a cash flow basis - a simple concept, which allows a business to pay debts on a schedule. (If you are willing to pay a debt, anything can be paid if you put it on your cash flow.)

We will not supply any quotes for further work until CG&T demonstrates any thing other than delay of payment or rejection of legal agreements drafted to protect SMI and demonstrate CG&T's actual intention to pay. The latest agreement drafted and signed by you for CG&I is not satisfactory in that it: 1) offers no legal protetction to SMI, 2) it does not provide a time frame, 3) or no earnest monies have not to date been recieved.

Mr. Goode on the other hand was willing to sign the first agreement drafted by SMI as a demonstration of his intention to pay for the services recieved and as a statment of his confidence in your venture. He understood the fact that once SMI recieved payment no actions could be taken or agreements binding. Your advise to him not to sign has led to delays in SMI resuming work and will probably, as we have pointed out before, lead to increased fines and penalties levied for the ongoing environmental violations the amount of which may jeopardize the future of your venture. Mr. Good recognized the gravity of the situation and was ready to act.

It is clear to us that the position you are assuming is intended to delay payment and not reach an agreement, which in turn delays being responsible for this pollution cleanup. SMI cannot agree to work for CG&T until the three requirements are met by CG&T as you continually refuse to do. There are other options that can be arranged: funds could be deposited in your trust account to cover the amount due to SMI until the influx of monies is recieved, The weekly invoice amount for future work could be increased by $ 3,500 each week to pay down the debt, etc.

The next move is yours - send money to prevent us from proceeding further with swift legal action.

cc: Lt. Cmdr. Pete Richardson, U.S.C.G., Marine Safety Office

Rick Shiver, P.G., Regional Supervisor, Groundwater Section, North Carolina Dept. Environm. Health & Resources

State of North Carolina
Department of Environment, Health, and Natural Resources
Wilmington Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Bob Jamieson
Regional Manager

July 23, 1991

DIVISION OF ENVIRONMENTAL MANAGEMENT

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Elmer Goode, President
Haben Industries
147-25 Arminta Street
Van Nuys, California 91402

Subject: City Gas and Transmission
Wilmington, North Carolina
New Hanover County

Dear Mr. Goode:

It has come to our attention that you may not have received a copy of a Notice of Violation dated July 12, 1991 to CG & T. The attached copy of the Notice was sent to the Law Offices of Ogden, Sturgill, & Welch, who is handling the bankruptcy proceedings for CG & T.

This Office requests that you provide a schedule and plan of action for the remediation of the spill, within the next fifteen (15) days. Our understanding at this time is that a contractor has not been retained to remove the contaminated areas on site nor perform remediation of the affected groundwater.

If you have any questions, please contact me at (919) 395-3900.

Sincerely,

Michael F. Williams
Environmental Specialist II

MW:GOODE.JUL
Attachment
cc: Tom Dickey
Wilmington Regional Office
Central Files

127 Cardinal Drive Extension, Wilmington, N.C. 28405-3845 • Telephone 919-395-3900 • Fax 919-350-2004

State of North Carolina
Department of Environment, Health, and Natural Resources
Wilmington Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Bob Jamieson
Regional Manager

July 12, 1991

DIVISION OF ENVIRONMENTAL MANAGEMENT

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Gene Humphries
Ogden, Sturgill & Welch, Attorneys at Law
Representing City Gas and Transmission
155 East Main Street
Lexington, Kentucky 40507-1393

Subject: **NOTICE OF VIOLATION**
City Gas and Transmission
NPDES Permit No. NC0024350
New Hanover County

Dear Mr. Humphries:

This Notice is to advise you that City Gas and Transmission (CG & T) is in violation of the North Carolina Oil Pollution and Hazardous Control Act, specifically, NCGS 143-215.83 and 143-215.85, for discharging oil onto the lands and waters of the State, and failing to notify this Department of the spill(s).

The following facts establish the violations:

1. Oil was noticed on the ground in two locations within the tank containment area on June 28, 1991. The site was again inspected on July 1, 1991. Clean-up activities are not being performed, and surface waters are being threatened as a result of the spills. This Office has written documentation that the spill occurred on or before June 11, 1991. A copy of the referenced letter is attached. The spill(s) constitute a violation of NCGS 143-215.83.

2. City Gas and Transmission was informed in writing of an oil spill on or about June 11, 1991, and failed to immediately notify this Department of the spill, violating NCGS 143-215.85.

3. On June 28, 1991, Oil was observed on the ground in the vicinity of the above ground storage tank, in violation of NCGS 143-215.83. In a Notice of Violation dated March 20, 1991, the Wyandotte Tribal Petroleum Company (Jim Pappas) was instructed to remove the oil from the tank to avoid the potential of oil overflowing onto the ground. The oil was not removed, and as a result, an oil spill occurred on or before June 28, 1991. A copy of the above referenced Notice is attached.

4. Oil was noticed on the ground beside and beneath the metal roll off container used for the clean-up and storage of oil contaminated soils from the cleaning of storage tank bottoms occurring on or before March 14, 1991. The container was not kept covered and lined properly, and resulted in an additional spillage of oil. This discharge of oil is a violation of NCGS 143-215.83.

5. An oil sheen was noticed in the canal adjacent to the CG & T site on June 28, 1991 and on July 1, 1991. The sheen is believed to be the result of seepage from oil contaminated soils (resulting from previous petroleum spills and leaks) on the property. Specialized Marine, Inc. was contracted to initiate groundwater remediation by pumping oil from the recovery wells installed on site. Permanent floating booms were installed in the canal for containment and to prevent petroleum products from entering the Cape Fear River. On June 28, 1991, Specialized Marine, Inc. removed all of the oil recovery equipment and permanent booms from the site after advising your Office they had not been paid for their services. It is reasonable to expect that petroleum product will continue to leach through the soil and enter the river now that recovery and containment is not being provided. You are reminded that the discharge of petroleum oil into the waters of the State is a violation of NCGS 143-215.83.

It is our understanding that City Gas and Transmission is the owner of the facility, and has filed Chapter 11 Bankruptcy in the State of Kentucky. Wyandotte Tribal Petroleum Company which was given operational and monetary management of the facility, however, has now vacated the property. Mr. Jim Pappas, formerly employed by Wyandotte Tribal Petroleum Company, was hired by CG & T to oversee the operation of the facility. Mr. Pappas has since shut down the facility and vacated the property. Our concern is that without continued operation of the recovery systems, oil containment booms, and contaminated soil clean-up; ongoing violations are sure to occur.

It is requested that you provide a written response to this Notice which includes the status of the Company, any planned remedial actions, and any planned/proposed clean-up activities. It is also requested that a copy of the document(s) permitting/authorizing the operation of the CG & T site by the Wyandotte Tribal Petroleum Company, and any document(s) authorizing Mr. Pappas to act on behalf of CG&T be submitted to this Office as soon as possible.

If you have any questions concerning this Notice, please contact Mr. Mike Williams, Mr. Dave Adkins, or me at (919) 395-3900.

Sincerely,

A. Preston Howard, Jr., P.E.
Regional Supervisor

Attachment

MW:CG&TVIO.JUN

cc: LCdr. Pete Richardson, USCG
Dan Summers, N.H. County Emergency Management
Steve Tedder
Rick Shiver
Wilmington Regional Office
Central Files

TO JON

DATE ASSIGNED 07-15-91

DATE DUE _____ DATE DONE _____

INSTRUCTIONS FYI THIS FILE. THANKS.

SPECIALIZED MARINE, Inc.
P.O. Box 813 Wrightsville Beach, NC 28480 (919) 256-5780

FAX (919) 256 8446

FAX COVER MEMORANDUM

TO: NC DEM
Attn: Rick Shiver / Preston Howard / Mike Williams

FAX NUMBER: 350-2004

FROM: Cindy Lea

DATE/TIME: 6/25/91 3:00 p.m.

TOTAL NUMBER OF PAGES: (including this page) 3

SUBJECT: CG&T Wilmington, NC Facility

COMMENTS: Please deliver copies of this to the above ASAP

Thank you

SPECIALIZED MARINE, Inc.

P.O. Box 813 Wrightsville Beach, NC 28480 (919) 256-5780

COPY

DATE: 24 June 1991

TO: Ogden, Sturgill and Welch
ATTN: Mr. Gene Humphries
155 E. Main Street
Lexington, KY 40507-1393

FROM: Specialized Marine, Inc.
P. O. Box 813
Wrightsville Beach, NC 28480

RE: CG&T Terminal, Wilmington, NC

Dear Mr. Humphries:

We appreciate the effort and professionalism that your firm has demonstrated in this matter. Copies of this letter will be forwarded to the following:

Wyandotte Tribal Petroleum, ATTN: Chief Leaford Bearskin
Members of Board of Directors, CG&T Corporation
Haben Industries, ATTN: Barry Chase
Mr. Jim Pappas, General Manager
Ogden, Sturgill and Welch
NC Department of Environment, Health and Natural Resources
ATTN: Groundwater Section
Water Quality
Hazardous Waste Division
US EPA Region IV
Federal Bureau of Investigation
Utah Secretary of State
North Carolina Secretary of State
North Carolina Attorney General
New Hanover County Emergency Management
Wilmington Fire Department
Clark Environmental Services, Inc.
Dale Todd Drilling

SPECIALIZED MARINE, Inc.
P.O. Box 813 Wrightsville Beach, NC 28480 (919) 256-5780

DATE: June 24, 1991

COPY

TO: UNITED STATES COAST GUARD
MARINE SAFETY OFFICE
ATTN: LT. Commander Richardson
272 N. Front Street
Wilmington, NC 28401

FROM: SPECIALIZED MARINE, INC.
P.O. Box 813
Wrightsville Beach, NC 28480

SUBJECT: CG&T Wilmington, NC Facility Oil Spill

This to inform all concerned parties as of June 26, 1991 at 0800 hours, SMI will no longer provide pollution prevention and cleanup equipment and services to the CG&T Refinery Site at 801 Surry Street in Wilmington, NC.

Mr. Jim Pappas while representing Wyandotte Tribal Petroleum, Inc., CG&T (debtor-in-possession), and Haben Industries, etc. authorized SMI to provide these services and equipment. However, SMI has not been paid. We can no longer provide these services due to a lack of a good faith effort by the responsible parties.

Cindy Lea,
President,
SPECIALIZED MARINE, INC.

SPECIALIZED MARINE, Inc.

P.O. Box 813 Wrightsville Beach, NC 28480 (919) 256-5780

FILE CODE: SGT

BR CA CO DU X NH ON PE

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Mr. Jim Pappas, General Manager
Ogden, Sturgill and Welch
NC Department of Environment, Health and Natural Resources
ATTN: Groundwater Section
Water Quality
Hazardous Waste Division
US EPA Region IV
Federal Bureau of Investigation
Utah Secretary of State
North Carolina Secretary of State
North Carolina Attorney General
New Hanover County Emergency Management
Wilmington Fire Department
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State of North Carolina
Department of Environment, Health, and Natural Resources
Wilmington Regional Office

James G. Martin, Governor
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Bob Jamieson
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

Groundwater Section

June 21, 1991

Mr. David Hinson - Terminal Manager
Wyandotte Tribal Petroleum, Inc.
801 Surry Street
Wilmington, North Carolina 28401

Subject: Petroleum Release
CG&T Facility
Wilmington
New Hanover County

Dear Mr. Hinson:

The report dated May 20, 1991, by Clark Environmental Services, Inc. has been reviewed. We concur with the findings and recommendations of the report. It is particularly important to continue free product removal and to complete the determination of its extent.

Your cooperation in this matter is appreciated.

Sincerely,

Original Signed By:
RICK SHIVER
Rick Shiver, P.G.
Environmental Regional Supervisor I

RSS/TRD/lfc

cc: WiRO-GWS

127 Cardinal Drive Extension, Wilmington, N.C. 28405-3845 • Telephone 919-395-3900 • Fax 919-350-2004

FILE CODE: CGT

BR CA CO DU X NH ON PE

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

June 11, 1991

Ms. Debbie Von Wright
EPA Project Officer
EPA Region IV Waste Division
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Site Sampling Trip Report
Old ATC Refinary
Wilmington North Carolina

On June 6, 1991, Mark Durway, Dave Lilley, and Hanna Assefa of the North Carolina Superfund, visited the Old ATC Refinary Site to conduct sampling of the site. They met with Don Arthur a former employee of the refinary ofsite,and he provided the approximate whereabouts of chemical contamination on the site. Sampling was conducted as follows. There were no representatives of the company present. A key was obtained from the front office. Sampling began at 1.00 pm and ended at 6.30 pm

1) Sample 1 was taken from recovery well on site located near the Cape Fear River

2) Sample 2 from well point installed upgradient from recovery well.

3) Sample 3 from surface soil under the former leaded gasoline line.

4) Sample 4 from surface soil from behind tank # 8.

5) Sample 5 from surface soil from Xylene spill.

6) Sample 6 from surface soil from behind the refinary near refractory.

7) Sample 7 from surface soil composite behind tanks 14 & 15.

Sincerely

Hanna Assefa
Environmental Chemist

Health & Natural Resources
Solid Waste Management Division
Raleigh, North Carolina 27611

Site Number 65 D 9X6 187 128 Field Sample Number 16238

Name of Site OLD AIC REFINARY Site Location Wilmington

Collected By H. Assefa ID# 78 Date Collected 05/06/91 Time 14[illegible]

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
✓ Ground water (1)	___ Solid (5)	GW1
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

RECEIVED
SUPERFUND SECTION

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
✓ Arsenic	0.03
✓ Barium	0.50
✓ Cadmium	<0.02
___ Chloride	
✓ Chromium	0.04
___ Copper	
___ Fluoride	
___ Iron	
✓ Lead	1.81
___ Manganese	
✓ Mercury	<0.002
___ Nitrate	
✓ Selenium	<0.005
✓ Silver	<0.05
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

RECEIVED
HAZARDOUS WASTE SECTION

Date Received ___ Reported by [illegible]

Date Extracted ___ Date Reported 11/4/91

Date Analyzed ___ Lab Number 011926 JUN 1991

CPDS98

SAMPLE ANALYSIS REQUEST

Department of Environment, Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number 65 T 986 187 128 Field Sample Number 16239

Name of Site OLD ATC REFINARY Site Location Wilmington

Collected By H. Assefa ID# 76 Date Collected 05/06/91 Time 14:45

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
X Ground water (1)	___ Solid (5)	GW2
___ Surface water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T GC/MS	
___ Acid B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
✓ Arsenic	0.05
✓ Barium	2.33
✓ Cadmium	<0.02
___ Chloride	
✓ Chromium	0.19
___ Copper	
___ Fluoride	
___ Iron	
✓ Lead	2.90
___ Manganese	
✓ Mercury	<0.0002
___ Nitrate	
✓ Selenium	<0.05
✓ Silver	<0.05
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Date Received ___ Reported by ___

Date Extracted ___ Date Reported ___

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

SUPERFUND SECTION

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	