

67SERBSF10, 606

67SERBSF10,606

Site Name (Subject): LEARY BROTHERS STORAGE (FORMER)

Site ID (Document ID): NCN000407197

Document Name (DocType): Correspondence (C)

Report Segment:

Description: General Correspondence, 2000 - 2001

Date of Document: 9/27/2001

Date Received:

Box: *Enter SF and # with no spaces* SF10,606

Access Level: PUBLIC

Division: WASTE MANAGEMENT

Section: SUPERFUND

Program (Document Group): SERB (SERB)

Document Category: FACILITY

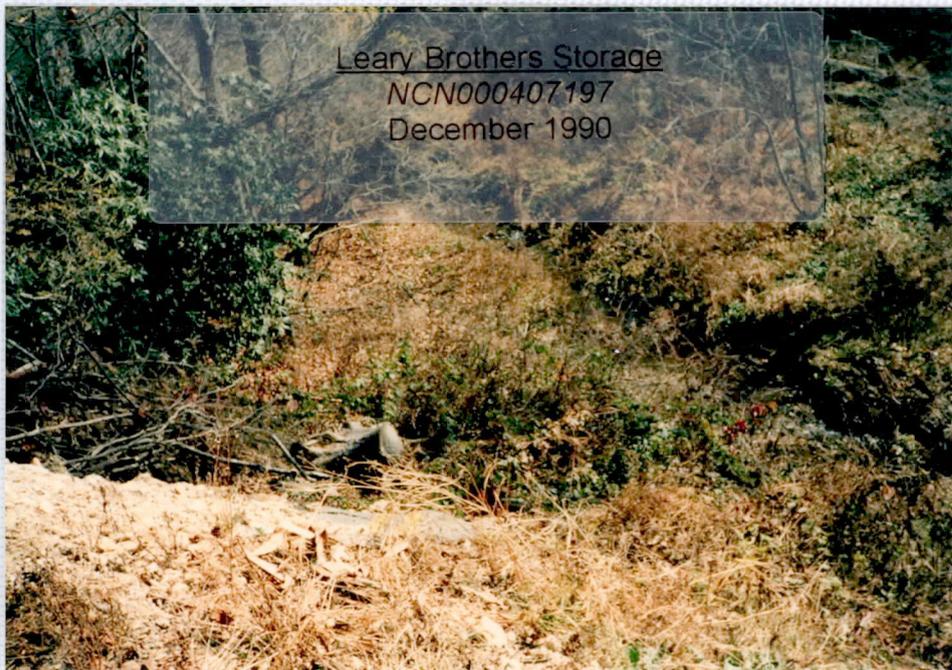
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Leary Brothers Storage
NCN000407197
December 1990







LEARY BROTHERS STORAGE

NCN 000 407 197

Folders

1. General Correspondence file, 2000—

Bound Reports

1. Photographs
2. Combined Preliminary Assessment/Site Inspection: March 2001
3. Combined Preliminary Assessment/Site Inspection—References 1-16: March 2001
4. Combined Preliminary Assessment/Site Inspection—References 17-32: March 2001
5. Sampling and Analysis Plan/Quality Assurance Project Plan: June 2001



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Site Information

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Site Name: LEARY BROTHERS STORAGE

Street: US 17 & NC 32

City / State / ZIP: EDENTON, NC

NPL Status: Not on the NPL

Non-NPL Status: NFRAP

EPA ID: NCN000407197

EPA Region: 04

County: CHOWAN

Federal Facility Flag: Not a Federal Facility

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Title	Name	Phone Number
Remedial Project Manager (RPM)	KEN LUCAS	(404) 562-8953
Remedial Project Manager (RPM)	Jennifer Wendel	(404) 562-8799

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- Archived Sites
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- Five-Year Reviews Online
- Site Assessment Documentation Pilot
- Site Spill Identifier List (SPIL)
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Archived Sites

LEARY BROTHERS STORAGE

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<u>OU</u>	<u>Action Name</u>	<u>Qualifier</u>	<u>Lead</u>	<u>Actual Start</u>	<u>Actual Completion</u>
00	DISCOVERY		F		08/29/2000
00	COMBINED PA/SI	L	S		06/28/2001
00	COMBINED PA/SI	L	S		05/28/2002
00	SITE REASSESSMENT	N	F		10/09/2003
00	ARCHIVE SITE		EP		10/09/2003

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NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT



MICHAEL F. EASLEY, GOVERNOR
William G. Ross Jr., SECRETARY
DEXTER R. MATTHEWS, INTERIM DIRECTOR

September 27, 2001

Ms. Jennifer Wendel
NC Site Management Section
USA EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, GA 30503

SUBJECT: Preliminary Assessment/Site Inspection (PA/SI) Addendum
Leary Brothers Storage, NCN 000 407 197
Edenton, Chowan County, NC

Dear Ms. Wendel:

Based on an observed release of arsenic to a fishery, the NC Superfund Section recommends this site for further action under CERCLA.

The Leary Brothers Storage site is located in the southwestern quadrant of the intersection of NC 32 (Virginia Road) and US 17 (Broad Street). The geographic coordinates for the site are 36° 4' 9.12" north latitude and 76° 36' 21.28" west longitude (Reference 1).

The site consists of the warehouses of the former Leary Brothers Storage, the Edenton Floral Company, and a Texaco Station located on Broad Street at the southern end of the site. An abandoned railroad track crosses the site separating Lots #1 and #4 (including the Texaco Station) to the south from Lot #3 (including Edenton Floral Company) to the north (Ref. 4).

Prior to the 1930s, Edenton Lumber Company and Sawmill owned the portion of the property where the Edenton Floral Company was located. During the 1930s and 1940s, the entire site was used for storage of cotton, peanuts, and other farm products. From the 1960s until 1987, pesticides were also stored on the site. The Leary Brothers business was licensed as a pesticide dealer with the State of North Carolina (Ref. 4).

Between 1992 and 1997, several environmental investigations were conducted on various sections of the former Leary Brothers Storage property. Sampling during these investigations included both soil and groundwater sampling. Soil sample results detected DDT and DDD in the soil near one of the warehouses (Ref. 6). Arsenic was detected in soil below the foundation of the Edenton Floral Company (Ref. 12, Ref. 13). Groundwater sample results detected arsenic near Edenton Floral Company (Ref. 12, Ref. 13) and arsenic, barium, cadmium, chromium, lead, and selenium near the Texaco Station (Ref. 10). All of these detections in groundwater exceeded both the North Carolina groundwater standards found in 15A NCAC 2L (Ref. 7) as well as the federal benchmarks established for the protection of human health and the environment (Ref. 8).

Page 2

Ms. Jennifer Wendel

September 27, 2001

In addition to the sampling conducted on site, the North Carolina Department of Agriculture (NCDA) conducted a removal of 3,000 pounds of dry pesticides and 45 gallons of liquid pesticides from the warehouses. Through an interview with Mr. Leonard Small, a former employee of Leary Brothers Storage, it was discovered that an arsenic pesticide product was sold by the business for use in tobacco during the 1960's (Ref. 9).

A review of the above data indicated a potential threat to the surface water pathway and groundwater users in the area. Based on this data review, and on the fact that groundwater the only source of drinking water within 4 miles of the site, the NC Superfund Section recommended the addition of this site to CERCLIS on August 18, 2000 (Ref. 14).

On October 12, 2000, NC Superfund Section personnel visited the site to obtain data for the Preliminary Assessment/Site Inspection (PA/SI) (Ref. 15). On November 28-29, 2000, NC Superfund Section personnel conducted SI sampling at the Leary Brothers Storage site. Surface soil samples were collected from several suspected source areas on site. Groundwater samples were collected from two on-site and one off-site monitoring wells, in addition to two of the Town of Edenton's four municipal wells. Surface water and sediment samples were collected from a drainage ditch south of the site, and from an unnamed tributary southwest of the site (Ref. 17).

The site's surface water pathway contains 23.55 miles of wetland frontage and is a fishery. Arsenic was detected in all of the surface water samples collected. The probable point of entry (PPE)/fishery sample and the qualifying wetland sample contained arsenic at a level significantly higher than the background sample, and both of these samples also exceeded the EPA Health Based Food Chain Benchmark. Arsenic was also found in the potential overland flow pathway sample associated with the site. Historical use and detection of arsenic on site supports attribution to the site of arsenic in the overland flow pathway.

Based on an observed release of arsenic to a wetland and to a fishery, the NC Superfund Section recommended this site for further action under CERCLA.

On July 17, 2001, NC Superfund Section personnel collected six surface water samples. The sample locations are presented in Table 17 and shown on Figure 6 (Ref. 34).

All sampling was conducted by NC Superfund Section staff according to section SOPs and US EPA Region IV, "Environmental Investigations Standard Operating Procedures and Quality Assurance Manual", May 1996. Samples were submitted to the NC State Laboratory of Public Health and analyzed for arsenic (Appendix B).

Table 17
 Sample Locations and Descriptions
 Leary Brothers Storage, Edenton, Chowan County

Sample ID	Description	Comments	Matrix	Analysis
LBS-019-SW	Headwaters of the unnamed tributary southwest of site.	PPE; document observed release to fishery.	Aqueous	Arsenic
LBS-020-SW	Headwaters of the unnamed tributary southwest of site.	PPE; document observed release to fishery.	Aqueous	Arsenic
LBS-021-SW	Intermittent ditch upstream of PPE.	Attribution from other sources.	Aqueous	Arsenic
LBS-022-SW	Intermittent ditch upstream of PPE.	Attribution from other sources.	Aqueous	Arsenic
LBS-023-SW	Unnamed tributary north of Beaver Hill Cemetery.	Background surface water sample.	Aqueous	Arsenic
LBS-024-SW	Unnamed tributary north of Beaver Hill Cemetery.	Background surface water sample.	Aqueous	Arsenic

Surface water analytical results can be found in Appendix B and are summarized in Table 18. Arsenic was detected in all of the surface water samples: probable point of entry (PPE) and fishery (LBS-019-SW & LBS-20-SW); background (LBS-023-SW & LBS-024-SW); and intermittent ditch west of property (LBS-021-SW & LBS-022-SW). LBS-019-SW and LBS-020-SW both contained arsenic at a level of 0.006 milligrams per liter (mg/l), which is considered significantly higher than the background sample (LBS-023-SW & LBS-024-SW) value of 0.002 mg/l. Arsenic was also present in the intermittent ditch (LBS-021-SW & LBS-022-SW) at a value of 0.001 mg/l, which is less than the background value of 0.002 mg/l. Historical use (Ref. 9) and detection of arsenic on site and in the overland flow pathway supports attribution to the site of arsenic to the surface water pathway (Ref. 6, pg. 11; Ref. 11; Ref. 12; Ref. 13).

Page 4
Ms. Jennifer Wendel
September 27, 2001

Table 18
Surface Water Sample Inorganic Analytical Results
Leary Brothers Storage, Edenton, Chowan County

Contaminant	Units	LBS-019- SW	LBS-020- SW	LBS-021- SW	LBS-022- SW	LBS-023- SW	LBS-024- SW
Arsenic	mg/l	0.006	0.006	0.001	0.001	0.002	0.002

Values in **bold** indicate concentrations greater than three times background.

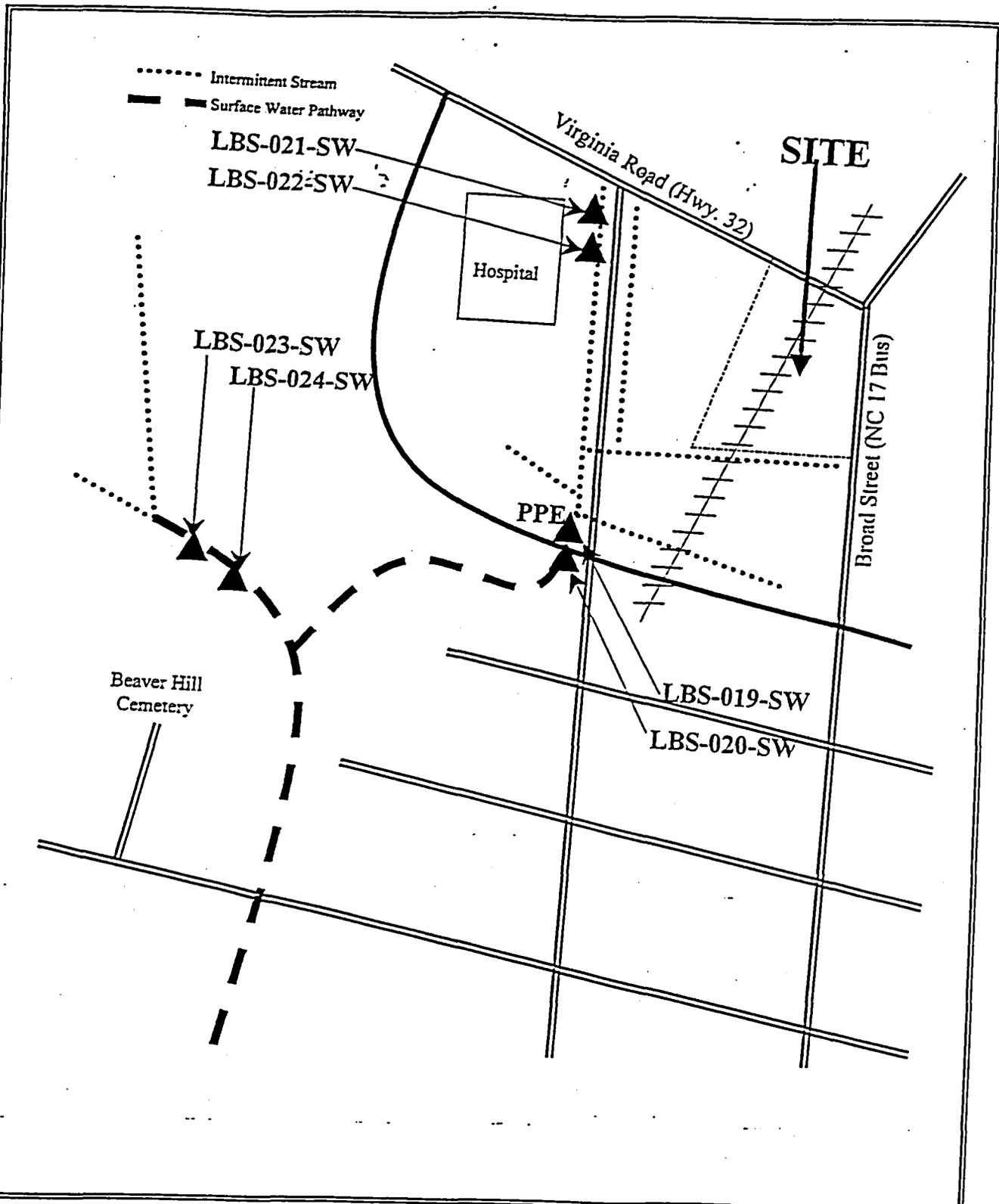
In summary, the site's primary impact has been to the unnamed tributary segment of the surface water pathway. Based on an observed release of arsenic to a fishery, the NC Superfund Section recommends this for further action under CERCLA.

Sincerely,


Melanie Bryson, E.I.T.
Environmental Engineer
NC Superfund Section


Dan LaMontagne, Head
Site Evaluation and Removal Branch
NC Superfund Section

cc: File



Site: Leary Brothers Storage	Sample Plan Map 1
US EPA ID #: NCN000407197	Date: 6/29/01
Edenton, Chowan County	Drawn By: MDB
Approximate Scale: Not To Scale	

Site Number NCN000407197

Sample ID Number /Name 50641

Name of Site Leary Brothers Storage

Collected By Melanie Bryson ID# _____

Site Location Edenton, NC

Date Collected 7-17-01 Time 10:54

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

Environmental Concentrate Comments
 Ground Water (1) Solid (5) LBS-019-SW
 Surface water (2) Liquid (6) _____
 Soil (3) Sludge (7) _____
 Other (4) Other (8) _____

TCLP Compounds	
Inorganic Compounds	Results (mg/l)
Arsenic	_____
Barium	<u>1101</u>
Cadmium	_____
Chromium	_____
Lead	_____
Mercury	_____
Selenium	_____
Silver	_____

Organic Chemistry		Inorganic Chemistry	
Parameter	Results(mg/l)	Parameter	Results(mg/l)(mg/kg)
<input type="checkbox"/> P&T:GC/MS	_____	<input type="checkbox"/> antimony	_____
<input type="checkbox"/> Acid:B/N Ext.	_____	<input checked="" type="checkbox"/> arsenic	<u>0.006</u>
<input type="checkbox"/> 2,4-D	_____	<input type="checkbox"/> barium	_____
<input type="checkbox"/> 2,4,5-TP	_____	<input type="checkbox"/> beryllium	_____
<input type="checkbox"/> chlordane	_____	<input type="checkbox"/> cadmium	_____
<input type="checkbox"/> heptachlor	_____	<input type="checkbox"/> chloride	_____
<input type="checkbox"/> hexachlorbenzene	_____	<input type="checkbox"/> chromium	_____
<input type="checkbox"/> hexachlorbutadiene	_____	<input type="checkbox"/> cobalt	_____
<input type="checkbox"/> endrin	_____	<input type="checkbox"/> copper	_____
<input type="checkbox"/> lindane	_____	<input type="checkbox"/> fluoride	_____
<input type="checkbox"/> methoxychlor	_____	<input type="checkbox"/> iron	_____
<input type="checkbox"/> toxaphene	_____	<input type="checkbox"/> lead	_____
_____	_____	<input type="checkbox"/> manganese	_____
_____	_____	<input type="checkbox"/> mercury	_____
_____	_____	<input type="checkbox"/> nickel	_____
_____	_____	<input type="checkbox"/> nitrate	_____
_____	_____	<input type="checkbox"/> selenium	_____
_____	_____	<input type="checkbox"/> silver	_____
_____	_____	<input type="checkbox"/> sulfates	_____
_____	_____	<input type="checkbox"/> thallium	_____
_____	_____	<input type="checkbox"/> vanadium	_____
_____	_____	<input type="checkbox"/> zinc	_____
_____	_____	<input type="checkbox"/> pH	_____
_____	_____	<input type="checkbox"/> conductivity	_____
_____	_____	<input type="checkbox"/> TDS	_____
_____	_____	<input type="checkbox"/> Flash point	_____

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

Date Received 07-18-01
 Date Extracted _____
 Date Analyzed _____
 Reported by [Signature]
 Date Reported 07-31-01
 Lab Number 010611
 DHS 3191(revised 12/93)

Site Number NCN000407197

Sample ID Number /Name 50642

Name of Site Leary Brothers Storage

Collected By Melanie Bryson

ID# _____

Site Location Edenton, NC

Date Collected 7-17-01

Time 10:50

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

Environmental

Concentrate

Comments

Ground Water (1) Solid (5) LBS-020-SW

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 _____

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 _____

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) _____

Organic Chemistry

Inorganic Chemistry

Parameter Results(mg/l)

Parameter Results(mg/l)(mg/kg)

P&T:GC/MS _____

Acid:B/N Ext. _____

2,4-D _____

2,4,5-TP _____

chlordane _____

heptachlor _____

hexachlorobenzene _____

hexachlorbutadiene _____

endrin _____

lindane _____

methoxychlor _____

toxaphene _____

antimony _____

arsenic 0.006

barium _____

beryllium _____

cadmium _____

chloride _____

chromium _____

cobalt _____

copper _____

fluoride _____

iron _____

lead _____

manganese _____

mercury _____

nickel _____

nitrate _____

selenium _____

silver _____

sulfates _____

thallium _____

vanadium _____

zinc _____

pH _____

conductivity _____

TDS _____

Flash point _____

Date Received 07-18-01

Date Extracted _____

Date Analyzed _____

Reported by MM

Date Reported 07-31-01

Lab Number 010612

DHS 3191(revised 12/93)

Site Number NCN000407197

Sample ID Number /Name 50643

Name of Site Leary Brothers Storage

Collected By Melanie Bryson

ID# _____

Site Location Edenton, NC

Date Collected 7-17-01

Time 11:03

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

Environmental

Concentrate

Comments

Ground Water (1) Solid (5) LBS-021-SW

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	_____

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	_____
_____ 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)	_____

Organic Chemistry

Parameter	Results(mg/l)
_____ P&T:GC/MS	_____
_____ Acid:B/N Ext.	_____
_____ 2,4-D	_____
_____ 2,4,5-TP	_____
_____ chlordane	_____
_____ heptachlor	_____
_____ hexachlorbenzene	_____
_____ hexachlorbutadiene	_____
_____ endrin	_____
_____ lindane	_____
_____ methoxychlor	_____
_____ toxaphene	_____

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
_____ antimony	_____
<input checked="" type="checkbox"/> arsenic	<u>0.001</u>
_____ barium	_____
_____ beryllium	_____
_____ cadmium	_____
_____ chloride	_____
_____ chromium	_____
_____ cobalt	_____
_____ copper	_____
_____ fluoride	_____
_____ iron	_____
_____ lead	_____
_____ manganese	_____
_____ mercury	_____
_____ nickel	_____
_____ nitrate	_____
_____ selenium	_____
_____ silver	_____
_____ sulfates	_____
_____ thallium	_____
_____ vanadium	_____
_____ zinc	_____
_____ pH	_____
_____ conductivity	_____
_____ TDS	_____
_____ Flash point	_____

Date Received 07-18-01

Date Extracted _____

Date Analyzed _____

Reported by MM

Date Reported 07-31-01

Lab Number 010613

DHS 3191(revised 12/93)

Site Number NCN000407197

Sample ID Number /Name 50644

Name of Site Leary Brothers Storage

Collected By Melanie Bryson

ID# _____

Site Location Edenton, NC

Date Collected 7-17-01

Time 11:01

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

Environmental

Concentrate

Comments

Ground Water (1) Solid (5) LBS-022-SW

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 _____

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 _____

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) _____

Organic Chemistry

Parameter	Results(mg/l)
<input type="checkbox"/> P&T:GC/MS	_____
<input type="checkbox"/> Acid:B/N Ext.	_____
<input type="checkbox"/> 2,4-D	_____
<input type="checkbox"/> 2,4,5-TP	_____
<input type="checkbox"/> chlordane	_____
<input type="checkbox"/> heptachlor	_____
<input type="checkbox"/> hexachlorbenzene	_____
<input type="checkbox"/> hexachlorbutadiene	_____
<input type="checkbox"/> endrin	_____
<input type="checkbox"/> lindane	_____
<input type="checkbox"/> methoxychlor	_____
<input type="checkbox"/> toxaphene	_____
_____	_____
_____	_____

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
<input type="checkbox"/> antimony	_____
<input checked="" type="checkbox"/> arsenic	<u>0.001</u>
<input type="checkbox"/> barium	_____
<input type="checkbox"/> beryllium	_____
<input type="checkbox"/> cadmium	_____
<input type="checkbox"/> chloride	_____
<input type="checkbox"/> chromium	_____
<input type="checkbox"/> cobalt	_____
<input type="checkbox"/> copper	_____
<input type="checkbox"/> fluoride	_____
<input type="checkbox"/> iron	_____
<input type="checkbox"/> lead	_____
<input type="checkbox"/> manganese	_____
<input type="checkbox"/> mercury	_____
<input type="checkbox"/> nickel	_____
<input type="checkbox"/> nitrate	_____
<input type="checkbox"/> selenium	_____
<input type="checkbox"/> silver	_____
<input type="checkbox"/> sulfates	_____
<input type="checkbox"/> thallium	_____
<input type="checkbox"/> vanadium	_____
<input type="checkbox"/> zinc	_____
<input type="checkbox"/> pH	_____
<input type="checkbox"/> conductivity	_____
<input type="checkbox"/> TDS	_____
<input type="checkbox"/> Flash point	_____

Date Received 07-18-01

Date Extracted _____

Date Analyzed _____

Reported by [Signature]

Date Reported 07-31-01

Lab Number 010614

DHS 3191(revised 12/93)

Site Number NCN000407197

Sample ID Number /Name 50645

Name of Site Leary Brothers Storage

Collected By Melanie Bryson ID# _____

Site Location Edenton, NC

Date Collected 7-17-01 Time 10:35

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

<u>Environmental</u>	<u>Concentrate</u>	<u>Comments</u>
<input type="checkbox"/> Ground Water (1)	<input type="checkbox"/> Solid (5)	<u>LBS-023-SW</u>
<input checked="" type="checkbox"/> Surface water (2)	<input type="checkbox"/> Liquid (6)	_____
<input type="checkbox"/> Soil (3)	<input type="checkbox"/> Sludge (7)	_____
<input type="checkbox"/> Other (4)	<input type="checkbox"/> Other (8)	_____

Organic Chemistry		Inorganic Chemistry	
Parameter	Results(mg/l)	Parameter	Results(mg/l)(mg/kg)
<input type="checkbox"/> P&T:GC/MS	_____	<input type="checkbox"/> antimony	_____
<input type="checkbox"/> Acid:B/N Ext.	_____	<input checked="" type="checkbox"/> arsenic	<u>0.002</u>
<input type="checkbox"/> 2,4-D	_____	<input type="checkbox"/> barium	_____
<input type="checkbox"/> 2,4,5-TP	_____	<input type="checkbox"/> beryllium	_____
<input type="checkbox"/> chlordane	_____	<input type="checkbox"/> cadmium	_____
<input type="checkbox"/> heptachlor	_____	<input type="checkbox"/> chloride	_____
<input type="checkbox"/> hexachlorbenzene	_____	<input type="checkbox"/> chromium	_____
<input type="checkbox"/> hexachlorbutadiene	_____	<input type="checkbox"/> cobalt	_____
<input type="checkbox"/> endrin	_____	<input type="checkbox"/> copper	_____
<input type="checkbox"/> lindane	_____	<input type="checkbox"/> fluoride	_____
<input type="checkbox"/> methoxychlor	_____	<input type="checkbox"/> iron	_____
<input type="checkbox"/> toxaphene	_____	<input type="checkbox"/> lead	_____
_____	_____	<input type="checkbox"/> manganese	_____
_____	_____	<input type="checkbox"/> mercury	_____
_____	_____	<input type="checkbox"/> nickel	_____
_____	_____	<input type="checkbox"/> nitrate	_____
_____	_____	<input type="checkbox"/> selenium	_____
_____	_____	<input type="checkbox"/> silver	_____
_____	_____	<input type="checkbox"/> sulfates	_____
_____	_____	<input type="checkbox"/> thallium	_____
_____	_____	<input type="checkbox"/> vanadium	_____
_____	_____	<input type="checkbox"/> zinc	_____
_____	_____	<input type="checkbox"/> pH	_____
_____	_____	<input type="checkbox"/> conductivity	_____
_____	_____	<input type="checkbox"/> TDS	_____
_____	_____	<input type="checkbox"/> Flash point	_____

TCLP Compounds	
Inorganic Compounds	Results (mg/l)
<input type="checkbox"/> Arsenic	_____
<input type="checkbox"/> Barium	_____
<input type="checkbox"/> Cadmium	_____
<input type="checkbox"/> Chromium	_____
<input type="checkbox"/> Lead	_____
<input type="checkbox"/> Mercury	_____
<input type="checkbox"/> Selenium	_____
<input type="checkbox"/> Silver	_____

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

Date Received 07-18-01

Date Extracted _____

Date Analyzed _____

Reported by DM

Date Reported 07-31-01

Lab Number 010615

DHS 3191(revised 12/93)

Site Number NCN000407197

Sample ID Number /Name 50646

Name of Site Leary Brothers Storage

Collected By Melanie Bryson

ID# _____

Site Location Edenton, NC

Date Collected 7-17-01

Time 10:33

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

Environmental

Concentrate

Comments

Ground Water (1) Solid (5) LBS-024-SW

Surface water (2) Liquid (6) _____

Soil (3) Sludge (7) _____

Other (4) Other (8) _____

Organic Chemistry		Inorganic Chemistry	
Parameter	Results(mg/l)	Parameter	Results(mg/l)(mg/kg)
<input type="checkbox"/> P&T:GC/MS	_____	<input type="checkbox"/> antimony	_____
<input type="checkbox"/> Acid:B/N Ext.	_____	<input checked="" type="checkbox"/> arsenic	<u>0.002</u>
<input type="checkbox"/> 2,4-D	_____	<input type="checkbox"/> barium	_____
<input type="checkbox"/> 2,4,5-TP	_____	<input type="checkbox"/> beryllium	_____
<input type="checkbox"/> chlordane	_____	<input type="checkbox"/> cadmium	_____
<input type="checkbox"/> heptachlor	_____	<input type="checkbox"/> chloride	_____
<input type="checkbox"/> hexachlorbenzene	_____	<input type="checkbox"/> chromium	_____
<input type="checkbox"/> hexachlorbutadiene	_____	<input type="checkbox"/> cobalt	_____
<input type="checkbox"/> endrin	_____	<input type="checkbox"/> copper	_____
<input type="checkbox"/> lindane	_____	<input type="checkbox"/> fluoride	_____
<input type="checkbox"/> methoxychlor	_____	<input type="checkbox"/> iron	_____
<input type="checkbox"/> toxaphene	_____	<input type="checkbox"/> lead	_____
_____	_____	<input type="checkbox"/> manganese	_____
_____	_____	<input type="checkbox"/> mercury	_____
_____	_____	<input type="checkbox"/> nickel	_____
_____	_____	<input type="checkbox"/> nitrate	_____
_____	_____	<input type="checkbox"/> selenium	_____
_____	_____	<input type="checkbox"/> silver	_____
_____	_____	<input type="checkbox"/> sulfates	_____
_____	_____	<input type="checkbox"/> thallium	_____
_____	_____	<input type="checkbox"/> vanadium	_____
_____	_____	<input type="checkbox"/> zinc	_____
_____	_____	<input type="checkbox"/> pH	_____
_____	_____	<input type="checkbox"/> conductivity	_____
_____	_____	<input type="checkbox"/> TDS	_____
_____	_____	<input type="checkbox"/> Flash point	_____

Date Received 07-18-01

Date Extracted _____

Date Analyzed _____

Reported by [Signature]

Date Reported 07-31-01

Lab Number 010616

DHS 3191(revised 12/93)

TCLP Compounds

Inorganic Compounds	Results (mg/l)
<input type="checkbox"/> Arsenic	_____
<input type="checkbox"/> Barium	_____
<input type="checkbox"/> Cadmium	_____
<input type="checkbox"/> Chromium	_____
<input type="checkbox"/> Lead	_____
<input type="checkbox"/> Mercury	_____
<input type="checkbox"/> Selenium	_____
<input type="checkbox"/> Silver	_____

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

Site Number NCN000407197

Sample ID Number /Name 50647

Name of Site Leary Brothers Storage

Collected By Melanie Bryson ID# _____

Site Location Edenton, NC

Date Collected 7-18-01 Time 09:30

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

<u>Environmental</u>	<u>Concentrate</u>	<u>Comments</u>
<u> </u> Ground Water (1)	<u> </u> Solid (5)	<u>LBS-025-SW</u>
<input checked="" type="checkbox"/> Surface water (2)	<u> </u> Liquid (6)	<u> </u>
<u> </u> Soil (3)	<u> </u> Sludge (7)	<u> </u>
<u> </u> Other (4)	<u> </u> Other (8)	<u> </u>

TCLP Compounds

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

Organic Compounds

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

Organic Chemistry

<u>Parameter</u>	<u>Results(mg/l)</u>
<u> </u> P&T:GC/MS	<u> </u>
<u> </u> Acid:B/N Ext.	<u> </u>
<u> </u> 2,4-D	<u> </u>
<u> </u> 2,4,5-TP	<u> </u>
<u> </u> chlordane	<u> </u>
<u> </u> heptachlor	<u> </u>
<u> </u> hexachlorbenzene	<u> </u>
<u> </u> hexachlorbutadiene	<u> </u>
<u> </u> endrin	<u> </u>
<u> </u> lindane	<u> </u>
<u> </u> methoxychlor	<u> </u>
<u> </u> toxaphene	<u> </u>

Inorganic Chemistry

<u>Parameter</u>	<u>Results(mg/l)(mg/kg)</u>
<u> </u> antimony	<u> </u>
<input checked="" type="checkbox"/> arsenic	<u>< 0.001</u>
<u> </u> barium	<u> </u>
<u> </u> beryllium	<u> </u>
<u> </u> cadmium	<u> </u>
<u> </u> chloride	<u> </u>
<u> </u> chromium	<u> </u>
<u> </u> cobalt	<u> </u>
<u> </u> copper	<u> </u>
<u> </u> fluoride	<u> </u>
<u> </u> iron	<u> </u>
<u> </u> lead	<u> </u>
<u> </u> manganese	<u> </u>
<u> </u> mercury	<u> </u>
<u> </u> nickel	<u> </u>
<u> </u> nitrate	<u> </u>
<u> </u> selenium	<u> </u>
<u> </u> silver	<u> </u>
<u> </u> sulfates	<u> </u>
<u> </u> thallium	<u> </u>
<u> </u> vanadium	<u> </u>
<u> </u> zinc	<u> </u>
<u> </u> pH	<u> </u>
<u> </u> conductivity	<u> </u>
<u> </u> TDS	<u> </u>
<u> </u> Flash point	<u> </u>

Date Received 07-18-01

Date Extracted _____

Date Analyzed _____

Reported by [Signature]

Date Reported 07-31-01

Lab Number 010617

DHS 3191(revised 12/93)

CHAIN OF CUSTODY RECORD

Project Name: <u>Leamy Brothers Storage</u> Site ID # (NCD#): <u>WNCN000407197</u> Location: <u>Edenton, NC</u> Address: <u>US 17 & NC 32</u>	Sampled By: <u>Melanie Bryson</u> Sampler ID: _____ Telephone: <u>(919) 733 2801 x 316</u> Date Sampled: <u>7/17/01</u> Time Sampled: _____
--	---

Sample Types: Soil _____ Water Waste _____ Other _____

Remarks: _____

Field Sample	<u>50641</u>	<u>50645</u>				
Numbers	<u>50642</u>	<u>50646</u>				
	<u>50643</u>	<u>50647</u>				
	<u>50644</u>					

Relinquished By: Melanie Bryson Date: 7/18/01 Time: 9:00
 (Signature)

Received By: S. C. Eilan Date: 7-18-01 Time: 9:00
 (Signature)

Relinquished By: _____ Date: _____ Time: _____
 (Signature)

Received By: _____ Date: _____ Time: _____
 (Signature)

Relinquished By: _____ Date: _____ Time: _____
 (Signature)

Received By: _____ Date: _____ Time: _____
 (Signature)

Results Reported: Della J. Monroe Date: 7-31-01 Time: 2:45 PM
 (Signature)

Leary Brothers Storage
NCN 000 407 197
REFERENCES

1. Bryson, Melanie, NC Superfund Section. Latitude and Longitude Calculation Worksheets, Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. August 15, 2000.
2. United States Department of Commerce, Technical Paper No. 40, Rainfall Frequency Atlas of the United States, 1961.
3. United States Department of Commerce, The Climatic Atlas of the United States, 1983. pp. 7, 10.5.
4. Snavely, Keith, NC Superfund Section. Memo to Dan LaMontagne, Head, Site Evaluation and Removal Branch, NC Superfund Section. Referral of sites to CERCLIS. May 24, 2000.
5. EA Engineering, Science, and Technology. Report of Preliminary Environmental Site Assessment, Leary Cotton Warehouse. February, 1992.
6. Avolis Engineering, P.A. Phase II Environmental Audit, Leary Cotton Warehouse. May 27, 1992.
7. NCDENR, Division of Water Quality, North Carolina Administrative Code, Title 15A, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina.
8. United States Environmental Protection Agency, Superfund Chemical Data Matrix, Appendix B. August 5, 1996
9. Hudak, Colleen M., Pesticide Specialist, North Carolina Department of Agriculture. Letter to Mr. Jeff Welti regarding groundwater contamination at the Broad Street Texaco in Edenton, NC. February 15, 1996.
10. NCDEHNR, Division of Environmental Management, Washington Regional Office. Quarterly Groundwater Sampling Report for Broad Street Texaco. March 11, 1996.
11. Dominion Environmental Group. Environmental Site Assessment of Edenton Floral Company and Antiques. September 18, 1996.
12. Dominion Environmental Group. Phase II Environmental Site Assessment of Edenton Florists. November 25, 1996; Revised December 19, 1997.
13. Dominion Environmental Group. Phase II Environmental Site Assessment of Edenton Florists. March 2, 1998.

14. Bryson, Melanie and Dan LaMontagne, NC Superfund Section. CERCLIS Site Addition Request Letter. August 18, 2000.
15. Bryson, Melanie, NC Superfund Section. Site Reconnaissance Field Notes. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. October 12, 2000.
16. Bryson, Melanie and Dan LaMontagne, NC Superfund Section. Sampling and Analysis Plan/Quality Assurance Project Plan. November 1, 2000.
17. Bryson, Melanie and Kyle Hagen, NC Superfund Section. SI sampling event field notes. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. November 27-28, 2000.
18. NCDENR, Division of Waste Management, Superfund Section. NC Inactive Hazardous Sites Program, Tables 4-1: Soil Remediation Goals and 4-2: Groundwater Remediation Goals. August 2000.
19. Lloyd, Orville B., Jr., U.S. Geological Survey. *Ground-water Resources of Chowan County North Carolina*. North Carolina Department of Water and Air Resources, Groundwater Bulletin No. 14. July 1968.
20. United States Environmental Protection Agency. 1990. 40 CFR Part 300, Hazard Ranking System: Final Rule, December 14, 1990.
21. US Department of Agriculture, Soil Conservation Service, Soil Survey of Chowan and Perquimans Counties, NC. 1982.
22. Bryson, Melanie, NC Superfund Section. Memo to file: Town of Edenton Water System. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. October 13, 2000.
23. Public Water Supply Systems Database. Water Supply Systems within a 4.0 mile radius of the Leary Brothers Storage Site, Edenton, Chowan County, NC. July 28, 2000.
24. Bryson, Melanie, NC Superfund Section. Memo to file: Water Line Locations. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. October 13, 2000.
25. United States Department of Commerce Bureau of the Census, County and City Data Book. 1990.
26. United States Federal Emergency Management Agency. Flood Insurance Rate Map, Community Panel, #370301, Edenton, Chowan County, North Carolina. Effective Date: July 3, 1985.

27. Bryson, Melanie, NC Superfund Section. Memo to file: Flow Calculations. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. February 21, 2001.
28. Bryson, Melanie, NC Superfund Section. Memo to file: Surface Water Intakes. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. March 7, 2001.
29. Bryson, Melanie, NC Superfund Section. Memo to file: Wetlands along the 15-miles surface water pathway. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. March 7, 2001.
30. Thomas, Chad D., NC Wildlife Resources Commission. Email, Subject: Potential Superfund Site, Chowan Co; Fishery Information. November 16, 2000.
31. Bryson, Melanie, NC Superfund Section. Memo to file: Natural Heritage Program Trip Report. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. February 20, 2001.
32. North Carolina Center for Geographic Information and Analyses. Population Estimates within a 4.0 mile radius. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. January 31, 2001.
33. Bryson, Melanie, NC Superfund Section. Amended SI Sampling Field Notes. Leary Brothers Storage, Chowan County, North Carolina. EPA ID: NCN 000 407 197. July 17, 2001.
34. Bryson, Melanie and Dan LaMontagne, NC Superfund Section. Sampling and Analysis Plan/Quality Assurance Project Plan. June 29, 2001.

Lanny Brothers
Storage

7/17/01

Photo Log

Present

1 - LBS-024-SW

2 - 023

M Deaton

M. Byson

3 - LBS-020-SW

4 -

5 - LBS-019-SW

6+7 - LBS-022-SW

9+8 - LBS-021-SW

All areas sampled ~~and~~ are
overgrown

- cattails and other wetland
plants in plenty

~~Melan Byson~~

84°F Sunny Lanny Bros.
Storage 7/17/01

10:15 am arrived @ Beaver Hill Cemetery
by water plant

10:30 arrived @ LBS-023/024-SW

10:33 LBS-024-SW collected

- minnows + other small fish present
in stream

10:35 LBS-023-SW collected

- collected upstream approx 10'
from LBS-024-SW

10:48 arrived @ PPE

10:50 LBS-020-SW collected

- down gradient of road

- thick film on surface of water

10:54 LBS-019-SW collected

11:00 arrived @ Intermittent stream

11:01 LBS-025-SW collected

11:03 LBS-021-SW collected

11:10 acidified samples

11:20 sampling trip complete - return
to Raleigh

Melan Byson

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
WILLIAM L. MEYER, DIRECTOR



June 29, 2001

Ms. Jennifer Wendel
NC Site Management Section
US EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

Subject: Sampling and Analysis Plan/Quality Assurance Project Plan
Leary Brothers Storage NCN000407197
Amended Site Inspection (Amended SI)
Monroe, Union County, North Carolina

Dear Ms. Wendel:

This letter contains the proposed Sampling and Analysis/Quality Assurance Project Plan (SAP/QAPP) for the Amended SI on the Leary Brothers Storage site, tentatively scheduled for the week July 16, 2001. The proposed samples include surface water samples only.

The Leary Brothers Storage site is located in the southwestern quadrant of the intersection of NC 32 (Virginia Road) and US 17 (Broad Street). The geographic coordinates for the site are 36° 4' 9.12" north latitude and 76° 36' 21.28" west longitude. The site consists of the former warehouses of the Leary Brothers Storage, Edenton Floral Company, and the Texaco Station located on Broad Street at the southern end of the site. An abandoned railroad track intersects the site. During the 1930s and 1940s, the entire site was used for storage of cotton, peanuts, and other farm products. From the 1960s until 1987, pesticides were also stored on the site.

During a foreclosure on the site by Southern Bank and Trust Company ("Bank") during 1992, pesticides were found left abandoned on the property. A Phase II Environmental Audit was conducted by Avolis Engineering, P.A. for the Bank. The results from the audit indicated concentrations of DDT (13.1 ug/l) and DDD (5.6 ug/l) in the soil near one of the warehouses. Groundwater sampling on site near the Texaco station indicated the presence of arsenic (47 ug/l), barium (2,100 ug/l), chromium (600 ug/l), lead (430 ug/l); and selenium (20 ug/l) in the groundwater at levels above the North Carolina groundwater standards found in 15A NCAC 2L, as well as above the federal benchmarks established for the protection of human health and the environment. Groundwater sampling in the vicinity of the Texaco station indicated the presence of BTEX, arsenic (435 ug/l), lead (25 ug/l), and cadmium (14 ug/l) at levels higher than the 2L groundwater standards and federal benchmarks, while nitrates (67,000 ug/l) were detected at levels above 2L standards near another onsite warehouse and the storage silos.

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646

401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605

PHONE: 919-733-4996 \ FAX: 919-715-3605

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED/10% POST-CONSUMER PAPER

Ms. Jennifer Wendel
June 29, 2001
Page 2

During 1993, and as a result of the 1992 audit, the North Carolina Department of Agriculture (NCDA) was called in to remove the abandoned pesticides found on the property. The NCDA conducted a removal of 3,000 pounds of dry pesticides and 45 gallons of liquid pesticides left in the warehouses.

In 1996, follow-up sampling of the groundwater at the Texaco station was conducted under the jurisdiction of the North Carolina Division of Water Quality (NCDWQ) as well as a requirement for a Comprehensive Site Assessment for the Texaco station gasoline constituents. Arsenic was found in the groundwater samples collected from the Texaco station and found to be as high as 496 ug/l, well above the 2L groundwater standard and federal benchmark.

Arsenic was also found in the soil and groundwater at Edenton Floral Company located at the northern end of the former Leary Brothers property during a 1997 Environmental Site Assessment conducted by Dominion Environmental Group for John and Evelyn Smith, owners of the Edenton Floral Company and Antiques. Arsenic at the floral company was found in soils 10 to 12 inches below surface at concentrations as high as 12.6 mg/kg, while groundwater sampling taken at a monitoring well located at the northeast end of the site indicated the presence of arsenic at a concentration of 122 ug/l. Both values are in excess of the federal benchmarks for arsenic in soil and groundwater, respectively. In addition to arsenic, sampling of the soil at the Edenton Floral Company also indicated the presence of 4,4'-DDE, 4,4'-DDD, 4,4'-DDT, heptachlor epoxide, and endosulfan I.

The purpose of the proposed sampling is to confirm the level of arsenic in the surface water pathway and to document any impact to fisheries downstream from the site. Because the arsenic was found at low levels in the surface water pathway and was only detected in the aqueous samples, further sampling is needed to determine whether the arsenic is in fact an observed release or is naturally occurring in the surface water.

Overland flow of runoff from the site will migrate approximately 800 feet to the probable point of entry (PPE) of the surface water pathway (SWP). The site PPE is at an unnamed perennial tributary to Edenton Bay. From the PPE, the unnamed tributary flows approximately 4500 feet to enter Edenton Bay. The nearest wetland, with approximately 1.6 miles of SWP frontage, is located on the unnamed tributary at the PPE. Because the site occupies the headwaters of one fork for the unnamed tributary to Edenton Bay, the background samples for surface water will be collected from the second fork of the tributary.

Sampling will be conducted, per your approval, at the locations indicated on the attached sample table and sample maps. All water samples should be tested only for arsenic.

Ms. Jennifer Wendel
June 29, 2001
Page 3

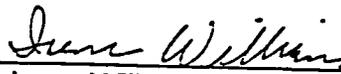
This SAP/QAPP has been developed and sampling will be conducted in accordance with the NC Superfund Section Quality Assurance Program Plan (QAPP) and Quality Assurance Standard Operating Procedures (QASOP). The QASOP adopts by reference the Environmental Investigations Standard Operating Procedures and Quality Assurance Manual, May 1996, U. S. Environmental Protection Agency, Region 4. The Program Plan is derived directly from the EPA-Approved NC Department of Environmental and Natural Resources QA Plan for Data, 1999.

If you have any questions regarding this SAP/QAPP, please contact me at melanie.bryson@ncmail.net or (919) 733-2801 ext. 316.

Sincerely,


Melanie Bryson
Environmental Engineer
NC Superfund Section


Dan LaMontagne, Head
Site Evaluation and Removal Branch
NC Superfund Section

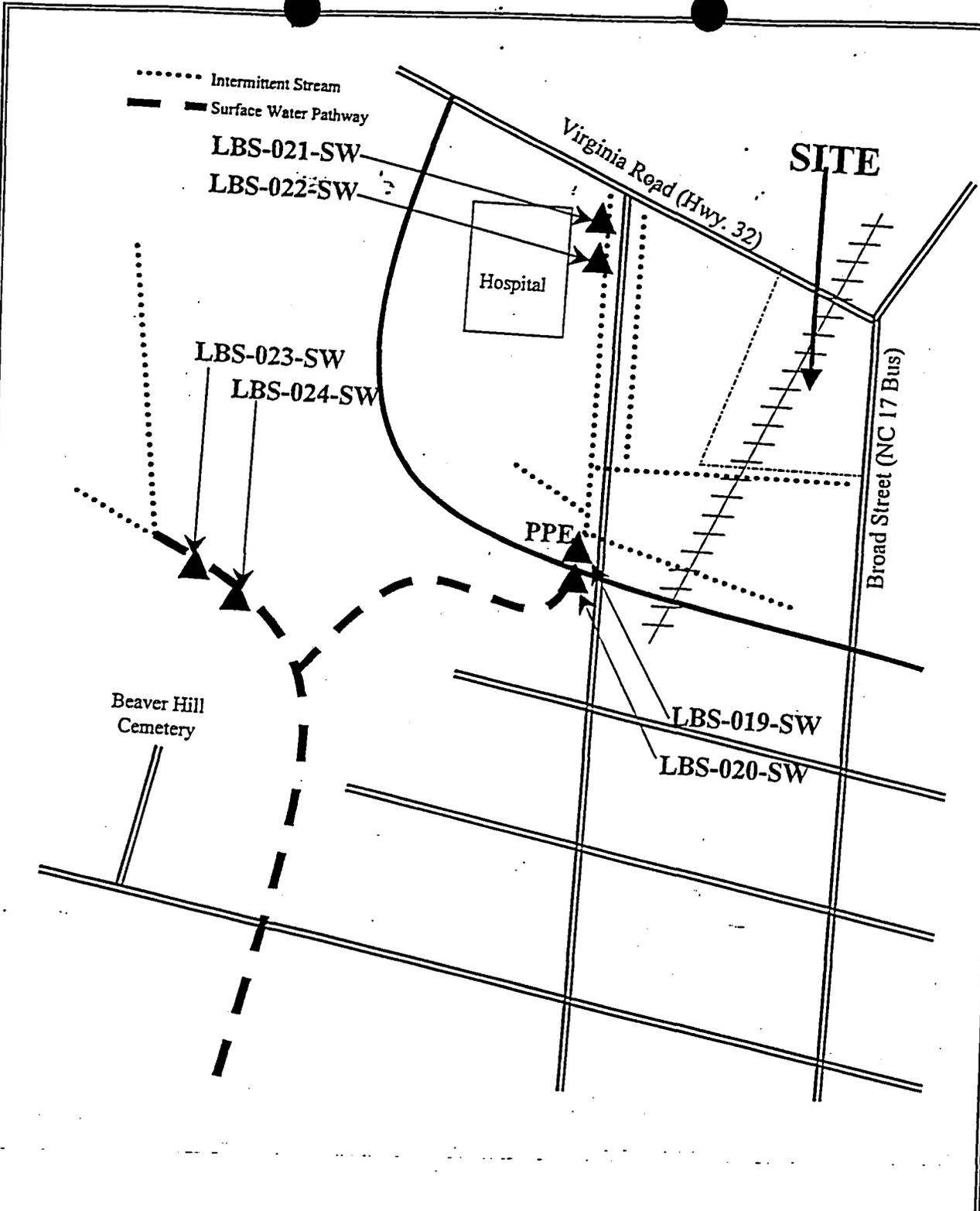
Approved:  , Date: ^{new June} ~~July~~ 29, 2001
Irene Williams
Quality Assurance Officer
NC Superfund Section

Approved: _____ , Date: _____
Jennifer Wendel
NC Site Management Section
Region IV EPA

Attachments
cc: File

Table of Samples
Leary Brothers Storage PA/SI
NCN000407197
Edenton, Chowan County, NC
June 29, 2001

Sample ID	Rationale (All Samples to be analyzed for arsenic only)
LBS-019-SW	Probable point of entry (PPE); document observed release to fishery.
LBS-020-SW	Probable point of entry (PPE); document observed release to fishery.
LBS-021-SW	Drainage ditch upstream of PPE; attribution from other sources.
LBS-022-SW	Drainage ditch upstream of PPE; attribution from other sources.
LBS-023-SW	Background surface water sample.
LBS-024-SW	Background surface water sample.
LBS-025-SW	Metals preservative blank.



Site: Leary Brothers Storage

US EPA ID #: NCN000407197

Edenton, Chowan County

Approximate Scale: Not To Scale

Sample Plan Map 1

Date: 6/29/01

Drawn By: MDB

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Leary Brothers Storage ID # NCN 000 407 197

Location Intersection of NC 32 (Virginia Rd.)
and US 17 (Broad St.), Edenton, Chowan County, NC

Proposed Date of Investigation 7/17/01

Date of Briefing 7/16/01

Date of Debriefing 7/18/01

Nature of Visit (check one): On-Site Reconnaissance _____
Off-Site Reconnaissance _____
Sampling X _____
Sampling Overview _____
Remediation Overview _____

Health Department Official Contacted Tim Peoples

Date of Contact 7/2/01

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

Personnel	Responsibilities	Signature
Team 1 <u>Melanie Bryson</u>	<u>Team leader, sampling</u>	<u>Melanie Bryson</u>
Team 1 <u>Mike Deaton</u>	<u>Sampling</u>	<u>Mike Deaton</u>

Plan Preparation:

Prepared By: David Lilley, Industrial Hygiene Consultant

Reviewed By: Jack Butler, Superfund Section Chief

David Lilley
Jack Butler

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) Liquid Solid Sludge Gas Vapor
 Characteristics Corrosive Ignitable Radioactive
 Volatile Toxic Reactive Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	EXPOSURE LIMIT
Arsenic	Odor Threshold (OT) = no data	0.01 mg/m ³
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

UNDERGROUND UTILITIES CHECKLIST

Utility	Locator/Contact Person	Phone #	Date of Location
Power	NA	_____	_____
Telephone	NA	_____	_____
Gas	NA	_____	_____
Water	NA	_____	_____
Sewer	NA	_____	_____

Call made by:

Facility Description: Size unknown _____ Buildings yes _____
Disposal Methods Being Investigated Possible spillage/leakage. _____

Unusual Features on Site (dike integrity, power lines, terrain, etc.):
None known _____

History of the Site: The warehouse was used for the storage and distribution of agricultural products, including fertilizers, pesticides, and herbicides.

C. HAZARD EVALUATION

The site can be toured and sampled in level D protection. PVC gloves will be worn while collecting water samples. Chemically resistant knee length boots will be worn on site. A tyvek suit will be carried to the surface water sampling locations and worn if the samples cannot be collected without getting muddy.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes _____
Perimeter Identified? no _____
Command Post Identified? no _____
Zones of Contamination Identified? no _____
Personal Protective Equipment/Level of Protection: _____C _____X_____D

Modifications Wear goggles, face shield, and PVC gloves while preparing acid preserved samples, goggles and PVC gloves while collecting acid preserved samples. Avoid breathing acid vapors.

Surveillance Equipment:

<u> </u> Mini Rae	<u> </u> Detector Tubes and Pumps
<u> </u> OVA	<u> </u> O2 Meter
<u> </u> Explosimeter	<u> </u> Radiation Monitor

Decontamination Procedures

 Level C Respirator wash, respirator removal, suit wash (if needed),
 suit removal, boot wash, boot removal and glove removal.

 X Level D Boot wash and rinse and boot removal, suit removal, glove
 and goggle removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine
if the site poses a threat to the public health or environment because of
releases of contaminants to soil, surface water, groundwater, or air.
Sampling may consist of surface water sampling.

EMERGENCY PRECAUTIONS

<u>Route of Exposure</u>	<u>First Aid</u>
<u>Eyes</u>	<u>irrigate immediately</u>
<u>Skin</u>	<u>soap and water wash</u>
<u>Inhalation</u>	<u>fresh air and artificial respiration</u>
<u>Ingestion</u>	<u>get medical attention immediately</u>

ID # NCN 000 407 197

Location of Nearest Phone: unknown (nearby residence/business)

Hospital (Address and Phone Number)

Chowan Hospital, 211 Virginia Rd, Edenton, NC 27932

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital The hospital is adjacent to the site.

PREVAILING WEATHER CONDITIONS AND FORECAST Partly cloudy skies. Hot and more humid. Highs in the low 90's.

EQUIPMENT CHECKLIST

<input type="checkbox"/> Air purifying respirator	<input checked="" type="checkbox"/> First Aid Kit
<input type="checkbox"/> Cartridges for respirator	<input checked="" type="checkbox"/> 3 gal. Deionized H2O
<input checked="" type="checkbox"/> Eye Wash Unit	<input checked="" type="checkbox"/> Rain suit
<input type="checkbox"/> Mini Rae	<input checked="" type="checkbox"/> Gloves (PE/PVC/nitrile/cloth)
<input type="checkbox"/> OVA	<input checked="" type="checkbox"/> Boots/Boot Covers
<input type="checkbox"/> Explosimeter	<input checked="" type="checkbox"/> Coveralls (tyvek/saranex)
<input type="checkbox"/> Radiation Monitor	<input checked="" type="checkbox"/> Eye Protection (goggles/shield)
<input checked="" type="checkbox"/> Decontamination Materials	<input checked="" type="checkbox"/> Hard Hat

STATE POISON CONTROL CENTER

1-800-848-6946



x5.0

x5.5

BM x5.4

Hoffman Chapel

Radio Tower (WCDJ)

Shopping Center

St Luke Ch

Holy Temple Ch

Union Grove Ch

Edenton

Hospital

Armory

Holmes High Sch

Providence Ch

Pleasant Grove Ch

Queen Church Cem

Swain Sch

Seawall

Water St

Johnston Cem

EDENTON

2'30"

1.5 mi
2.5 mi total

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Arsenic

I. PHYSICAL/CHEMICAL PROPERTIES

Reference

Chemical Formula As 1

Natural Physical State at 25°C metal 1

Vapor Pressure mm Hg at 20°C

Melting Point °F/°C Boiling Point °F/°C

Flash Point (open or closed cup) °C/°F

Solubility - H₂O insoluble

Other _____

Physical Features: (odor, color, etc.) grey, metallic (1)

II. TOXICOLOGICAL DATA

Standards: 0.01 mg/m³ (3) TLV 0.5 mg/m³ (4) PEL
100 mg/m³ (2) IDLH

Routes of Exposure: Inhalation, skin and or eye absorption, Ingestion (2)

Acute/Chronic Symptoms: Acute: ingestion-irritation of G.I. tract, vomiting diarrhea which can produce shock leading to death; Chronic: exfoliation and pigmentation of skin, herpes, polyneuritis, altered hematopoiesis, degeneration of liver and kidneys (1).

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately



ATTN: STATE UNIT
 P.O. BOX 49129
 GREENSBORO, NC 27419

Key Risk Management
 NETWORK, INC.

Rev. No. 4
 Date: 8-20-
 Page 2 of 2

WORKERS' COMPENSATION MEDICAL AUTHORIZATION

Name of Employee/Patient: Last		First
Date of Injury:	Social Security Number: - - -	
Name of Employer/Company:	STATE OF NORTH CAROLINA	DEHNR
Employer Authorization:	Doctor To Be Seen:	

- Employer: Complete this form, and give it to the injured employee before a doctor is seen.
- Employee: Show this form to the doctor.
- Physician: When a referral is necessary - use CompCare Physicians and call 1-800-366-1511, to let the state agency claims representative know that the patient is being referred.

SEND BILL DIRECTLY TO KEY RISK MANAGEMENT SERVICES, INC.

TRIP NOTIFICATION AND AUTHORIZATION FORM

Program:

- Federal
- State
- NPL/DOD

- Brownfields
- MPG
- Dry Cleaners

Site Name: Leary Brothers Storage

ID Number: NCN000407197

Street Address: Intersection of NC 32 (Virginia Rd) + US 17

City: Edenton (Broad St)

County: Chowan

Date(s) of Trip <u>7/17/01</u>	Trip Canceled: _____	Trip Rescheduled (Date): _____
-----------------------------------	-------------------------	-----------------------------------

Reason For Trip: Sampling
(if sampling, check appropriate boxes below)

- | | |
|---|--|
| <input type="checkbox"/> Surface Soil | <input type="checkbox"/> Groundwater (bailers) |
| <input type="checkbox"/> Subsurface Soil | <input type="checkbox"/> Groundwater (pumps) |
| <input type="checkbox"/> Using Augers/Shovels to collect soil | <input checked="" type="checkbox"/> Surface Water (Arsenic only) |
| <input type="checkbox"/> Using Little Beaver to collect soil | <input type="checkbox"/> Sediment |
| <input type="checkbox"/> Groundwater (from tap) | |

Project Team Leader	Assistant	Assistant	Assistant
<u>Melanie Bryson</u>	<u>Mike Deaton</u>		

Authorized By: _____
(Signature)
Industrial Hygienist Signature

Office Use Only	
County Health Department Official Contact:	<u>Tim Peoples</u>
Title:	<u>On-site Wastewater Supervisor</u>
Phone Number: <u>(252) 338-4490</u>	
Health Department Official Contacted: <u>Tim Peoples</u>	Back Up Letter Required?: Yes ___ No <input checked="" type="checkbox"/>
Notes: <u>called Notified Mr. Peoples 7-2-01 (ABL)</u>	



MICHAEL F. EASLEY, GOVERNOR
William G. Ross Jr., SECRETARY
WILLIAM L. MEYER, DIRECTOR

MEMORANDUM

DATE: February 6, 2001

TO: Bradley Snover
Four Seasons Environmental
519 Patton Avenue
Greensboro, NC 27416

FROM: Melanie Bryson *Melanie Bryson*
NC Superfund Section

SUBJECT: Information for drum removal
Leary Brothers Storage
Edenton, NC

Please find attached a copy of the inorganic and organic laboratory data for well samples collected by the NC Superfund Section around the subject site. Only purge water from the 2 on-site monitoring wells and 1 background monitoring well was contained in the drum. If necessary, you may contact Charlie Westbrook, Fire Chief, at (252) 482-4111. The site is located in Edenton, Chowan County, NC at 704 N. Broad Street, near the intersection of US 17 Business and NC 32. Please call me at 919-733-2801 ext. 317 if you have any questions. Thank you again for your services.

Attachments

cc: file

Site Number NCN000407197 Sample ID Number/Name 50441

Name of Site Leary Brothers Storage Collected By Melanie Bryson ID# _____

Site Location Edenton, NC Date Collected 11/29/00 Time 10:20

Agency: Hazardous Waste Solid Waste Superfund

Sample Type

Environmental	Concentrate	Comments
<input checked="" type="checkbox"/> Ground Water (1)	<input type="checkbox"/> Solid (5)	<u>LBS-001-MW</u>
<input type="checkbox"/> Surface Water (2)	<input type="checkbox"/> Liquid (6)	
<input type="checkbox"/> Soil (3)	<input type="checkbox"/> Sludge (7)	
<input type="checkbox"/> Other (4)	<input type="checkbox"/> Other (8)	

TCLP Compounds

Inorganic Compounds	Results (mg/l)
arsenic	
barium	
cadmium	
chromium	
lead	
mercury	
silver	

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DEC 22 2000
SUPERFUND SECTION

Organic Chemistry

Inorganic Chemistry

Parameter	Results (mg/l)
<input type="checkbox"/> P&T:GC/MS	
<input type="checkbox"/> Acid:B/N Ext.	
<input type="checkbox"/> 2,4-D	
<input type="checkbox"/> 2,4,5-TP(Silvex)	
<input type="checkbox"/> chlordane	
<input type="checkbox"/> heptachlor	
<input type="checkbox"/> hexachlorobenzene	
<input type="checkbox"/> hexachlorobutadiene	
<input type="checkbox"/> endrin	
<input type="checkbox"/> lindane	
<input type="checkbox"/> methoxychlor	
<input type="checkbox"/> toxaphene	

Parameter	Results (mg/l)(mg/kg)
<input type="checkbox"/> antimony	
<input checked="" type="checkbox"/> arsenic	<u>0.007</u>
<input checked="" type="checkbox"/> barium	<u>0.12</u>
<input type="checkbox"/> beryllium	
<input checked="" type="checkbox"/> cadmium	<u><0.005</u>
<input type="checkbox"/> chloride	
<input checked="" type="checkbox"/> chromium	<u><0.01</u>
<input type="checkbox"/> cobalt	
<input checked="" type="checkbox"/> copper	<u><0.05</u>
<input type="checkbox"/> fluoride	
<input type="checkbox"/> iron	
<input checked="" type="checkbox"/> lead	<u><0.005</u>
<input type="checkbox"/> manganese	
<input checked="" type="checkbox"/> mercury	<u><0.0005</u>
<input type="checkbox"/> nickel	
<input type="checkbox"/> nitrate	
<input checked="" type="checkbox"/> selenium	<u><0.005</u>
<input checked="" type="checkbox"/> silver	<u><0.01</u>
<input type="checkbox"/> sulfates	
<input type="checkbox"/> thallium	
<input type="checkbox"/> vanadium	
<input checked="" type="checkbox"/> zinc	<u><0.05</u>
<input type="checkbox"/> pH	
<input type="checkbox"/> conductivity	
<input type="checkbox"/> TDS	
<input type="checkbox"/> flash point	

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

FOR LAB USE ONLY

Date Received _____
 Date Extracted _____
 Date Analyzed _____
 Reported By [Signature]
 Date Reported 12-20-00
 Lab Number 11-50-2000 021350

Site Number NCN000407197 Sample ID Number/Name 21141

Name of Site Leary Brothers Storage Collected By Melanie Bryson ID#

Site Location Edenton, NC Date Collected 1/29/00 Time 10:20

Agency: Hazardous Waste Solid Waste Superfund

Sample Type
Environmental Concentrate Comments
 Ground Water (1) Solid (5) LBS-001-MW
 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	

RECEIVED
 FEB 6 2001
 SUPERFUND SECTION

Organic Chemistry	Results (mg/l)
<input checked="" type="checkbox"/> P&T:GC/MS	
<input type="checkbox"/> Acid:B/N Ext.	
<input type="checkbox"/> 2,4-D	
<input type="checkbox"/> 2,4,5-TP(Silvex)	
<input type="checkbox"/> chlordane	
<input type="checkbox"/> heptachlor	
<input type="checkbox"/> hexachlorobenzene	
<input type="checkbox"/> hexachlorobutadiene	
<input type="checkbox"/> endrin	
<input type="checkbox"/> lindane	
<input type="checkbox"/> methoxychlor	
<input type="checkbox"/> toxaphene	

Inorganic Chemistry	Results(mg/l)(mg/kg)
<input type="checkbox"/> antimony	
<input type="checkbox"/> arsenic	
<input type="checkbox"/> barium	
<input type="checkbox"/> beryllium	
<input type="checkbox"/> cadmium	
<input type="checkbox"/> chloride	
<input type="checkbox"/> chromium	
<input type="checkbox"/> cobalt	
<input type="checkbox"/> copper	
<input type="checkbox"/> fluoride	
<input type="checkbox"/> iron	
<input type="checkbox"/> lead	
<input type="checkbox"/> manganese	
<input type="checkbox"/> mercury	
<input type="checkbox"/> nickel	
<input type="checkbox"/> nitrate	
<input type="checkbox"/> selenium	
<input type="checkbox"/> silver	
<input type="checkbox"/> sulfates	
<input type="checkbox"/> thallium	
<input type="checkbox"/> vanadium	
<input type="checkbox"/> zinc	
<input type="checkbox"/> pH	
<input type="checkbox"/> conductivity	
<input type="checkbox"/> TDS	
<input type="checkbox"/> flash point	

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

FOR LAB USE ONLY
 Date Received 11-30-00
 Date Extracted
 Date Analyzed 12-12-00
 Reported By [Signature]
 Date Reported FEB 01 2001
 Number 006607
06607-006652

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	006607	006608	006609	006610	006611	006612
	FIELD NO						
COMPOUND	TYPE	(1)	(1)	(1)	(1)	(1)	(2)
	MDL (ppb)	ppb ppm					
CHLOROMETHANE	2.0	u	u	u	u	u	u
VINYL CHLORIDE							
BROMOMETHANE							
CHLOROETHANE							
TRICHLOROFLUOROMETHANE	↓						
1,1-DICHLOROETHENE	0.5						↓
ACETONE	2.0						79.25
IODOMETHANE	0.5						u
CARBON DISULFIDE							
METHYLENE CHLORIDE							
ACRYLONITRILE							
TRANS-1,2-DICHLOROETHENE		↓				↓	↓
METHYL-t-BUTYL-ETHER		63.2				trace	2.1
1,1-DICHLOROETHANE		u				u	u
ISOPROPYL ETHER							
CIS-1,2-DICHLOROETHENE	↓						↓
2-BUTANONE	2.0						23.85
TETRAHYDROFURAN	↓						u
CHLOROFORM	0.5						trace
1,1,1-TRICHLOROETHANE							u
CARBON TETRACHLORIDE			↓				↓
BENZENE			83.0				1.2
1,2-DICHLOROETHANE			2.2				trace
TRICHLOROETHENE			u				u
1,2-DICHLOROPROPANE							↓
DIBROMOMETHANE	↓	↓	↓	↓	↓	↓	↓

- C - Possible lab contamination or background
- 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.
- NA - Not analyzed.
- 1/ - Tentative identification.
- D - SAMPLE DILUTED. MDL'S DO NOT APPLY.

trace = present but below MDL

ORGANIC CHEMICAL ANALYSTS

PURGEABLE COMPOUNDS	LAB NO	006607	006608	006609	006610	006611	006612
	FIELD NO						
COMPOUND	TYPE	(1)	(1)	(1)	(1)	(1)	(2)
	MDL (ppb) ↓	(ppb) ppm					
BROMODICHLOROMETHANE	0.5	u	u	u	u	u	u
CIS-1,3-DICHLOROPROPENE					↓	↓	↓
4-METHYL-2-PENTANONE					↓	↓	↓
TOLUENE					trace	trace	4.5
TRANS-1,3-DICHLOROPROPENE					u	u	u
1,1,2-TRICHLOROETHANE							
TETRACHLOROETHENE							
2-HEXANONE							
DIBROMOCHLOROMETHANE							
ETHYLENE DIBROMIDE							↓
CHLOROBENZENE							trace
1,1,1,2-TETRACHLOROETHANE						↓	u
ETHYL BENZENE						trace	trace
XYLENES						0.5	2.5
STYRENE						u	u
BROMOFORM							
1,1,2,2-TETRACHLOROETHANE							
1,2,3-TRICHLOROPROPANE							↓
1,4-DICHLOROBENZENE							2.1
1,2-DICHLOROBENZENE	↓						20.3
1,2-DIBROMO-3-CHLOROPROPANE	2.0	↓	↓	↓	↓	↓	u
Hydrocarbons &	⊕/⊖	⊕	⊕	⊖	⊖	⊖	⊕
Substituted benzenes							

- C - Possible lab contamination or background.
- 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.
- NA - Not analyzed.
- 1/ - Tentative identification.
- D - SAMPLE DILUTED. MDL'S DO NOT APPLY.

trace = present but below MDL

1

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES COMPOUND	LAB NO	006618	006619	006620	006621	006622	006623
	FIELD #	21142	21144	21146	21148	21150	21166
	TYPE	(1)	(1)	(1)	(1)	(1)	(2)
	UNITS	μg/l μg/kg					
N-nitrosodimethylamine	10/330	u	u	u	u	u	u
bis(2-chloroethyl)ether							
2-chlorophenol							
phenol							✓
1,3-dichlorobenzene							10K
1,4-dichlorobenzene							10K
1,2-dichlorobenzene							10
bis(2-chloroisopropyl)ether							u
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			210				
hexachlorobutadiene			u				
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		↓					10K
4,6-dinitro-o-cresol	50/1650						u
diphenylamine	10/330						
azobenzene							
4-bromophenylphenylether		↓					
hexachlorobenzene		↓					
pentachlorophenol	50/1650						
phenanthrene	10/330						
anthracene							
dibutyl phthalate		↓					
fluoranthene		↓	✓	✓	✓	✓	✓

MDL H₂O/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.

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	006618	006619	006620	006621	006622	006623
COMPOUND	FIELD #	21142	21144	21146	21148	21150	21166
	TYPE	(1)	(1)	(1)	(1)	(1)	(2)
	UNITS	(ug/l) ug/kg					
pyrene	10/330	u	u	u	u	u	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						
benzoic acid	↓						
benzyl alcohol	↓						
4-chloroaniline	↓						
dibenzofuran	10/330	10K	↓				
2-methylnaphthalene	↓	u	63				
2-methylphenol	↓		u				10K
4-methylphenol	↓						10K
2-nitroaniline	50/1650						u
3-nitroaniline	↓						
4-nitroaniline	↓						
2,4,5-trichlorophenol	↓	✓	✓	✓	✓	✓	✓

MDL H2O/50L

- 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. DEPARTMENT OF HEALTH AND HUMAN SERVICES
 STATE LABORATORY OF PUBLIC HEALTH
 P.O. BOX 28047, RALEIGH, N.C. 27611

GAS-LIQUID CHROMATOGRAPHY REPORT SHEET

PROJECT: LEARY BROS. STORAGE DATE OF ANALYSIS: 12/01-15/2000

SAMPLE #	PPM (mg/l)								
	DDE	DDD	DDT	CHLORDANE	ALACHLOR				
006618	ND	ND	ND	ND	ND				
006619	ND	ND	ND	ND	ND				
006620	ND	ND	ND	ND	ND				
006621	ND	ND	ND	ND	ND				
006622	ND	ND	ND	ND	ND				
006623	ND	ND	ND	ND	0.0002				
006624	ND	ND	ND	ND	ND				
006625	ND	ND	ND	ND	ND				
006626	ND	ND	ND	ND	ND				
006627	ND	ND	ND	ND	ND				

Comments: Estimated Detection Limit for DDE, DDD, and DDT=0.0001, Chlordane=0.0002, Alachlor=0.0001 ppm. 1000 ml of water extracted and analyzed By Electron Capture Detector. Alachlor identification and quantitation confirmed by GC/MS Analysis. Alachlor is not a listed analyte for this Method.

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Leary Brothers Storage ID # NCN 000 407 197

Location Intersection of NC 32 (Virginia Rd.)
and US 17 (Broad St.), Edenton, Chowan County, NC

Proposed Date of Investigation 11/28 and 29/2000

Date of Briefing 11/22/00

Date of Debriefing 11/30/00

Nature of Visit (check one): On-Site Reconnaissance _____
Off-Site Reconnaissance _____
Sampling X _____
Sampling Overview _____
Remediation Overview _____

Health Department Official Contacted Tammy Wentz for Tim Peoples

Date of Contact 11/13/00

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

Personnel	Responsibilities	Signature
Team 1 <u>Melanie Bryson</u>	<u>Team leader, sampling</u>	<u>Melanie Bryson</u>
Team 1 <u>Harry Zinn</u>	<u>Sampling</u>	<u>Harry Zinn</u>
Team 2 <u>Mike Deaton</u>	<u>Sampling</u>	<u>Mike Deaton</u>
Team 2 <u>Kyle Hagen</u>	<u>Sampling</u>	<u>Kyle Hagen</u>

Plan Preparation:

Prepared By: David Lilley, Industrial Hygiene Consultant

Reviewed By: Jack Butler, Superfund Section Chief

David Lilley
Jack Butler

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) Liquid Solid Sludge Gas Vapor
 Characteristics Corrosive Ignitable Radioactive
 Volatile Toxic Reactive Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	EXPOSURE LIMIT
Arsenic	Odor Threshold (OT) = no data	0.01 mg/m ³
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

UNDERGROUND UTILITIES CHECKLIST

Utility	Locator/Contact Person	Phone #	Date of Location
Power	NC One Call	NC One Call	11-16-00
Telephone	_____	_____	_____
Gas	_____	_____	_____
Water	_____	_____	_____
Sewer	_____	_____	_____

Call made by: Ticket # 1085916 Melanie Bryson

Facility Description: Size unknown Buildings yes

Disposal Methods Being Investigated Possible spillage/leakage.

Unusual Features on Site (dike integrity, power lines, terrain, etc.):
None known

History of the Site: The warehouse was used for the storage and distribution of agricultural products, including fertilizers, pesticides, and herbicides.

C. HAZARD EVALUATION

The site can be toured and sampled in level D protection. PE or PVC gloves will be worn while collecting soil and water samples, PE or PVC gloves over nitrile gloves will be worn if discolored soil or sludge is encountered. Chemically resistant knee length boots will be worn on site. A tyvek suit will be carried to the surface water/sediment sampling locations and worn if the samples cannot be collected without getting muddy. The Mini Rae will be used to monitor breathing zone air while augering. If Mini Rae readings exceed background in the breathing zone, stand upwind of the hole for a few minutes, then sample the air again. If the breathing zone concentration does not drop to background after 10 minutes, fill in the hole and evacuate that area. Tyvek suits (poly-coated tyvek in wet conditions) will be worn while augering.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes

Perimeter Identified? no

Command Post Identified? no

Zones of Contamination Identified? no

Personal Protective Equipment/Level of Protection: C X D

Modifications Wear goggles, face shield, and PVC gloves while preparing acid preserved samples, goggles and PVC gloves while collecting acid preserved samples. Avoid breathing acid vapors.

Surveillance Equipment:

<u> X </u> Mini Rae	<u> </u> Detector Tubes and Pumps
<u> </u> OVA	<u> </u> O2 Meter
<u> </u> Explosimeter	<u> </u> Radiation Monitor

Decontamination Procedures

 Level C Respirator wash, respirator removal, suit wash (if needed),
 suit removal, boot wash, boot removal and glove removal.

 X Level D Boot wash and rinse and boot removal, suit removal, glove
 and goggle removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine
if the site poses a threat to the public health or environment because of
releases of contaminants to soil, surface water, groundwater, or air.
 Sampling may consist of surface soil, groundwater, surface water, and
sediment sampling.

EMERGENCY PRECAUTIONS

<u> Route of Exposure </u>	<u> First Aid </u>
<u>Eyes</u>	<u>irrigate immediately</u>
<u>Skin</u>	<u>soap and water wash</u>
<u>Inhalation</u>	<u>fresh air and artificial respiration</u>
<u>Ingestion</u>	<u>get medical attention immediately</u>

ID # NCN 000 407 197

Location of Nearest Phone: unknown (nearby residence/business)

Hospital (Address and Phone Number)

Chowan Hospital, 211 Virginia Rd, Edenton, NC 27932

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital The hospital is adjacent to the site.

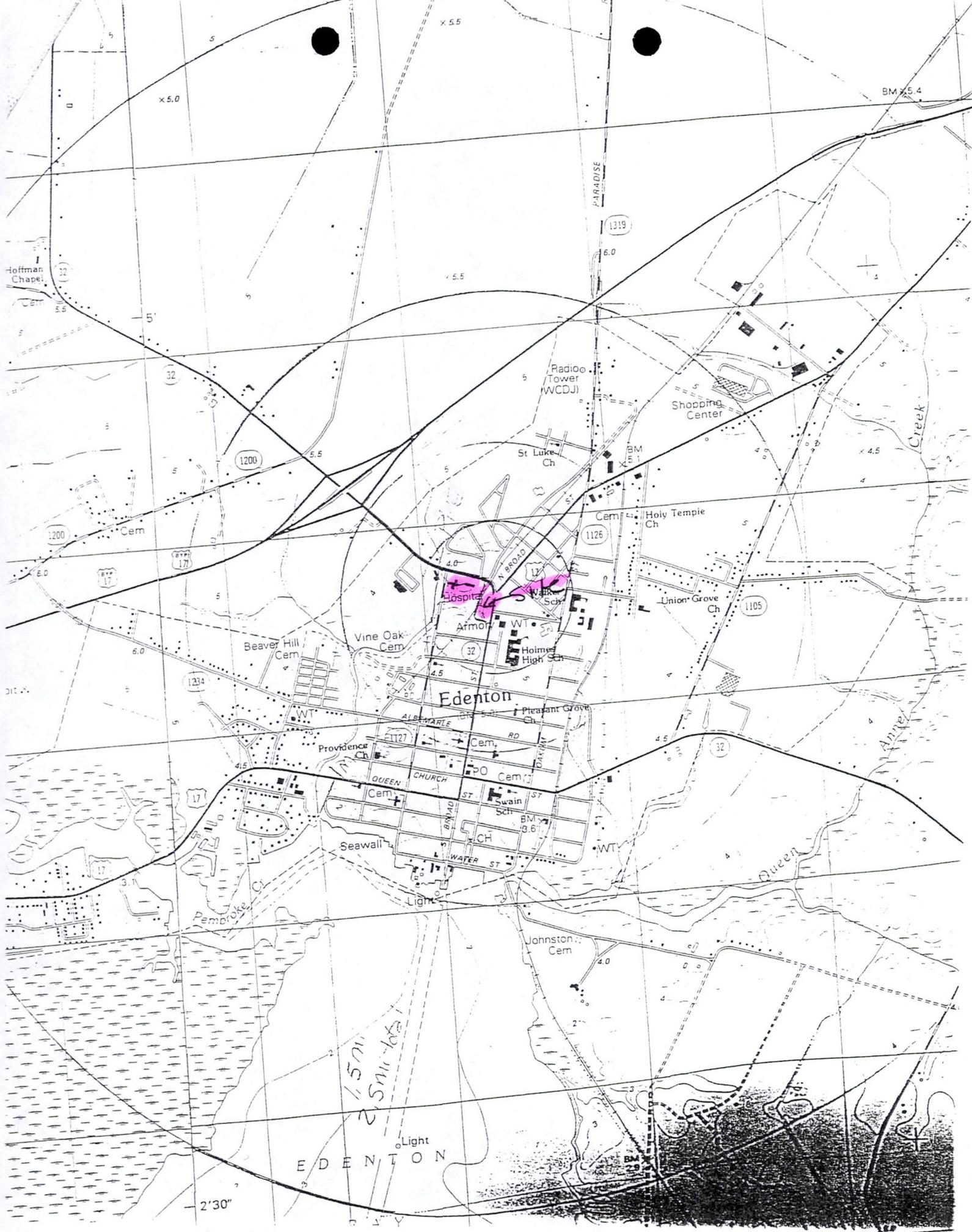
PREVAILING WEATHER CONDITIONS AND FORECAST _____

EQUIPMENT CHECKLIST

- | | |
|--|---|
| <input type="checkbox"/> Air purifying respirator | <input checked="" type="checkbox"/> First Aid Kit |
| <input type="checkbox"/> Cartridges for respirator | <input checked="" type="checkbox"/> 3 gal. Deionized H2O |
| <input checked="" type="checkbox"/> Eye Wash Unit | <input checked="" type="checkbox"/> Rain suit |
| <input checked="" type="checkbox"/> Mini Rae | <input checked="" type="checkbox"/> Gloves (PE/PVC/nitrile/cloth) |
| <input type="checkbox"/> OVA | <input checked="" type="checkbox"/> Boots/Boot Covers |
| <input type="checkbox"/> Explosimeter | <input checked="" type="checkbox"/> Coveralls (tyvek/saranex) |
| <input type="checkbox"/> Radiation Monitor | <input checked="" type="checkbox"/> Eye Protection (goggles/shield) |
| <input checked="" type="checkbox"/> Decontamination
Materials | <input checked="" type="checkbox"/> Hard Hat |

STATE POISON CONTROL CENTER

1-800-848-6946



EDENTON

2'30"

1.5 mi
2.5 mi

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Arsenic

I. PHYSICAL/CHEMICAL PROPERTIES

Reference

Chemical Formula As 1

Natural Physical State at 25°C metal 1

Vapor Pressure mm Hg at 20°C

Melting Point °F/°C Boiling Point °F/°C

Flash Point (open or closed cup) °C/°F

Solubility - H₂O insoluble

Other _____

Physical Features: (odor, color, etc.) grey, metallic (1)

II. TOXICOLOGICAL DATA

Standards: 0.01 mg/m3 (3) TLV 0.5 mg/m3 (4) PEL
100 mg/m3 (2) IDLH

Routes of Exposure: Inhalation, skin and or eye absorption, Ingestion (2)

Acute/Chronic Symptoms: Acute: ingestion-irritation of G.I. tract, vomiting diarrhea which can produce shock leading to death; Chronic: exfoliation and pigmentation of skin, herpes, polyneuritis, altered hematopoiesis, degeneration of liver and kidneys (1).

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately



KEY RISK MANAGEMENT SERVICES, INC.
 ATTN: STATE UNIT
 P.O. BOX 49129
 GREENSBORO, NC 27419

CompCare
 NETWORK, INC.

Sec. No. 4
 Rev. No. 4
 Date: 8-20-9
 Page 2 of 2

WORKERS' COMPENSATION MEDICAL AUTHORIZATION

Name of Employee/Patient: Last		First
Date of Injury:	Social Security Number: - - -	
Name of Employer/Company:	STATE OF NORTH CAROLINA	DEHNR
Employer Authorization:	Doctor To Be Seen:	

- Employer: Complete this form, and give it to the injured employee before a doctor is seen.
- Employee: Show this form to the doctor.
- Physician: When a referral is necessary - use CompCare Physicians and call 1-800-366-1511, to let the state agency claims representative know that the patient is being referred.

SEND BILL DIRECTLY TO KEY RISK MANAGEMENT SERVICES, INC.

TRIP NOTIFICATION AND AUTHORIZATION FORM

Program:

- Federal
 State
 NPL/DOD

- Brownfields
 MPG
 Dry Cleaners

Site Name:	<u>Leary Brothers Storage</u>
ID Number:	<u>NCNØØØ4Ø7197</u>
Street Address:	<u>Intersection of US 17 + NC 32</u>
City:	<u>Edenton</u>
County:	<u>Chowan</u>

Date(s) of Trip <u>Nov. 28-29, 2000</u>	Trip Canceled: _____	Trip Rescheduled (Date): _____
--	-------------------------	-----------------------------------

Reason For Trip: Sampling
(if sampling, check appropriate boxes below)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Surface Soil | <input type="checkbox"/> Groundwater (bailers) |
| <input type="checkbox"/> Subsurface Soil | <input checked="" type="checkbox"/> Groundwater (pumps) |
| <input checked="" type="checkbox"/> Using Augers/Shovels to collect soil | <input checked="" type="checkbox"/> Surface Water |
| <input type="checkbox"/> Using Little Beaver to collect soil | <input checked="" type="checkbox"/> Sediment |
| <input checked="" type="checkbox"/> Groundwater (from tap) | |

Project Team Leader	Assistant	Assistant	Assistant
<u>Melanie Bryson</u>	<u>Hamy Zinn</u>	<u>Mike Deaton</u>	<u>Kyle Hagen</u>

Authorized By: _____
(Signature)
 Industrial Hygienist Signature

Office Use Only	
County Health Department Official Contact:	<u>Tim Peoples</u>
Title:	<u>On-site Wastewater Supervisor</u>
Phone Number: <u>(252) 338 - 4490</u>	
Health Department Official Contacted: <u>Tammy Wentz</u>	Back Up Letter Required?: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Notes: <u>Notified Ms. Wentz for Mr. Peoples 11-13-00 (DBL)</u>	

TRIP NOTIFICATION AND AUTHORIZATION FORM

Program:

- | | |
|---|---------------------------------------|
| <input checked="" type="checkbox"/> Federal | <input type="checkbox"/> Brownfields |
| <input type="checkbox"/> State | <input type="checkbox"/> MPG |
| <input type="checkbox"/> NPL/DOD | <input type="checkbox"/> Dry Cleaners |

Site Name:	<u>Leary Brothers Storage</u>
ID Number:	<u>NCN000407197</u>
Street Address:	<u>Intersection of NC 32 (Virginia Rd) + US 17 (Broad St)</u>
City:	<u>Edenton</u>
County:	<u>Chowan</u>

Date(s) of Trip <u>10/12/00</u>	Trip Canceled: _____	Trip Rescheduled (Date): _____
------------------------------------	-------------------------	-----------------------------------

Reason For Trip: Onsite recon
(if sampling, check appropriate boxes below)

- | | |
|---|--|
| <input type="checkbox"/> Surface Soil | <input type="checkbox"/> Groundwater (bailers) |
| <input type="checkbox"/> Subsurface Soil | <input type="checkbox"/> Groundwater (pumps) |
| <input type="checkbox"/> Using Augers/Shovels to collect soil | <input type="checkbox"/> Surface Water |
| <input type="checkbox"/> Using Little Beaver to collect soil | <input type="checkbox"/> Sediment |
| <input type="checkbox"/> Groundwater (from tap) | |

Project Team Leader	Assistant	Assistant	Assistant
<u>Melanie Bryson</u>	<u>Stephanie Grubbs</u>		

Authorized By: _____
(Signature)
Industrial Hygienist Signature

Office Use Only	
County Health Department Official Contact:	<u>Tim Peoples</u>
Title:	<u>EA On-site Waterwater Supervisor</u>
Phone Number:	<u>(252) 338-4490</u>
Health Department Official Contacted:	<u>Tammy Wentz</u>
Back Up Letter Required?:	Yes ___ No <input checked="" type="checkbox"/>
Notes:	<u>Notified Ms. Wentz for Mr. Peoples 10-4-00 (DBL)</u>

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Leary Brothers Storage ID # NCN 000 407 197

Location Intersection of NC 32 (Virginia Rd.)
and US 17 (Broad St.), Edenton, Chowan County, NC

Proposed Date of Investigation October 12, 2000

Date of Briefing October 11, 2000

Date of Debriefing October 13, 2000

Nature of Visit (check one): On-Site Reconnaissance X
Off-Site Reconnaissance
Sampling
Sampling Overview
Remediation Overview

Health Department Official Contacted Tammy Wentz for Tim Peoples

Date of Contact October 4, 2000

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

Personnel	Responsibilities	Signature
Team 1 <u>Melanie Bryson</u>	<u>Team leader, recon</u>	<u>Melanie Bryson</u>
Team 1 <u>Stephanie Grubbs</u>	<u>Reconnaissance</u>	<u>Stephanie Grubbs</u>
Team 2 <u> </u>	<u> </u>	<u> </u>
Team 2 <u> </u>	<u> </u>	<u> </u>

Plan Preparation:

Prepared By: David Lilley, Industrial Hygiene Consultant

Reviewed By: Jack Butler, Superfund Section Chief

David Lilley
Jack Butler

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) Liquid Solid Sludge Gas Vapor
 Characteristics Corrosive Ignitable Radioactive
 Volatile Toxic Reactive Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	EXPOSURE LIMIT
Arsenic	Odor Threshold (OT) = no data	0.01 mg/m ³
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

UNDERGROUND UTILITIES CHECKLIST

Utility	Locator/Contact Person	Phone #	Date of Location
Power	NA	_____	_____
Telephone	NA	_____	_____
Gas	NA	_____	_____
Water	NA	_____	_____
Sewer	NA	_____	_____

Call made by:

Surveillance Equipment:

<u> </u> HNU	<u> </u> Detector Tubes and Pumps
<u> </u> OVA	<u> </u> O2 Meter
<u> </u> Explosimeter	<u> </u> Radiation Monitor

Decontamination Procedures

 Level C Respirator wash, respirator removal, suit wash (if needed),
 suit removal, boot wash, boot removal and glove removal.

 X Level D Boot wash and rinse and boot removal, suit removal, glove
 and goggle removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine
if the site poses a threat to the public health or environment because of
releases of contaminants to soil, surface water, groundwater, or air.
No sampling will be conducted at this time.

EMERGENCY PRECAUTIONS

<u>Route of Exposure</u>	<u>First Aid</u>
<u>Eyes</u>	<u>irrigate immediately</u>
<u>Skin</u>	<u>soap and water wash</u>
<u>Inhalation</u>	<u>fresh air and artificial respiration</u>
<u>Ingestion</u>	<u>get medical attention immediately</u>

ID # NCN 000 407 197

Location of Nearest Phone: unknown (nearby residence/business)

Hospital (Address and Phone Number)

Chowan Hospital, 211 Virginia Rd, Edenton, NC 27932

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital The hospital is adjacent to the site.

PREVAILING WEATHER CONDITIONS AND FORECAST Sunny with highs in the low 70s.

EQUIPMENT CHECKLIST

- | | |
|--|---|
| <input type="checkbox"/> Air purifying respirator | <input checked="" type="checkbox"/> First Aid Kit |
| <input type="checkbox"/> Cartridges for respirator | <input checked="" type="checkbox"/> 3 gal. Deionized H2O |
| <input type="checkbox"/> Eye Wash Unit | <input checked="" type="checkbox"/> Rain suit |
| <input type="checkbox"/> HNU | <input checked="" type="checkbox"/> Gloves (PE/PVC/nitrile/cloth) |
| <input type="checkbox"/> OVA | <input checked="" type="checkbox"/> Boots/Boot Covers |
| <input type="checkbox"/> Explosimeter | <input checked="" type="checkbox"/> Coveralls (tyvek/saranex) |
| <input type="checkbox"/> Radiation Monitor | <input checked="" type="checkbox"/> Eye Protection (goggles/shield) |
| <input checked="" type="checkbox"/> Decontamination
Materials | <input checked="" type="checkbox"/> Hard Hat |

STATE POISON CONTROL CENTER

1-800-848-6946

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Arsenic

I. PHYSICAL/CHEMICAL PROPERTIES

Reference

Chemical Formula As 1
Natural Physical State at 25°C metal 1
Vapor Pressure mm Hg at 20°C
Melting Point °F/°C Boiling Point °F/°C
Flash Point (open or closed cup) °C/°F
Solubility - H₂O insoluble
Other

Physical Features: (odor, color, etc.) grey, metallic (1)

II. TOXICOLOGICAL DATA

Standards: 0.01 mg/m3 (3) TLV 0.5 mg/m3 (4) PEL
100 mg/m3 (2) IDLH

Routes of Exposure: Inhalation, skin and or eye absorption, Ingestion (2)

Acute/Chronic Symptoms: Acute: ingestion-irritation of G.I. tract, vomiting diarrhea which can produce shock leading to death; Chronic: exfoliation and pigmentation of skin, herpes, polyneuritis, altered hematopoiesis, degeneration of liver and kidneys (1).

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately



KEY RISK MANAGEMENT SERVICES, INC.
 ATTN: STATE UNIT
 P.O. BOX 49129
 GREENSBORO, NC 27419

CompCare
 NETWORK, INC.

cc. no.
 Rev. No. 4
 Date: 8-20-9
 Page 2 of 2

WORKERS' COMPENSATION MEDICAL AUTHORIZATION

Name of Employee/Patient: Last		First	
Date of Injury:	Social Security Number: - - -		
Name of Employer/Company:	STATE OF NORTH CAROLINA		DEHNR
Employer Authorization:	Doctor To Be Seen:		

- Employer: Complete this form, and give it to the injured employee before a doctor is seen.
- Employee: Show this form to the doctor.
- Physician: When a referral is necessary - use CompCare Physicians and call 1-800-366-1511, to let the state agency claims representative know that the patient is being referred.

SEND BILL DIRECTLY TO KEY RISK MANAGEMENT SERVICES, INC.



NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

August 18, 2000

JAMES B. HUNT JR.
GOVERNOR

BILL HOLMAN
SECRETARY

WILLIAM L. MEYER
DIRECTOR

Ms. Jennifer Wendel
NC Site Management Section
US EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

Subject: CERCLIS Site Addition (Pre-CERCLIS Site Screening)
Leary Brothers Storage
US 17 & NC 32
Edenton, Chowan County, North Carolina

Dear Ms. Wendel:

Please add the subject site to the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).

The Leary Brothers Storage site is located in the northwestern quadrant of the intersection of NC 32 (Virginia Road) and US 17 (Broad Street). The geographic coordinates for the site are 36° 4' 9.12" north latitude and 76° 36' 21.28" west longitude (Reference 1). The site consists of the former warehouses of the Leary Brothers Storage, Edenton Floral Company, and the Texaco Station located on Broad Street at the southern end of the site. An abandoned railroad track intersects the site leaving Lot #1 and Lot #4 (including the Texaco station) to the south, and Lot #3 (including Florist) to the north. During the 1930's and 1940's, the entire site was used for storage of cotton, peanuts, and other farm products. From the 1960's until 1987, pesticides were also stored on the site (Reference 2).

During a foreclosure on the site by Southern Bank and Trust Company ("Bank") during 1992, pesticides were found left abandoned on the property. A Phase II Environmental Audit was conducted by Avolis Engineering, P.A. for the Bank. The results from the audit indicated concentrations of DDT (13.1 ug/l) and DDD (5.6 ug/l) in the soil near one of the warehouses. Groundwater sampling on site near the Texaco indicated the presence of arsenic (47 ug/l), barium (2,100 ug/l), chromium (600 ug/l), lead (430 ug/l), and selenium (20 ug/l) in the groundwater at levels above the North Carolina groundwater standards found in 15A NCAC 2L, as well as above the federal benchmarks established for the



1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED/10% POST-CONSUMER PAPER

protection of human health and the environment (Reference 3). Groundwater sampling in the vicinity of the Texaco station indicated the presence of BTEX, arsenic (435 ug/l), lead (25 ug/l), and cadmium (14 ug/l) at levels higher than the 2L groundwater standards and federal benchmarks (Reference 4), while nitrates (67,000 ug/l) were detected at levels above 2L standards near another onsite warehouse and the storage silos (Reference 3).

During 1993 and as a result of the 1992 audit, the North Carolina Department of Agriculture (NCDCA) was called in to remove the abandoned pesticides found on the property. The NCDCA conducted a removal of 3,000 pounds of dry pesticides and 45 gallons of liquid pesticides left in the warehouses (Reference 4).

In 1996, follow-up sampling of the groundwater at the Texaco station was conducted under the jurisdiction of the North Carolina Division of Water Quality (NCDWQ) as well as a requirement for a Comprehensive Site Assessment for the Texaco station gasoline constituents. Arsenic was found in the groundwater sampling collected from the Texaco station and found to be as high as 496 ug/l, well above the 2L groundwater standard and federal benchmark (Reference 5).

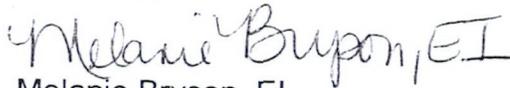
Arsenic was also found in the soil and groundwater at Edenton Florists Company located at the northern end of the former Leary Brothers property during a 1997 Environmental Site Assessment conducted by Dominion Environmental Group for the John and Evelyn Smith, owners of the Edenton Floral Company and Antiques. The soil contamination at this florist was found in soils 10 to 12 inches below surface at concentrations as high as 12.6 mg/kg, while groundwater sampling taken at a monitoring well located at the northeast end of the site indicated the presence of arsenic at a concentration of 122 ug/l. Both values are in excess of the federal benchmarks for arsenic in soil and groundwater, respectively (Reference 6).

Groundwater from the Black Creek aquifer is used as the main supply for the Town of Edenton. Approximately 5,600 customers are served by the Town's water system. In addition to the Town of Edenton water system, Chowan County's water system is also supplied by groundwater, serving approximately 8,600 customers (Reference 7).

Based on the fact that there has been an observed release to the groundwater and there is the potential to contaminate the public drinking water wells serving a population of approximately 5,600 people that are located less than 1500 feet from the site, we recommend that the site be added to CERCLIS so that we may initiate a combined PA/SI at this time.

Attached are the latitude and longitude worksheets, a memo from Keith Snavely, NC Superfund, to Dan LaMontagne concerning the site, the various environmental assessments and monitoring data, and the CERCLIS Site Discovery Form (Reference 8). Please feel free to contact me at (919) 733-2801 ext. 317 or by e-mail at melanie.bryson@ncmail.net if you have any questions or comments.

Sincerely,



Melanie Bryson, EI
Environmental Engineer
NC Superfund Section



Dan LaMontagne, Head
Site Evaluation and Removal Branch
NC Superfund Section

CC: Scott Ross – File

CC: (Letter Only)
Charlotte Jesneck

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2

LI USING ENGINEER'S SCALE (1/60)

SITE NAME: Leary Brothers Storage CERCLIS #: T.B.D.
 AKA: n.a. SSID: NON CDO 001 045
 ADDRESS: Northwest Corner at Intersection of NC 32 and US 17
 CITY: Edenton STATE: NC ZIP CODE: 27932

SITE REFERENCE POINT: Intersection of NC 32 and US 17

USGS QUAD MAP NAME: Edenton, NC TOWNSHIP: - N/S RANGE: - E/W

SCALE: 1 : 24,000 MAP DATE: 1981 SECTION: - 1/4 - 1/4 - 1/4

MAP DATUM 1927 1983 (CIRCLE ONE) MERIDIAN: -

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy)

LONGITUDE: 76 ° 30 ' 0.00 " LATITUDE: 36 ° 0 ' 0.00 "

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 76 ° 35 ' 0.00 " LATITUDE: 36 ° 2 ' 30.00 "

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 300

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A X 0.3304 = 99.12 "

C) EXPRESS IN MINUTES AND SECONDS (1' = 60") : 1 ' 39.12 "

D) ADD TO STARTING LATITUDE: 36 ° 2 ' 30.00 " + 1 ' 39.12 "

SITE LATITUDE: 36 ° 4 ' 9.12 "

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 246

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A X 0.3304 = 81.28 "

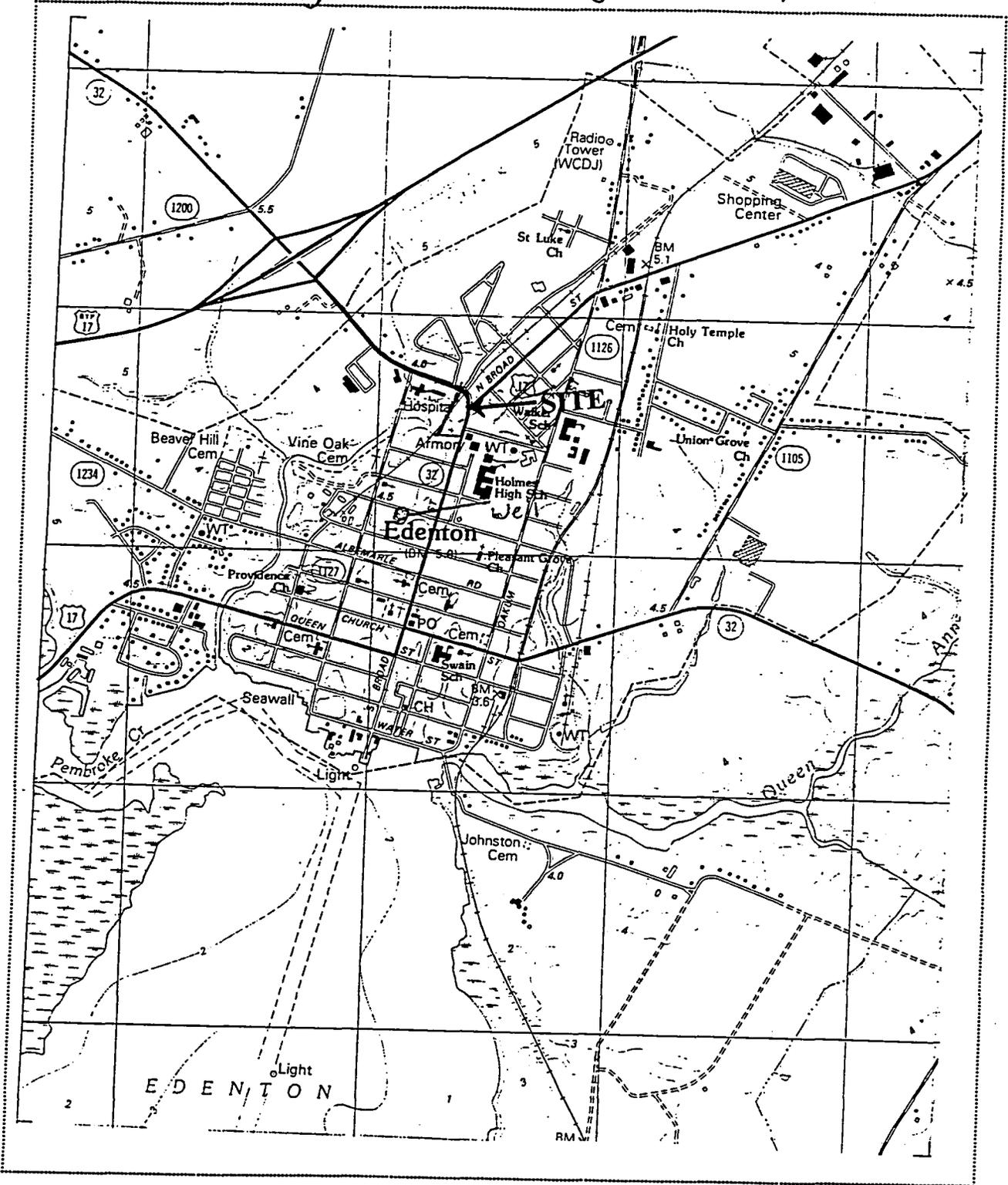
C) EXPRESS IN MINUTES AND SECONDS (1' = 60") : 1 ' 21.28 "

D) ADD TO STARTING LONGITUDE: 76 ° 35 ' 0.00 " + 1 ' 21.28 "

SITE LONGITUDE: 76 ° 36 ' 21.28 "

INVESTIGATOR: Melanie Buzza DATE: 08/15/2000

SITE NAME: Leary Brothers Storage NUMBER: N/A



TOPOGRAPHIC MAP QUADRANGLE NAME: Edenton

SCALE: 1:24,000

COORDINATES OF LOWER RIGHT-HAND CORNER OF 2.5-MINUTE GRID:

LATITUDE: 36° 2' 30" LONGITUDE: 76° 35' 0"

MEMORANDUM

DATE: May 24, 2000

TO: Dan Lamontagne, Head
Site Evaluation and Removal Branch
Superfund Section

From: Keith Snavelly, Hydrogeologist *ks*
Inactive Hazardous Sites Branch
Superfund Section

RE: Referral of sites to CERCLIS

Leary Brothers Storage (Former)
Edenton, Chowan County
NONCD0001045

[REDACTED]

[REDACTED]

[REDACTED]

The subject sites have been notified of the voluntary cleanup program under the Inactive Hazardous Sites Branch, but have not been screened through CERCLIS. These are now being referred to CERCLIS for screening.

1) Leary Brothers Storage (Former) (NONCD0001045) is located in the northwestern quadrant of the intersection of Highway 32 (Virginia Road) and Route 17 (Broad Street). The site consists of the former warehouses of Leary Brothers Storage, Edenton Floral Company, and the Texaco Station located on Broad Street at the southern end of the site. An abandoned railroad track intersects the site leaving Lot # 1 and Lot # 4 (including the Texaco station) to the south, Lot #3 (including Florist) to the north. The entire site was thought to have been part of a Leary Brothers storage which consisted of cotton, peanuts and other farm products in the 1930s and 1940s as well as pesticide storage facility from the 1960's until 1987. Prior to the 1930s, Edenton Lumber Company and Sawmill owned the portion of the property where the florists are located. The Leary Brothers business was licensed as a pesticide dealer with the State of North Carolina.

In 1992, the Southern Bank of Edenton began a foreclosure on the property. During the foreclosure, pesticides were found left abandoned on site. A Phase II assessment was conducted at the site in 1992. The results from the Phase II indicated concentrations of DDT and DDE in low levels in soil at the warehouse locations along with chromium, lead, and selenium in groundwater above the 15A NCAC 2L groundwater standard. BETX, arsenic, lead, and

cadmium were detected above the 2L groundwater standard groundwater in the vicinity of the Texaco Station. Nitrates were also found above 15A NCAC 2L standards near the warehouse and storage silos. In 1993, The North Carolina Department of Agriculture conducted a removal of a large quantity of pesticides (3000 pounds of dry pesticides and 45 gallons of liquid pesticides) that had been left abandoned in warehouses on the site.

In 1996 follow-up sampling of groundwater at the Texaco station was conducted under jurisdiction with Division of Water Quality as well as a requirement for a Comprehensive Site Assessment for the Texaco Station gasoline constituents. Arsenic was found in the groundwater sample collected from the Texaco station and found to be above the NCAC 2L groundwater standard. Arsenic was suspected to have been used in the Leary Brothers pesticide operation in the tobacco business. DWQ referred the site to the Inactive Hazardous Sites Branch for us to regulate the arsenic and pesticides in groundwater except for gasoline constituents at the station.

Arsenic was also found in soil and groundwater at the Edenton Florists Company located at the northern end of the Leary Brothers property. The soil contamination at this florists was found in soils 10 to 12 inches below ground surface at concentrations as high as 47 ppm in the crawl space of the storage area where the company stored chemicals. This building may have also been used as a former warehouse for pesticide storage during the Leary Brothers operation. A groundwater sample was found at 122 ppb in a monitoring well located at the northeast end of the site. In addition, heptachlor epoxide and chlordane were also detected in groundwater adjacent to the florists building.

Groundwater depth at the site is approximately 7 to 10 feet below ground surface. Groundwater is utilized for drinking water source from a depth of 300 feet or greater. Municipal water used in the site area is treated well water from the Black Creek aquifer greater than 300 feet below ground surface. Groundwater flows south across the site towards the Albemarle Sound.

In summary, arsenic has been found in soil and also in groundwater above Branch remediation goals as well as heptachlor epoxide and chlordane. Arsenic has also been found above the NCAC 2L groundwater standard at the Texaco station located on Broad Street and is suspected across other parts of the site. Both owners of the florist and former owners of the warehouse storage building lots have been notified of our voluntary cleanup program. The BETX compounds are being handled through DWQ for the Texaco gasoline station. The last contact with any of the site owners was October 26, 1999, to the owner of the Florists, Mr. John Smith.

PHASE II ENVIRONMENTAL AUDIT

Conducted On:

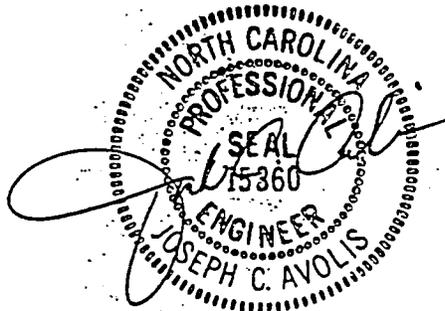
Leery Cotton Warehouse
Cottonseed and Grain Storage Facility
Virginia Road
Edenton, North Carolina

Prepared for:

Southern Bank and Trust Company
c/o Mr. Richard DeYoung, Esq.
Ward and Smith, P.A.
1001 College Court
New Bern, North Carolina 28560

Prepared by:

Avolis Engineering, P.A.
P.O. Box 15564
New Bern, North Carolina 28561
(919) 633-0068



May 27, 1992

INDEX

Executive Summary	2
Background Information.....	3
Site Description.....	4
Herbicides/Pesticides Storage Area.....	4
Liquid Fertilizer Tank Area.....	5
Lime Stockpile Area.....	6
Debris Storage Area.....	8
Chowan County UST Removal.....	10
Broad Street Shell Station.....	11
Broad Street Texaco.....	13

Appendices:

- Appendix A - Location Map
- Appendix B - Site Plat
- Appendix C - Site Sketch
- Appendix D - Site Photographs
- Appendix E - Laboratory Analysis Reports

Executive Summary

On March 24 and 25, 1992, Mr. Joe Avolis, P.E. of Avolis Engineering, P.A. conducted intrusive soil and groundwater sampling at the Leery Cotton Warehouse Site in Edenton, North Carolina. The purpose of the this project was to ascertain if the concerns expressed in EA Engineering, Science and Technology's Phase I audit regarding potential site contamination actually existed by conducting the next level of environmental investigation. The additional on-site investigation and laboratory analysis of soil and groundwater samples have produced the following conclusions:

- There was no detected soil contamination from herbicides or pesticides at the sampling points in the vicinity of the agri-chemical storage area, but there were relatively low levels of pesticides (DDT & DDD) present.
- The groundwater nitrate levels in the vicinity of the liquid fertilizer tank/foundation exceed the State standard for groundwater.
- The groundwater pH in the vicinity of the lime pile is within the State standard based on an average at three points.
- Contamination above the State groundwater standards exists for four compounds downgradient of the debris areas at lot 3.
- Groundwater contamination due to the recently excavated Chowan County Hospital UST is not suspected on the Leery property based on further inquiry and the laboratory results for the two sampling locations.
- A gasoline odor was observed at a boring location on lot 1 approximately forty feet west of a UST area at the Broad Street Texaco Station. Laboratory analysis indicated the presence of hydrocarbon compounds above State groundwater standards.
- Groundwater contamination was determined to exist at each of the three lots which represent the Leery Warehouse Site. The extent of the contamination in the sampling areas was not determined. Further discussions and details regarding the above sample sites are discussed in the text of the report.

Background Information

Avolis Engineering, P.A. was contacted by Mr. Richard DeYoung, Esq. of Ward and Smith, P.A. to provide a scope of work and fee proposal for intrusive sampling at the Leery Cotton Warehouse site in Edenton, North Carolina. The suggested scope of work was based on a review of the Preliminary Environmental Site Assessment prepared by EA Engineering, Science and Technology of Charlotte, North Carolina. The bid and scope of services was accepted, and site work took place on March 24 and 25, 1992.

The scope of work consisted of providing further information on the following areas of concern which were identified at the site:

- _____ Determine if soil contamination exists from herbicides or pesticides in the agri-chemical storage area adjacent to the three silos.
- _____ Determine if groundwater contamination exists from nitrate or phosphate in the vicinity of the liquid fertilizer tank and tank foundation.
- _____ Determine if the groundwater pH has been impacted in the vicinity of the agricultural lime stockpile.
- _____ Determine if groundwater contamination by the EPA priority pollutants has occurred downgradient from the debris stored on the site.
- _____ Determine if site groundwater contamination exists due to the recent UST removal on the adjacent Chowan County property and provide additional information.
- _____ Determine if groundwater contamination from hydrocarbons exists on the site adjacent to the Broad Street Shell Station.
- _____ Determine if groundwater contamination from hydrocarbons exists on the site adjacent to the Broad Street Texaco Station.

Water and soil samples were taken at the site utilizing a hand auger and bailers. Water and soil samples were iced and transported to Southern Testing of Wilson, North Carolina for analysis.

Site Description

The Leery Brothers' site consists of lots 1, 3 and 4 as shown on the map in Appendix B. The three lots combine to equal an area approximately 2.75 acres in size. The site is intersected by an abandoned Norfolk and Southern Railroad line which consists of an area approximately 0.85 acres in size. The site has generally flat topography with the exception that the southern half of lot 3 drops in elevation by approximately six feet from the remainder of the site. The southern property line of lot 3 of the Leery property lies adjacent to an open drainage ditch as shown in the photograph on page 7 of Appendix D.

Groundwater flow on the site had previously been predicted to flow generally to the south. Groundwater elevations taken at the site confirmed this general flow direction.

Herbicides/Pesticides Storage Area

EA's Phase I Audit indicated that approximately 1,000 pounds of agri-chemicals such as pesticides and herbicides existed at the Leery site at the time of their audit at the location of the three silos which are shown in the photograph on page 7 of Appendix D.

At the time of our investigation, these chemicals had already been removed from the site. Mr. Craig Richardson of Southern Bank and

Trust Company provided information that the chemicals had been stored in the general area of the concrete slab in between the three silos.

An analysis of the reported chemical storage area indicated two locations where the chemicals could spread to the adjacent soil surface. One of these locations is shown in the photograph on page 1 of Appendix D. The other location was at a silo on the opposite side of the one shown in the photograph. Composite soil samples to a depth of 3 feet were collected from each of these two areas.

The samples were analyzed by Southern Testing of Wilson, NC for pesticides and herbicides. There was no detected contamination from herbicides in either of these two locations. There were levels of pesticides (DDT & DDD) as shown in the lab analysis. The reported concentrations of 13.1 ppm and 5.6 ppm respectively are relatively low levels given the nature of the operation which have occurred on the site.

Liquid Fertilizer Tank Area

The liquid fertilizer storage area consisted of a single above-ground storage tank and an abandoned concrete tank foundation structure as shown in the photographs on pages 1 and 2 of Appendix D. Groundwater samples were taken from three open bore holes located in a triangular configuration around the area. Groundwater occurred at a depth of approximately seven feet.

Sample 92023-6 was taken on the northern side of the tank area. Sample 92023-7 was a composite sample taken from the southeastern and southwestern sides of the storage tank and tank foundation area.

As shown in the laboratory analysis report in Appendix E, nitrate levels in the groundwater were 67.0 and 37.8 ppm. The State Class GA Standards for nitrate in groundwater is 10.0 mg/l or 10.0 ppm according to 15NCAC2L. The nitrate levels in this area are above the allowable State standard for groundwater.

Phosphate levels in the groundwater in these areas are indicated by the laboratory analysis to occur at 0.17 and 0.08 ppm. There are no State standards for phosphate in groundwater. Typically, phosphorous contamination is considered together with nitrogen. However, it is less important because of the low solubility of phosphorous due to its tendency to sorb on solids, and the lack of proven health problems.

Lime Stockpile Area

The lime stockpile which EA expressed concern with in their Phase I Audit existed at the site at the time of our investigation and is shown in the photograph on page 2 of Appendix D. The lime was stored on the sloping area of lot 3 and was spread over the ground in the general area of the stock pile. The drainage ditch along the southern property line of lot 3 was located downslope and approximately sixty feet from the stock pile. Groundwater adjacent to the stockpile area occurred at a depth of approximately five

feet. Approximately 30 feet down slope of the lime pile (to the south), groundwater occurred at a depth of approximately two feet.

Groundwater was field analyzed for pH in three locations at a distance of approximately 20 feet downgradient of the lime stock pile. The groundwater pH in these three borings were 6.35, 6.87 and 6.55. The groundwater was further field analyzed in several locations on the site in order to determine background pH levels. The result of the field tests tend to indicate that the groundwater in the vicinity of and downgradient from the lime stockpile has been impacted by this material but is at or near acceptable groundwater pH values. The groundwater at other areas on the site tended to be more acidic than allowable by the State of North Carolina groundwater standards.

State of North Carolina standards for the range of groundwater pH are between 6.5 and 8.5. A pH of 7 is considered neutral. A pH of 0-7 is in the acidic range, and a pH of 7-14 is in the base range.

A small area of stained soil was observed during the course of auguring for the groundwater pH samples. The soil was laboratory analyzed to contain less than 2 ppm TPH (sample 92023-7).

Debris Storage Area

The debris storage areas indicated in EA's Phase I Audit were confirmed to exist along the southern and western property lines of lot 3. The debris stored along the southern property line was

approximately six feet high and was located approximately fifteen feet from the open drainage ditch which flows to the east.

The actual field location of the western property line of lot 3 was not field verified with the precision of an actual survey. A single steel reinforcing bar was located in the vicinity of the southwestern corner of lot 3 and was roughly determined to occur in the general area of the property corner as shown on the map in Appendix B.

Based on the location of this apparent property iron, all or the majority of the debris stored along the western property line is located off site of the Leery Tract. The photograph on page 4 of Appendix D shows the location of the iron which was located in this area while looking in the southerly direction. Note that the junk automobiles and other debris are stored east of the property line.

Prior to relying on the apparent location of the debris material, it is recommended that a surveyor field locate the actual eastern property line of lot 3.

A composite groundwater sample was taken from three separate locations downgradient of the debris storage areas and analyzed for the EPA priority pollutants. The locations of the three sampling points are identified on the site map in Appendix C.

The laboratory analysis for the EPA priority pollutants results are as follows:

<u>Compound</u> <u>State Standard</u>	<u>Concentration</u> <u>Detected (ug/l)</u>	<u>State Standard</u> <u>(ug/l)</u>
Volatile Organic Compounds	None Detected	-----
Acid Extractable Portion	None Detected	-----
Base/Neutral Fraction	None Detected	-----
Aluminum	304,000 ug/l	-----
Arsenic	47	50
Beryllium	15	-----
Cadmium	3	5.0
* <u>Chromium</u>	<u>600</u>	<u>50</u>
Copper	140	1,000
* <u>Lead</u>	<u>430</u>	<u>50</u>
Mercury	0.8	1.1
Nickel	100	150
* <u>Selenium</u>	<u>20</u>	<u>10</u>
Zinc	650	5,000
* <u>Barium</u>	<u>2,100</u>	<u>1,000</u>
Chloride	85,000	250,000
Fluoride	1,740	2,000

*Indicates that State groundwater standard is exceeded.

It was noted that four compounds exceeded the State standards for groundwater while some compounds came close to exceeding these standards. Since the above results were obtained from a single composite sample taken from three separate points, the concentration of the three sample points may vary widely.

Chowan County UST Removal

The Chowan County Hospital UST removal area indicated in EA's Phase I Audit is shown in the photograph on page 4 of Appendix D. The above ground tank shown in the photograph replaced the UST which was the prior source of heating oil. According to Mr. David Harold, who is the maintenance director for the hospital facility, there was not any soil contamination found when the tank was removed. Mr. Harold indicated that the old UST and the stockpiled material located across the drainage ditch to the north of lot 3 was from another UST removal site in the county. The tank and soil are shown in the photograph on page 8 of Appendix D.

It is of interest to note that the general location of the western property line of lot 3 is apparently located through a warehouse building on the site.

A composite water sample was taken from two open bore holes located alongside the warehouse building which lies across the Leery lot 3 property line. These two bore holes were not located on the Leery property.

Free product or obvious fuel odors were not observed in either of the two locations. Sample 92023-3 shown in Appendix E indicated 0.0544 ppm of gasoline in the groundwater collected in this area. The UST on the county property was reported to have been a fuel oil tank and would not be suspected of being a source of TPH as gasoline. The gasoline in this sample may be attributable to other

areas discussed in the following pages. The other parameters analyzed in the sample were below laboratory detection limits.

Broad Street Shell Station

The Broad Street Shell station referred to in EA's Phase I Audit is located directly north of the Leery site across Virginia Road. The Shell Station is shown in the photograph on page 5 of Appendix D. The underground gasoline tanks are on the far side of the Shell Station property beyond the building and the shelter structure.

A review of a 1927 Sanborn Insurance Map indicated that a filling station existed at this site as early as 1927. During 1927, the Sanborn Map indicated that the fuel pumps were in a location along Virginia Road closer to the Leery site than their present location.

A single open bore hole groundwater sample was collected along the northern Leery property line. An obvious gasoline odor was observed in the soil at a depth of approximately six to seven feet where the water table occurred. The soils in this location were sandy.

The laboratory analysis for sample 92023-4 as shown in Appendix E indicated the following results:

<u>Parameter</u>	<u>Concentration</u>	<u>State Standard</u>
TPH as Gasoline	2.31 ppm	-
Benzene	0.0261 ppm	0.001 ppm
Ethylbenzene	0.0063 ppm	0.029 ppm

<u>Parameter</u>	<u>Concentration</u>	<u>State Standard</u>
Toluene	0.0051 ppm	1.0 ppm
Xylenes	0.0081 ppm	0.4 ppm

The state standard for Benzene was exceeded by a factor of 26 and the TPH result indicated that gasoline is present in the groundwater.

Based on the strong fuel odor observed at the boring location, it is suspected that free product may exist. This determination could not be verified with the sampling method used. No attempt was made to identify the vertical and horizontal extent of this contamination.

The sampling point is located to the left of the fire hydrant shown in the photograph on page 5 of appendix D. The unpaved area in the foreground of the picture is located on the Leery property.

Broad Street Texaco

The Broad Street Texaco is located along the eastern property line of lot 4 of the Leery property and is shown as the property of J.H. Conger and Son, Inc. on the map in Appendix C. EA's Phase I Audit indicated that the Texaco tank field was near or on the Leery site. Through visual field comparison with the survey map in Appendix B, none of the Conger Texaco property lines could be located. Rough field measurements off of the existing railroad centerline indicated that the underground fuel tank area shown in the

photograph on page 6 of Appendix D is located on the Leery property. It is recommended that accurate location of the Leery/Conger property line be established by a surveyor.

UST's were observed to exist on each side of the Texaco station. A single water sample was taken near the southeastern corner of the Leery property. Based on the previously established rough location of the Leery property line, the sample was taken conservatively onto the Leery property. The sampling point is indicated on the photograph on page 6 of Appendix D.

Obvious fuel odors were detected in the soil at a depth of approximately three and one-half feet and deeper. The water sample is identified as sample 92023-5 in Appendix E. Significant laboratory findings are as follows:

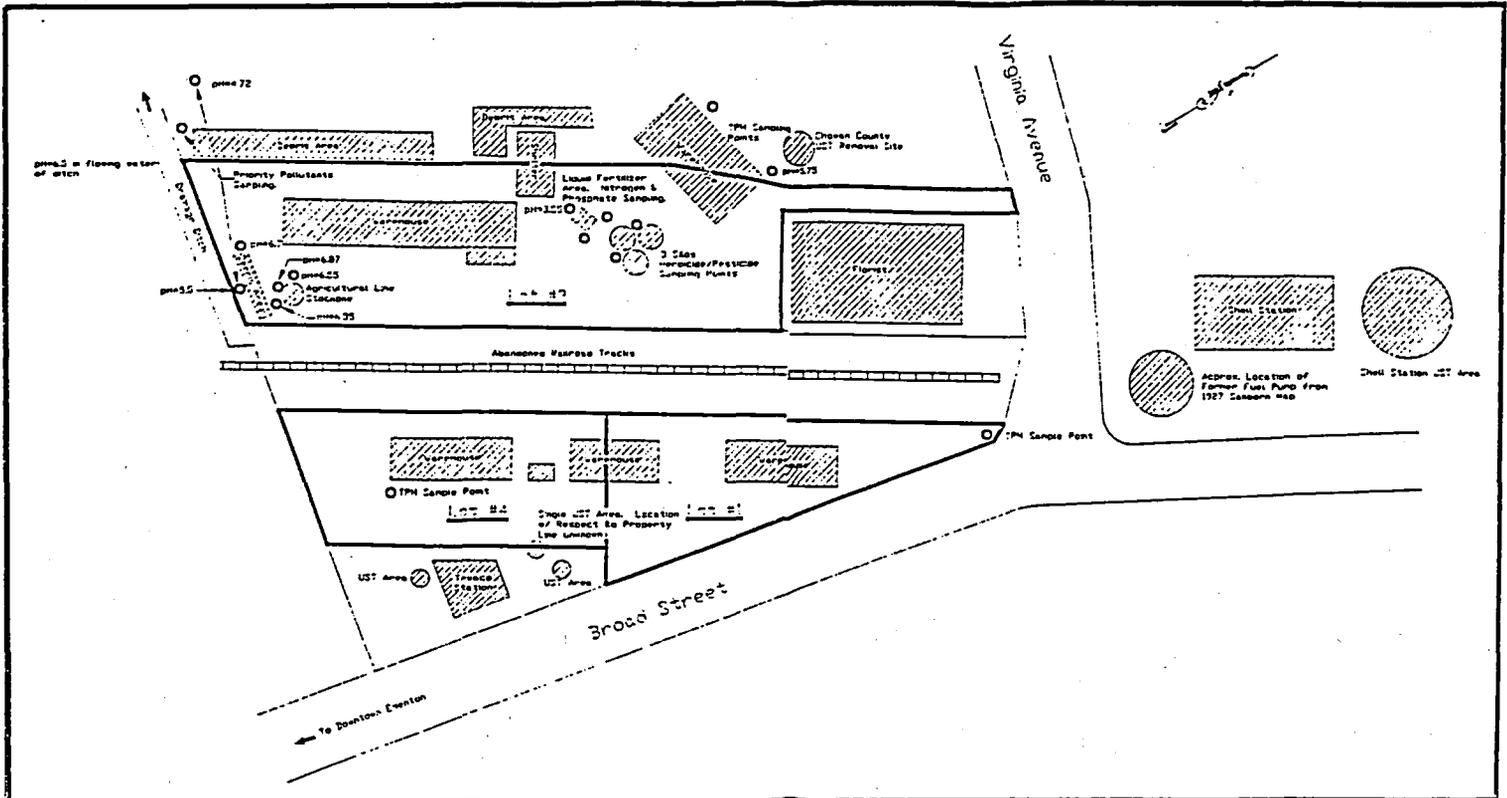
<u>Parameter</u>	<u>Concentration (ppm)</u>	<u>State Groundwater Standard (ppm)</u>
TPH as Gasoline	241	
Benzene	0.0164	0.001
Ethylbenzene	1.36	0.029
Toluene	0.0771	1.0
Xylenes	2.41	0.4

Based on the strong fuel odor observed at this boring location, it is suspected that free product may exist. A free product determination could not be verified with the sampling method used. No attempt was made to identify the vertical and horizontal extent of this contamination. It is estimated that the groundwater sampling point is in excess of twenty feet onto the Leery property.

APPENDIX A

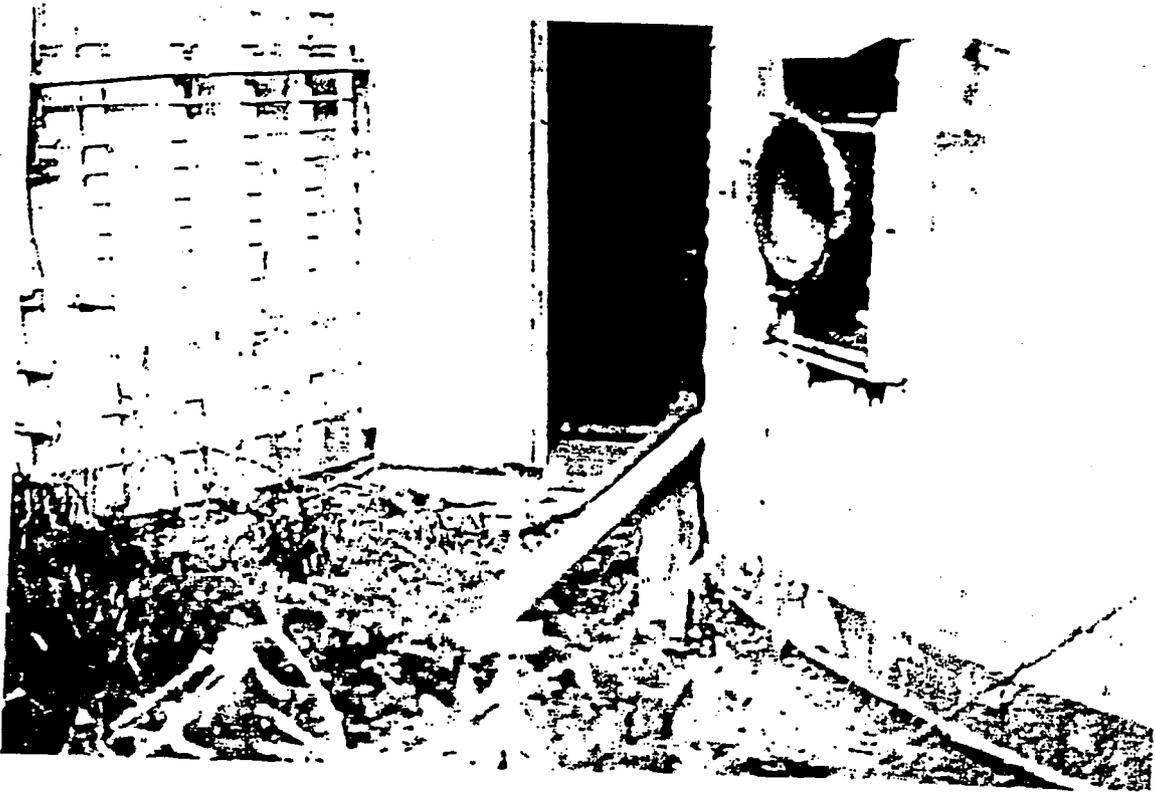
APPENDIX B

APPENDIX C



Site Sketch and Sampling Locations
 Leery Cotton Warehouse
 Edenton, NC

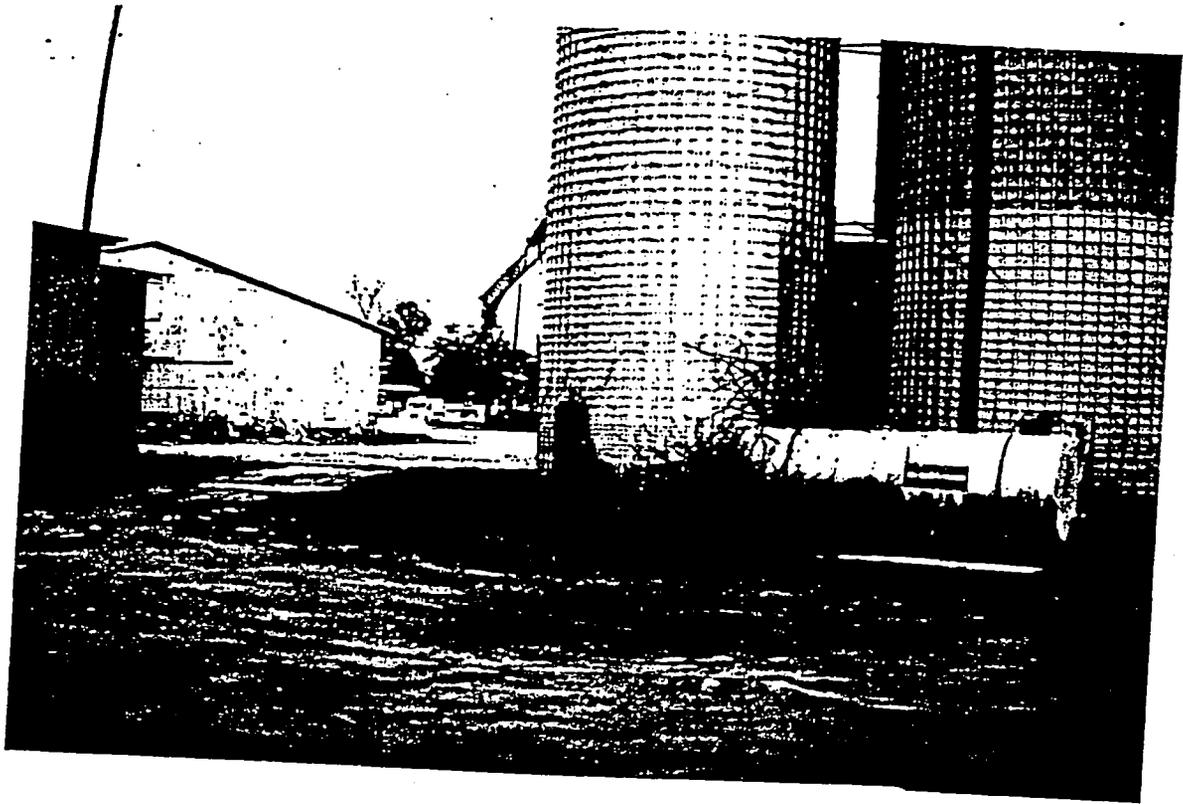
APPENDIX D



Herbicide/Pesticide sampling point
at the three silos.



Liquid fertilizer tank foundation.



Liquid fertilizer tank.



Agricultural lime stockpile.



Automobile/debris stockpile along
western property line of lot #3.



Debris at southern property line of
lot #3.



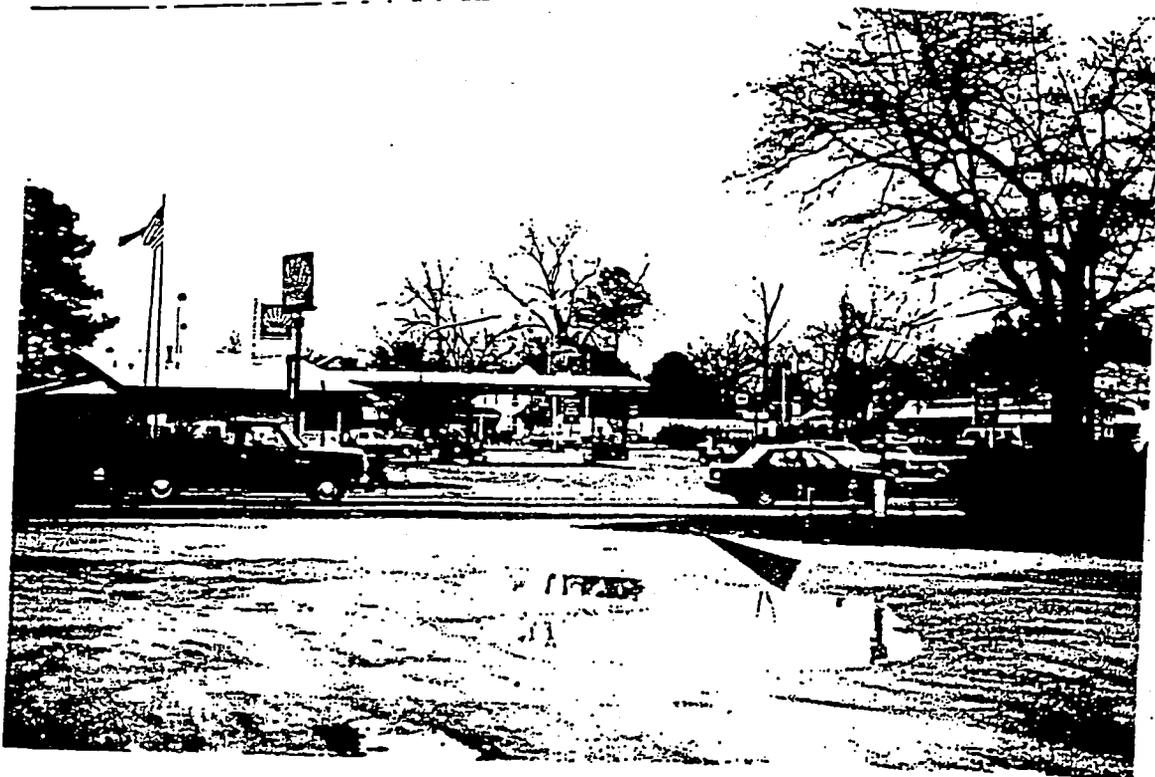
Lot #3 western property line line
looking south. Note location of
apparent property line.



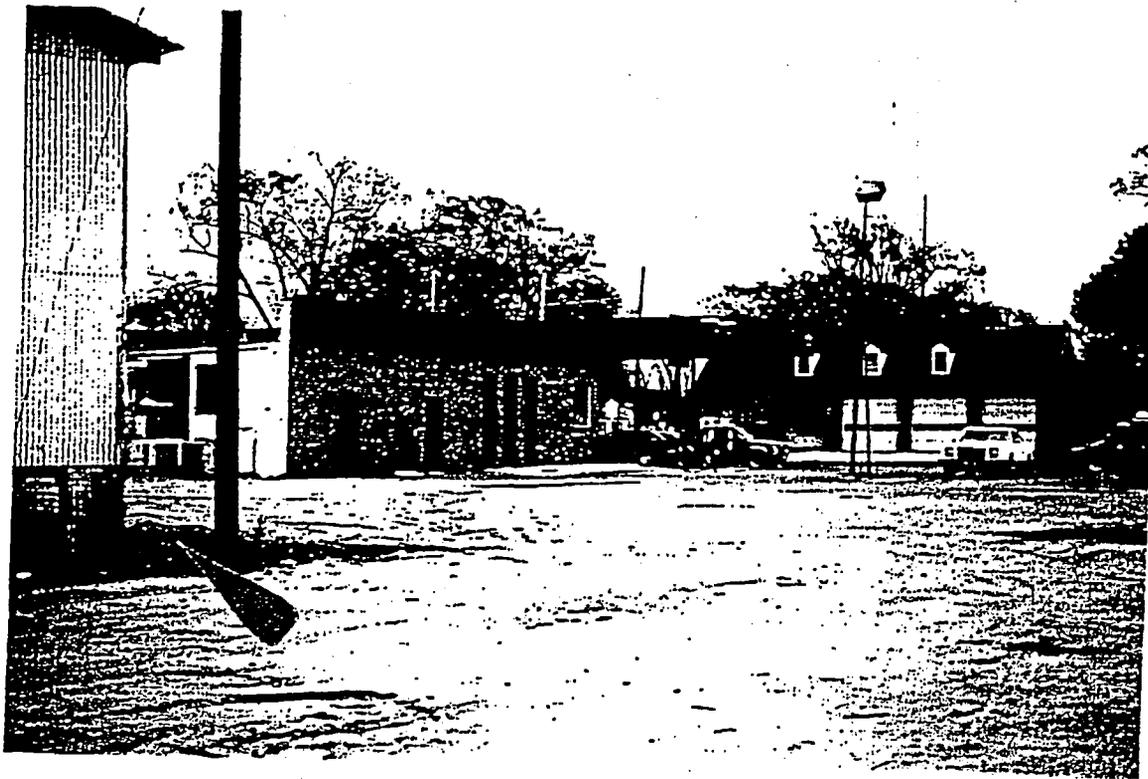
Location of Chowan County UST
removal.



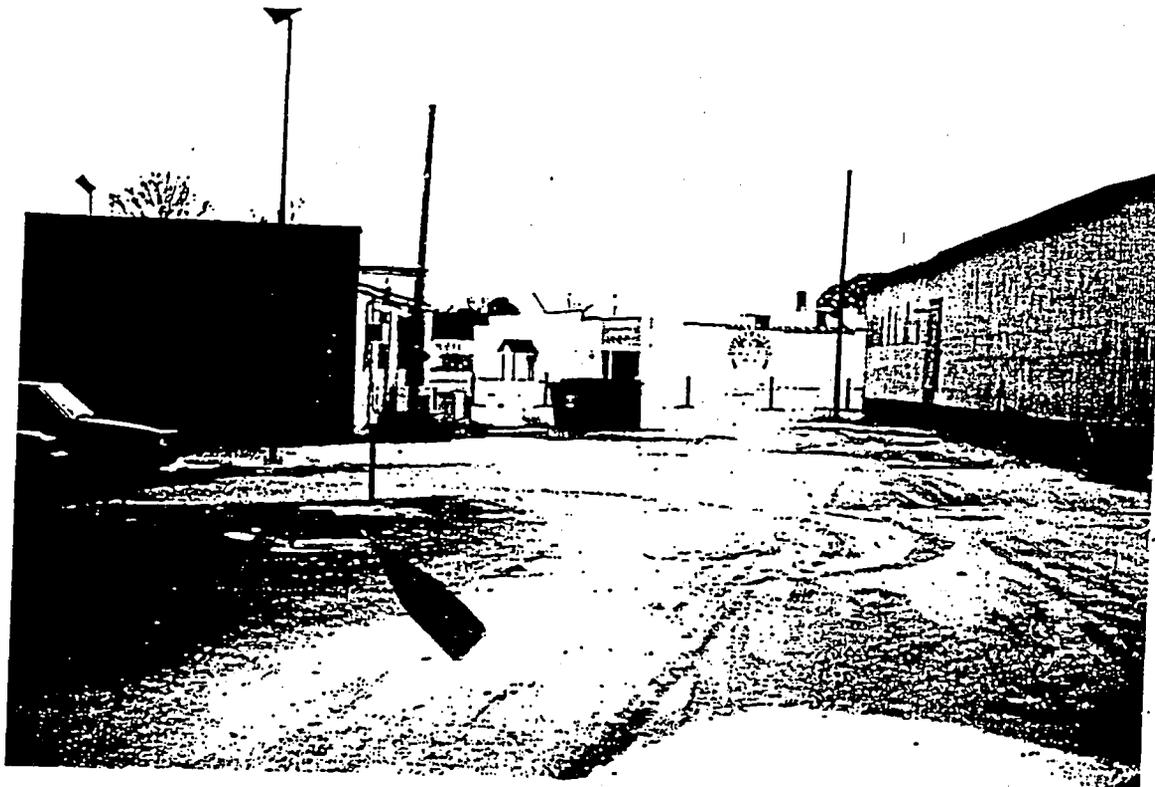
Sampling area for Chowan County
UST removal.



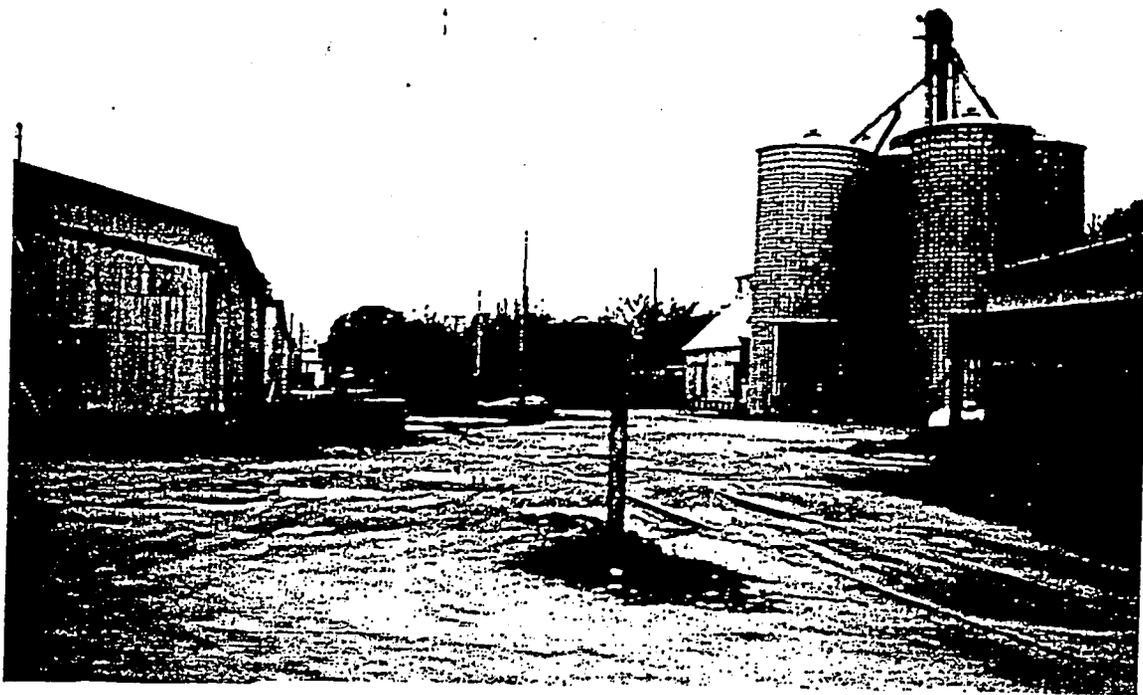
Looking north across Virginia Avenue
to Broad Street Shell Station.
Note water sample location.



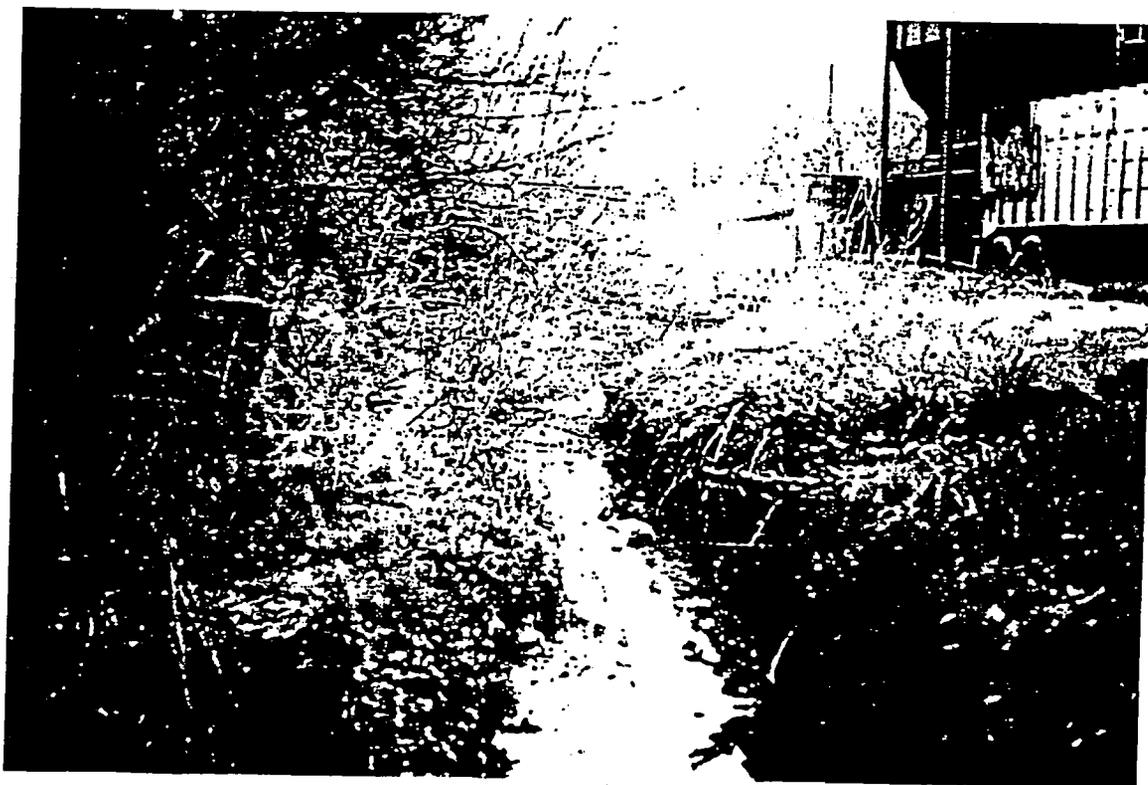
Looking northeast from lot #4 onto
Texaco site. Note water sample
location.



Looking southerly along lot #4
eastern property line. Note uncertain
location of UST in relation to lot #4
property line. Sample point is in
background.



General site view looking south.



Drainage ditch at south end of property.



County UST and soil storage area on
south side of drainage ditch beyond
lot #3.

APPENDIX E

SOUTHERN TESTING AND RESEARCH LABORATORIES, INC.

FORM 7
ORGANOCHLORINE PESTICIDES
METHOD: SW-846 by 8080
Catalog No.: EO-7.1

Sample Specific Information For STRL Sample No.: 8657A1

Client Sample ID: 92023-1R 5-17-92 1300 COMP Sample Matrix : SOIL

Date Sampled : 5-17-92

Date Analyzed : 6-1-92

Date Received : 5-17-92

Date Reported : 6-2-92

Date Extracted : 5-18-92

Analyte	Units: ppb	Detection Limit	Result
Alpha-BHC	: 3		: ND
Beta-BHC	: 3		: ND
Delta-BHC	: 3		: ND
Gamma-BHC	: 3		: ND
Heptachlor	: 3		: ND
Heptachlor Epoxide	: 3		: ND
Aldrin	: 3		: ND
Endosulfan I	: 3		: ND
Endosulfan II	: 3		: ND
Endosulfan Sulfate	: 3		: ND
p,p-DDE	: 3		: ND
p,p-DDD	: 3		: ND
p,p-DDT	: 3		: 5.6
Dieldrin	: 3		: 13.1
Endrin	: 3		: ND
Endrin Aldehyde	: 3		: ND
Methoxychlor	: 3		: ND
PCB(s)	: 12		: ND
Toxaphene	: 10		: ND
Chlordane(Tech)	: 10		: ND
Mirex	: NR		: ND
			: NR

COMMENTS: ND = NOT DETECTED
NR = NOT REQUESTED

Laboratory Contact For Above Report

Name : DONAL MORRISSEY, B.S.
Title: CHEMIST

Reviewed and Approved

Thomas A. Dean, Jr. Ph.D.
Manager, Environmental Department

-----LAB USE ONLY-----

Analyst(s): DM	No. Containers: 2	Sample Submission: N	C-O-C:
Initial :	Pickup: N	Time:	Miles: RUSH :

FORM 10
 CHLORINATED HERBICIDES
 METHOD: SWB46-8150
 Catalog No.: EO-10.1

Sample Specific Information For STRL Sample No.: 7844A2

Client Sample ID: 92023-2-3-25-92 1215 COMP Sample Matrix : SOIL
 Date Sampled : 3-25-92 Date Analyzed : 3-31-92
 Date Received : 3-26-92 Date Reported : 4-14-92
 Date Extracted : 3-30-92

Analyte	Units: ppm	Detection Limit	Result
2,4-D		: 0.01	: ND
2,4,5-TP(Silvex)		: 0.01	: ND
2,4,5-T		: 0.01	: ND
Additional Compounds		:	:
		:	:
		:	:
		:	:
		:	:

COMMENTS: ND = NONE DETECTED

Laboratory Contact For Above Report

Name : DONAL MORRISSEY, B.S.
 Title: CHEMIST

Reviewed and Approved

 Thomas A. Dean, Jr. Ph.D.
 Manager, Environmental Department

-----LAB USE ONLY-----

Analyst(s): DM No. Containers: 4 Sample Submission: N C-O-C: Y
 Initial : Pickup: N Time: Miles: RUSH : N

SOUTHERN TESTING AND RESEARCH LABORATORIES, INC.
3709 AIRPORT DRIVE - WILSON, NC 27893
PHONE (919) 237-4175 FAX (919) 237-9341

FORM 60
VOLATILE TOTAL PETROLEUM HYDROCARBONS
METHOD: SW-846 - 5030/8021
Catalog No.: ED-60.1

LAB SAMPLE NO.(s): 7845A1-3 of: 3 Date Reported: 92/04/07

Received From Date Received: 92/03/26

NAM : JOE AVOLIS Account No.: 03363
ORG : AVOLIS ENGINEERING, PA Telephone : 633-0068
ADD : P.O. BOX 15564 PO/Job No. :
CSZ : NEW BERN, NC 28560

Sample(s) of : WATER

Marked A: 92023-3 3-25-92 1300 GRAB B: 92023-4 3-25-92 1345 GRAB
C: 92023-5 3-25-92 1415 GRAB D:

Lab Sample No.=> A: 7845A1 B: 7845A2 C: 7845A3 D:

TPH as Gasoline	(ppm):	0.0544	:	2.31	:	241	:
Benzene	(ppm):	<0.0005	:	0.0261	:	0.0164	:
Chlorobenzene	(ppm):	<0.0005	:	<0.0005	:	<0.0025	:
1,2-Dichlorobenzene	(ppm):	<0.0005	:	<0.0005	:	<0.0025	:
1,3-Dichlorobenzene	(ppm):	<0.0005	:	<0.0005	:	<0.0025	:
1,4-Dichlorobenzene	(ppm):	<0.0005	:	<0.0005	:	<0.0025	:
Ethylbenzene	(ppm):	<0.0005	:	0.0063	:	1.36	:
Toluene	(ppm):	<0.0005	:	0.0051	:	0.0771	:
Xylenes	(ppm):	<0.0015	:	0.0081	:	2.41	:
Methyl tert butyl ether (MTBE)	(ppm):	NR	:	NR	:	NR	:
Dibromoethane (EDB)	(ppm):	NR	:	NR	:	NR	:
Isopropylether (IPE)	(ppm):	NR	:	NR	:	NR	:
Ethylenedichloride (EDC)	(ppm):	NR	:	NR	:	NR	:

COMMENTS: NR = NOT REQUESTED
C: THIS SAMPLE DID NOT EXHIBIT A TYPICAL GASOLINE PATTERN.

Laboratory Contact For Above Report


Reviewed and Approved

Name : DONAL MORRISSEY, B.S.
Title: CHEMIST

Thomas A. Dean, Jr. Ph.D.
Manager, Environmental Department

-----LAB USE ONLY-----
Analyst(s): DM No. Containers: 7 Sample Submission: N C-O-C: Y
Initial : Pickup: N Time: Miles: RUSH : Y

"Quality Service At A Fair Price"

dlh/92

POLLUTANT ANALYSIS MONITORING REPORT

SAMPLE NO. : 7847A1

DATE OF REPORT: 92/05/07

RECEIVED FROM

DATE RECEIVED : 92/03/26

NAM : JOE AVOLIS
ORG : AVOLIS ENGINEERING PA
ADD : P.O. BOX 15564
CSZ : NEW BERN, NC 28560

ACCOUNT NO.: 03363
TELEPHONE : 633-0068

JOB # 92023

SAMPLE(s) of: WATER

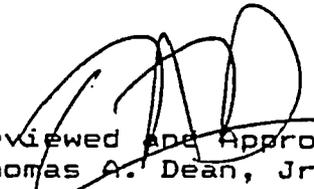
MARKED : 92023-8 3-25-92 1000 COMP

Attachments:

- Page 1 [A] Purgeable (Volatile Organic) Fraction
(a) Other Purgeables
- Page 2 [B] Acid Extractable Fraction
(b) Other Acid Extractables
- Page 3 [C] Base/Neutral Fraction
(c) Other Base/Neutral Extractables
- Page 5 [D] Organochlorine/Organophosphorus Pesticides and PCB's
- Page 5 [E] Herbicides
- Page 6 [F] Metals and Other Inorganics

LAB USE ONLY-----

ANALYSTs: DC/BC/DM/JW
PICKUP: N RUSH: N
TIME: MILES:
T: D:
I:


Reviewed and Approved
Thomas A. Dean, Jr. Ph.D.
Manager, Environmental Dept.

Sample No.: 7847A1

Page 1 of 6

[A] Purgeable (Volatile Organic) Fraction, EPA Method: 624

Compound	Units:ug/L	Quantitation Limit	Quantitation Target	Quantitation Limit *	Concentration Detected	GC/MS Confirmation
Acrolein	:	100	:	:	: ND	:
Acrylonitrile	:	100	:	:	: ND	:
Benzene	:	5	:	:	: ND	:
Bromodichloromethane	:	5	:	:	: ND	:
Bromoform	:	5	:	:	: ND	:
Bromomethane	:	10	:	:	: ND	:
Carbon tetrachloride	:	5	:	:	: ND	:
Chlorobenzene	:	6	:	:	: ND	:
Chloroethane	:	10	:	:	: ND	:
2-Chloroethylvinyl ether	:	10	:	:	: ND	:
Chloroform	:	5	:	:	: ND	:
Chloromethane	:	10	:	:	: ND	:
Dibromochloromethane	:	5	:	:	: ND	:
1,1-Dichloroethane	:	5	:	:	: ND	:
1,2-Dichloroethane	:	5	:	:	: ND	:
1,1-Dichloroethene	:	5	:	:	: ND	:
trans-1,2-Dichloroethene	:	5	:	:	: ND	:
1,2-Dichloropropane	:	6	:	:	: ND	:
cis-1,3-Dichloropropene	:	5	:	:	: ND	:
trans-1,3Dichloropropene	:	5	:	:	: ND	:
Ethylbenzene	:	8	:	:	: ND	:
Methylene chloride	:	5	:	:	: ND	:
1,1,2,2Tetrachloroethane	:	7	:	:	: ND	:
Tetrachloroethene	:	5	:	:	: ND	:
Toluene	:	6	:	:	: ND	:
1,1,1-Trichloroethane	:	5	:	:	: ND	:
1,1,2-Trichloroethane	:	5	:	:	: ND	:
Trichloroethene	:	5	:	:	: ND	:
Trichlorofluoromethane	:	10	:	:	: ND	:
Vinyl Chloride	:	10	:	:	: ND	:

* If different from quantitation limit target

Surrogate Recoveries:Compound	%Recovered
:4-Bromofluorobenzene	: 110%
:Toluene-d8	: 105%
:Dibromofluoromethane	: 95%

Comments:

:
:

Sample No.: 7847A1

Page 2 of 6

[B] Acid Extractable Fraction, EPA Method: 625

Compound	Units:ug/L	Quantitation Limit Target	Quantitation Limit *	Concentration Detected	GC/MS Confirmation
4-Chloro-3-methylphenol	:	10	: 6.6	: ND	:
2-Chlorophenol	:	10	: 6.6	: ND	:
2,4-Dichlorophenol	:	10	: 6.6	: ND	:
2,4-Dimethylphenol	:	10	: 6.6	: ND	:
2,4-Dinitrophenol	:	50	: 13.2	: ND	:
2-Methyl-4,6-dinitrophenol	:	50	: 13.2	: ND	:
2-Nitrophenol	:	10	: 6.6	: ND	:
4-Nitrophenol	:	50	: 6.6	: ND	:
Pentachlorophenol	:	50	: 6.6	: ND	:
Phenol	:	10	: 6.6	: ND	:
2,4,6-Trichlorophenol	:	10	: 6.6	: ND	:

* If different from quantitation limit target

Surrogate Recoveries:Compound	%Recovered
:Phenol-d6	: 60
:2-Fluorophenol	: 59
:2,4,6-Tribromophenol	: 66

Comments:

:
:

Sample No.: 7847A1

Page 3 of 6

[C] Base/Neutral Fraction, EPA Method: 625

Compound	Units:ug/L	Quantitation		Concentration Detected	GC/MS Confirmation
		Limit	Target		
Acenaphthene	:	10	: 6.6	: ND	:
Acenaphthylene	:	10	: 6.6	: ND	:
Anthracene	:	10	: 6.6	: ND	:
Benzidine	:	50	: 6.6	: ND	:
Benzo (a) anthracene	:	10	: 6.6	: ND	:
Benzo (a) pyrene	:	10	: 6.6	: ND	:
Benzo (b) fluoranthene	:	10	: 6.6	: ND	:
Benzo (ghi) perylene	:	10	: 6.6	: ND	:
Benzo (k) fluoranthene	:	10	: 6.6	: ND	:
Bis2-chloroethoxy methane:	:	10	: 6.6	: ND	:
Bis2-chloroethyl ether	:	10	: 6.6	: ND	:
Bis2-chloroisopropylether:	:	10	: 6.6	: ND	:
Bis2-ethylhexyl phthalate:	:	10	: 6.6	: ND	:
4-Bromophenylphenylether	:	10	: 6.6	: ND	:
Chrysene	:	10	: 6.6	: ND	:
Dibenzo(a,h)anthracene	:	10	: 6.6	: ND	:
1,2-Dichlorobenzene	:	10	: 6.6	: ND	:
1,3-Dichlorobenzene	:	10	: 6.6	: ND	:
1,4-Dichlorobenzene	:	10	: 6.6	: ND	:
3,3-Dichlorobenzidine	:	20	:13.2	: ND	:
Diethyl phthalate	:	10	: 6.6	: ND	:
Dimethyl phthalate	:	10	: 6.6	: ND	:
Di-n-butyl phthalate	:	10	: 6.6	: ND	:
2,4-Dinitrotoluene	:	10	: 6.6	: ND	:
2,6-Dinitrotoluene	:	10	: 6.6	: ND	:
Di-n-octyl phthalate	:	10	: 6.6	: ND	:
1,2-Diphenylhydrazine	:	10	: 6.6	: ND	:
Fluoranthene	:	10	: 6.6	: ND	:
Fluorene	:	10	: 6.6	: ND	:
Hexachlorobenzene	:	10	: 6.6	: ND	:
Hexachlorobutadiene	:	10	: 6.6	: ND	:
Hexachlorocyclopentadiene:	:	10	: 6.6	: ND	:
Hexachloroethane	:	10	: 6.6	: ND	:
Indeno(1,2,3-cd)pyrene	:	10	: 6.6	: ND	:
Isophorone	:	10	: 6.6	: ND	:
Naphthalene	:	10	: 6.6	: ND	:
Nitrobenzene	:	10	: 6.6	: ND	:
N-nitrosodimethylamine	:	10	: 6.6	: ND	:
N-nitrosodi-n-propylamine:	:	10	: 6.6	: ND	:
N-nitrosodiphenylamine	:	10	: 6.6	: ND	:
Phenanthrene	:	10	: 6.6	: ND	:
Pyrene	:	10	: 6.6	: ND	:
1,2,4-Trichlorobenzene	:	10	: 6.6	: ND	:

* If different from quantitation limit target

Surrogate Recoveries:Compound	%Recovered
:Nitrobenzene-d5	: 53
:Terphenyl-d14	: 83
:2-Fluorobiphenyl	: 53

Comments:

:
:

"QUALITY SERVICE AT A FAIR PRICE"

Sample No.: 7847A1

(a) Other Purgeables (up to 10 highest peaks)

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)
1 : TRICHLOROTRIFLUOROETHANE	186	28	83%
2 :	:	:	:
3 :	:	:	:
4 :	:	:	:
5 :	:	:	:
6 :	:	:	:
7 :	:	:	:
8 :	:	:	:
9 :	:	:	:
10 :	:	:	:

(b) Other Acid Extractables (up to 10 highest peaks)

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)
1 : ND	:	:	:
2 :	:	:	:
3 :	:	:	:
4 :	:	:	:
5 :	:	:	:
6 :	:	:	:
7 :	:	:	:
8 :	:	:	:
9 :	:	:	:
10 :	:	:	:

(c) Other Base/Neutral Extractables (up to 10 highest peaks)

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)
1 : ND	:	:	:
2 :	:	:	:
3 :	:	:	:
4 :	:	:	:
5 :	:	:	:
6 :	:	:	:
7 :	:	:	:
8 :	:	:	:
9 :	:	:	:
10 :	:	:	:

Comments: ND = NONE DETECTED

Sample No.: 7847A1

[D] Organochlorine/Organophosphorous Pesticides and PCB's

1.) Organochlorine Pesticides/PCB's, EPA Method: SW846 - 8080

Confirmation
: Dual
GC/MS:Column

Compound	Units:ug/L	Quantitation Limit Target	Quantitation Limit *	Concentration Detected	Confirmation : Dual GC/MS:Column
Aldrin	:	0.05	:	: ND	:
alpha-BHC	:	0.05	:	: ND	:
Beta-BHC	:	0.05	:	: ND	:
Delta-BHC	:	0.1	:	: ND	:
Gamma-BHC (Lindane)	:	0.05	:	: ND	:
Chlordane	:	0.2	:	: ND	:
4,4'-DDD	:	0.1	:	: ND	:
4,4'-DDE	:	0.1	:	: ND	:
4,4'-DDT	:	0.1	:	: ND	:
Dieldrin	:	0.02	:	: ND	:
Endosulfan I (alpha)	:	0.1	:	: ND	:
Endosulfan II (beta)	:	0.1	:	: ND	:
Endosulfan sulfate	:	0.7	:	: ND	:
Endrin	:	0.06	:	: ND	:
Endrin aldehyde	:	0.2	:	: ND	:
Heptachlor	:	0.05	:	: ND	:
Heptachlor epoxide	:	0.8	:	: ND	:
Methoxychlor	:	0.5	:	: ND	:
Mirex	:	0.2	:	: ND	:
Toxaphene	:	2.4	:	: ND	:
PCB 1016	:	0.5	:	: ND	:
PCB 1221	:	0.5	:	: ND	:
PCB 1232	:	0.5	:	: ND	:
PCB 1242	:	0.5	:	: ND	:
PCB 1248	:	0.5	:	: ND	:
PCB 1254	:	1.0	:	: ND	:
PCB 1260	:	1.0	:	: ND	:

2.) Organophosphorus Pesticides, EPA Method: 8141

Compound	Units:ug/L	Quantitation Limit Target	Quantitation Limit *	Concentration Detected	Confirmation : Dual GC/MS:Column
Demeton	:	2.5	: 1.0	: ND	:
Parathion (ethyl)	:	0.6	: 0.5	: ND	:

[E] Herbicides, EPA Method: 8150

Compound	Units:ug/L	Quantitation Limit Target	Quantitation Limit *	Concentration Detected	Confirmation Dual Column
2,4-D	:	12	: 1	: ND	:
Silvex	:	2	: 1	: ND	:
2,4,5-T	:	2	: 1	: ND	:

* If different from quantitation limit

Comments:

:
:

Sample No.: 7B47A1

Page 6 of 6

[F] Metals and Other Inorganics

1.) Metals

Compound	Units:(ug/L)	Quantitation Limit Target	Quantitation Limit *	Concentration Detected
Aluminum	:	50	:	304000
Antimony	:	50	:	ND
Arsenic	:	10	: 40 *	47
Beryllium	:	25	: 1	15
Cadmium	:	2	: 0.2	3
Chromium	:	5	: 10	600
Copper	:	2	: 10	140
Lead	:	10	: 20	430
Mercury	:	0.2	: 0.2	0.8
Nickel	:	10	: 25	100
Selenium	:	5	: 10	20
Silver	:	5	: 10	ND
Zinc	:	10	: 10	650

2.) Other Inorganics

Compound	Unit:(ug/L)	Quantitation Limit Target	Quantitation Limit *	Concentration Detected
Barium	:	500	:	2100
Chloride	:	1000	:	85000
Cyanide	:	20	: 5	ND
Fluoride	:	100	:	1740

* If different from quantitation limit target

Comments: * RAISED QUANTITATION LIMITS DUE TO HIGH BACKGROUND INTERFERENCE.

:
:
:

Normal (2 weeks)
 Rush (1 week, add 50%)
 Emergency Rush (ASAP, add 100%)

Southern Testing & Research Labs, Inc.
 3709 Airport Dr
 Wilson, NC 27893

LAB USE ONLY

Accl #

(919)237-4175 • Fax (919)237-9341

Report to:

Bill to:

Company Name AVOLIS ENGINEERING, PA
 Contact Person JOE AVOLIS
 Address PO BOX 15564
 CSZ NEW BERN, NC 28560
 Telephone (919) 633-0068
 County CRAVEN

AVOLIS ENGINEERING, PA
JOB: 92023

Chain of Custody
 Environmental

SHEET 1 OF 4

Start Date	Time	End Date	Time	(V)	(V)	Sample Type	Sample Description & Marks	(Please use STRL Cat #'s)	
								Analysis	Required
3/25/92	1200	-	-		X	SOIL	92023-1	1) EO-7.1 2) 3) Pesticides 4) 5)	6) 11) 7) 12) 8) 13) 9) 14) 10) Other: Reverse Side
3/25/92	1215	-	-		X	SOIL	92023-2	1) EO-10.1 2) 3) Herbicides 4) 5)	6) 11) 7) 12) 8) 13) 9) 14) 10) Other: Reverse Side
3/25/92	1300	-	-		X	WATER	92023-3	1) EO-60 2) TPH w/ 3) BTEX 4) 5)	6) 11) 7) 12) 8) 13) 9) 14) 10) Other: Reverse Side

Sampled By (Print) <u>JOSEPH C. AVOLIS</u>	Date <u>3/25/92</u>	Time <u>1015</u>	Sampled By (Signature) <u>[Signature]</u>	Date <u>3/25/92</u>	Transport/Shipment
Relinquished By <u>FRANK TANSKY</u>	Date <u>3/26/92</u>	Time	Received By	Date	Time
			Received By	Date	Time

Comments - See Reverse Side

Priority:
 Normal (2 weeks)
 Rush (1 week, add 50%)
 Emergency Rush
 (ASAP, add 100%)

Southern Testing & Research Labs, Inc.
 3709 Airport Dr
 Wilson, NC 27893

LAB USE ONLY

Lot #

Report to:

(919)237-4175 • Fax (919)237-9341

Company Name Avolis Engineering, PA
 Contact Person 92023
 Address _____
 CSZ _____
 Telephone _____
 County _____

Bill to: _____

 Fax _____
 PO/ID # _____

Chain of Custody
 Environmental

SHEET 2 OF 4

Start Date	Time	End Date	Time	(√)	(√)	Sample Type	Sample Description & Marks	(Please use STRL Cat 1s)		
								Grab	Comp	Analysis
3/25/92	1345	-	-	X		WATER	92023-4	1) EO-60 2) TPH w/BTEX 3) _____ 4) _____ 5) _____	6) _____ 7) _____ 8) _____ 9) _____ 10) _____	1) 2) 3) 4) Other: Reverse Side
3/25/92	1415	-	-	X		WATER	92023-5	1) EO-60 2) _____ 3) TPH w/BTEX 4) _____ 5) _____	6) _____ 7) _____ 8) _____ 9) _____ 10) _____	11) 12) 13) 14) Other: Reverse Side
3/25/92	1100	-	-	X		WATER	92023-6	1) EW-38.2 2) EW-30.4 3) Nitrate/Phosphate 4) _____ 5) _____	6) _____ 7) _____ 8) _____ 9) _____ 10) _____	11) 12) 13) 14) Other: Reverse Side

Sampled By (Print)		Sampled By (Signature)		Date	Transport/Shipmt
Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time

Comments - See Reverse Side

Priority:

Normal (2 weeks)

Rush (1 week, add 50%)

Emergency Rush (ASAP, add 100%)

Southern Testing & Research Labs, Inc.
 3709 Airport Dr
 Wilson, NC 27893

LAB USE ONLY

Acct #

Report to:

(919)237-4175 • Fax (919)237-9341

Bill to:

Company Name AVOLIS ENGINEERING, PA

Contact Person 92023

Address _____

CSZ _____

Telephone _____

County _____

Fax _____

PO/ID. # _____

Chain of Custody
 Environmental

SHEET 3 OF 4

Start Date	Time	End Date	Time	Grab	Comp	Sample Type	Sample Description & Marks	(Please use STRL Cat #'s)	
								Analysis	Required
3/25/92	1130	-	-		X	WATER	92023-7	1) EW-38.2 2) EW-30.4 3) Nitrate/Phosphate 4) _____ 5) _____	6) _____ 7) _____ 8) _____ 9) _____ 10) _____ 11) _____ 12) _____ 13) _____ 14) _____ Other: Reverse Side
3/25/92	1000	-	-		X	WATER	92023-8 (7 EA. CONTAINERS)	1) PRIORITY 2) POLLUTANTS 3) _____ 4) _____ 5) _____	6) _____ 7) _____ 8) _____ 9) _____ 10) _____ 11) _____ 12) _____ 13) _____ 14) _____ Other: Reverse Side
25/92	1030	-	-		X	SOIL	Cancelled JCA 92023-9	1) EU-65.1 2) _____ 3) _____ 4) _____ 5) _____	6) _____ 7) _____ 8) _____ 9) _____ 10) _____ 11) _____ 12) _____ 13) _____ 14) _____ Other: Reverse Side

Sampled By (Print)	Sampled By (Signature)		Date	Transport/shipment
Relinquished By	Date	Time	Received By	Time
Relinquished By	Date	Time	Received By	Time
Relinquished By	Date	Time	Received By	Time

Comments - See Reverse Side

Priority:
 Normal (2 weeks)
 Rush (1 week, add 50%)
 Emergency Rush (ASAP, add 100%)

Southern Testing & Research Labs, Inc.
 3709 Airport Dr
 Wilson, NC 27893

LAB USE ONLY

Acct #

Report to:

(919)237-4175 • Fax (919)237-9341

Company Name Axolis Engineering, PA
 Contact Person 92023
 Address _____
 CSZ _____
 Telephone _____
 County _____

Bill to: _____

 Fax _____
 PO/ID # _____

Chain of Custody
 Environmental

SHEET 4 OF 4

Start Date	Start Time	End Date	End Time	(√) Grab	(√) Comp	Sample Type	Sample Description & Marks	Analysis	Required
3/25/92	1345	-	-	X		SOIL	Cancelled PCA 92023-10	1) EO-65.1 2) 3) 4) 5)	6) 7) 8) 9) 10) Other: Reverse Side
								1) 2) 3) 4) 5)	6) 7) 8) 9) 10) Other: Reverse Side
								1) 2) 3) 4) 5)	6) 7) 8) 9) 10) Other: Reverse Side

Sampled By (Print)		Sampled By (Signature)		Date	Transport/Shipmt
Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time

Comments - See Reverse Side



Report of Preliminary Environmental Site Assessment
Leery Cotton Warehouse
Cottonseed and Grain Storage Facility
Virginia Road
Edenton, North Carolina
EA File No. 12171.01

-Prepared for-

Southern Bank and Trust
c/o Ward and Smith, P.A.
1001 College Court
New Bern, North Carolina

-Prepared by-

EA Engineering, Science, and Technology
810 Tyvola Road, Suite 100
Charlotte, North Carolina

February 1992



13 February, 1992

Southern Bank and Trust
c/o Ward & Smith
1001 College Court
New Bern, North Carolina 28563

Reference: Report of Preliminary Environmental Site Assessment
Leery Cotton Warehouse
Cottonseed and Grain Storage Facility
Virginia Road
Edenton, North Carolina
EA File No. 12171.01

Dear Mr. DeYoung:

EA is pleased to submit this report of our preliminary environmental site assessment for the subject site. The purpose of our services as described in the attached report was to review the subject site for evidence of environmental contamination caused by past on-site or nearby off-site waste management activities. This work was authorized by your letter on February 7, 1992.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, EA cannot be responsible for changes in laws, regulations, or guidelines which occur after the study has been completed and which may affect the subject property.

This report was prepared for Southern Bank and Trust, and their designated agents by independent consultants and is based in part on information obtained from third parties not within the control of either Southern Bank and Trust or the consultants.

While it is believed that the third-party information contained herein will be reliable under the conditions and subject to limitations set forth herein, neither Southern Bank and Trust nor the consultants guarantee the accuracy thereof.

This report has been completed solely for the use of Southern Bank and Trust and their designated agents, and is being provided as a confidential document. Any transfer of this report to third parties is the sole responsibility of Southern Bank and Trust. The findings in this report are relevant to the dates of our site work and should not be relied upon to represent site conditions on other dates.

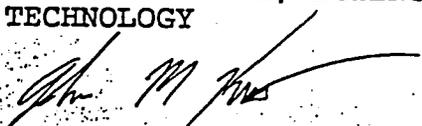
Southern Bank and Trust
13 February, 1992

Page 2

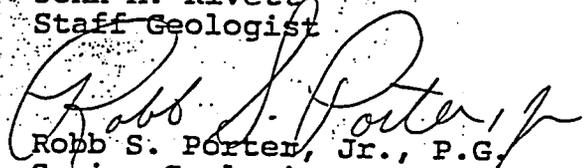
We appreciate the opportunity to provide our environmental services on this project. Please contact us if any questions arise or when we may be of further service.

Sincerely,

EA ENGINEERING, SCIENCE, AND
TECHNOLOGY



John M. Kivett
Staff Geologist



Robb S. Porter, Jr., P.G.
Senior Geologist

JMK/RSP:rsp:krh

TABLE OF CONTENTS

1.0	INTRODUCTION & BACKGROUND	1
2.0	CONTRACTED SCOPE OF SERVICES	2
3.0	PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT	4
3.1	Site Geology and Hydrogeology	4
3.2	Visual Survey Results	5
3.2.1.	On-Site Features	5
3.2.2.	Off-Site Features	6
3.3	Site History Review	6
3.4	Regulatory Registration	7
4.0	CONCLUSIONS AND RECOMMENDATIONS	9
4.1	On-Site Considerations	9
4.2	Off-Site Considerations	10
5.0	SUMMARY	12
	REFERENCES	13
	APPENDIX	

1.0 INTRODUCTION & BACKGROUND

This report presents the findings of the preliminary environmental site assessment recently performed at the subject site, which is located on Virginia Avenue in Edenton, North Carolina (Figure 1). The subject site is bounded by a Flower Shop and Virginia Avenue on the north; by Chowan County/Edenton Maintenance shop on the south; by Chowan County and Hospital land on the west; by Broad Street and by J. H. Conger and Son service station/convenience store on the east.

The subject site is irregularly-shaped, and is divided into three adjacent tracts, the largest one has three grain storage silos and two buildings present; four additional storage buildings are located on the remaining two sites. The total land area of the three tracts is approximately 2.67 acres. The buildings were made of tin or metal sheeting on wood frame structures. The structures were elevated off the ground and rested on open crawlspace (piers and joists) foundations. The silos and grain storage areas were constructed of structural corrugated metal and beams. Our assessment of the subject site was made on 10 February, 1992

The above project information is based upon our observations and information received during our study of the subject site and surrounding properties. The opinions included herein are based on the information obtained during the study and our experience. This report is based on limited observations made on the dates noted and using the procedures described herein. If additional information becomes available, we request the opportunity to review the information, reassess the potential environmental concerns and modify our conclusions and recommendations, if appropriate.

2.0 CONTRACTED SCOPE OF SERVICES

Our contracted scope of services for the preliminary environmental site assessment included the following tasks:

- 1) Conduct a site reconnaissance for visual indications of past and present waste-handling activities and waste storage areas.
- 2) Conduct inquiries with selected local, state and federal environmental regulatory agencies for records or comments that would help us determine if adjacent land use has the potential to have an environmental impact on the subject site, or if the subject site is known to have such an impact on record. This activity included a review of published lists of hazardous waste facilities and superfund sites; and documented research of the occurrence of underground storage tanks in the vicinity of the subject site.
- 3) Review of selected, available background and historical information such as aerial photographs, topographic maps, available geologic references and previous geotechnical and environmental reports.
- 4) Review client-furnished history of ownership of the subject site and selectively interview available individuals familiar with property management for consideration of past and present operational practices (chain of title was unavailable).
- 5) Conduct a vehicular reconnaissance of selected areas around the subject site to help verify locations of listed solid-waste and hazardous-waste facilities. See if nearby land use has a visible, apparent potential to create an environmental impact on the subject site.

- 6) Gather data on any underground storage tanks located on or near the subject site.
- 7) Prepare a report summarizing our observations, findings and conclusions, and if indicated, recommendations for additional assessment work.

The contracted preliminary environmental site assessment scope of services did not include consideration of any on-site building material components, nor did it include on-site sampling and testing of soil, air, ground water or biota.

3.0 PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT

3.1 SITE GEOLOGY AND HYDROGEOLOGY

The subject site is located within the Coastal Plain of North Carolina and is reportedly underlain by undivided surficial deposits of recent (Quaternary) age. The formation consists of sands, clayey sands, gravel, and peat deposits. The site is located on the east side of the Suffolk Scarp, a sedimentary incline which was present at the time of deposition of the sediments. The Suffolk Scarp is the easternmost structural feature depicted on the Geologic Map of North Carolina, 1985.

Hydrogeology, the study of ground-water movement through soil and rock, is dependent upon the effect of geologic features, such as faults, folds or foliation planes. No geologic features were noted on the subject site, and we believe that ground water will follow a subdued replica of the topographic features (terrain). Typically, in this area, ground-water movement may occur rapidly due to the composition of the formation. EA anticipates ground-water will be present at depths of less than 10 feet from the surface of the ground. EA predicts that ground water flow will be towards Albemarle Sound, to the south of the site.

When we speak of an "upgradient source," we are referring to a location hydraulically upstream. Contaminants on an upgradient site could impact the subject site if spilled or disposed of on or below the ground surface. Conversely, a "downgradient site" can only be responsible for impact of the subject site if a contaminant is released and is hydraulically connected to the subject site by a geologic or man-made phenomenon.

3.2 VISUAL SURVEY RESULTS

3.2.1 On-Site Features

Primary information regarding the current condition of a site is obtained by visual reconnaissance. The approximate site boundaries, building perimeters, and site access routes such as roads and footpaths are walked during an assessment. The site is observed and such items as drainage, rock outcrops, evidence of hazardous materials or handling of such materials is noted, along with other relevant features.

Overland drainage flows to the west across the site and is intercepted in very shallow ditches along a Norfolk and Southern Railway right-of-way. The overland flow then is conducted to the south or west along Broad Street. Access to the site is by an unimproved driveway located between an adjacent Florist building and the corner of Broad Street and Virginia Road (Figure 2).

Using the procedures outlined above, we noted the following items on the subject site which are normally considered to be potential environmental concerns:

- A. Agricultural Chemicals stored between the three silos
- B. Chemical Fertilizer tanks and tank foundation
- C. Lime Stockpile
- D. Debris areas (drums, buckets, abandoned cars, and masonry)
- E. Pole-mounted transformers (5)

3.2.2 Off-Site Features

A driven reconnaissance of nearby properties and surrounding areas is made during a preliminary environmental site assessment to locate potential off-site sources of contamination and assess the potential for environmental impact to the site. Our drive-by was limited to Broad Street and Virginia Road.

During our assessment, we noted the following establishments close enough to the subject site to warrant mention:

1. Shell Service Station
2. Florist Shop, with pesticide warning labels on buildings
3. J.H. Conger and Son, Inc.
4. Chowan County Hospital
5. Former National Guard Armory
6. Edenton High School
7. City of Edenton Maintenance Facility
8. Commercial Plaza (Offices)
9. Shopping Center

Downgradient

3.3 SITE HISTORY REVIEW

As part of the site history review, a copy of the deed and conveyance of the subject site was furnished to us by Southern Bank and Trust. According to Messrs. Morris Small and Craig Richardson, both of Southern Bank and Trust, the site has been known as Leery Brothers Storage for over 60 years, and has had the same appearance as now. It is evident that once fertilizer manufacturing was done on the site from the presence of the lime pile and the nitrogen tanks and the tank foundation.

During the assessment, EA noted that the warehouses were not heated.

EA interviewed Mr. Morris Small in detail regarding the site's prior history. Mr. Small is a qualified interviewee because of his knowledge of local events. Mrs. Small assisted in the accumulation of information by performing title research. Mr. Small determined that the warehouse and storage facility was constructed in the year 1928. When asked if bulk storage of petroleum product or fuels occurred on the subject site, he stated that no record of bulk fuel storage could be found.

3.4 REGULATORY REGISTRATION

A review of listed hazardous waste facilities¹ revealed that the following facilities are located within 1/2 mile of the subject site:

NCD070430178	Pelikan, Inc.	Rt. 32 South
NCD981017148	Bayliner Marine	100 Midway Ave.
NCD981863699	Hobbs Implement Co.	East Church St.
NCD982099442	G.C. Moore Co.	U.S. 17 North

A review of public records² did not identify any licensed solid-waste landfills near enough to the subject site to cause concern.

A review of public records³ identified no Superfund sites currently under assessment by the United States Environmental Protection Agency (USEPA) or state regulatory agencies within a 1/2-mile radius of the subject site. The nearest such site is located just south of the Edenton Municipal Airport-Grampion Boat Works on SR 1119.

During our computer sorting of the Alpha List of Underground Storage Tanks for North Carolina, we noted that underground storage tanks are registered in the vicinity of the site as follows:

Brabble Cars	Rt. 32 N.
Broad Street Texaco	711 N. Broad
Byrum Implement	N. Broad
Chowan County Headquarters	N. Broad
Chowan Co. School Maintenance	Dicks Street
Chowan Hospital	Virginia Road
Chowan Jr. High School	Rt. 32 N.
Convenient Mart #4	Rt. 32 N.
Edenton Shell Service	N. Broad Street
Etna Self Serve	200 N. Broad Street
Holmes High School	Oakum Street
Toppin Self Service	Oakum Street
UPS Edenton	Oakum Street

The North Carolina Division of Environmental Management incident list contains no record of ground-water contamination in the immediate vicinity of the subject site.

We note that the U.S. EPA Superfund sites and the North Carolina Solid Hazardous Waste Management lists are limited and include only those sites known to the regulatory agencies at the time of publication which have reported or have the potential for contaminant release due to the generation or handling of hazardous materials.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 ON-SITE CONSIDERATIONS

EA has documented the presence of approximately 1000 pounds of agricultural products (pesticides, and herbicides) on the subject site (Item A). Some of the containers have been ripped and rain water is apparently running over the bags. Some of the bag labels have faded and are no longer readable. Also present are several cans of material marked with the skull and crossbones of a poisonous substance. EA has contacted the North Carolina Department of Agriculture and has staged the removal of these chemicals for the near future. After removal, EA recommends the testing of soil underneath the area for contamination by the substances. It should also be noted that secondary containerizing the materials may be necessary in order to permit removal.

The presence of the tank and tank foundation (item B) are a concern because releases of nitrogen, nitrate, or phosphate can create out of standard ground water conditions. EA recommends assessment of this condition by testing ground water on the site and analyzing for the presence of nitrate and phosphate. This can be done in conjunction with the recommendation for items C and D below.

Item C is a stockpile of agricultural lime currently located on the subject site. Some vegetative distress is notable in the vicinity of the pile, as expected. The reason that this feature is a concern is because it could lead to a shift in the normal pH of the ground water. This can be addressed during the performance of ground water testing by hydropunch as recommended in items B and D. EA recommends that the lime be sold or used on nearby farms and not permitted to remain on the subject site.

Item D consists of scattered assorted debris consisting of materials ranging from masonry to abandoned automobiles. The

debris also is composed in part of rusted drums and paint cans. Since these items may be harmless or may have contained portions of potentially damaging substances, the supervised removal of these items is recommended. As a precautionary measure it is further proposed that the ground water be tested downgradient from the affected areas of the site. The water obtained from a hydropunch should then be analyzed for complete priority pollutants. Additional parameters can be analyzed to address the concerns listed in items A, B, and C above.

The pole-mounted transformers were visually assessed for signs of leakage. Older transformers were known to use pcb-laden oils as a coolant in the past. No leakage was noted from the transformers, so no further assessment of the items are recommended.

4.2 OFF-SITE CONSIDERATIONS

The activities of neighboring and nearby sites are a concern because a surrounding site, if located upgradient to the subject site could create an impact in the event of a release of an environmentally damaging substance. A release into the ground water from any of these sites could eventually create an adverse impact to the subject site. At the current time, NCDEM in Washington has no record of a contaminant release into the ground water for any nearby sites.

During our visual reconnaissance of the subject site, EA noted that a nearby site, the Chowan County Hospital had recently removed an underground storage tank less than ten yards from northwest portion of the subject site. Additionally, the Shell station is directly upgradient from the subject site. J.H. Conger and son also maintains a tank field either adjacent to or on the subject site. EA visually assessed this feature and did not notice the presence of either tank bed monitors or monitoring wells. EA recommends a tank regulatory audit in the event that the tanks are located on

the subject site. Additional measures regarding the Conger tank field may be appropriate depending upon the outcome of the audit.

5.0 SUMMARY

EA concludes, based on our professional judgement and the applicable professional practices currently utilized in surveying and assessing this property, that there is a chance environmental issues related to hazardous chemicals and potential releases into the soil and ground water on the subject property, and on adjacent property. EA has documented the presence of potentially hazardous materials and possible contamination on the site, and has recommended intrusive testing and debris removal measures. Groundwater testing by hydropunch has also been recommended. EA does not assume responsibility for other environmental issues that may be associated with this subject property.

REFERENCES

- 1 North Carolina Department of Human Resources Solid and Hazardous Waste Management; Department of Human Resources Hazardous Waste Facilities for a Selected County; Report Dated 10/18/89
- 2 North Carolina Solid Waste Management Section; List of Solid Waste Facilities; Report Dated 7/7/89
- 3 EPA Wastelan (CERCLIS-ERRIS) Report 3b; Report Dated 7/7/89

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WASHINGTON OFFICE

FEB 20 1996

D. E. M.

Robert L. Gordon
Director

James A. Graham
Commissioner

February 15, 1996

North Carolina
Department of Agriculture
Food and Drug Protection Division

Mr. Jeff Welti
North Carolina Department of Environment, Health, & Natural Resources
Washington Regional Office
1424 Carolina Avenue
Washington, NC 27889

RE: EM 95-4

Dear Mr. Welti:

On December 11, 1995 you spoke with Dr. Henry Wade of the Food and Drug Protection Division, North Carolina Department of Agriculture (NCDA) regarding groundwater contamination at the Broad Street Texaco in Edenton, N.C. Since a monitoring well established on this property contained arsenic, an element which has been an active ingredient in many pesticide products, you requested our help in determining the source of this contamination.

Investigation by Mr. Benny Griffin, Inspector II, revealed that a business known as Leary Brothers Storage Company operated at this site between 1960 and 1988. This business was licensed as a pesticide dealer with the State of North Carolina. In 1992, Southern Bank of Edenton began foreclosure on the property. At that time, bank executives requested the help of NCDA's Pesticide Disposal Assistance Program in disposing of a large quantity of pesticides (approximately 3,000 pounds of dry pesticides and 45 gallons of liquid pesticides) which had been abandoned at the site. These materials were collected from an open shelter in February 1992 and properly disposed of by NCDA. Unfortunately, no record was retained regarding product names or active ingredients of the pesticides.

Mr. Griffin was able to locate Mr. Clarence Leary Jr., the son of one of the original partners in Leary Brothers Storage Company. Although Mr. Clarence Leary Jr. worked at the business between 1970 and 1984, he told Mr. Griffin that he had no recollection of any of the pesticides which were sold during that time. Mr. Griffin also spoke to Mr. Leonard Small, who was employed by Leary Brothers Storage Company between 1960 and 1970. Mr. Small stated that he recalled that an arsenic product was sold by the business for use in tobacco during the 1960's, but he did not remember any other details.

In January 1996, a new site investigation was conducted by Mr. Griffin, and photographs were taken of the old storage area. No pesticide products or empty pesticide containers are now at the site. Although the history of the site suggests that past activities may have contributed in some way to the detected contamination, no direct link has been established between pesticide use and/or storage and the present levels of arsenic in groundwater.

Mr. Michael Brown of Turner Environmental Consultants has informed me that groundwater is still above state standards for arsenic, but that the company has developed a plan for cleaning up the contamination. The company is awaiting state approval of their plan.

Pesticide Section
Post Office Box 27647 Raleigh, North Carolina 27611 • (919)-733-3556
FAX (919)-733-9796

An Equal Opportunity Affirmative Action Employer

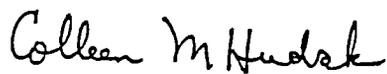
Ref. 4

Mr. Jeff Welti
Page 2
February 15, 1996

With this letter, we are closing our investigation of the groundwater contamination at the Broad Street Texaco in Edenton, N.C.

I hope this information proves to be helpful to your investigation. If I can be of any additional assistance, please feel free to contact me at (919)733-3556.

Respectfully yours,



Colleen M. Hudak
Pesticide Specialist

cc: Dr. Henry Wade, Environmental Programs Unit Manager
Mr. Michael Brown, Turner Environmental Consultants

PROPERTY OWNER INFORMATION

PROPERTY	NAME AND ADDRESS OF OWNER
Warehouses	C.A. Perry & Son, Inc., Sidney L. Perry Rt. 1 Box 306, Hobbsville, NC 27946 Ph. 919-221-4463 or 221-4406 Lot No. 7805-19-72-3446
Broad Street Texaco	J.H. Conger & Son, Inc. P.O. Box 53, Edenton, NC 27932 Ph. 919-482-8411 Lot No. 7805-19-72-3246
Hardees	John F. Habit and Jeanette H. Dowd P.O. Box 1600, Rowlett, Tx 75088-1600 Ph. NA Lot No. 7805-20-72-5355
Rail Road Right-of-Way	Norfolk Southern Corporation Transportation Dept. 1120 W. Washington, St., Greenville, SC 29601 Ph. 803-255-4335 Lot No. NA
Broad St. Restaurant	Broad Street Center, Inc. P.O. Box 6, Edenton, NC 27932 Ph. 919-482-3902 at Restaurant Lot No. 7805-19/L2/L3/L8-71-1949
Edenton Fire Dept., Cemetery St., Broad St., and National Guard Armory	Town of Edenton c/o Anne Marie Kelly, City Manager P.O. Box 300, Edenton, NC 27932 Ph. 919-482-7352 Lot No. 7805-20-72-6210 Fire Dept. Lot No. 7805-20-72-5097 Armory Lot No. NA - Cemetery St. and Broad St.

TABLE 5
GROUNDWATER ANALYTICAL SUMMARY (6-22-95)
(ppb)

ANALYTE	MW1	MW2	MW3	MW4	MW5	MW6	MW7	NCAC 2L LIMIT
Benzene	BDL	3.2	225	BDL	BDL	BDL	BDL	1
sec-Butylbenzene	1.0	BDL	BDL	BDL	BDL	BDL	BDL	NA
tert-Butylbenzene	1.1	BDL	569	BDL	BDL	BDL	BDL	NA
n-Butylbenzene	BDL	1.3	409	BDL	BDL	BDL	BDL	NA
Ethylbenzene	BDL	BDL	1,333	BDL	BDL	BDL	BDL	NA
Naphthalene	BDL	1.9	865	1.5	2.4	BDL	BDL	29
n-Propylbenzene	BDL	5.0	627	BDL	BDL	BDL	BDL	21
Toluene	BDL	BDL	1,207	BDL	BDL	BDL	BDL	NA
1,2,4,Trimethylbenzene	BDL	BDL	971	BDL	BDL	BDL	BDL	1,000
1,3,5,Trimethylbenzene	BDL	BDL	300	BDL	BDL	BDL	BDL	NA
Xylenes	BDL	1.3	7,647	BDL	BDL	BDL	BDL	NA
MTBE	18.1	58.9	145	BDL	BDL	BDL	BDL	530
IPE	BDL	BDL	145	BDL	BDL	BDL	BDL	200
Arsonic *	21	41	435	10	38	4	7	NA
Lead	1	2	10	BDL	22	3	1	50
Cadmium	BDL	BDL	BDL	BDL	BDL	BDL	BDL	.15
								NA

Notes: ppb = parts per billion, BDL = below detection limits, NA = Not allowed in any concentration
Shading denotes concentration exceeding NCAC 2L standard

TABLE 4
GROUNDWATER ANALYTICAL SUMMARY (May - July 1994)
(ppb)

ANALYTE	MW1	MW2	MW3	MW4	MW5	MW6	MW7	SD-1	SD-2	NCAC 2L LIMIT
Benzene	BDL	12.4	170	BDL	BDL	BDL	BDL	BDL	BDL	1
Toluene	BDL	BDL	3,070	BDL	BDL	BDL	BDL	12.0	BDL	1000
Ethylbenzene	BDL	2.3	2,340	BDL	BDL	BDL	BDL	2.59	BDL	29
Xylenes	BDL	3.1	0,610	BDL	BDL	BDL	BDL	17.8	BDL	530
MTBE	BDL	44.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	200
Naphthalene	BDL	8.0	570	BDL	BDL	BDL	BDL	BDL	BDL	21
Arsenic	BDL	BDL	124	BDL	BDL	BDL	BDL	11	BDL	50
Barium	226	135	138	-	-	-	-	170	140	2000
Cadmium	14	8	9	14	9	5	7	7	7	5
Chromium	23	27	12	-	-	-	-	4	3	50
Lead	17	BDL	25	BDL	BDL	BDL	BDL	41	7	15
Mercury	BDL	BDL	BDL	-	-	-	-	0.2	BDL	1.1
Selenium	BDL	BDL	BDL	-	-	-	-	19	11	50
Silver	BDL	BDL	BDL	-	-	-	-	0.7	1	18

All results in parts per billion (ppb)
 Shading denotes result above NCAC 2L limit
 MW1 - MW3 sampled 5/11/94
 MW4 - MW5 sampled 7/20/94
 SD-1 results from 9/1/94 sampling (SD - Storm Drain)
 SD-2 results from 8/18 and 9/1/94 sampling

BDL - Below detection limit
 (-) - Not analyzed for this compound

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

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary



DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION
March 11, 1996

Mr. Terry Phillips
J.H. Conger & Son, Inc.
P.O. Box 53
Edenton, NC 27932

RE: Quarterly Groundwater Sampling Report
J.H. Conger & Son, Inc.
Broad Street Texaco
711 N. Broad Street
Edenton, NC - Chowan County
Groundwater Incident No. 12169

Dear Mr. Terry Phillips:

The Washington Office acknowledges receipt of the above Quarterly report. Our records indicate that this represents the second round of sampling conducted at the above referenced site. This office concurs with your consultant's recommendation to continue quarterly sampling. The wells should be re-sampled in April and the results submitted by the end of the following month.

Please be advised that should the quarterly sampling continue to indicate the presence of contamination or should this office receive additional information, J.H. Conger & Sons, Inc. may be required to perform additional tests/investigation or develop a Correction Action Plan in accordance with Rule NCAC 2L .0106 of the Groundwater Quality Standards.

The Washington Office appreciates your co-operation along with your effort to protect the state's groundwater resource. Should you have any questions regarding this matter, please don't hesitate to call me at 946-6481, extension 219.

Sincerely,

David May
Hydrogeological Tech II

cc: Turner Environmental Consultants, P. C.
WaRO



February 15, 1996

Mr. Willie Hardison
NCDEM - Groundwater Section
1424 Carolina Avenue
Washington, NC 27889

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WASHINGTON OFFICE

FEB 20 1996

D. E. M.

Re: Groundwater Monitoring Report
J.H. Conger & Son, Inc. - Broad Street Texaco
NCDEM Incident No. 12169
TEC Project No. 01494

Dear Mr. Hardison:

Please find enclosed one (1) copy of the Groundwater Monitoring Report for the aforementioned facility. We are forwarding this report to you at the request of J.H. Conger & Son, Inc. This represents the second Groundwater Monitoring Report for the facility. TEC is currently in the process of completing a POTW Permit for the facility while your office is reviewing the Corrective Action Plan. Should you have any questions regarding the report, please feel free to contact us at (919) 932-1590. Thank you.

Sincerely,

TURNER ENVIRONMENTAL CONSULTANTS, P.C.

Michael J. Brown, P.G., REP
Senior Project Manager

Enclosure

pc: J.H. Conger & Son, Inc. - Terry Phillips



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FEB 23 1996

B. E. K.

GROUNDWATER MONITORING REPORT

BROAD STREET TEXACO
711 N. BROAD STREET
EDENTON, NORTH CAROLINA

NCDEM Incident No. 12169

Prepared For:

J.H. Conger & Son, Inc
P.O. Box 53
Edenton, NC 27932

February 1996
TEC Project No. 01494

FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
2500 GATEWAY CENTRE BOULV
SUITE 900
MORRISVILLE, NC 27560-
Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
REPORT DATE: 01/04/96

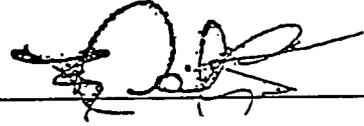
SAMPLE NUMBER- 78181 SAMPLE ID- CONGER MW #1
DATE SAMPLED- 12/21/95
DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
TIME SAMPLED- 0902
RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	DET. LIMIT
		DATE	BY	DATE		
ARSENIC, TOTAL	206.2	12/22/95	BDL	01/04/96 LJP	< 0.003 mg/l	0.003
CADMIUM, TOTAL	200.7	12/22/95	BDL	12/26/95 BDL	< 0.001 mg/l	0.001
LEAD, TOTAL	6010	12/22/95	BDL	12/26/95 BDL	< 0.010 mg/l	0.010

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
2500 GATEWAY CENTRE BOULV
SUITE 900
MORRISVILLE, NC 27560-
Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
REPORT DATE: 01/04/96

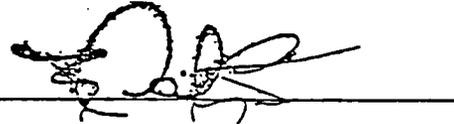
SAMPLE NUMBER- 78182 SAMPLE ID- CONGER MW #2
DATE SAMPLED- 12/21/95
DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
TIME SAMPLED- 0845
RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	DET. LIMIT
		DATE	BY	DATE		
ARSENIC, TOTAL	206.2	12/22/95	BDL	01/04/96 LJP	0.023 mg/l	0.003
CADMIUM, TOTAL	200.7	12/22/95	BDL	12/26/95 BDL	< 0.001 mg/l	0.001
LEAD, TOTAL	6010	12/22/95	BDL	12/26/95 BDL	< 0.010 mg/l	0.010

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

HY HYDROLOGIC MORRISVILLE
 25 2500 GATEWAY CENTRE BOULV
 SU SUITE 900
 MO MORRISVILLE, NC 27560-
 At Attn: LISA SNIPES

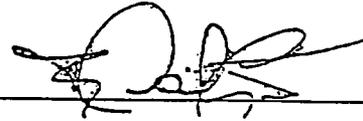
PROJECT NAME: CONGER 954528
 REPORT DATE: 01/04/96

SA SAMPLE NUMBER- 78183 SAMPLE ID- CONGER MW #3 BEFORE SAMPLE MATRIX- WW
 DA DATE SAMPLED- 12/20/95 TIME SAMPLED- 1445
 DA DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED RECEIVED BY- DHT
 TI TIME RECEIVED- 1015 DELIVERED BY- COURIER

Pa Page 1 of 1

AI	ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	DET LIM
AF	ARSENIC, TOTAL	206.2	12/22/95	BDL 01/04/96	LJP	0.202 mg/l	0.0
C/	CADMIUM, TOTAL	200.7	12/22/95	BDL 12/26/95	BDL	0.002 mg/l	0.0
LI	LEAD, TOTAL	6010	12/22/95	BDL 12/26/95	BDL	0.013 mg/l	0.0

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
1500 GATEWAY CENTRE BOULV
SUITE 900
MORRISVILLE, NC 27560-
ATTN: LISA SNIPES

PROJECT NAME: CONGER 954528
REPORT DATE: 01/04/96

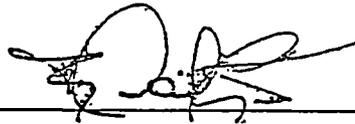
SAMPLE NUMBER- 78184 SAMPLE ID- CONGER MW #3 AFTER
DATE SAMPLED- 12/20/95
DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
TIME SAMPLED- 1500
RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	DET. LIMIT	
		DATE	BY	DATE			BY
ARSENIC, TOTAL	206.2	12/22/95	BDL	01/04/96	LJP	0.496 mg/l	0.003
ADMIMUM, TOTAL	200.7	12/22/95	BDL	12/26/95	BDL	0.006 mg/l	0.001
LEAD, TOTAL	6010	12/22/95	BDL	12/26/95	BDL	0.018 mg/l	0.010

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

H HYDROLOGIC MORRISVILLE
2! 2500 GATEWAY CENTRE BOULV
S SUITE 900
M MORRISVILLE, NC 27560-
A Attn: LISA SNIPES

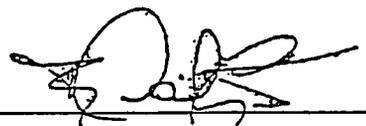
PROJECT NAME: CONGER 954528
REPORT DATE: 01/04/96

S SAMPLE NUMBER- 78185 SAMPLE ID- CONGER MW #3
D DATE SAMPLED- 12/21/95
D DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
T TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
TIME SAMPLED- 0850
RECEIVED BY- DHT

P Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	DET. LIMIT
ARSENIC, TOTAL	206.2	12/22/95	BDL 01/04/96	LJP	.0.331 mg/l	0.0
CADMIUM, TOTAL	200.7	12/22/95	BDL 12/26/95	BDL	0.004 mg/l	0.0
LEAD, TOTAL	6010	12/22/95	BDL 12/26/95	BDL	< 0.010 mg/l	0.0

LABORATORY DIRECTOR 

FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
2500 GATEWAY CENTRE BOULV
SUITE 900
MORRISVILLE, NC 27560-
Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
REPORT DATE: 01/04/96

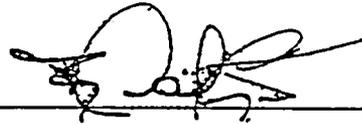
SAMPLE NUMBER- 78186 SAMPLE ID- CONGER MW #4
DATE SAMPLED- 12/21/95
DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
TIME SAMPLED- 0850
RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	DET. LIMIT
ARSENIC, TOTAL	206.2	12/27/95	BDL 01/04/96	LJP	0.004 mg/l	0.003
CADMIUM, TOTAL	200.7	12/27/95	BDL 01/03/96	LJP	< 0.001 mg/l	0.001
LEAD, TOTAL	6010	12/27/95	BDL 01/03/96	LJP	< 0.010 mg/l	0.010

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
 2500 GATEWAY CENTRE BOULV
 SUITE 900
 MORRISVILLE, NC 27560-
 Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
 REPORT DATE: 01/04/96

SAMPLE NUMBER- 78187 SAMPLE ID- CONGER MW #5
 DATE SAMPLED- 12/21/95
 DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
 TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
 TIME SAMPLED- 0830
 RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	DE LI
		DATE	BY	DATE		
ARSENIC, TOTAL	206.2	12/27/95	BDL	01/04/96 LJP	0.010 mg/l	0
CADMIUM, TOTAL	200.7	12/27/95	BDL	01/03/96 LJP	< 0.001 mg/l	0
LEAD, TOTAL	6010	12/27/95	BDL	01/03/96 LJP	< 0.010 mg/l	0

LABORATORY DIRECTOR 

FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
 2500 GATEWAY CENTRE BOULV
 SUITE 900
 MORRISVILLE, NC 27560-
 Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
 REPORT DATE: 01/04/96

SAMPLE NUMBER- 78188 SAMPLE ID- CONGER MW #6
 DATE SAMPLED- 12/21/95
 DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
 TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
 TIME SAMPLED- 0915
 RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	DET. LIMIT
ARSENIC, TOTAL	206.2	12/27/95	BDL 01/04/96	LJP	< 0.003 mg/l	0.003
CADMIUM, TOTAL	200.7	12/27/95	BDL 01/03/96	LJP	< 0.001 mg/l	0.001
LEAD, TOTAL	6010	12/27/95	BDL 01/03/96	LJP	< 0.010 mg/l	0.010

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
 2500 GATEWAY CENTRE BOULV
 SUITE 900
 MORRISVILLE, NC 27560-
 Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
 REPORT DATE: 01/04/96

SAMPLE NUMBER- 78189 SAMPLE ID- CONGER MW #7
 DATE SAMPLED- 12/21/95
 DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
 TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
 TIME SAMPLED- 0910
 RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	DET LIM
ARSENIC, TOTAL	206.2	12/27/95	BDL 01/04/96	LJP	< 0.003 mg/l	0.
CADMIUM, TOTAL	200.7	12/27/95	BDL 01/03/96	LJP	< 0.001 mg/l	0.
LEAD, TOTAL	6010	12/27/95	BDL 01/03/96	LJP	< 0.010 mg/l	0.

LABORATORY DIRECTOR



FINAL REPORT OF ANALYSES

HYDROLOGIC MORRISVILLE
 2500 GATEWAY CENTRE BOULV
 SUITE 900
 MORRISVILLE, NC 27560-
 Attn: LISA SNIPES

PROJECT NAME: CONGER 954528
 REPORT DATE: 01/04/96

SAMPLE NUMBER- 78190 SAMPLE ID- CONGER MW #8
 DATE SAMPLED- 12/21/95
 DATE RECEIVED- 12/22/95 SAMPLER- NOT SPECIFIED
 TIME RECEIVED- 1015 DELIVERED BY- COURIER

SAMPLE MATRIX- WW
 TIME SAMPLED- 0919
 RECEIVED BY- DHT

Page 1 of 1

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS			RESULT UNITS	DET. LIMIT	
		DATE	BY	DATE			BY
ARSENIC, TOTAL	206.2	12/27/95	BDL	01/04/96	LJP	0.015 mg/l	0.003
CADMIUM, TOTAL	200.7	12/27/95	BDL	01/03/96	LJP	< 0.001 mg/l	0.001
LEAD, TOTAL	6010	12/27/95	BDL	01/03/96	LJP	< 0.010 mg/l	0.010

LABORATORY DIRECTOR





DOMINION
ENVIRONMENTAL
GROUP^{INC}

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MAR 16 1998

SUPERFUND SECTION

STATE FILE

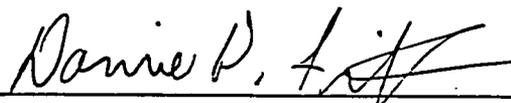
PHASE II
ENVIRONMENTAL SITE ASSESSMENT
EDENTON FLORISTS
101 VIRGINIA ROAD
EDENTON, NORTH CAROLINA

FOR

AMRESKO, INC.
DALLAS, TEXAS

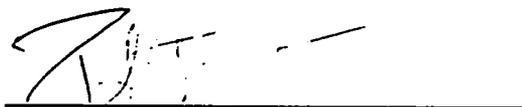
ISSUE DATE: MARCH 02, 1998

Daniel D. Frink
Site Inspector



Signature

Robert E. Hazelton
Project Manager



Signature

5001 WEST BROAD STREET, SUITE 311
RICHMOND, VIRGINIA 23230
804.288.6040 • FAX 804.282.9233

4 OFFICE PARK CIRCLE, SUITE 103
BIRMINGHAM, ALABAMA 35223
205.870.5215 • FAX 205.870.5216



DOMINION
ENVIRONMENTAL
GROUP^{INC}

1.0 EXECUTIVE SUMMARY

1.1 GENERAL SITE INFORMATION

Asset Name and Address: Edenton Floral Company and Antiques
John H. and Evelyn Smith
101 Virginia Road, Edenton,
Chowan County, North Carolina
AMRESO Loan #51-9399273

Phase II Inspection Date: February 24-25, 1998

Site Inspectors: Robert E. Hazelton
Daniel Frink

1.2 SITE BACKGROUND INFORMATION

The John H. Smith property, located at 101 Virginia Road in Edenton, North Carolina, consists of a 0.481 acre parcel of land, improved upon by a 12,728 square foot commercial building. The property was formerly operated by John and Evelyn Smith as the Edenton Floral Company and Antiques, and is currently vacant. The current structure was originally constructed in 1933 and used as an agricultural supply and distribution warehouse for approximately 54 years, operated by Leary Brothers.

Dominion Environmental Group previously conducted a Phase I Environmental Site Assessment Investigation and limited Phase II Intrusive Environmental Site Investigations at the property. The Phase I investigation determined that the property had previously been utilized as an agricultural supply and distribution warehouse from 1933 to 1987. Often associated with agricultural supply are fertilizers, herbicides, and pesticides. DEG conducted Phase II Intrusive investigations to determine the potential impact the previous land utilization had on the property. The following statements summarize the initial Phase II investigation findings:

5001 WEST BROAD STREET, SUITE 311
RICHMOND, VIRGINIA 23230
804.288.6040 ♦ FAX 804.282.9233

4 OFFICE PARK CIRCLE, SUITE 103
BIRMINGHAM, ALABAMA 35223
205.870.5215 ♦ FAX 205.870.5216

- Soil borings collected at each corner of the site structure determined that site soils contain elevated levels of arsenic, however, not in concentrations that should exceed established state and federal hazardous waste disposal criteria. It is important to note that at the time of investigation it was unknown if elevated naturally occurring levels of arsenic in soils exist in and around Edenton, North Carolina.
- A groundwater sample collected from temporary monitoring wells advanced at the southeastern building corner (MW-04) detected low levels of pesticides in groundwater. A water sample collected from temporary monitoring well #04, established in the southeastern building corner was found to have 1.2 ppb of Chlordane and 0.21 ppb of Heptachlor Epoxide pesticide.

The initial Phase II Investigations conducted by the Dominion Environmental Group, Inc. determined that select areas of soil at the Edenton Florists property contain potentially elevated levels of heavy metals and that one groundwater sample detected elevated levels of pesticides. The results of the initial round of sampling was forwarded to the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management, Inactive Hazardous Sites branch for review.

Upon review of the documents, the Inactive Hazardous Sites Branch of the NCDENR determined that additional investigations need to be conducted at the subject property to determine:

- (1) current levels of on-site groundwater contaminants (arsenic and pesticides);
- (2) potential groundwater contaminants originating from upgradient properties;
- (3) current levels of arsenic at the groundwater interface; and
- (4) existing background levels of arsenic in soils at the groundwater interface for the greater Edenton, North Carolina area.

Additional investigations were conducted on February 24 and 25, 1998 by Dominion Environmental Group. The additional investigations concluded with the following information:

- Groundwater samples were collected within the four on-site permanent monitoring wells. Groundwater sample analysis did not detect any of the targeted compounds in levels exceeding the North Carolina's Groundwater Remediation Goals as itemized in the North Carolina Inactive Hazardous Sites Program, *Guidelines for*

Assessment and Cleanup, July 1997, with the exception of arsenic in MW-04. It is reasonable to assume that the documented elevated background levels of arsenic in the soils at the groundwater interface have attributed to the elevated arsenic in the groundwater results obtained from MW-04. The remaining three on-site monitoring wells did not have elevated levels of arsenic in groundwater, and the result obtained at MW-04 is believed to be an isolated event attributed to naturally occurring arsenic in the soils of the greater Edenton area.

- MW-01 was installed at the most upgradient location of the property, immediately adjacent to the former Leary Brothers Silo and Storage site. A groundwater sample was collected from this monitoring well and analyzed for pesticides, arsenic, volatile compounds, and semi-volatile compounds. Analysis of groundwater from this well determined that the upgradient property has not impacted the property with the targeted compounds.
- Soil samples were collected from the groundwater interface at five (5) random locations within a one mile radius of the subject property. The purpose of the sampling was to create an acceptable background level of naturally occurring arsenic in soils. Testing of soils at the groundwater interface within the greater Edenton area determined that the average arsenic in soil concentrations are approximately 10.4 parts per million. The established background level is in excess of the North Carolina Inactive Hazardous Sites Program cleanup goal level for arsenic in soil, currently established at 4.6 ppm.
- Soil borings collected from the groundwater interface at the property determined that the sub-soils have concentrations of arsenic less than the established background or naturally-occurring level of arsenic in Edenton. The results of the background testing established a mean arsenic in soil background level of 10.4 ppm. Therefore, reducing the observed on-site levels of arsenic in soil by the established background level renders the arsenic levels in soil attributed to site contamination less than the corrective action level of North Carolina. Furthermore, levels of arsenic found in soils at the property (2.5 to 12.6 ppm) were clearly within the ranges of naturally occurring arsenic found in background samples collected off-site (5.1 to 19.8 ppm). Thus it is possible that the observed levels of arsenic within the on-site soils could wholly be the result of a naturally occurring phenomena. In addition, analysis of site soils via the TCLP hazardous waste disposal characteristic method determined that site soils at the groundwater interface would not be considered hazardous waste with regards to arsenic. Furthermore, analysis of site soils for volatile and semi-volatile organic compounds did not identify any regulated contaminants.

2.0 INTRODUCTION

2.1 SUMMARY OF INVESTIGATIONS

AMRESO, Inc. requested that Dominion Environmental Group, Inc. perform Phase II Environmental Site Assessment procedures at the Edenton Florists and Antiques Property, located at 101 Virginia Road, in Edenton, North Carolina. The request was based upon a request from the North Carolina Department of Environment and Natural Resources (NCDENR) for additional information. A scope of work was prepared by Mr. Robert E. Hazelton, Dominion Environmental Group, through multiple phone conversations with Mr. Keith Snavelly of the NCDENR. The following is a summary of the investigations:

- (1) DEG conducted soil borings at three locations on the property. The boring locations included one upgradient soil boring (at the most upgradient area of the site property) and two downgradient site locations. A soil sample from each of the three boring episodes was collected at the groundwater interface and analyzed for Total Arsenic and TCLP Arsenic. Soil samples were collected at the most upgradient and downgradient locations and analyzed for Volatile Organic Compounds (Method 8260A) and Semi-Volatile Organic Compounds (Method 8270).
- (2) DEG advanced each of the soil borings to a depth five feet below the groundwater interface (approximately 14 feet deep). Each of the three borings were converted into permanent, flush-mounted monitoring wells. The wells were constructed of two-inch schedule 60 PVC casing with number 10 screen. The boring annulus were filled with a combination of clean filter sand and bentonite pellets. The top of the wells were capped with a flush mounted pad and lockable monitoring well covering. The monitoring wells were purged and allowed to develop for a period of 24-hours. Upon proper development of each of the wells a groundwater sample was collected with a dedicated Teflon bailer. In addition, the on-site existing monitoring well was purged and sampled. Water samples were analyzed for Pesticides via EPA Method 8080 and Arsenic via EPA Method SW-846 7060. The most upgradient and downgradient wells were additionally sampled for Volatile Organic Compounds (Method 8260A) and Semi-Volatile Organic Compounds (Method 8270).
- (3) DEG determined the existing background (naturally occurring) levels of arsenic within the area of Edenton, North Carolina. In accordance with the NCDENR "background" standard, DEG collected five (5) off-site soil samples from the groundwater interface. The five sample locations were located within a 1 mile radius of the subject property. The results of the five off-site soil samples were averaged to determine an acceptable "background" or pre-existing level of arsenic. The background samples were analyzed for total arsenic via EPA Method SW-846 7060.

3.0 LABORATORY ANALYSIS

Analytical samples were collected in the field and stored within an ice chest to a temperature of four degrees Celsius to insure sample integrity. All samples were preserved properly and contained in glass or plastic sample jars with Teflon caps. Collected samples were logged in the field on Chain of Custody forms to document proper handling, storage, and transportation. Samples were hand delivered to Air Water and Soil Laboratories in Richmond, Virginia.

3.1 QUALITY CONTROL/QUALITY ASSURANCE PROGRAM

Air Water and Soil Laboratories, Inc.'s Quality Assurance/Quality Control Process Plan is designed to ensure the scientific and legal validity of all analytical results. The QA/QC plan consists primarily of a laboratory documentation network in combination with systematic inclusion of various analytical quality control practices into all component laboratory operations. These quality control practices provide constant, documented evaluation and surveillance of acceptable analytical method performance. QA/QC protocols include:

- (1) Adherence to specified laboratory sample acceptance procedures to ensure proper handling, processing and storage of submitted samples.
- (2) Utilization of USEPA approved analytical methods and recommended instrumentation.
- (3) Adherence to mandatory procedures for operation, calibration and maintenance of laboratory instrumentation.
- (4) Constant surveillance and documentation of acceptable analytical method accuracy and precision through initial analytical method performance evaluation and spike duplicate evaluations, method blanks, field and trip blanks, bias control samples, and ampoules from the EPA Environmental Monitoring Support Laboratory.
- (5) Utilization of continuous surrogate spike recovery evaluations, appropriate, to ensure acceptable method performance.
- (6) Utilization of systematic method blank evaluations to identify analytical system interferences and background contamination levels.
- (7) Adherence to proper laboratory documentation measures to ensure the complete integrity and legal validity of all laboratory analyses.

3.2 ANALYTICAL LABORATORY METHODOLOGIES

The following analytical methodologies were utilized for sample analysis:

Type of Sample	Matrix of Sample	Analytical Method
Soil borings	Soil	Total Arsenic - SW-846 7060 TCLP Arsenic - 1311 / 7060 Volatile Organic Compounds - 8260A Semi-Volatile Organic Compounds - 8270
Monitoring Wells	Groundwater	Total Arsenic - SW-846 7060 Pesticides - 8080 Volatile Organic Compounds - 8260A Semi-Volatile Organic Compounds - 8270

The Certificates of Analysis and the Chain of Custody forms are provided as Attachment B.

4.0 OBSERVATIONS

4.1 BACKGROUND STANDARD ASSESSMENT

Dominion Environmental Group, Inc. conducted the collection of soil sampling at five (5) locations within the Greater Edenton area. The purpose of the sampling was to achieve five off-site soil sample locations to properly determine an average (naturally occurring) level of arsenic within the vicinity soils. The samples were collected by advancing a stainless steel hand auger to the groundwater interface in each of the five off-site locations. At the groundwater interface a soil sample was collected and contained in an 8-ounce high density plastic container. The collected samples were analyzed for total arsenic concentrations via EPA method SW-846 7060.

The five selected sampling points were all located within a one mile radius of the subject property. None of the five sampling locations were located downgradient of the subject property. Between each of the boring episodes the stainless steel hand auger was decontaminated using a solution ofalconox analytical grade cleaner and de-ionized water. Of the five collected samples, four of the observed soil types consisted of marine sand, and only soil boring B-02 consisted of clay soils. The sample collection locations are detailed on an Edenton map in Appendix A of this report. All of the samples were collected at the groundwater interface, an area of sampling consistent with the on-site sampling procedures. The following are the results of background sampling:

**TABLE 4.1
BACKGROUND ARSENIC IN SOIL SAMPLE RESULTS**

SAMPLE	LOCATION	RESULT (ppm)
B-01	Location: Rear of Former Chowan Hospital (Granville Street)	5.7 ppm
B-02	Location: Behind Winn-Dixie Store (SR 32)	5.1 ppm
B-03	Location: Northwest of New Chowan Hospital (West Hick's Street)	8.6 ppm
B-04	Location: Farmer's Field off US Route 17	19.8 ppm
B-05	Location: Behind Food Lion/Pizza Hut (US Route 17)	12.8 ppm
AVERAGE ARSENIC CONCENTRATION:		10.4 ppm

Testing of soils at the groundwater interface within the greater Edenton area determined that the average arsenic in soil concentrations are approximately 10.4 parts per million; in excess of the North Carolina Inactive Hazardous Sites Program cleanup level for arsenic in soil, currently established at 4.6 ppm.

4.2 SOIL QUALITY ASSESSMENT

On February 24, 1998 DEG advanced soil borings in three locations of the property to a depth of 14 feet (five feet beneath the groundwater interface). Soil borings included:

- (1) an upgradient boring, southwest of the property structure on the shared easement with adjacent Leary Brothers Silo Site (MW-01 and E-B-01);
- (2) a downgradient property location on the northeast side of the building near the attached greenhouse shelter (MW-02 and E-B-02); and
- (3) a middle of the property location on the northwest side of the building (MW-03 and E-B-03).

Within each of the three boring episodes groundwater was encountered at a depth of eight feet beneath the surface. Samples were collected from the groundwater interface and analyzed for a combination of the following parameters: Total Arsenic, TCLP Arsenic, Semi-Volatile Compounds, and Volatile Organic Compounds. The soil samples were collected from each boring at the groundwater interface, and contained in a combination of four (4) ounce and eight (8) ounce glass containers with Teflon-lined lids. The samples were kept in a cooler at four degrees Celsius and hand delivered to Air Water and Soil Laboratory, Inc. in Richmond, Virginia. The analytical results of hand augering are summarized in the following Table A. The Certificates of Analysis and Chains of Custody forms are included as Attachment B.

TABLE 4.2
SOIL BORING SAMPLE RESULTS

SAMPLE	LOCATION	PARAMETER	RESULT (ppm)
E-B-01 (MW-01)	Upgradient Boring, SW of property structure on easement with adjacent Leary Brothers Silo Site. Sample collected at 7'-8' bgs.	Total Arsenic: TCLP Arsenic: Semi-Volatiles: Volatiles:	6.5 ppm BDL (< 0.025 ppm) NCD NCD
E-B-02 (MW-02)	Northeast Side of Building Sample collected at 7'-8' bgs.	Total Arsenic: TCLP Arsenic: Semi-Volatiles: Volatiles:	12.6 ppm BDL (< 0.025 ppm) NCD NCD
E-B-03 (MW-03)	NorthWest Side of Building Sample collected at 7'-8' bgs.	Total Arsenic: TCLP Arsenic:	2.5 ppm BDL (< 0.025 ppm)

NCD - No Compounds Detected

Soil samples were collected in three areas of the property at the groundwater interface. The purpose of the sampling was to determine the current levels of arsenic within soils at the groundwater interface. In addition, in accordance with the North Carolina Inactive Hazardous Sites Program, *Guidelines for Assessment and Cleanup*, sampling was conducted for volatile organic compounds and semi-volatile organic compounds. Sample analysis of soil samples collected at the groundwater interface determined the following:

- (1) The three boring episodes determined that arsenic exists within the soils at the groundwater interface. Observed levels of arsenic ranged from a low of 2.5 ppm to a high of 12.6 ppm. The observed levels of arsenic within the soil samples obtained from EB-01 and EB-02 exceed the North Carolina Inactive Hazardous Sites Program cleanup goal level for arsenic in soil, currently established at 4.6 ppm. However, samples collected to obtain a naturally occurring background level of arsenic determined that an average of 10.4 ppm of arsenic naturally occurs in the greater Edenton, North Carolina area. Therefore, if one subtracts the background (naturally occurring) level of arsenic from the achieved on-site results, the actual levels of on-site arsenic are well below the cleanup goal level established by the North Carolina Inactive Hazardous Sites Program.
- (2) The three boring episodes (upgradient and downgradient borings) determined that the on-site levels of arsenic within the soils at the groundwater interface do not constitute a regulated "hazardous waste" per EPA RCRA definition. Soil sample analysis per the EPA TCLP (hazardous waste determination) method 1311 determined that the observed levels of arsenic within the soils do not present a

disposal liability. The RCRA TCLP disposal characteristic for arsenic is 5.0 ppm, and the achieved results did not exceed 0.025 ppm.

- (3) Two of the three soil borings were sampled for Volatile Organic Compounds and Semi-Volatile Organic Compounds. Analysis of the two soil samples did not identify any of the targeted compounds. Based on these results of analysis, it is believed that the underlying soils and groundwater at the subject property have not been impacted by volatile or semi-volatile organic compounds that can be identified via EPA analytical method 8260 and 8270.

4.3 GROUNDWATER ASSESSMENT

4.3.1 PERMANENT MONITORING WELL INSTALLATION

Permanent monitoring wells were installed at three locations on the property. In all cases groundwater was available at a depth of 8 feet below grade surface (bgs). Between each boring episode the stainless steel hand auger was cleaned with alconox and water. Once the 3" auger bore holes were advanced, technicians from Dominion Environmental Group, Inc. constructed the wells with schedule 40, two-inch O.D PVC flush-threaded well casing. The PVC pipe was extended into the borings with hand pressure. The boring annulus was backfilled with #2 filter sand, and each well was developed with a decontaminated 1.75 inch teflon bailer.

4.3.2 GROUNDWATER MONITORING WELL SAMPLE COLLECTION

Each of the four temporary monitoring wells were bailed until essentially dry using decontaminated clear bailers. Upon groundwater recharge, groundwater samples were collected and contained in properly preserved 40 ml glass vials and one liter glass jars with Teflon-lined septum caps. Groundwater samples were labeled and logged onto chain-of-custody records and placed in an insulated cooler and chilled with ice. The samples were then hand delivered to Air Water and Soil Laboratory, Inc. in Richmond, Virginia. Water samples were analyzed for Pesticides via EPA Method 8080 and Arsenic via EPA Method SW-846 7060. The most upgradient and downgradient wells were additionally sampled for Volatile Organic Compounds (Method 8260A) and Semi-Volatile Organic Compounds (Method 8270). The analytical results are summarized in Table C. The Chains of Custody and the Certificates of Analysis are included as Attachment B.

**TABLE 4.3
MONITORING WELL SAMPLING RESULTS**

SAMPLE	LOCATION	PARAMETER	RESULT(ppm)
MW-01	Upgradient Boring, southwest of property structure on easement with adjacent Leary Brothers Silo Site.	Total Arsenic: Pesticides: Semi-Volatiles: Volatiles:	17 ppb NCD NCD NCD
MW-02	Northeast Side of Building	Total Arsenic: Pesticides: Semi-Volatiles: Volatiles:	BDL (< 10 ppb) NCD NCD NCD
MW-03	NorthWest Side of Building	Total Arsenic: Pesticides: Semi-Volatiles: Volatiles:	13 ppb NCD NCD NCD
MW-04	Bordering Virginia Road in Front of Building (pre-existing monitoring well location)	Total Arsenic: Pesticides: Semi-Volatiles: Volatiles:	122 ppb NCD NCD NCD

NCD - No Compounds Detected

Groundwater Sampling: Groundwater samples collected from the permanent monitoring wells advanced at the subject property detected no contaminants attributed to pesticides, semi-volatile, or volatile organic compounds. Measurable levels of arsenic were observed within the four collected groundwater samples, however, only one of the samples contained levels of arsenic in excess of the NC established threshold for Inactive Hazardous Sites. The North Carolina Inactive Hazardous Sites Program, *Guidelines for Assessment and Cleanup, July 1997* has established a groundwater remediation goal for arsenic at 50 ppb. A water sample collected within the pre-existing monitoring well, located adjacent to Virginia Road at the front of the building, was determined to contain an arsenic concentration of 122 parts per billion.

5.0 CONCLUSIONS

5.1 SOIL CONDITIONS

Soil borings collected from the groundwater interface at the property determined that the sub-soils have measurable concentrations of arsenic. However, Dominion Environmental Group established that the background or naturally-occurring levels of arsenic within the soils in Edenton, North Carolina are elevated. The results of the background testing established a mean arsenic in soil background level of 10.4 ppm. Therefore, reducing the observed on-site levels of arsenic in soil by the established

background level renders the arsenic levels in soil attributed to site contamination less than the corrective action level of North Carolina. Furthermore, levels of arsenic found in soils at the property (2.5 to 12.6 ppm) were clearly within the ranges of naturally occurring arsenic found in background samples collected off-site (5.1 to 19.8 ppm). Thus it is possible that the observed levels of arsenic within the on-site soils could wholly be the result of a naturally occurring phenomena.

In addition, analysis of site soils via the TCLP hazardous waste disposal characteristic method determined that site soils at the groundwater interface would not be considered hazardous waste with regards to arsenic. Furthermore, analysis of site soils for volatile and semi-volatile organic compounds did not identify any regulated contaminants.

Previous environmental data collected at the property in October of 1996 determined that soils at the groundwater interface contained between 16 and 47 parts per million of arsenic; however, the more recent data indicates that the levels are not this elevated. The reasoning for the discrepancies in the reported amounts may be: (1) the analytical method used for analysis (Method 6010 vs. Method SW-846 7060); (2) variations in the groundwater interface due to seasonal changes; and/or (3) the location of the sample borings. It is our belief that the reason for the discrepancy is due to the analytical methods utilized for sample analysis. The original sampling episode in October of 1996 utilized analysis via ICP per EPA Method 6010 to achieve total arsenic in soil levels. The most recent sample analysis was performed via EPA Method SW-846 7060, Atomic Absorption Spectroscopy, per the analytical requirements of the *North Carolina Inactive Hazardous Sites Program, Guidelines for Assessment and Cleanup, July 1997*. The requested analytical method, SW-846 7060, is more accurate than the previous utilized EPA Method 6010.

5.2 GROUNDWATER CONDITIONS

Groundwater samples were collected within the four on-site permanent monitoring wells. Groundwater sample analysis did not detect any of the targeted compounds in levels exceeding the North Carolina's Groundwater Remediation Goals as itemized in the North Carolina Inactive Hazardous Sites Program, *Guidelines for Assessment and Cleanup, July 1997*, with the exception of arsenic in MW-04. It is reasonable to assume that the documented elevated background levels of arsenic in the soils at the groundwater interface have attributed to the elevated arsenic in groundwater result obtained from MW-04. The remaining three on-site monitoring wells did not have elevated levels of arsenic in groundwater, and the result obtained at MW-04 is believed to be an isolated event attributed to naturally occurring arsenic in the soils of the greater Edenton area.

During the initial Phase Two intrusive investigation at the property in October, 1996 it was determined that a groundwater sample collected from a temporary monitoring well advanced at the southeastern building corner detected low levels of pesticides in groundwater. The water sample collected from the temporary monitoring well established in the southeastern building corner was found to have 1.2 ppb of Chlordane and 0.21 ppb of Heptachlor Epoxide pesticide. However, recent sampling in a similar property location determined that pesticide compounds have not impacted the groundwater. It is DEG's belief that the source of the previous documented contamination was a result of sediments from the surfacial soils entering the temporary monitoring well annulus. Subsequently, these contaminants entered a water sample through colloidal suspension and skewed the sample result. Due to this previous suspected problem, the most recent round of sampling utilized permanent monitoring wells which were purged over a 24-hour period prior to sampling.

6.0 RECOMMENDATIONS

Dominion Environmental Group, Inc. makes no recommendations for further environmental study of the property. On behalf of our client, we recommend the following actions from the NCDENR:

- That a "No Further Action" letter be written by the NCDENR regarding the subject property; and
- That the property not be placed on any detrimental lists that the NCDENR or the Inactive Hazardous Sites Program may record. The basis of this request is that placement of a property on a "list" may devalue property due to perceived stigmatism.

7.0 RECOMMENDATIONS CERTIFICATION

We certify that this is a true and authentic report of results obtained from our investigations and analysis. This assessment was performed in accordance with the Scope of Services and current environmental industry practice standards.

DOMINION ENVIRONMENTAL GROUP, INC.


Robert E. Hazelton
President

7.0 ATTACHMENTS

ATTACHMENT A Site Diagram and Vicinity Map
ATTACHMENT B Certificates of Analysis and Chain of Custody Forms
ATTACHMENT C NC *Guidelines for Assessment and Cleanup, July 1997*
Table 4.1 and 4.2, Cleanup Goals for Soil and Groundwater
ATTACHMENT D Staff Resumes

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT
EDENTON FLORISTS
101 VIRGINIA ROAD
EDENTON, NORTH CAROLINA**

FOR

**AMRESKO, INC.
DALLAS, TEXAS**

ISSUE DATE: MARCH 02, 1998

Daniel D. Frink

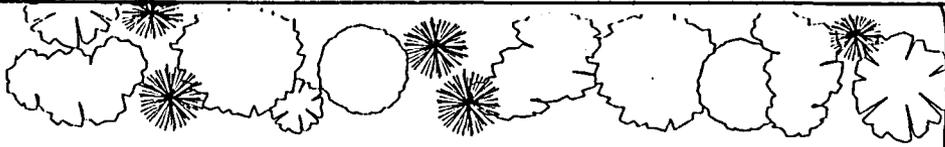


ATTACHMENT A

Site Diagram and Vicinity Map



LOCKED
STORAGE
SHED



RESIDENTIAL
HOMES



(approx. property
boundary line)

MW-01

MW-03

EDENTON FLORAL COMPANY & ANTIQUES
101 VIRGINIA ROAD

VIRGINIA ROAD (ROUTE 32)

MW-04

MW-02

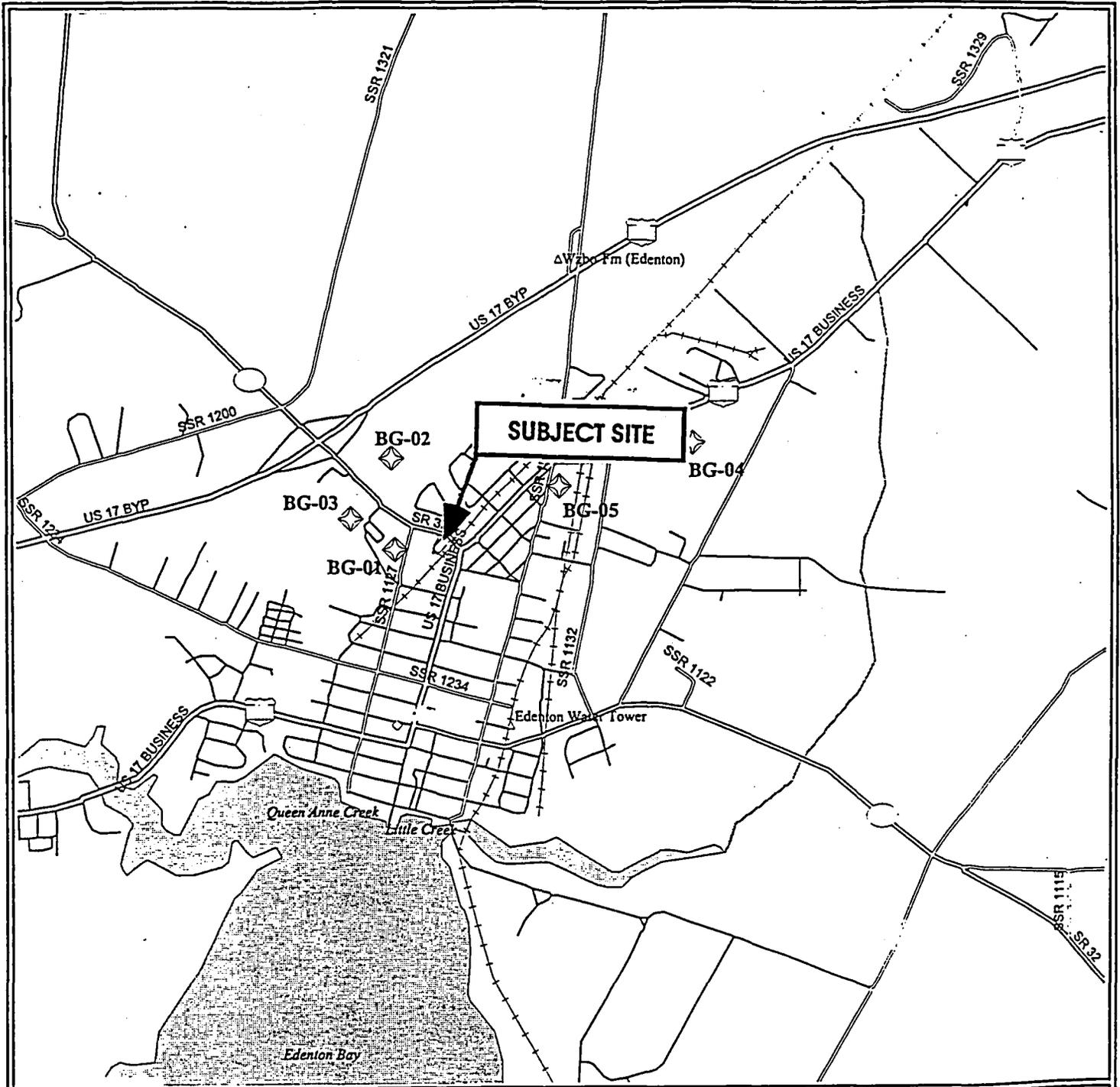


RAILROAD TRACKS

VACANT WAREHOUSES

FILLING
STATION

BROAD STREET (ROUTE 17)



APPENDIX A
BACKGROUND
SAMPLE
LOCATIONS

EDENTON NORTH CAROLINA
ARSENIC IN SOIL
BACKGROUND SAMPLE LOCATIONS

DOMINION
ENVIRONMENTAL
GROUP, Inc.

ATTACHMENT B

Certificates of Analysis and Chain of Custody Forms

11/11/11 11:11



2119A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804)358-8295 Fax: (804)358-8297

Certificate of Analysis

Client Name: Dominion Environmental Group
Client Project I.D.: Edenton Florists
Submitted to: Rob Hazelton

Date Received: February 25, 1998
Date Issued: March 02, 1998

Reference Method: SW-846 method 7060

Five soil samples were analyzed for Total Arsenic.

<u>Sample I.D.</u>	<u>As</u> <u>(mg/kg)</u>
B-1	5.7
B-2	5.1
B-3	8.6
B-4	19.8
B-5	12.8
Detection Limit	1.0
Spike Recovery	93%

Carmela L. Tombes

Carmela L. Tombes
Laboratory Director

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Certificate of Analysis

Client Name: Dominion Environmental Group
 Client Project I.D.: Edenton Florists
 Submitted to: Rob Hazelton
 Date Received: February 25, 1998
 Date Issued: March 02, 1998

Reference Method: SW-846 method 7060/MCAWW 206.2

Three soil samples and four water samples were analyzed for Total Arsenic.

<u>Sample I.D.</u>	<u>As</u> <u>(mg/kg)</u>
E-B-1	6.5
E-B-2	12.6
E-B-3	2.5
Detection Limit	1.0
Spike Recovery	88%

<u>Sample I.D.</u>	<u>(mg/L)</u>
MW-01	0.017
MW-02	BDL
MW-03	0.013
MW-04	0.122
Detection Limit	0.010
Spike Recovery	106%

Reference Method: SW-846 method 1311, 7060

Three soil samples were analyzed for TCLP Arsenic.

<u>Parameter</u>	<u>E-B-1</u> <u>(mg/L)</u>	<u>E-B-2</u> <u>(mg/L)</u>	<u>E-B-3</u> <u>(mg/L)</u>	<u>Det. Limit</u> <u>(mg/L)</u>	<u>Reg. Limit</u> <u>(mg/L)</u>	<u>Spike</u> <u>Recovery</u>
TCLP As	BDL	BDL	BDL	0.025	5.0	104%

BDL = Below Detection Limit

Carmela L. Tombes

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page 1 of 12



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Certificate of Analysis

Client Name: Dominion Environmental Group Date Received: February 25, 1998
 Client Project I.D.: Edenton Florists Date Issued: March 02, 1998
 Submitted to: Rob Hazelton

Reference Method: SW846 method 8260

Two soil samples were analyzed for the following Volatile Organic Compounds.

<u>Parameter</u>	<u>E-B-1 (mg/kg)</u>	<u>E-B-3 (mg/kg)</u>	<u>Detection Limit (mg/kg)</u>
Dichlorodifluoromethane	BDL	BDL	0.1
Chloromethane	BDL	BDL	0.1
Vinyl Chloride	BDL	BDL	0.1
Bromomethane	BDL	BDL	0.1
Chloroethane	BDL	BDL	0.1
Trichlorofluoromethane	BDL	BDL	0.1
1,1-Dichloroethene	BDL	BDL	0.1
Acetone	BDL	BDL	0.1
Iodomethane	BDL	BDL	0.1
Carbon disulfide	BDL	BDL	0.1
Methylene Chloride	BDL	BDL	0.1
trans-1,2-Dichloroethene	BDL	BDL	0.1
1,1-Dichloroethane	BDL	BDL	0.1
Vinyl acetate	BDL	BDL	0.1
2,2-Dichloropropane	BDL	BDL	0.1
cis-1,2-Dichloroethene	BDL	BDL	0.1
2-Butanone (MEK)	BDL	BDL	0.1
Bromochloromethane	BDL	BDL	0.1
Chloroform	BDL	BDL	0.1
1,1,1-Trichloroethane	BDL	BDL	0.1
Carbon tetrachloride	BDL	BDL	0.1
1,1-Dichloro-1-propene	BDL	BDL	0.1
Benzene	BDL	BDL	0.1
1,2-Dichloroethane	BDL	BDL	0.1
Trichloroethene	BDL	BDL	0.1
1,2-Dichloropropane	BDL	BDL	0.1
Dibromomethane	BDL	BDL	0.1
Bromodichloromethane	BDL	BDL	0.1
cis-1,3-Dichloro-1-propene	BDL	BDL	0.1
4-Methyl-2-Pentanone	BDL	BDL	0.1
Toluene	BDL	BDL	0.1
trans-1,3-Dichloro-1-propene	BDL	BDL	0.1
1,1,2-Trichloroethane	BDL	BDL	0.1

BDL = Below Detection Limit

Carmela L. Tombes

Carmela L. Tombes
Laboratory Director

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page 2 of 12



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Certificate of Analysis

Client Name: Dominion Environmental Group Date Received: February 25, 1998
 Client Project I.D.: Edenton Florists Date Issued: March 02, 1998
 Submitted to: Rob Hazelton

Reference Method: SW846 method 8260 continued

Parameter	E-B-1 (mg/kg)	E-B-3 (mg/kg)	Detection Limit (mg/kg)
Tetrachloroethene	BDL	BDL	0.1
1,3-Dichloropropane	BDL	BDL	0.1
2-Hexanone	BDL	BDL	0.1
Dibromochloromethane	BDL	BDL	0.1
1,2-Dibromoethane (EDB)	BDL	BDL	0.1
Chlorobenzene	BDL	BDL	0.1
1,1,1,2-Tetrachloroethane	BDL	BDL	0.1
Ethylbenzene	BDL	BDL	0.1
Xylenes	BDL	BDL	0.1
Styrene	BDL	BDL	0.1
Bromoform	BDL	BDL	0.1
Isopropylbenzene	BDL	BDL	0.1
Bromobenzene	BDL	BDL	0.1
1,1,2,2-Tetrachloroethane	BDL	BDL	0.1
1,2,3-Trichloropropane	BDL	BDL	0.1
Propylbenzene	BDL	BDL	0.1
2-Chlorotoluene	BDL	BDL	0.1
4-Chlorotoluene	BDL	BDL	0.1
1,3,5-Trimethylbenzene	BDL	BDL	0.1
tert-Butylbenzene	BDL	BDL	0.1
1,2,4-Trimethylbenzene	BDL	BDL	0.1
sec-Butylbenzene	BDL	BDL	0.1
1,3-Dichlorobenzene	BDL	BDL	0.1
p-Isopropyltoluene	BDL	BDL	0.1
1,4-Dichlorobenzene	BDL	BDL	0.1
1,2-Dichlorobenzene	BDL	BDL	0.1
n-Butylbenzene	BDL	BDL	0.1
1,2-Dibromo-3-chloropropane	BDL	BDL	0.1
1,2,4-Trichlorobenzene	BDL	BDL	0.1
Hexachlorobutadiene	BDL	BDL	0.1
Naphthalene	BDL	BDL	0.1
1,2,3-Trichlorobenzene	BDL	BDL	0.1

BDL = Below Detection Limit

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page 3 of 12



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Certificate of Analysis

Client Name: Dominion Environmental Group Date Received: February 25, 1998
 Client Project I.D.: Edenton Florists Date Issued: March 02, 1998
 Submitted to: Rob Hazelton

Reference Method: SW846 method 8260 continued

Parameter	MW-01 (ug/L)	MW-03 (ug/L)	Detection Limit (ug/L)
Tetrachloroethene	BDL	BDL	2.0
1,3-Dichloropropane	BDL	BDL	1.0
2-Hexanone	BDL	BDL	20
Dibromochloromethane	BDL	BDL	1.0
1,2-Dibromoethane (EDB)	BDL	BDL	10
Chlorobenzene	BDL	BDL	2.0
1,1,1,2-Tetrachloroethane	BDL	BDL	5.0
Ethylbenzene	BDL	BDL	5.0
Xylenes	BDL	BDL	10
Styrene	BDL	BDL	10
Bromoform	BDL	BDL	5.0
Isopropylbenzene	BDL	BDL	10
Bromobenzene	BDL	BDL	10
1,1,2,2-Tetrachloroethane	BDL	BDL	5.0
1,2,3-Trichloropropane	BDL	BDL	10
Propylbenzene	BDL	BDL	10
2-Chlorotoluene	BDL	BDL	10
4-Chlorotoluene	BDL	BDL	10
1,3,5-Trimethylbenzene	BDL	BDL	10
tert-Butylbenzene	BDL	BDL	10
1,2,4-Trimethylbenzene	BDL	BDL	10
sec-Butylbenzene	BDL	BDL	10
1,3-Dichlorobenzene	BDL	BDL	10
p-Isopropyltoluene	BDL	BDL	10
1,4-Dichlorobenzene	BDL	BDL	10
1,2-Dichlorobenzene	BDL	BDL	10
n-Butylbenzene	BDL	BDL	10
1,2-Dibromo-3-chloropropane	BDL	BDL	10
1,2,4-Trichlorobenzene	BDL	BDL	10
Hexachlorobutadiene	BDL	BDL	2.0
Naphthalene	BDL	BDL	10
1,2,3-Trichlorobenzene	BDL	BDL	10

BDL = Below Detection Limit

Carmela L. Tombes

Carmela Tombes
 Laboratory Director

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Certificate of Analysis

Client Name: Dominion Environmental Group
 Client Project I.D.: Edenton Florists
 Submitted to: Rob Hazelton

Date Received: February 25, 1998
 Date Issued: March 02, 1998

Reference Method: SW-846 method 8270

Two soil samples were analyzed for the following Acid Extractable Semi-volatiles.

<u>Parameter</u>	<u>E-B-1 (mg/kg)</u>	<u>E-B-3 (mg/kg)</u>	<u>Det. Limit (mg/kg)</u>
Benzoic acid	BDL	BDL	1.0
4-Chloro-3-methylphenol	BDL	BDL	0.5
2-Chlorophenol	BDL	BDL	0.5
o-Cresol	BDL	BDL	0.5
p-Cresol	BDL	BDL	0.5
2,4-Dichlorophenol	BDL	BDL	0.5
2,6-Dichlorophenol	BDL	BDL	0.5
2,4-Dimethylphenol	BDL	BDL	0.5
4,6-Dinitro-2-methylphenol	BDL	BDL	0.5
2,4-Dinitrophenol	BDL	BDL	0.5
Ethyl methanesulfonate	BDL	BDL	0.5
Methyl methanesulfonate	BDL	BDL	0.5
2-Nitrophenol	BDL	BDL	0.5
4-Nitrophenol	BDL	BDL	0.5
Pentachlorophenol	BDL	BDL	0.5
Phenol	BDL	BDL	0.5
2,3,4,6-Tetrachlorophenol	BDL	BDL	0.5
2,4,5-Trichlorophenol	BDL	BDL	0.5
2,4,6-Trichlorophenol	BDL	BDL	0.5

BDL = Below Detection Limit

Carmela L. Tombes

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Certificate of Analysis

Client Name: Dominion Environmental Group Date Received: February 25, 1998
 Client Project I.D.: Edenton Florists Date Issued: March 02, 1998
 Submitted to: Rob Hazelton

Reference Method: SW-846 method 8270 continued

Two soil samples were analyzed for the following Base Neutral Semi-volatiles.

Parameter	E-B-1 (mg/kg)	E-B-3 (mg/kg)	Det. Limit (mg/kg)
Acenaphthenc	BDL	BDL	0.5
Acenaphthylene	BDL	BDL	0.5
Anthracene	BDL	BDL	0.5
Azobenzene	BDL	BDL	0.5
Benz(a)anthracene	BDL	BDL	0.5
Benzo(b)fluoranthene	BDL	BDL	0.5
Benzo(k)fluoranthene	BDL	BDL	0.5
Benzo(g,h,i)perylene	BDL	BDL	0.5
Benzo(a)pyrene	BDL	BDL	0.5
4-Bromophenyl phenyl ether	BDL	BDL	0.5
Buryl benzyl phthalate	BDL	BDL	0.5
bis(2-Chloroethoxy)methane	BDL	BDL	0.5
bis(2-Chloroethyl)ether	BDL	BDL	0.5
bis(2-Chloroisopropyl)ether	BDL	BDL	0.5
2-Chloronaphthalene	BDL	BDL	0.5
4-Chlorophenyl phenyl ether	BDL	BDL	0.5
Chrysene	BDL	BDL	0.5
Dibenz(a,h)anthracene	BDL	BDL	0.5
Di-n-butyl phthalate	BDL	BDL	0.5
1,2-Dichlorobenzene	BDL	BDL	0.5
1,3-Dichlorobenzene	BDL	BDL	0.5
1,4-Dichlorobenzene	BDL	BDL	0.5
Diethyl phthalate	BDL	BDL	0.5
Dimethyl phthalate	BDL	BDL	0.5
2,4-Dinitrotoluene	BDL	BDL	0.5
2,6-Dinitrotoluene	BDL	BDL	0.5
Di-n-octyl phthalate	BDL	BDL	0.5
bis(2-Ethylhexyl)phthalate	BDL	BDL	0.5
Fluoranthene	BDL	BDL	0.5
Fluorene	BDL	BDL	0.5
Hexachlorobenzene	BDL	BDL	0.5
Hexachlorobutadiene	BDL	BDL	0.5
Hexachlorocyclopentadiene	BDL	BDL	0.5
Hexachloroethane	BDL	BDL	0.5
Indeno(1,2,3-cd)pyrene	BDL	BDL	0.5
Isophorone	BDL	BDL	0.5

BDL = Below Detection Limit

Carmela L. Tombes
 Carmela L. Tombes
 Laboratory Director

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Certificate of Analysis

Client Name: Dominion Environmental Group
 Client Project I.D.: Edenton Florists
 Submitted to: Rob Hazelton

Date Received: February 25, 1998
 Date Issued: March 02, 1998

Reference Method: SW-846 method 8270

Two water samples were analyzed for the following Acid Extractable Semi-volatiles.

Parameter	MW-01 (ug/L)	MW-03 (ug/L)	Detection Limit (ug/L)
Benzoic acid	BDL	BDL	50
4-Chloro-3-methylphenol	BDL	BDL	10
2-Chlorophenol	BDL	BDL	10
o-Cresol	BDL	BDL	10
p-Cresol	BDL	BDL	10
2,4-Dichlorophenol	BDL	BDL	10
2,6-Dichlorophenol	BDL	BDL	10
2,4-Dimethylphenol	BDL	BDL	10
4,6-Dinitro-2-methylphenol	BDL	BDL	50
2,4-Dinitrophenol	BDL	BDL	50
Ethyl methanesulfonate	BDL	BDL	20
Methyl methanesulfonate	BDL	BDL	10
2-Nitrophenol	BDL	BDL	10
4-Nitrophenol	BDL	BDL	50
Pentachlorophenol	BDL	BDL	5.0
Phenol	BDL	BDL	5.0
2,3,4,6-Tetrachlorophenol	BDL	BDL	10
2,4,5-Trichlorophenol	BDL	BDL	10
2,4,6-Trichlorophenol	BDL	BDL	10

BDL = Below Detection Limit

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 Laboratory Director

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page 9 of 12



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Certificate of Analysis

Client Name: Dominion Environmental Group Date Received: February 25, 1998
 Client Project I.D.: Edenton Florists Date Issued: March 02, 1998
 Submitted to: Rob Hazelton

Reference Method: SW-846 method 8270 continued

Two water samples were analyzed for the following Base Neutral Semi-volatiles.

Parameter	MW-01 (ug/L)	MW-03 (ug/L)	Detection Limit (ug/L)
Acenaphthene	BDL	BDL	10
Acenaphthylene	BDL	BDL	10
Acridene	BDL	BDL	10
Azobenzene	BDL	BDL	10
Benzo(a)anthracene	BDL	BDL	10
Benzo(b)fluoranthene	BDL	BDL	10
Benzo(k)fluoranthene	BDL	BDL	10
Benzo(g,h,i)perylene	BDL	BDL	10
Benzo(a)pyrene	BDL	BDL	10
4-Bromobenzyl phenyl ether	BDL	BDL	10
Butyl benzyl phthalate	BDL	BDL	10
bis(2-Chloroethoxy)methane	BDL	BDL	10
bis(2-Chloroethyl)ether	BDL	BDL	10
bis(2-Chloroisopropyl)ether	BDL	BDL	10
2-Chloronaphthalene	BDL	BDL	10
4-Chlorophenyl phenyl ether	BDL	BDL	10
Chrysene	BDL	BDL	10
Dibenz(a,h)anthracene	BDL	BDL	10
Di-n-butyl phthalate	BDL	BDL	10
1,2-Dichlorobenzene	BDL	BDL	10
1,3-Dichlorobenzene	BDL	BDL	10
1,4-Dichlorobenzene	BDL	BDL	10
Diethyl phthalate	BDL	BDL	10
Dimethyl phthalate	BDL	BDL	10
2,4-Dinitrotoluene	BDL	BDL	10
2,6-Dinitrotoluene	BDL	BDL	10
Di-n-octyl phthalate	BDL	BDL	10
bis(2-Ethylhexyl)phthalate	BDL	BDL	10
Fluoranthene	BDL	BDL	10
Fluorene	BDL	BDL	10
Hexachlorobenzene	BDL	BDL	10
Hexachlorobutadiene	BDL	BDL	10
Hexachlorocyclopentadiene	BDL	BDL	10
Hexachloroethane	BDL	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	BDL	10
Isophrene	BDL	BDL	10

BDL = Below Detection Limit

Carmela L. Tombes

Carmela L. Tombes
 Laboratory Director



2119A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804)358-8295 Fax: (804)358-8297

Certificate of Analysis

Client Name: Dominion Environmental Group
 Client Project I.D.: Edenton Florists
 Submitted to: Rob Hazelton

Date Received: February 25, 1998
 Date Issued: March 02, 1998

Reference Method: SW-846 method 8081

Four water samples were analyzed for Pesticides.

Parameter	MW-01 (ug/L)	MW-02 (ug/L)	MW-03 (ug/L)	MW-04 (ug/L)	Detection Limit (ug/L)
alpha BHC	BDL	BDL	BDL	BDL	0.020
gamma BHC (Lindane)	BDL	BDL	BDL	BDL	0.020
beta BHC	BDL	BDL	BDL	BDL	0.050
Heptachlor	BDL	BDL	BDL	BDL	0.050
delta BHC	BDL	BDL	BDL	BDL	0.020
Aldrin	BDL	BDL	BDL	BDL	0.2
Heptachlor epoxide	BDL	BDL	BDL	BDL	0.1
Endosulfan I	BDL	BDL	BDL	BDL	0.04
4,4 DDE	BDL	BDL	BDL	BDL	0.02
Dieldren	BDL	BDL	BDL	BDL	0.1
Endrin	BDL	BDL	BDL	BDL	0.1
4,4 DDD	BDL	BDL	BDL	BDL	0.1
Endosulfan II	BDL	BDL	BDL	BDL	0.12
4,4 DDT	BDL	BDL	BDL	BDL	0.2
Endrin aldehyde	BDL	BDL	BDL	BDL	0.5
Endosulfan Sulfate	BDL	BDL	BDL	BDL	2.0
Methoxychlor	BDL	BDL	BDL	BDL	1.0
Chlordane	BDL	BDL	BDL	BDL	3.0
Toxaphene	BDL	BDL	BDL	BDL	

BDL = Below Detection Limit

Carmela L. Tombes

Carmela L. Tombes
 Laboratory Director

98024539

August 1, 2000

MEMO

From: Melanie Bryson

To: File

Re: PWS Data for Leary Brothers Storage

PWSID	WATER SYSTEM	TYPE	POP.	PHONE	LOCATION	SOURCE	LAT	LONG
0421010	EDENTON, TOWN OF	C	5600	9194824414	FREEMASON ST	G P	360354.100	763629.700
0421010	EDENTON, TOWN OF	C	5600	9194824414	VIRGINIA RD WELL	G P	360412.400	763626.700
0421010	EDENTON, TOWN OF	C	5600	9194824414	BEAVER HILL WELL	G P	360402.300	763655.900
0421015	CHOWAN CO WATER SYSTEM	C	8600	9194827477	EDENTON	W O	360354.000	763631.000

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Melanie Bryson/Environmental Engineer 8/15/00
 (Name/Title) (Date)
401 Oberlin Road, Raleigh, North Carolina 919-733-2801 x 317
 (Address) (Phone)
melanie.bryson@ncmail.net
 (E-Mail Address)

Site Name: Leary Brothers Storage

Previous Names (if any): _____

Site Location: U.S Highway 17 and N.C. Highway 32
 (Street)
Edenton North Carolina 27932
 (City) (ST) (Zip)

Latitude: 36° 04' 9.12" Longitude: 76° 36' 21.28"

Complete the following checklist. If yes is marked, please explain below.

	YES	NO
1. Does the site already appear in CERCLIS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain all yes answer(s), attach additional sheets if necessary: _____

Site Determination:

Enter the site into CERCLIS. Further assessment is recommended (explain below).

The site is not recommended for placement into CERCLIS (explain below).

DECISION/DISCUSSION/RATIONALE:

The Leary Brothers Storage site is located in the northwestern quadrant of the intersection of NC 32 (Virginia Road) and US 17 (Broad Street). The geographic coordinates for the site are 36° 4' 9.12" north latitude and 76° 36' 21.28" west longitude. The site consists of the former warehouses of the Leary Brothers Storage, Edenton Floral Company, and the Texaco Station located on Broad Street at the southern end of the site. An abandoned railroad track intersects the site leaving Lot #1 and Lot #4 (including the Texaco station) to the south, Lot #3 (including Florist) to the north. During the 1930's and 1940's, the entire site was used for storage of cotton, peanuts, and other farm products. From the 1960's until 1987, pesticides were also stored on the site. During a foreclosure on the site by Southern Bank and Trust Company ("Bank") during 1992, pesticides were found left abandoned on the property. A Phase II Environmental Audit was conducted by Avolis Engineering, P.A. for the Bank. The results from the audit indicated concentrations of DDT (13.1 ug/l) and DDD (5.6 ug/l) in the soil near one of the warehouses. Groundwater sampling near the same warehouse indicated chromium, lead, and selenium in the groundwater at levels above the North Carolina groundwater standards found in 15A NCAC 2L. Groundwater sampling in the vicinity of the Texaco station indicated the presence of BTEX, arsenic, lead, and cadmium at levels higher than the 2L groundwater standards, while nitrates were detected at levels above 2L standards near another onsite warehouse and the storage silos. Groundwater from the Black Creek aquifer is used as the main supply for the Town of Edenton. Approximately 5,600 customers are served by the Town's water system. In addition to the Town of Edenton water system, Chowan County's water system is also supplied by groundwater, serving approximately 8,600 customers. Based on the fact that there has been an observed release to the groundwater and there is the potential to contaminate the public drinking water wells serving a population of approximately 5,600 people that are located less than 1500 feet from the site, we recommend that the site be added to CERCLIS so that we may initiate a combined PA/SI at this time.

Regional EPA Reviewer:

Print Name/Signature

Date

State Agency/Tribe:

Melanie Bryson / Melanie Bryson

Print Name/Signature

8/18/00

Date