

US EPA ARCHIVE DOCUMENT

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF LAND RESOURCES
SOLID WASTE MANAGEMENT PROGRAM

Field Investigation Report

Date of Investigation: 12 December 1979

Centerdale Manor
9.10
9302

Brook Village

Smith Street, Centerdale, R.I.

I inspected the property adjacent to Brook Village and found a number of 55 gallon drums strewn about the property. Some of these drums were full, or partially full. These drums were present along at least 250 ft. of the property which bordered on the Woonasquatucket River and another small stream.

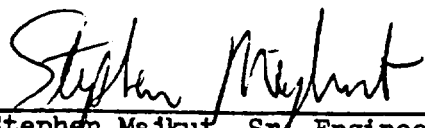
I did notice one drum which was emitting smoke from a small hole in the drum. After inspecting the property over, I viewed the property from Steere Avenue which is across the small stream from the property. There I walked to a Mr. Carbone who lives adjacent to the property. He explained that he has seen the smoke emitting from these drums on several occasions.

I visited the North Providence Town Clerk's Office and obtained the names of the owners of the property as shown on the attached sketch. The property with the drums located on it, is Plat # 14, Lot # 250 owned by,

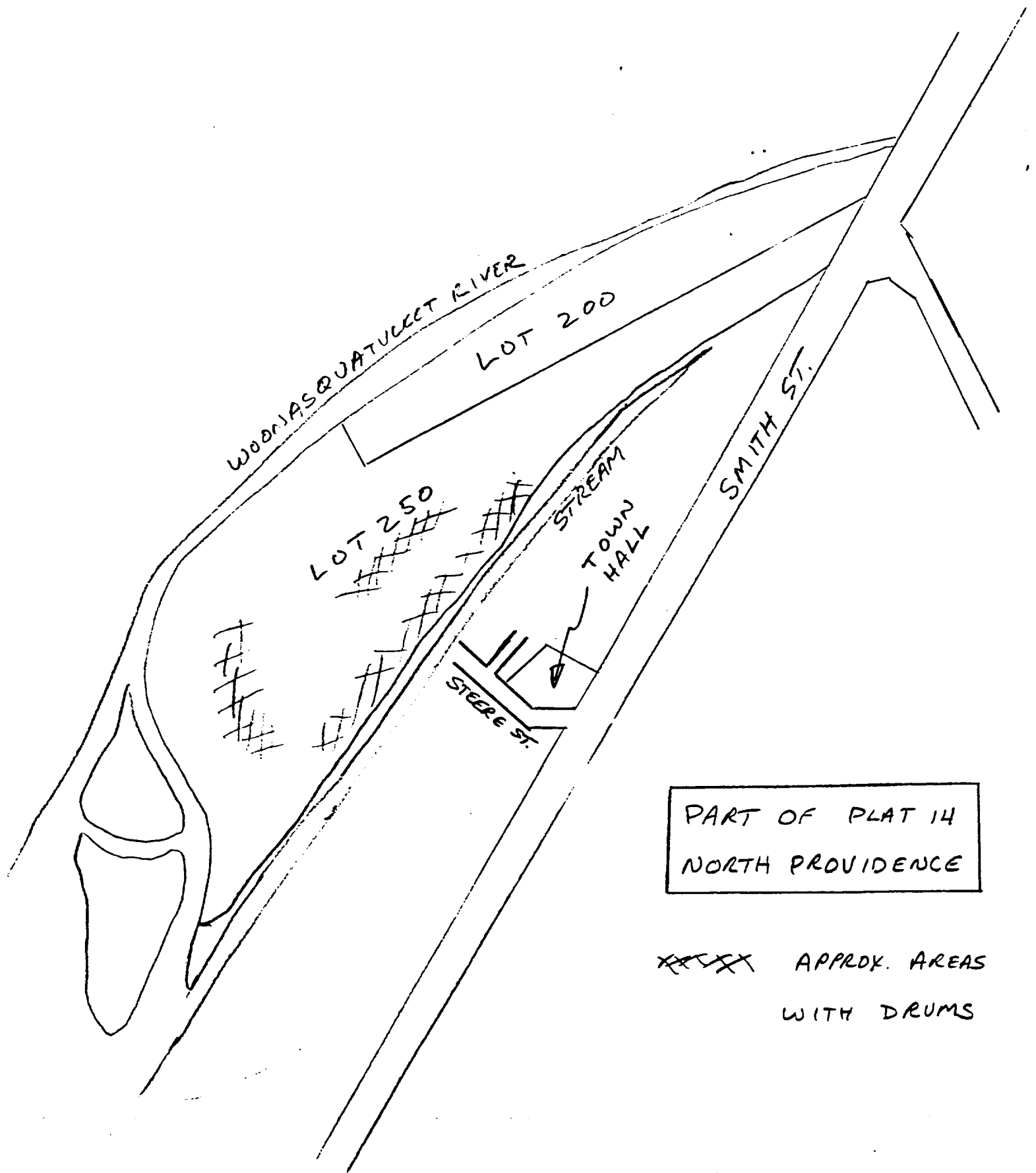
Centerdale Properties Corp.
c/o Crown Chemical
60 Taylor Drive
East Providence, R.I. 02916
Joseph E. Buonanno
Edward Ricci

The adjacent property, Plat # 14, Lot # 200 is owned by,

Brook Village Assoc.
1 Beacon St.
Boston, Ma. 02108.



Stephen Majkut, Sr. Engineer



PART OF PLAT 14
NORTH PROVIDENCE

XXXXX APPROX. AREAS
WITH DRUMS

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF AIR AND HAZARDOUS MATERIALS (AIR SECTION)

TELEPHONE DISCUSSION

Company Centerdale Properties
Address Off Steere Avenue
Centerdale, RI
Date/Hour of Conversation 16 May 1980/11:30 a.m.
Talked With Attorney General's Office

Subject: Barrels in field

A representative of the Attorney General's Office called to state that they have received numerous calls complaining of fumes from drums on the above site. I notified Mr. Thomas Wright and Mr. James Fester of the problem for appropriate action. Barrels were to have been removed years ago, but apparently the work was not completed. See file for past history.

Douglas L. McVay
Douglas L. McVay
DLM: cam

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF LAND RESOURCES
SOLID WASTE MANAGEMENT PROGRAM

Complaint Investigation Report

Complaint No. 80-86 Date Complaint Received 11/24/80 Time: 11:15 a

Name and Address of Complainant:

Name and Address of Alleged Source:

Anonymous

Centerdale-Smith Street

Tele.

Field behind High-Rise Home for Elderly

No.:

Tele,

No:

Nature of Complaint: Former site of Metro-Atlantic Chemical Co., Complainant remembers company
dumping barrels in this field.

Date of Investigation of Complaint: 11/24/80 Time: 2:05 -2:30 p.m.

Findings:

28 Barrels in the western and southwest end of the field. All are empty except two which may have liquid in them. These are all above ground.

J. Cullinane
James Cullinane, Inspector
Division of Air and Hazardous Materials

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
INTER-OFFICE MEMO

TO : File
Division of Air and Hazardous Materials
DEPT : Environmental Management
FROM : John Leo, Engineer JLC
Division of Air and Hazardous Materials
DEPT : Environmental Management

DATE: 10 December 1980

SUBJECT: Inspections of Barrels located on the old Metro-Atlantic Chemical Site in Centerdale

On December 1, 1980 from 2:p.m. to 3:10 p.m. an inspection was made of the old Metro-Atlantic Chemical Site.

During this inspection it was discovered that approximately 100-150 barrels were scattered along the bank of the Woonasquatucket River. Most of these barrels were 55 gallon drums and most of them appeared to be empty. However, scattered among the empty drums were drums that contained various chemicals. Some of these drums contained liquid and some contained solids. Also one of these drums which contained some liquid was labeled "Mousanto Aracolor 1221"; This is a PCB product.

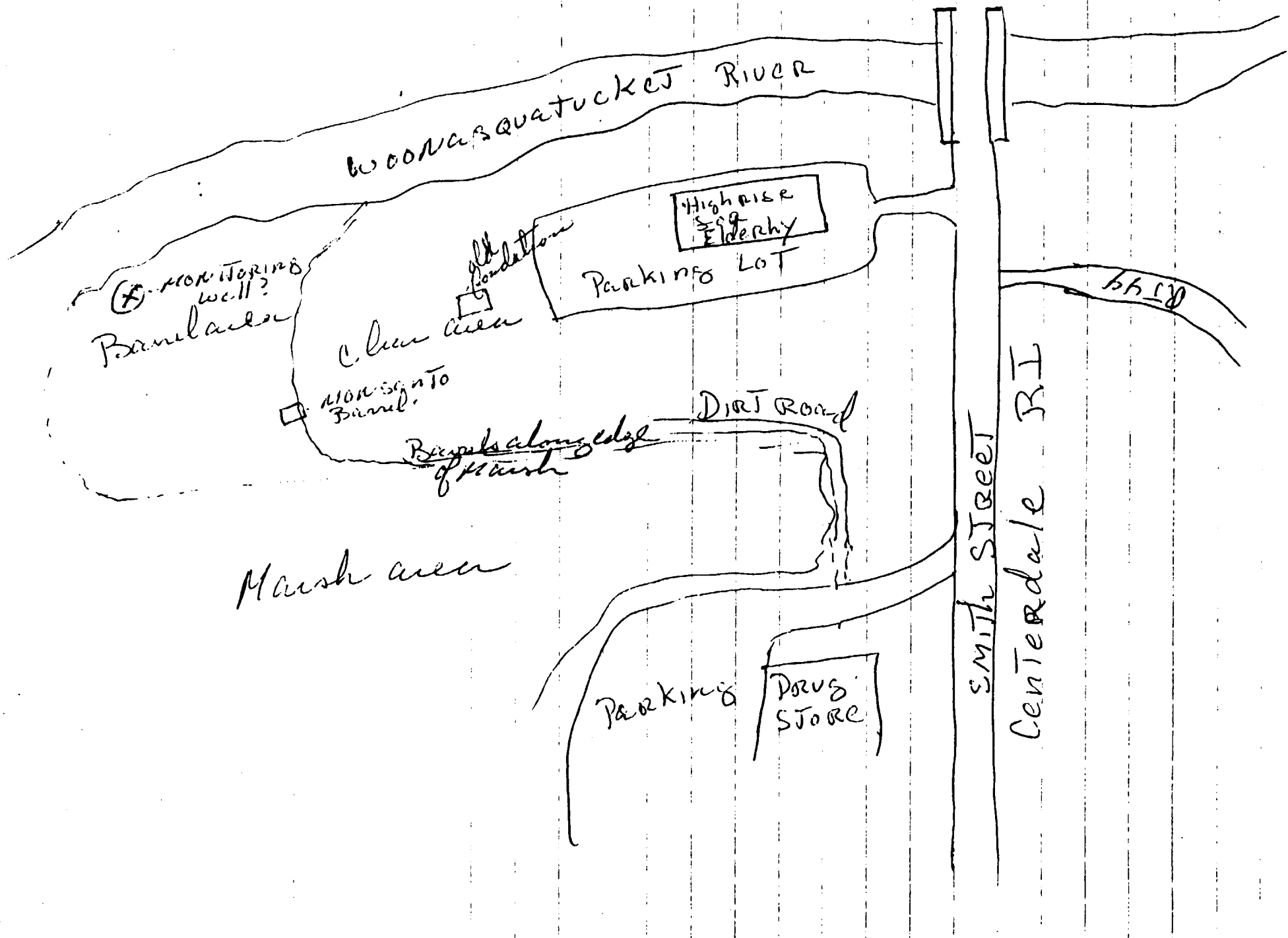
Scattered throughout this area were chemical deposits and kill areas. where chemical had been spilled in the past causing all vegetation to die in that area. Several of the drums had polyliners which would lead one to believe that the drums contained acid or caustic material at one time.

This site borders the Woonasquatucket River on one side and a marsh area on the other. Some of the drums were piled right on the bank of the River and could easily be dumped into the River.

Further, while checking the site, I stumbled on what appeared to be a monitoring well marked "#5" on the cap.

It is recommended that the owner of the site be notified to remove all the exposed drums and that all chemical deposits be scraped up and removed. Also it would be advisable for the state to sample the river below and above the site to see if any chemicals are leaking into the river which would mean that a more complete cleanup will have to be initiated. Also it would be advisable to check the "monitoring well" tank.

JPL/km



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF AIR AND HAZARDOUS MATERIALS

TO: John Quinn
FROM: Tom Wright *T.F.W.*
DATE: 26 January 1981
SUBJECT: Metro-Chemical Disposal Site

I have received the attached memo from John Leo concerning his inspections of the Metro-Chemical disposal site. Would you assemble all information relative to this and discuss it with our legal office to see what violations, if any, are present. I believe there is an air pollution, water pollution, and hazardous waste file associated with this.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

INTER-OFFICE MEMO

: Tom Wright, Chief
Division of Air and Hazardous Materials
PT : Environmental Management

DM : John Leo, Engineer
Division of Air and Hazardous Materials
PT : Environmental Management

DATE: 26 January 1981

SUBJECT: Inspection of Land Records for Metro-Chemical Disposal Site

According to the Land Records in the Town of North Providence, this property located as lot #250 on plat 14 has been owned by Mr. Joseph Buonanno since 1943 when it was purchased from Mr. Henry E. Sweet. The property is presently owned by Mr. Joseph E. Buonanno and Mr. Edward Ricci.

JL/km

Department of Environmental Management
Division of Air and Hazardous Materials

Field Investigation Report

Name Metro-Chemical
Address North Providence, RI
Lot 250 Plat 14

Date of Investigation March 17, 1981
Time of Investigation 9:30 - 11:30 a.m.

Findings:

On March 17, 1981 Allen Brodd and I inventoried the exposed drums of the old Metro-Chemical Site. These drums were scattered all over the site. The drums were given a number and checked to see if they were empty or filled. If the drums were filled the contents were checked to ascertain if they contained solid or liquid contents.

Also, any labels or pertinent information on the barrels was taken down. Approximately 600 drums were found of which 161 drums were checked. The rest of the drums were either crushed or buried so that they could not be checked. Of the 161 drums checked, 95% of these were empty. The rest of the drums contained mostly solid materials. The few drums that did contain liquids were checked out. None of these drums contained acids or bases as verified by pH paper. Also only 1 or 2 drums contained any liquid which had any organic smell and these drums were only one-eighth full.

Throughout the site are piles of crushed drums, some of which are also partially buried. Also in several locations are signs of buried drums. These could not be checked because of the frozen condition of the ground.

Some of the recommendations as to the site are:

First, water monitoring of the river above and below the site should be done. Particular interest should be made for the content of the heavy metals, PCB and any halogenated solvents that might be emanating from the site.

Second, water testing should be done in the swamp on the other side of the site. Again, testing should be done for heavy metals, PCB and halogenated solvents. This should show if there is contamination present at the site.

Thirdly, the well or tank marked 5 at the site should be tested to determine what it is and if it is a tank what it contains.

Finally, one or two of the drums containing substances should be tested to see what threat may be contained in the drums at the site which the public could easily come in contact with.


John P. Leo, Engineer
Division of Air and Hazardous Materials

Inventory of exposed Barrels

March 17, 1981 Done by
John Luo & Allen Brodd

Lab Bottles

- 1 E
- 2 E
- 3 E
- 4 E
- 5 Paint Odor Trace liquid
- 6 E
- 7 1/8 Full
- 8 1/8 Full Paint Odor PH ~ 7
- 9 1/8 Full
- 10 E
- 11 E
- 12 E Poly Lined Acid Drum Residue?
- 13 1/8 PH ~ 7
- 14 E Rusted Holes E
- 15 E
- 16 E
- 17 E
- 18 1/2 Full PH-7 odorless
- 19 1/3 Full Ice
- 20 E
- 21 E
- 22 E
- 23 E
- 24 E
- 25 E ARO Clor 1221 Monsanto
- 26 E
- 27 E
- 28 Full
- 29 Full } 35.9

31 Full 35 gal
32 E Strong Acid Barrel
33 E 35 gal
34 E
35 E
36 Full in H₂O
37 E
38 E
39
40 E
41 E
42 E
43 E
44 E
45 E
46 U
47 E
48 E
49 E
50 E
51 E
52 E
53 E
54 1/4 Full
55 E
56 E
57 E NUTMEG (Oil)
58 E
59 E

61 E
62 E
63 E
64 E
65 E
66 E
67 E
68 E
69 E
70 1/2 Full
71 E
72 E
73 Full Plastic Bags
74 E
75 E Poly lined
76 Full Solids
77 E
78 Approx 35 Empty PET Cans
Solid Residues
79 E Poly Lined (Kill Area)
80 E 35 gal
81 E
82 E
83 Residue Crushed
84 " "
85 E
86 Residue Crushed
87 E
88 E

90 E

91 E

92 E

93 E

94 E

95 E

96 E

97 E

98 E

99 E

100 E

101 E

102 E

103 E

104 E

105 E

106 E

107 E

108 E

109 E

110 E

111 E

112 E

113 Pile 190 Crushed Port Buried

114 Resin $\frac{1}{4}$ Full

115 F

116 E

117 E

118 E

120 Full Resin

121 Full Fiberglass

122 Paint Solids Full

123 E

124 E

125 100 Port. 12 1/2" Buried Crushed

126 E Pine + Paper Chem Hercules Powder
Wilkinson, Tex Del

127 E

128 E

129 E Poly L merl

130 E

131 Full ~~40~~ PH 7

132 Water

133 at Wellor Fill Pipe #5

25 Partial Residue Filled

Crushed Drums (Pile)

134 E Crushed

135 E Crushed

136 E Crushed

137 E Crushed

138 Port Filled Solid Slag

139 Crushed (tar resin)

140 E

141 Full Open Head (probably Resin)

142 E Crushed

143 E crushed 35 gal

144 E

145 $\frac{1}{2}$ Full Slag

Other
Buried
Drums
(old)

(20 year old rust

147 E

148 E

149 E

150 Full 359 open head sealed

151 Full 359 Fiber

152 E Poly lined

153 E Poly lined Delaware barrel 53-4/29/65 ^{williams} ^{DO}

154 E Poly lined

155 E Poly liner 53-4/27/63

156 1/8 Full PH ~ 7-

157 E Calgon Poly

158 E Mark N-5-69-FS-22-26 ^{Authorized for re use by}
^{Bureau of explosives}

159 E

160 ²⁰ Assorted Crushed barrels fairly intact near river

161 ¹⁰ Assorted whole drums poly lined badly deteriorated

Department of Environmental Management
Division of Air and Hazardous Materials

Field Investigation Report

Name Centerdale,

Date of Investigation October 16, 1981

Address North Providence

Time of Investigation 11:15 a.m. - 12:15 p.

Crown Chemical

Metao Chemical

Findings:

Allen Brodd and I met with Mr. Lund, project manager, for Marshall Contractors, Inc. and Mr. Jerry Graff architect for Robinson, Green and Baretta.

They were in the process of doing a feasibility study for a possible high use on the site of the old Chemical Company in Centerdale. During this study, they had found a smoking drum of sulfuric acid 70%.

The services of Jet-Line Services had been acquired to remove the drum to Recycling Industries in Braintree, MA.

After we arrived at the site, Allen Brodd and I inspected the smoking barrel. This was a reinforced drum of the concentrated acid type. There were two pinholes where the fumes were escaping. Because the barrel was reinforced, it would not fit in an overpack so I suggested either heavy duct tape or several plastic bags over the drum. Failing this, the only possibility was to empty the drum on site and neutralize contents by use of caustic soda.

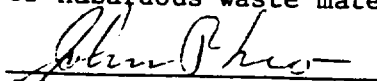
The drum was finally covered with plastic bags and taped closed. After being properly labeled, it was loaded on to Jet-Line's vehicle. Marshall contracting was given a manifest which was properly filled out by Mr. Lund. This accompanied the waste to Stoughton.

During our time at the site, we also did a field survey with representatives of Marshall Contractor's. We showed them the other large deposits of drums at the rear of the site. We pointed out the few drums that contained waste and suggested that while the land was being cleared they be removed to a secure area and be sampled and disposed of.

I informed Mr. Lund that the State would assist the m in sampling the drums and in providing manifests for disposal.

I suggested also that all the remaining empty drums and debris be gathered up in one area and crushed. Then they could be loaded up for disposal at either a metal scrap yard or at a proper solid waste facility.

It was recommended that all drums be removed to prevent later complaints of hazardous waste materials on the site.


John P. Leo, Engineer

Division of Air and Hazardous Materials

11/23/81

Re: Lot 250, Plat 14, North Providence, RI
Joseph Buonanno & Edward Ricci, Owners
201 Waterman Street
Providence, RI

NOTICE OF VIOLATION AND ORDER

Notice is hereby given that Joseph Buonanno and Edward Ricci (hereinafter "the Owners") at their property located at Plat 14, Lot 250, North Providence, Rhode Island is and/or has been in violation of the Hazardous Waste Management Act of 1978, Chapter 23-19.1 of the Rhode Island General Laws (hereinafter "the Act") as amended and the regulations adopted pursuant thereto. The Director of the Rhode Island Department of Environmental Management has authority to adopt regulations pursuant to R.I.G.L. Section 23-19.1-6(a). According to R.I.G.L. Section 23-19.1-6(b), 23-19.1-15, 23-19.1-16 and 42-17.1-2, the Director, or his designee, has the authority to enforce the provisions of the Act and the regulations adopted pursuant thereto.

Specifically, the Owners have violated R.I.G.L. Section 23-19.1-8 and various rules cited below of the Hazardous Waste Management Facility Operating Permit Rules and Regulations--Landfills, the Hazardous Waste Generator Rules And Regulations, the Hazardous Waste Treatment And Storage Rules And Regulations.

23-19.1-8. Records--Reports--Monitoring - It shall be unlawful for any person to generate, store, transport, treat or dispose of hazardous wastes within the state of Rhode Island without complying with such requirements as the director by regulation may prescribe for: the establishment of such records; the making of such reports; the taking of such samples, and the performing of such tests or analyses; the installing, calibrating, using and maintaining of such monitoring equipment or methods; and the providing of such other information as may be necessary to achieve the purposes of this chapter.

In addition, the Owners are and/or have been in violation of Rule 1 of the Rhode Island Hazardous Waste Operating Permit Rules And Regulations--Landfills, effective 10 September 1979, amended 23 November 1980, amended 2 November 1981, which reads, in part, as follows:

Rule 1. Permit Requirements

.01 No person shall dispose of hazardous wastes in or on the land or waters of the state unless such person shall first have obtained a Hazardous Waste Management Facility Operating Permit from the director. However, this rule shall not apply to sewage sludge being produced at publicly-owned treatment works, and which is disposed of in accordance with a plan approved by the Department. This rule shall also not apply to animal waste produced at farms when this waste is disposed of on land.

addition, the Owners are and/or have been in violation of Rule 2 of the
is Waste Generator Rules And Regulations, effective 20 December 1979, amended
nber 1980, amended 2 November 1981, which reads as follows:

le 2. Storage

y material designated as a hazardous waste stored at the site of generation
r a period not to exceed 90 days shall be termed temporary storage and
cluded from storage permit requirements provided that such waste is shipped
f site within 90 days. Temporary storage areas shall be designed and con-
ructed with adequate spill control capabilities and in accordance with the
ovisions of 40 CFR §262.34, as is or as shall be amended. Generators storing
zardous waste for a period exceeding 90 days shall obtain a storage permit.

addition, the Owners are and/or have been in violation of Rule 1 and Rule 2
Hazardous Waste Treatment And Storage Facilities Rules And Regulations,
ve 23 November 1980, amended 2 November 1981, which read as follows:

le 1. Facility Operation

person shall operate a hazardous waste treatment or storage facility except
compliance with the following rules and regulations.

le 2. Preparedness And Prevention

.01 All facilities shall be maintained and operated for preparedness for
nd prevention of releases of hazardous wastes.

.02 All facilities shall have contingency plans and emergency procedures
o be followed in the event of a release of hazardous waste.

ecent investigations conducted by the Department on or about October 16, 1981
evealed that the Owners have specifically violated the above cited statutes

gulations as follows: Disposal of hazardous waste in and on the land in
ion of Landfill Rule 1 and has stored hazardous waste in unlabelled containers
lation of Generator Rule 2 and Storage Facilities Rules 1 and 2.

The Owners are hereby ORDERED to, under the supervision of Department of
nmental Management personnel:

1. Identify all hazardous materials on site by sampling and chemical analysis.
2. Repackage and properly manifest and dispose of all hazardous wastes on site.
3. Comply with Items 1 and 2 immediately.

Pursuant to Section 42-17.1-2(u) and Chapter 42-35 of the General Laws of
Island, 1956, (1977 Reenactment), as amended, the Owners are entitled to
st a hearing before the Director of Environmental Management or his designee
n ten (10) days of service of this notice of violation and order to show
why this finding of violation should not stand and why this order should not
forced. If the Owners fail to request a hearing within the aforesaid period
me, it is hereby notified that this notice will automatically become a com-
ice order.

Failure or inability thereafter to comply with this order will result in the Director petitioning the Superior Court to prevent any further transportation, treatment or storage of hazardous waste within Rhode Island whatsoever and/or impose the civil and criminal penalties specified in Sections 23-19.1-18 and 23-19.1-17 of the aforementioned Hazardous Waste Management Act, until the violations are corrected to the satisfaction of the Director. Criminal penalties specify a maximum \$25,000 fine and/or five (5) years imprisonment.

FOR THE DIRECTOR:

Thomas E. Wright
Thomas E. Wright, Chief
Div. of Air & Hazardous Material

DATED:

Dec 22, 1981

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO <i>Joseph G. Grier</i>	
STREET AND NO. <i>201 Waterman St.</i>	
P.O. STATE AND ZIP CODE <i>PAULDEN, AZ</i>	
POSTAGE	\$
CONSULT POSTMASTER FOR FEES	
CERTIFIED FEE	•
SPECIAL DELIVERY	•
RESTRICTED DELIVERY	•
SHOW TO WHOM AND DATE DELIVERED	•
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	•
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	•
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	•
OPTIONAL SERVICES	•
RETURN RECEIPT SERVICE	•
TOTAL POSTAGE AND FEES	\$
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

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NO INSURANCE COVERAGE PROVIDED—
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SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	•
OPTIONAL SERVICES	•
RETURN RECEIPT SERVICE	•
TOTAL POSTAGE AND FEES	\$
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

CERTIFICATION

ify that on the 24th day of November, 1981

a copy of the attached order by certified mail, return receipt

sted to:

Joseph Buonanno and Edward Ricci
201 Waterman Street
Providence, RI

Certified Mail Nos. 3545307 and 3545308 respectively

Kathleen A. McAlee
Signature

cc: Sean Coffey
Dan Schatz
Ed Wood
Steve Fradkoff, EPA

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

INTER-OFFICE MEMO

TO: File

DATE:

DEPT: --

FROM: John P. Leo, Engineer *JPL*
Division of Air and Hazardous Materials
DEPT: Environmental Management

SUBJECT: Removal Of Drums From The Old Metro Chemical Site, Centerdale, North Providence

Removal of the drums was begun on 22 February 1982 by Marshall's subcontractor, C. Pezza & Sons of Johnston, under the supervision of both Goldberg, Zoino & Associates and the Rhode Island Department of Environmental Management. The removal of about 300-400 55 gallon drums was accomplished in about four days without incidents except for the uncovering of a drum of Sulfur Trioxide, a fuming substance in the presence of water vapor.

Of the 400 drums removed, only 30 drums had any chemical residue which had to be analyzed. These drums were sampled by Michael Scherrill of Goldberg, Zoino & Associates and I on 27 February 1982. The samples were then checked for compatability and bulked for determination as to whether it is hazardous or not.

A total of eight samples will be sent to the laboratory for analysis. (See attached sheets)

The remaining empty drums having been verified to be empty and non-hazardous were crushed and sent to a solid waste facility of the subcontractor's choice for proper disposal.

The remaining drums will be kept in a secure area to await determination as to whether they are hazardous or not. If they are hazardous, they will be removed to a secure hazardous waste facility for disposal and if they are not hazardous, they will be sent to a solid waste facility.

JPL/kz
Enc.

Drums To Be Sampled

- #1 Empty - Crushed
- #2 Empty - Crushed
- #3 Empty - Crushed
- #4 Empty - Crushed
- #5 Empty - Crushed
- #6 Empty - Crushed
- #7 Empty - Crushed
- #8 Acid Drum - pH 1 - Sample was total amount.
- #9 Empty - Crushed
- #10 Empty - Crushed
- #11 Water? Frozen Sample
- #12 Acid Drum - pH 1 - Almost Empty
- #13 Empty - Crushed
- #14 Water? - Frozen Sample
- #15 Empty - Crushed
- #16 Empty - Crushed
- #17 Water? - Frozen Sample
- #18 Empty - Crushed
- #19 Empty - Crushed
- #20 Water? - Frozen Sample
- #21 Water? - Frozen Sample
- #22 Empty - Crushed
- #23 Empty - Crushed
- #24 Empty - Crushed
- #25 Solid - Dirt Like
- #31 Solid - Fine White Powder
- #36 Solid - Flakey White Solid - Paint Chip
- #50 Solid - Light Orange Color
- #51 Empty - Garbage - Crushed
- #52 Empty - Garbage - Crushed
- #53 Solid - White Flakey
- #54 Empty - Crushed
- #55 Solid - Orange Paint
- #56 Solid - Aqua Marine
- #57 Solid - Raspberry Color
- #58 Solid - White Flakes
- #59 Solid - Solidified Blue Ink
- #60 Solid - Orange Color
- #61 Solid - Raspberry Color
- #62 Lab Pack - Various Small Bottles
- #63 35 Gal. - Solid White Paint
- #64 35 Gal. - Solid Purple Paint
- #65 35 Gal. - Brown Semi-Solid
- #66 35 Gal. - Orange Colored Semi-Solid
- #67 35 Gal. - Green Semi-Solid
- #68 35 Gal. - Brown Semi Solid
- #69 Empty - Crushed
- #70 Empty - Crushed
- #71 Solid - Raspberry Color
- #72 Solid - Raspberry Color
- #73 Solid - Black Ink
- #74 Solid - Black Powdery Material

Analysis Needed On Composite Samples Of Metro Chemical

- Sample #12 Heavy Metals & Sulfate
Know pH - 1 Heavier than water
- Sample #65 Check pH - About 9-10
Brownish liquid with ammonia odor
Check for pH - CN^- & heavy metals
- Sample #62A & 62B Lab pack samples
Check for flash point, volatile organics (has formaldehyde in it).
- Sample #56 & 55 Check for flash point, heavy metals, volatile organics.
Paint solids.
- Sample #59, 64, 73, 74 Bluish colored solids
Check for flash point and heavy metals and volatile organics
- Sample #25, 34, 36, 50, 53, 58 White flakey solid.
Heavy metals and flash point.
(No organic smell)
- Sample #57, 61, 71, 72 Check for heavy metals, flash point, volatile organics
Raspberry colored solids
- Sample #63, 66, 67, 68 Paint solids
Check for flash point, volatile organics, heavy metals

Sample Work Up At Goldberg, Zoino & Associates
2 March 1982

Sample #14 Clear Liquid. No Odor.
pH 5-6 Probably Water
Water No reaction with water.

Sample #11 pH 4
Clear Liquid. No Odor.
Water No reaction with water.

Sample #17 pH 5-6
Clear Liquid. No Odor.
Water No reaction with water.

Sample #20 pH 5-6
Clear Liquid. No Odor.
Water No reaction with water.

Sample #21 pH 5-6
Clear Liquid. No Odor.
Water No reaction with water.

Sample #8 pH 1-2
Clear Liquid. No Odor.
Acid No reaction with water.
All of sample used up.

Sample 12 pH 1-2
Clear Liquid. No odor.
Acid Heavier than water.
Check for metals. Probably H_2SO_4

Sample #25 In Merck bottle.
pH 6-7 SPG = 1.
No reaction with water.
Yellow liquid.
Used up in analysis. Disposed of.

Out of Lab Pack

Sample #62A - Heavy viscous liquid.
pH 7
SG > 1
No reaction with water.

Sample #62B - Formaldehyde
Check for flash point and volatile organics

Samples #71, 57, 72 Raspberry solid material.
Check for metals.

Sample #30 Chunky white solid.

Sample #56 - Aqua marine colored material.

Sample #60 - Chunky brown solid.

Sample #58 - Ash Green lumpy solid.

Sample #50 Yellowish lumpy solid.

Sample #25 Musty soil like material.

Sample #74 Bluish ink like solid.

Sample #64 Bluish ink like solid. (Turpentine odor)

Sample #59 Bluish ink like solid. (Mineral spirits)

Sample #73 Bluish ink like solid. (Turpentine)

Sample #55 Paint. Orange color. Organic odor.

Sample #63 Paint. White color. Organic odor.

Bottle 63 White paint semi-solid. Check for flash point, volatile organics, heavy metals

Bottle 66 Red paint semi-solid. Check for flash point, volatile organics, heavy metals

Bottle 67 Green paint semi-solid. Check for flash point, volatile organics, heavy metals

Bottle 68 Brown paint semi-solid.

Sample #53 Clear liquid. Cloudy. White solid. Flakey.
pH 6. SPG > 1. No reaction with water.

Sample #31 Cloudy. Liquid.
Solid. Whitish brown flakes.
pH 6. SPG > 1. No reaction with water.

Sample #61 Raspberry colored liquid and solid.
pH 4-5. SPG about 1
No reaction with water.

Sample #65 Ammonia smell.
Brownish liquid.
pH 9-10. SPG > 1

FIELD SUMMARY

FILE No. P-3227

DATE 2/22/82 REPORT No. One SHEET 1 OF 1
PROJECT Centerdale Manor-Site Clearance LOCATION North Providence, R.I.
CLIENT Marshall Engineering CONTRACTOR Pezza
WEATHER CONDITIONS Clear REMARKS Below, D.

A. Arrived on site 0700 hours.

B. Equipment working:

- 1) 1 JD510 backhoe with front loading bucket.
- 2) 1 6-wheel dump truck.
(both vehicles supplied by Pezza)
- 3) 1 operator, 1 foreman and 2 laborers.

C. Work accomplished:

One large concentration of disposed drums was removed from an area along the banks of the Woonasquatucket River and scattered drums were removed from the south end and east portions of the site. This observer selected drums to be saved for later sampling and analysis of contents for subsequent determination by DEM of appropriate disposal techniques.

D. Remarks:

- 1) Pezza employees were informed of the need for individual protective gear and cautioned to remove said equipment before leaving the site for lunch or the end of the day's work. A first aid station was maintained on site.
- 2) Drum excavation and removal techniques were modified slightly from those established by DEM. Drums selected for sampling were moved by sling onto the dump truck and subsequently transported to the concrete containment area. Approximately twenty (20) drums were segregated as to probable liquid, solid, or questionable contents.

E. Visitors:

Undersigned met Bill Lund and site supervisor for Marshall Engineering at 0800 hours. John Leo, a DEM engineer from Air and Hazardous Waste, visited the site and expressed approval of protective gear and drum removal techniques.

F. Left site 1600 hours.

Distribution:

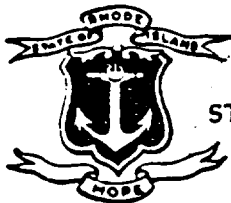
William Lund, Marshall Engineering
John Leo, RIDEM
Gerard Graf, Robinson, Green, Beretta Corp.

ON-JOB TIME	<u>8.5</u>
	<u>.5</u>
TRAVEL TIME	<u>---</u>
OFFICE TIME	<u>---</u>
TOTAL TIME	<u>9.0</u>



Michael Sherrill

PREPARED BY



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
38 State Street
Providence, R. I. 02908

January 18, 1982

Mr. Gerhard H. Graf, P.E.
c/o The Robinson Green Beretta Corporation
2 John Street
Providence, Rhode Island 02906

APPLICATION NO. 5027

Dear Mr. Graf:

Kindly be advised that this Department has reviewed your Request for Fresh Water Wetlands Applicability Determination and inspected the site of proposed building and parking area construction located south of Smith Street, North Providence, Rhode Island,

and as described by the site plan submitted with your request and entitled "Centredale Manor North Providence, Rhode Island" dated November 20, 1981 Sheets 1 and 2.

Under the following provisions: 1. Only work specifically shown on the aforementioned site plan is allowed. 2. Adequate measures are taken to prevent sediments from entering adjacent wetlands to include at least those measures delineated on the aforementioned plan.

It is our conclusion that this proposal represents an insignificant alteration of a fresh water wetland. Therefore, under the aforementioned provisions, a permit to alter fresh water wetlands will not be required.

Please note that this does not remove your obligation to obtain any necessary permits from local, federal or other state agencies.

Very truly yours,

Peter H. Janaros, P.E.
Peter H. Janaros, P. E.
Chief
Division of Land Resources

JT/PNJ/lp

RECEIVED BY THE RGS CORP.
RAD _____ JAB _____ GU _____
JRB _____ DMN _____ GHG 5
ACTION BY _____
JAN 20 1982
TRZ _____ WG _____ RJE RF
JRC _____ WKA _____ GEM _____
MS _____ RMS _____ JEB _____
JTN _____ RJG _____ KRW _____

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

INTER-OFFICE MEMO

TO: File
Division of Air and Hazardous Materials
DEPT: Environmental Management

FROM: John Leo *JL*
Division of Air and Hazardous Materials
DEPT: Environmental Management

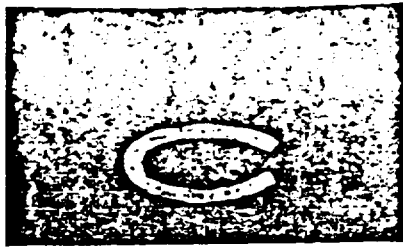
SUBJECT: Sampling at Metro Chemical - North Providence

DATE:

At 1:30 p.m. February 2, 1982 I verified that 10 samples were taken at the former Metro Chemical site in North Providence. These samples were taken to give a representative sample of the 6,000 cubic yards of soil that are to be removed to put in the foundation for the new high rise that Marshall Contracting is building.

The first two feet were augured because of the debris in the area and the next two feet were samples by a split spoon. The two samples were composited and this one sample will be analyzed for metals, PCB, Pesticides and Primary polutants.

JL/km



MARSHALL CONTRACTORS, INC.

JOB MEETING MINUTES

Job: Centerdale Manor

Date: February 1, 1982

Attended By:

John P. Leo

Alan R. Brodd ✓

Gerry Graf

Bill Greig

Mike Powers

Bud Hodess

William Lund

State of R. I. - Dept. of Environmental Management

State of R. I.

Robinson Green & Beretta

Robinson Green & Beretta

Goldberg/Zoino & Associates

HOMAR

Marshall Contractors

1. The meeting was called to examine the procedures to be utilized for removal of the "Solid Waste" materials at the above captioned project. It was agreed that 10 split spoon holes were to be driven to the bottom of the strip line which has been established at elevation 93.33. It was also indicated that the material to be removed was not to be classified as clean fill, and a suggestion was made to have it hauled to the Silvestri Land Fill, where they could utilize the material as fill to cover their refuse.
2. With regards to the barrel removal; It was indicated that the barrels were to be set in 3 groups, one classified as empty, the other classified as questionable, and the third classified as possible. The areas for the questionable and possible should be enclosed within a chain link fence. The empty barrels could be crushed and removed from the site.
3. With regards to the moving and handling of the barrels; John Leo suggested that disposable white suits (sized extra large) should be available, a respirator ($\frac{1}{2}$ face mask type) should be worn, along with goggles, hard hats, heavy duty rubber gloves, and suitable rubber boots. He also suggested that eye wash material be available, along with a good first aid kit.
4. It was suggested that Goldberg/Zoino have an advisor supervise the relocation and stock piling of the questionable barrels as a safety inspector type. This was agreed to by all parties and will be done.
5. With regards to the sampling process, material from all of the 10 locations were to be combined to provide a composite sample for which Goldberg/Zoino will provide the testing analysis as request

Centerdale Manor
February 1, 1982
Page 2

ed by John Leo.

6. As soon as the barrel relocation and removal process begins, William Lund will notify John Leo and all other parties that this process will commence.

Distribution:
All attendees
Jack Marshall
Bob McNamara
Stan Puddicombe
Lon Jamison
Expediting

FIELD SUMMARY

FILE No. P-3227

DATE 2/23/82 REPORT No. Two SHEET 1 OF 1
PROJECT Centerdale Manor LOCATION North Providence, R.I.
CLIENT Marshall Engineering CONTRACTOR Pezza
WEATHER CONDITIONS Clear REMARKS Below, D.

A. Arrived on site 0730 hours.

B. Equipment working:

- 1) 1 JD510 backhoe with front loading bucket.
- 2) 1 6-wheel dump truck.
- 3) 1 operator, 1 foreman and 1 laborer.

C. Work accomplished:

- 1) Clearing of the southeast corner of the site continued. Drums were culled from trash piles and removed by hand or with the backhoe from the marsh areas. Drums adjudged to contain no chemical wastes materials were crushed and stockpiled on site for later disposal.
- 2) Approximately fifteen (15) drums were placed in the containment area for subsequent sampling. Three (3) 1-pint jars, one 1-gallon plastic jug, and one 1.5 liter bottle of unidentified liquid contents were unearthed and hand carried to the containment area.

D. Remarks:

- 1) Site was inspected by John Leo of R.I.D.E.M. He expressed satisfaction and approval of clearing operations.
- 2) Removal of drums from wet marsh area disturbed bottom materials and released unpleasant odors; when disturbance of this area ceased, odors dissipated. It is believed that the gases responsible are due to natural decay of vegetation rather than the release of disposed drum contents.
- 3) An insurance agent representing Pezza employees briefly observed removal operations. The individual commented that unprotected persons should be waved off from approaching the area.

E. Left site 1600 hours.

Distribution:

William Lund, Marshall Engineering
John Leo, RIDEM
Gerard Graf, Robinson, Green, Beretta Corp.

ON-JOB TIME 8.0
TRAVEL TIME .5
OFFICE TIME --
TOTAL TIME 8.5



Michael Sherrill

PREPARED BY

FIELD SUMMARY

FILE No. P-3227

DATE 2/24/82 REPORT No. Three SHEET 1 OF 1
PROJECT Centerdale Manor LOCATION North Providence, R.I.
CLIENT Marshall Engineering CONTRACTOR Pezza
WEATHER CONDITIONS Clear/Windy REMARKS Below, D.

A. Arrived on site 0730 hours.

B. Equipment working:

- 1) 1 backhoe with front bucket.
- 2) 1 dump truck.
- 3) 1 operator, 1 foreman and 1 laborer.

C. Work accomplished:

- 1) The marsh at the south end of the site was cleared of visible drums and three (3) large trash heaps were culled for hidden drums. This observer selected approximately ten (10) drums for containment and subsequent sampling.
- 2) One trash heap at the southwest end of the site was colored with fluorescent powder. Drums were culled from this pile for disposal and the remaining material was segregated for subsequent inspection by John Leo of RI DEM.

D. Remarks:

- 1) Representatives of the town visited the containment area and construction trailer.
- 2) Gusting winds produced some hazard of airborne particles; however, no problem developed.

E. Left site 1600 hours.

Distribution:

William Lund, Marshall Engineering

John Leo, RIDEM

Gerard Graf, Robinson, Green, Beretta Corp.

ON-JOB TIME 8.0

TRAVEL TIME .5

OFFICE TIME --

TOTAL TIME 8.5



Michael Sherrill

PREPARED BY

FIELD SUMMARY

FILE No. P-3227

DATE 2/25/82 REPORT No. Four SHEET 1 OF 1
PROJECT Centerdale Manor LOCATION North Providence, R.I.
CLIENT Marshall Engineering CONTRACTOR Pezza
WEATHER CONDITIONS Clear/Windy REMARKS Below, D.

A. Arrived on site 0730 hours.

B. Equipment working:

- 1) 1 JD 510 backhoe with front bucket.
- 2) 1 dump truck.
- 3) 1 operator, 1 foreman and 1 laborer.

C. Work accomplished:

- 1) Visible drums were removed from banks of the river and along the northeast bank of the swale. Approximately seven (7) drums were removed to the containment area for subsequent sampling.
- 2) Piles of crushed drums were collected and moved to the crushed drum staging area for subsequent removal and disposal off site.
- 3) At approximately 1330 hours, excavation of one (1) partially buried drum along the east section also unearthed a second drum which immediately emitted heavy gray smoke upon exposure to the air. Workers were waved off and Marshall survey crew was advised to avoid the area.

This observed notified John Leo of R.I.DEM, who arrived on site and directed the removal, sealing and handling of this drum. Pezza personnel were instructed as to proper procedure in the event of similar occurrences during future excavations in the area. No injuries were sustained.

This drum continued smoking slightly when in containment area, was resealed and removed from other drums.

D. Left site 1600 hours.

Distribution:

William Lund, Marshall Engineering
John Leo, RIDEM
Gerard Graf, Robinson, Green, Beretta Corp.



ON-JOB TIME	<u>8.0</u>
TRAVEL TIME	<u>.5</u>
OFFICE TIME	<u>--</u>
TOTAL TIME	<u>8.5</u>

Michael Sherrill

PREPARED BY

FIELD SUMMARY

FILE No. P-3227

DATE 2/26/82 REPORT No. Five SHEET 1 OF 1
PROJECT Centerdale Manor LOCATION North Providence, R.I.
CLIENT Marshall Engineering CONTRACTOR Pezza
WEATHER CONDITIONS Clear/Windy REMARKS _____

A. Arrived on site 0830 hours.

B. Equipment working:

- 1) 1 Fiat-Allis front-end loader with operator.
- 2) 1 foreman.
- 3) Dump trucks with drivers.

C. Work accomplished:

- 1) Pezza crew initiated removal of crushed drums from site.
- 2) John Leo of RIDEM and the undersigned opened and sampled the barrels held at the containment area. Approximately twenty (20) barrels were adjudged to contain no hazardous materials and were marked for crushing and removal.

The remainder were segregated as to liquid, solid, or corrosive contents. These were sampled. Based upon subsequent testing, the final disposition of these drums shall be determined by the DEM.

D. Remarks:

- 1) A representative of Marshall was notified that disposition of the remaining drums was contingent upon analysis of samples.
- 2) Pezza foreman was notified to remove additional drums from containment area marked for crushing and non-hazardous solid waste disposal. He was advised to continue handling of any drums encountered in subsequent excavations in the manner established during the past week. Any suspicious drums are to be handled with protective covering. The foreman has phone numbers for RIDEM and Goldberg-Zoino offices in the event additional smoking or drums of questionable contents are uncovered.

E. Left site at 1330 hours.

Distribution:

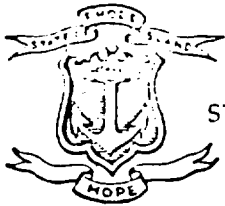
William Lund, Marshall Engineering
John Leo, RIDEM
Gerard Graf, Robinson, Green, Beretta Corp.



ON-JOB TIME 5.0
TRAVEL TIME .5
OFFICE TIME 2.0
TOTAL TIME 7.5

Michael Sherrill

PREPARED BY



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
75 Davis Street
Providence, R. I. 02908

26 February 1982

Mr. William Lund
Marshall Contractors, Inc.
75 Newman Avenue
East Providence, Rhode Island

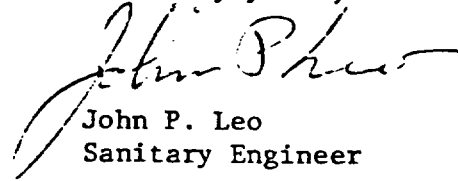
Dear Mr. Lund:

Based on both visual and field analytical procedures, the empty barrels and drums located at the old Metro Chemical site in Centredale, North Providence have been found to be non hazardous.

These barrels have been verified as being empty of all hazardous materials. They are, however, solid waste material and as such will have to be disposed of at a properly licensed solid waste facility of your choice, such as Capuano's Sanitary Landfill or Solid Waste Management's Central Landfill. This material cannot be used as clean fill because it has been deemed solid waste material.

If you have any further questions concerning this matter, please feel free to contact me at 277-2797.

Sincerely yours,


John P. Leo
Sanitary Engineer

JPL:lmn

but the council nevertheless recently authorized the settlement.

Nice

Mrs. Rodriguez was detained in connection with the shoplifting arrest, but she was not charged with a crime, according to Corrente. However, her daughter was charged and pleaded no contest in court, and that case was filed for a year, he said.

Four policemen who gave depositions as witnesses were Capt. Leo O'Donnell, Ptm. Ronald Rainone, Lt. Bobby R. Brooks and former Sgt. Robert Ferruolo. The town hired lawyer Frank Caprio to represent the policemen in the taking of the depositions, according to Corrente and Mann.

The suit alleged that in a K-Mart store, 1386 Atwood Ave., and at police headquarters, police harassed and questioned Mrs. Rodriguez without probable cause or legal justification. She was handcuffed and her pocketbook was emptied, according to Mann.

They work in space-age outfits to clean up mess from past era

By G. WAYNE MILLER
Journal-Bulletin Staff Writer

NORTH PROVIDENCE — It could have been a scene from Love Canal, the notorious hazardous waste dump: men in space-age white suits, masks and gloves quietly and gingerly handling 55-gallon rusted steel barrels.

But it was North Providence, R.I., not Niagara Falls, N.Y., where technicians last week were meticulously probing an old barrel-burial ground along the Woonasquicket River in preparation for construction of an elderly housing complex.

Their task: to determine if the wasted barrels littering the old industrial lot contained hazardous materials.

According to a senior engineer for the state Department of Environmental Management's Division

learn to jump obstacles with their mounts. The college has an accredited associate degree program in equine studies.

The course has an enrollment of

Turn to FARM, Page B-3

N. Providence

of Air and Hazardous Materials, there is no evidence yet of any health threat from the approximately 200 barrels that have been uncovered. Engineer Alan R. Brod said about 150 of the barrels were empty.

Water was one substance found in some of the remaining 50 barrels, Brod said. Lanolin and paint were others. Samples of additional materials, including an iridescent reddish-purple powder that resembles dye, will undergo laboratory analysis, Brod said.

According to the engineer, soil borings made earlier this year in the area found no pollution. Although he discounted any great

probability of a significant health problem, Brod said it is possible that laboratory tests could identify hazardous materials from the barrel samples.

That chance prompted workers to don protective suits, masks and gloves, Brod said. After removal from the ground, a job that required the muscle of a backhoe, the barrels were moved to a "safe area" enclosed by a chain-link fence for sampling and identification.

"Most appear to be empty old barrels. About 50 had 'something' in them. There may be some hazardous materials in some of these barrels," he said.

If there are, it will be up to Goldberg, Zolno & Associates, con-

Turn to BARRELS, Page B-3

Action Line 277-7484

Line answers questions, solves problems, red tape. Write Action Line at the Journal-Bulletin, 75 Fountain St., Providence or call 277-7484. All inquiries are examined

Fetters for agoraphobia

I have been agoraphobic for two years. I belong to a group but I really don't seem much better. Is doctor or psychiatrist in this area who can help me? I have heard that certain things can be useful. I am recently divorced and back to work, so it is imperative that I solve my problem as quickly as possible.

M.N. (Providence)

by our staff and as many questions as possible answered in the paper. No questions can be answered personally because of time and staff restrictions.

Dr. Qualls says recently there has been much work with anti-depressants that assist in controlling the panic attacks experienced by some agoraphobics. The medication, however, merely deals with the illness symptoms. Treatment of the problem involves getting the agoraphobic to undertake some of the things he is afraid to do, and to do them in a gradual manner. "We feel there are a lot of these people," Dr. Qualls says. "Their numbers are larger than we think."

A. You're having the recording made by William Sprague of Jamestown.

We did at one time refer a reader to Peter Hicks, director of educational television at the University of Rhode Island. Hicks had a Webcor recorder but during the past year, time took its toll and the recorder no longer works. Replacement parts are unavailable, he says.

The mention in Action Line, "generated a lot of activity," Hicks tells us, and among those was Sprague.

Postscript

stripped provision

ation's budget restraints said compelled holding back funds. "We're not overly with the level of Coast funding," he said during a g of Andrews' subcommittee were cutting the sails to ship.

ING the 1982 budget debate, re senators had been prime behind a Coast Guard con-on appropriation \$684 mil-354 million more than the struction had recommended. ded in the total was \$175 that Chile's had earmarked ters and aircraft to intercept muggers, and \$300 million evens inserted in the Defense ment budget to bolster the Guard's military prepared-

ter than spend the entire however, the administration ought to defer \$300 million fiscal 1983. But Chile's pre- that strategy with a budget tion amendment that passed ecember: hat point, the administration d to force a holdback of the million by requesting only million in construction funds 83. Since the Coast Guard is ted to spend at least \$270 in 1983 for a modernization um that has already begun, 300 million must be held in e to pay for that.

US, when DOT's Donald Der- an assistant secretary for t and programs, said Friday it. mply not possible" to spend 300 million this year, Chile's ready with a response. e "Catch 22" is, because s only \$19.2 million in the request, that you're afraid to te more money in 1982 be- you .. continue.

Barrels

Continued from Page B-1

sulting engineers to see that they are properly disposed. The Providence firm has been retained by Marshall Contractors, the elderly housing developer, to test the contents of the barrels. The state is providing only technical assistance and supervision, Brodd said.

Like other areas along both sides of the Woonasquatucket, industry inevitably left its mark on this empty lot, now overgrown with weeds turned brown and lifeless in the dead of winter. Next door is Brook Village, another public housing project, which rose in the 1970s from similar rubble.

Years ago, North Providence officials say, the site was home of a barrel-reclamation factory they identified as Metro Atlantic Chemicals. Even earlier, they said, a textile firm that used large quantities of dye was located there on the banks of the Woonasquatucket.

Metro's business, according to Brodd, was cleaning and repainting used barrels for eventual resale. When the factory was razed several years ago, he said, some unsold barrels were partially buried along the Woonasquatucket. Every now and then, he said, the river has dislodged a barrel or two, sending them downstream.

When two white-suited men arrived on the job about a week ago, their futuristic appearance startled

some North Providence residents who had not been notified of an impending project. Some brought the matter up Tuesday to Town Councilmen.

"We had no idea what they were doing. It was kind of scary at first," said Sharon Serto, who lives at 41 Steere Ave., which has a view of the Woonasquatucket and the excavation site.

According to a spokesman for Goldberg & Zoido, laboratory analysts has disclosed the presence of paint residues and lanolin in some barrels Brodd said laboratory work is continuing this week.

Centredale Manor, the elderly housing project, will provide 122 apartments for older and handicapped persons, who will be eligi-

ble for federal rent subsidies. shall Contractors, an Providence firm, has a \$5.01 lion loan from the Rhode Housing and Finance Mort Corp. for construction.

Casimir Kolaski, a spokesman for the federal Department of Housing and Urban Development, which approved a \$757,188, a rent subsidy, said last week the complex is expected to be completed and ready for occupancy in a year.

According to Brodd, the probe will continue this week though he said it appears the drums have been found. the white-suited men will stand by as excavation proceed-



To John Lee
atc. 9 March 72 Time 3:00

While you were out...

From John Lee
f. John Lee
Phone 438-3500

☐ Telephoned ☐ Please call
☐ Called to see you ☐ Will call again
☐ Wants to see you ☐ Rush

Message Copy 3rd from
Centerville R. Prov

Kathy
Operator

To John Lee
Date 10 March 82 Time 2:55

While you were out...

M. Bill Lunk
Of Marshall Con
Phone 438-3500

☒ Telephoned ☒ Please call
☐ Called to see you ☐ Will call again
☐ Wants to see you ☐ Rush

Message Copy 3rd from
Centerville R. Prov

Kathy
Operator

To John Lee
Date 10 March 82 Time 2:55

While you were out...

M. Bill Lunk
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Phone 438-3500

☒ Telephoned ☒ Please call
☐ Called to see you ☐ Will call again
☐ Wants to see you ☐ Rush

Message Copy 3rd from
Centerville R. Prov

Kathy
Operator

MARSHALL CONTRACTORS, INC.
DEVELOPMENT — CONSTRUCTION — FINANCE
75 Newman Ave., Rumford, R.I. 02916
(401) 438-3500

1st Class ☐
UPS ☐
ONDS ☐
OTHER ☐

TRANSMITTAL RECORD

Project CENTREDALE MANOR
NO. PROV. RT Job No. 120

To: DEPARTMENT OF
ENVIRONMENTAL
MANAGEMENT

Date 3/17/82

☐ Manufacturers Drawings From:

☐ Structural Drawings From:

☐ Architectural Drawings

Attention: _____

For approval ☐
Approved as submitted ☐
Approved as noted ☐
For correction & resubmission ☐
Disapproved ☐
For your information & use ☒
For your price ☐

We are sending herewith ☒
under separate cover ☐

Copies of COMPLETE SET OF CONSTRUCTION
DRAWINGS DATED MARCH 10, 1982
" "
" "
" "
" "
" "

REMARKS _____

No. of copies received _____

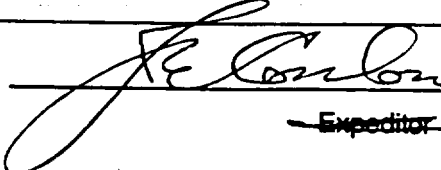
Distribution:

Sub-Contractor: _____

Job Use: _____

Office Use: _____

Other: _____

By 
~~Expeditor~~

☐ Installation to start on: _____

☐ Material req'd on jobsite by: _____



R.I. Analytical Laboratories, Inc.

SPECIALIZING IN ENVIRONMENTAL ANALYSIS

231 ELM STREET
WARWICK, R. I. 02888

PHONE (401) 467-2452

CERTIFICATE OF ANALYSIS

REPORT TO Goldberg Zoino & Assocs.

DATE RECEIVED 3/4/82

293 South Main Street

DATE REPORTED 3/22/82

Providence, RI 02903

PURCHASE ORDER NO _____

Attn: Mr. Mike Sherrill

RIAL INV NO 6140

SAMPLE DESCRIPTION Samples from Centerdale Manor, N. Prov., RI

Per your request, subject samples have been analyzed by our laboratory with the following results:

<u>SAMPLE</u>	<u>PARAMETER</u>	<u>RESULTS</u>
#12	pH	1.1
	Sulfate (as SO ₄)	<50 mg/l
	EP Toxicity; (no extraction)	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	0.23 "
	T. Chromium	0.39 "
	Lead	0.3 "
	Mercury	<0.001 "
	Silver	0.21 "
	Selenium	<0.5 "
	#65	pH
T. Cyanide		<1 mg/l
EP Toxicity; (no extraction)		
Arsenic		<0.5 mg/l
Barium		<0.5 "
Cadmium		<0.01 "
T. Chromium		<0.1 "
Lead		1.2 "
Mercury		<0.001 "
Silver		<0.05 "
*Selenium		0.7 "

*possible analytical interference

APPROVED BY _____

Anthony P. Donatelli
Anthony P. Donatelli

Certificate of Analysis
Goldberg Zoino & Assocs.
March 22, 1982
Page -2-

<u>SAMPLE</u>	<u>PARAMETER</u>	<u>RESULTS</u>
Composite 61,71,72 & 57	Flash Point	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	<0.01 "
	T. Chromium	<0.1 "
	Lead	<0.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics;	
	All compounds	N.D.
Composite 62A & 62B	Flash Point	>140°F
	Volatile Organics;	
	toluene	196 ppm
Composite 64,74,59 & 73	all other compounds	N.D.
	Flash Point (sam.#64)	106°F
	Flash Point (sam.#59)	128°F
	Flash Point (sam.#73 &74)	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	<0.01 "
	T. Chromium	<0.1 "
	Lead	0.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics	
	xylene	19,600 ppm
	ethyl benzene	180 ppm
	all other compounds	N.D.

continue to Page -3-

Certificate of Analysis
 Goldberg Zoino & Assocs.
 March 22, 1982
 Page -3-

<u>SAMPLE</u>	<u>PARAMETER</u>	<u>RESULTS</u>
Composite 55 & 56	Flash Point (sam. #55)	72°F
	Flash Point (sam. #56)	82°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	<0.01 "
	T. Chromium	<0.1 "
	Lead	2.0 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics;	
	toluene	5,500 ppm
	xylene	47,000 ppm
	ethyl benzene	7,100 ppm
	all other compounds	N.D.
Composite 63,66,67,68	Flash Point	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	0.23 "
	T. Chromium	<0.1 "
	Lead	<0.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics;	
	xylene	690 ppm
	ethyl benzene	1,100 ppm
	all other compounds	N.D.
	Flash Point	>140°F
	EP Toxicity;	
Composite 25,31,36,50 53,58 & 60	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	0.13 "
	T. Chromium	<0.1 "
	Lead	2.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "

Certificate of Analysis
Goldberg Zoino & Assocs.
March 22, 1982
Page -4-

Note: A list of volatile organic compounds tested for and their detection limits is attached. . .

Metal analyses performed in accordance with "Characteristic of EP Toxicity", Federal Register, Vol. 45, No. 98, Monday, May 19, 1980, Rules and Regulations.

If you have any question regarding this work or if we may be of further assistance, please contact us.

VOLATILE ORGANIC POLLUTANTS

COMPOUND

methylene chloride
trichlorofluoromethane
1,1-dichloroethylene
1,1-dichloroethane
trans-1,2-dichloroethylene
chloroform
1,2-dichloroethane
1,1,1-trichloroethane
carbon tetra chloride
bromodichloromethane
1,2-dichloropropane
trans-1,3-dichloropropene
trichloroethylene
dibromochloromethane
cis-1,3 dichloropropene
1,1,2-trichloroethane
benzene
bromoform
tetrachloroethylene
1,1,2,2-tetrachloroethane
toluene
chlorobenzene
ethylbenzene
xylene

Detection limit: 100 ppm



R.I. Analytical Laboratories, Inc.

SPECIALIZING IN ENVIRONMENTAL ANALYSIS

231 ELM STREET
WARWICK, R. I. 02888

PHONE: (401) 467-2452

CERTIFICATE OF ANALYSIS

REPORT TO Goldberg Zoino & Assocs. DATE RECEIVED 3/4/82
293 South Main Street DATE REPORTED 3/22/82
Providence, RI 02903 PURCHASE ORDER NO. _____
Attn: Mr. Mike Sherrill R.I.A.L. INV. NO. 6140
SAMPLE DESCRIPTION Samples from Centerdale Manor, N. Prov., RI

Per your request, subject samples have been analyzed by our laboratory with the following results:

<u>SAMPLE</u>	<u>PARAMETER</u>	<u>RESULTS</u>	
#12	pH	1.1	
	Sulfate (as SO ₄)	<50 mg/l	
	EP Toxicity; (no extraction)		
	Arsenic	<0.5 mg/l	
	Barium	<0.5 "	
	Cadmium	0.23 "	
	T. Chromium	0.39 "	
	Lead	0.3 "	
	Mercury	<0.001 "	
	Silver	0.21 "	
	Selenium	<0.5 "	
	#65	pH	9.9
		T. Cyanide	<1 mg/l
EP Toxicity; (no extraction)			
Arsenic		<0.5 mg/l	
Barium		<0.5 "	
Cadmium		<0.01 "	
T. Chromium		<0.1 "	
Lead		1.2 "	
Mercury		<0.001 "	
Silver		<0.05 "	
*Selenium		0.7 "	

*possible analytical interference

APPROVED BY

Certificate of Analysis
Goldberg Zoino & Assocs.
March 22, 1982
Page -2-

<u>SAMPLE</u>	<u>PARAMETER</u>	<u>RESULTS</u>
Composite 61,71,72 & 57	Flash Point	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	<0.01 "
	T. Chromium	<0.1 "
	Lead	<0.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics; All compounds	N.D.
Composite 62A & 62B	Flash Point	>140°F
	Volatile Organics; toluene	196 ppm
	all other compounds	N.D.
Composite 64,74,59 & 73	Flash Point (sam.#64)	106°F
	Flash Point (sam.#59)	128°F
	Flash Point (sam.#73 &74)	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	<0.01 "
	T. Chromium	<0.1 "
	Lead	0.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics	
	xylene	13,600 ppm
	ethyl benzene	180 ppm
	all other compounds	N.D.

continue to Page -3-

Certificate of Analysis
 Goldberg Zoino & Assocs.
 March 22, 1982
 Page -3-

<u>SAMPLE</u>	<u>PARAMETER</u>	<u>RESULTS</u>
Composite 55 & 56	Flash Point (sam. #55)	72°F
	Flash Point (sam. #56)	82°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	<0.01 "
	T. Chromium	<0.1 "
	Lead	2.0 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics;	
	toluene	5,500 ppm
	xylene	47,000 ppm
	ethyl benzene	7,100 ppm
	all other compounds	N.D.
Composite 63,66,67,68	Flash Point	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	0.23 "
	T. Chromium	<0.1 "
	Lead	<0.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "
	Volatile Organics;	
	xylene	690 ppm
	ethyl benzene	1,100 ppm
	all other compounds	N.D.
	Flash Point	>140°F
	EP Toxicity;	
	Arsenic	<0.5 mg/l
	Barium	<0.5 "
	Cadmium	0.13 "
	T. Chromium	<0.1 "
	Lead	2.1 "
	Mercury	<0.001 "
	Silver	<0.05 "
	Selenium	<0.5 "

- check
LP 50

Certificate of Analysis
Goldberg Zoino & Assocs.
March 22, 1982
Page -4-

Note: A list of volatile organic compounds tested for and their detection limits is attached.

Metal analyses performed in accordance with "Characteristic of EP Toxicity", Federal Register, Vol. 45, No. 98, Monday, May 19, 1980, Rules and Regulations.

If you have any question regarding this work or if we may be of further assistance, please contact us.

VOLATILE ORGANIC POLLUTANTS

COMPOUND

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trichlorofluoromethane
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trans-1,2-dichloroethylene
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carbon tetra chloride
bromodichloromethane
1,2-dichloropropane
trans-1,3-dichloropropene
trichloroethylene
dibromochloromethane
cis-1,3 dichloropropene
1,1,2-trichloroethane
benzene
bromoform
tetrachloroethylene
1,1,2,2-tetrachloroethane
toluene
chlorobenzene
ethylbenzene
xylene

Detection limit: 100 ppm

MEMORANDUM

SUBJECT: Centerdale Manor - Drum Removal

FROM: Michael A. Powers

TO: Marshall Contractors Corp. (William Lund)

DATE: April 1, 1982

-1- The undersigned met with Messrs. John Leo and Alan Broad of RIDEM to review the results of chemical analyses performed on drum samples obtained from the subject site (chemical analyses attached). Based on that review, the Rhode Island Department of Environmental Management made the following findings:

-A- The following eight drums contain hazardous waste materials which must be sent to a secured, hazardous waste landfill:
Nos. 64, 74, 59, ~~57~~, 56 and 55 and two unnumbered "smoking
drums" 73

-B- The small volume of material in drum No. 12 must be neutralized with a caustic prior to disposal at a licensed landfill. (John Leo expressed a willingness to assist in this procedure).

-C- All remaining, previously sampled drums, may be sent to a licensed landfill.

-2- Recently unearthed drums should be stored in a separate section of the fenced-in area in rows of two. RIDEM personnel will attempt to make field identification of the contents of those drums based on physical and field test comparisons to the now laboratory identified materials. Therefore, no drum removal should take place until RIDEM has observed all drums unearthed to date. Given the recent public interest in chemical disposal practices, however, it is to everyone's benefit to expedite the removal of all drums in a conscientious manner as soon as possible.

MAP:mrp

cc: John Leo (RIDEM)
G.Graf (Robinson Green Beretta Corp.)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
55 Davis Street 204 Cannon Building
Providence, R.I. 02908

21 April 1982

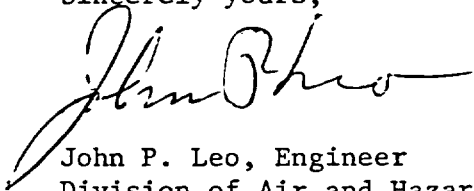
Mr. William Lund
Marshall Contractors
75 Newman Avenue
East Providence, RI

Dear Sir:

Based on the analysis #6216 from R.I. Analytical, the whitish material in the crushed drums from Centredale is not toxic or flammable. Therefore, disposal of this material can be done at the solid waste landfill of your choice.

If you have any questions concerning this matter or any others, please call me at 277-2797.

Sincerely yours,



John P. Leo, Engineer
Division of Air and Hazardous Materials

JPL/km

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
204 Cannon Building
111 02908

21 April 1982

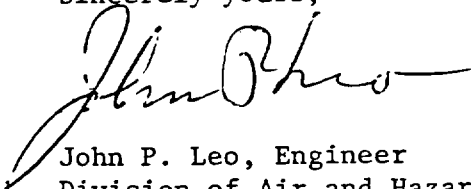
Mr. William Lund
Marshall Contractors
75 Newman Avenue
East Providence, RI

Dear Sir:

Based on the analysis #6214 from R.I. Analytical, the whitish material in the crushed drums from Centredale is not toxic or flammable. Therefore, disposal of this material can be done at the solid waste landfill of your choice.

If you have any questions concerning this matter or any others, please call me at 277-2797.

Sincerely yours,



John P. Leo, Engineer
Division of Air and Hazardous Materials

JPL/km

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Davis Street 204 Cannon Building
Providence, R. I. 02801

22 April 1982

Mr. Frank Battaglia
Environmental Protection Agency
Permits Branch
JFK Federal Building
Boston, MA 02203

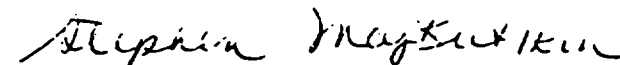
Dear Sir:

Would you please provide the below named installation an EPA ID number. Pursuant to Paragraph 5 of the Interim Cooperative Agreement for Coordination of Hazardous Waste Regulatory Activities.

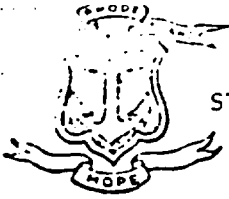
Required Information

- a. Name of Installation Marshall Contractors
- b. Mailing Address 75 Newman Avenue
East Providence, RI
- c. Location of Installation Route 44
Centerdale, RI
- d. Name of installation contact William Lund
Telephone Number 401-438- 3500
- e. Name of Legal Owner of Installation Briarbrook Association
- f. Type of Hazardous Waste Activity Generator
- i.e. Generator, Transporter, Treatment, Storage or Disposal.

Very truly yours,


Stephen Majkut, Sr. Engineer
Division of Air and Hazardous Materials

SM/km



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
75 Davis Street 204 Cannon Building
Providence, R. I. 02908

22 April 1982

Mr. Frank Battaglia
Environmental Protection Agency
Permits Branch
JFK Federal Building
Boston, MA 02203

Dear Sir:

Would you please provide the below named installation an EPA - ID number. Pursuant to Paragraph 5 of the Interim Cooperative Agreement for Coordination of Hazardous Waste Regulatory Activities.

Required Information

- a. Name of Installation Marshall Contractors
- b. Mailing Address 75 Newman Avenue
East Providence, RI
- c. Location of Installation Route 44
Centerdale, RI
- d. Name of installation contact William Lund
Telephone Number 401-438- 3500
- e. Name of Legal Owner of Installation Briarbrook Association
- f. Type of Hazardous Waste Activity Generator
i.e. Generator, Transporter, Treatment, Storage or Disposal.

Very truly yours,

Stephen Majkut, Sr.
Stephen Majkut, Sr. Engineer
Division of Air and Hazardous Materials

SM/km

The EPA I.D. Number being assigned to this facility is RID980524532.

Frank Battaglia *F.B.*

HAZARDOUS WASTE MANIFEST AND SHIPPING PAPER

MANIFEST NUMBER

NAME

MAILING ADDRESS

PHONE NUMBER

STATE/PA I.D. NO.

HAZARDOUS WASTE

GENERATOR

NAME

ADDRESS

PHONE

PRIMARY TRANSPORTER

NAME

ADDRESS

PHONE

CONTINUING TRANSPORTER

ADDRESS

PHONE

HAZARDOUS WASTE FACILITY

NAME

ADDRESS

PHONE

U.S. D.O.T. SHIPPING NAME

D.O.T. HAZARD CLASS

UN/NA NO.

WT/VOL.

UNITS

UNIT CODE

CONTAINER NO.

TYPE

EPA WASTE NO.

DESCRIPTION OR WASTE ANALYSIS IF WASTE IS N.O.S.

DATE SHIPPED

MONTH

DAY

YEAR

DATE

MONTH

DAY

YEAR

DATE

DATE

SPECIAL HANDLING INSTRUCTIONS INCLUDING ANY CONTAINER EXEMPTION AND EMERGENCY RESPONSE INFORMATION

FOR INFORMATION CONTACT:

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
75 DAVIS STREET
PROVIDENCE, RI 02908
(401) 277-2797

IN THE EVENT OF A SPILL, CONTACT THE NATIONAL RESPONSE CENTER, U.S. COAST GUARD 1-800-424-8802

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

TRANSPORTER COMPLETES

REQUIRED LABELS

THIS IS TO CERTIFY THAT I AM THE PRIMARY TRANSPORTER AND HAVE ACCEPTED THE DESCRIBED SHIPMENT IN PROPER CONDITION FOR TRANSPORT TO THE IDENTIFIED H.W.F.

Signature of Transporter

DATE SHIPMENT ACCEPTED

MONTH

DAY

YEAR

VEHICLE ID

STATE

COMPANY NO. FOR TRAILER

MARINE OR RAIL

DATE OF DELIVERY

MONTH

DAY

YEAR

DATE

PLACARDS CONTINUING TRANSPORTER AND HAVE ACCEPTED THE DESCRIBED SHIPMENT IN PROPER CONDITION FOR TRANSPORT TO THE IDENTIFIED H.W.F.

Signature of Transporter

DATE SHIPMENT ACCEPTED

MONTH

DAY

YEAR

VEHICLE ID

STATE

COMPANY NO. FOR TRAILER

MARINE OR RAIL

DATE OF DELIVERY

MONTH

DAY

YEAR

DATE

INDICATE ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT AND LIST REJECTED MATERIALS. INDICATE DISPOSITION OF REJECTED SHIPMENT.

HANDLING METHOD

H.W.F. COMPLETES

I CERTIFY THAT THE DESCRIBED WASTE(S) WAS DELIVERED BY THE FOREMENTIONED DELIVERING TRANSPORTER AND THAT THE INFORMATION ON THIS MANIFEST IS CORRECT TO THE BEST OF MY KNOWLEDGE.

Signature of Driver

DATE

MONTH

DAY

YEAR

DATE

MONTH

DAY

YEAR

DATE

MONTH

DAY

YEAR

MANIFEST	NUMBER
11	0040

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

TRANSPORTER COMPLETES

H.W.F.
COMPLETES

INDICATE ANY DIFFERENCES BETWEEN MANIFEST AND LIST REJECTED MATERIALS. INDICATE DISPOSITION OF REJECTED SHIPMENT

HANDLING METHOD

I CERTIFY THAT THE DESCRIBED WASTE(S) WAS DELIVERED BY THE FOREMENTIONED DEWATERING TRANSPORTER AND THAT THE INFORMATION ON THIS MANIFEST IS CORRECT TO THE BEST OF MY KNOWLEDGE.

John J. Anderson [06] 622

2015 12 17

BY THE FOREMENTIONED DELIVERING TRANSPORTER AND THAT THE INFORMATION ON THIS

JAN 13 1982

Doug Daniels

SIGNATURE

DATE

[06] [6-2] [82]

MONTH DAY YEAR

1	50.1	4
2		5
3		6

Memo To File

June-July 1982

From John Leo

Subject: old Metro Chemical site.
Centerdale.

Waste material were sent for Disposal
at Hazardous waste site by Jet Line
Services.

Remaining material analyzed for
chemical Characterisation. Care should
be given that only specified Parameters
have been looked at. Things like
PCB, Dioxin and exotics have been
omitted.

This site is still potentially Contaminated
in the Swamp area.

Monitoring well #5 should be checked
when ownership is known for property
of the Swamp.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF AIR AND HAZARDOUS MATERIALS

Complaint Investigation Report

Complaint No. 83-23 Date Complaint Received May 2, 1983 Time: 9 a.m.

Name and Address of Complainant:

Anonymous

Tele.

No.: _____

Name and Address of Alleged Source:

Centerdale Manor

Centerdale, North Providence

Tele.

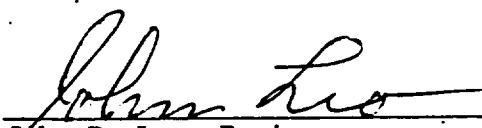
No: _____

Nature of Complaint: Exposed Barrels at end of Parking Lot

Date of Investigation of Complaint: May 2, 1983 Time: 11 a.m.

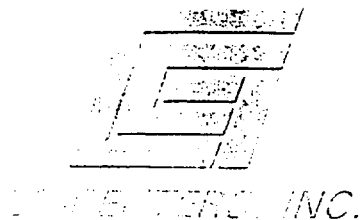
Findings:

Examination of the area shows the remains of many crushed and empty drums. There was no odor or any other visible signs to substantiate the complaints of buried chemicals at the site.


John P. Leo, Engineer

Division of Air and Hazardous Materials

JPL/km



March 14, 1986

Ms. Fran Slade
McDonald & Watson
12 Green Hill Road
Johnston, RI 02919

Dear Fran:

This letter is to confirm our telephone conversation of March 13, 1986. GEO-CENTERS, INC. is pleased to submit this proposal to perform a ground probing radar (GPR) survey at a site in Rhode Island. The objective of the survey is to detect and locate underground metal storage tanks that may exist under a defined area of approximately one quarter acre.

GEO-CENTERS, INC. will provide the personnel, equipment, and expertise to perform the geophysical survey. The cost is estimated to be \$1,336 and includes one day of field work, mobilization, field analysis and interpretation, and the preparation of a short letter report presenting the results of the survey.

The field work is scheduled for March 24, 1986, with March 25 as an alternative starting date in case of inclement weather.

We look forward to working with you on this project. If you should have any questions, please feel free to call.

Thank you,

GEO-CENTERS, INC.

David VonG. Smith
Geophysicist

DVS/als

100 Wells Avenue
Boston, Massachusetts • 02159
Tel: 617-864-7070

BOSTON
WASHINGTON, D.C.
ALBUQUERQUE



GEO-CENTERS, INC.

March 27, 1986

MacDonald & Watson
12 Greenhill Road
Johnston, RI 02919

Attn: John Leo

Dear John:

This letter outlines the work that was performed by GEO-CENTERS, INC. on March 24, 1986, at Centerdale Manor, Centerdale, RI. The goal of the survey was to locate any buried storage tanks. Using ground probing radar (GPR), 12 radar scan lines were taken to define the subsurface conditions of the site. Review of these scan lines in the field indicated six areas of interest. An additional 16 scans were taken to better define the extent and/or validity of these targets. A total of 1,810 linear feet of data was gathered. A map of the site showing these radar scans and their locations is given in Figure 1.

Three areas of interest may warrant further investigation. These are designated A, B, and C and are indicated in Figure 2 of this letter report. Area A is an area of higher conductivity and confined to a surface area of 15 feet by 13 feet. Area B, similar to Area A, is a better defined target in terms of delineated size. Area B also covers an area approximately 15 feet by 13 feet. Figure 3 is an example of the type of anomalies present in Areas A and B. Area C is a rectangular patch 10 feet by 15 feet, visible on the ground surface and delineated by the lack of grassy vegetation. Subsurface investigation of Area C indicates an area of high attenuation and loss of radar signal. There is an indication of a buried utility 20 feet west of the road in Area C.

The targets evident in the GPR charts do not show the structure that is normally associated with buried metal tanks or containers. The charts give evidence that metallic debris is prevalent along the west edge of the site near the line of trees.

MacDonald & Watson

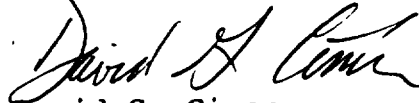
(2)

March 27, 1986

We enjoyed working with you and look forward to any future work. If you should have any questions, please feel free to call.

Thank you,

GEO-CENTERS, INC.



David G. Cimon
Engineering Technician

DGC/als



GEO-CENTERS, INC.

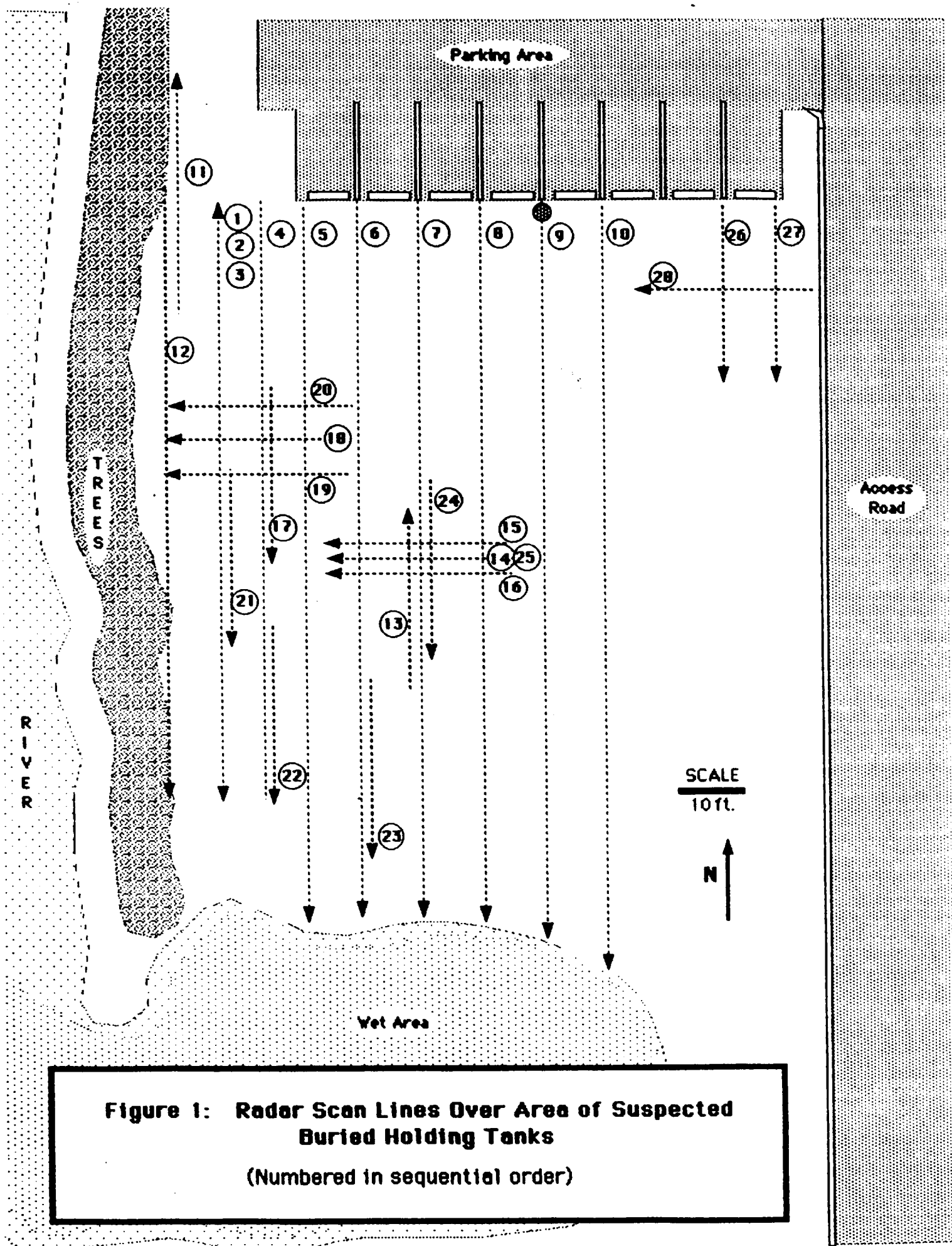


Figure 1: Radar Scan Lines Over Area of Suspected Buried Holding Tanks
(Numbered in sequential order)

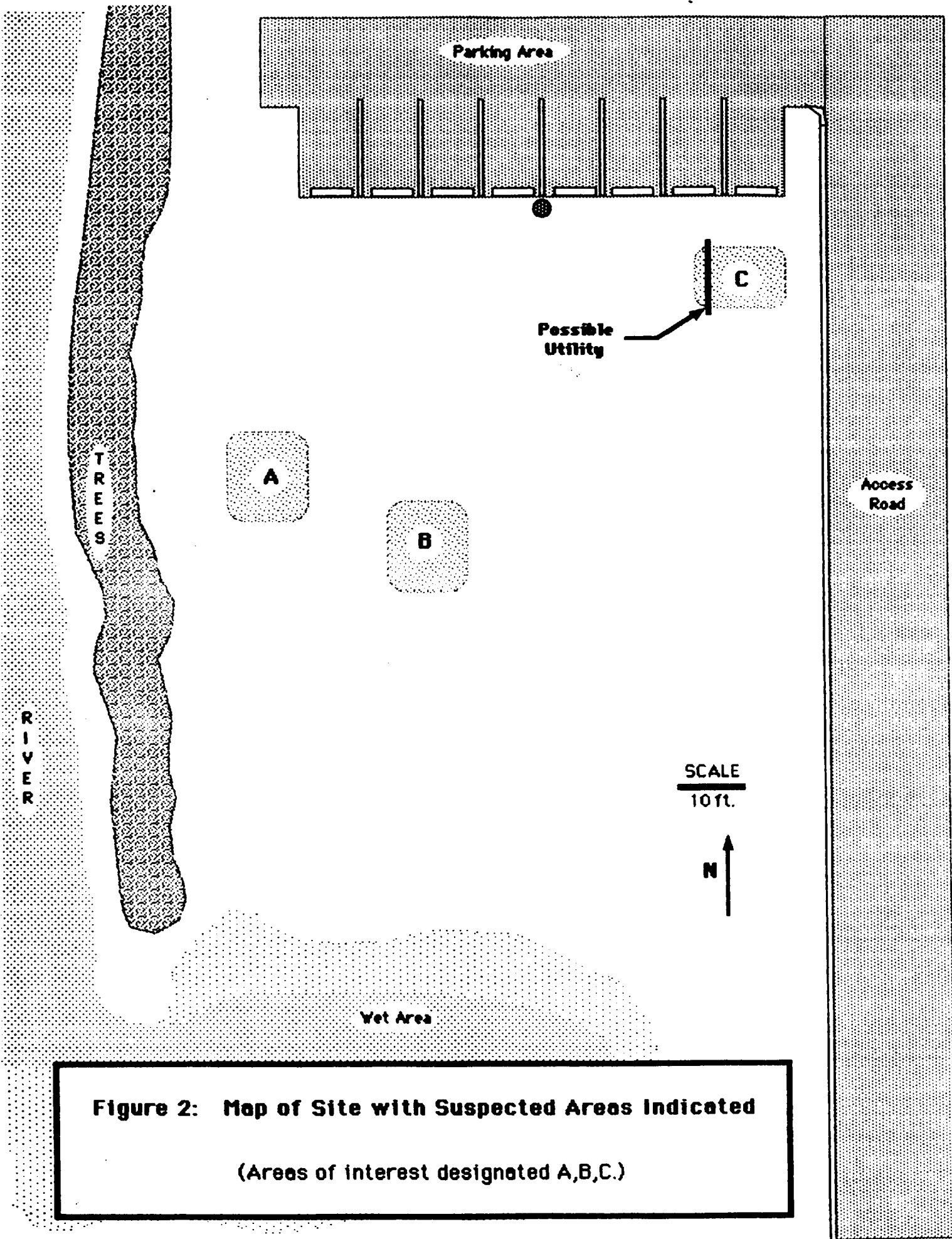


Figure 2: Map of Site with Suspected Areas Indicated

(Areas of interest designated A,B,C.)

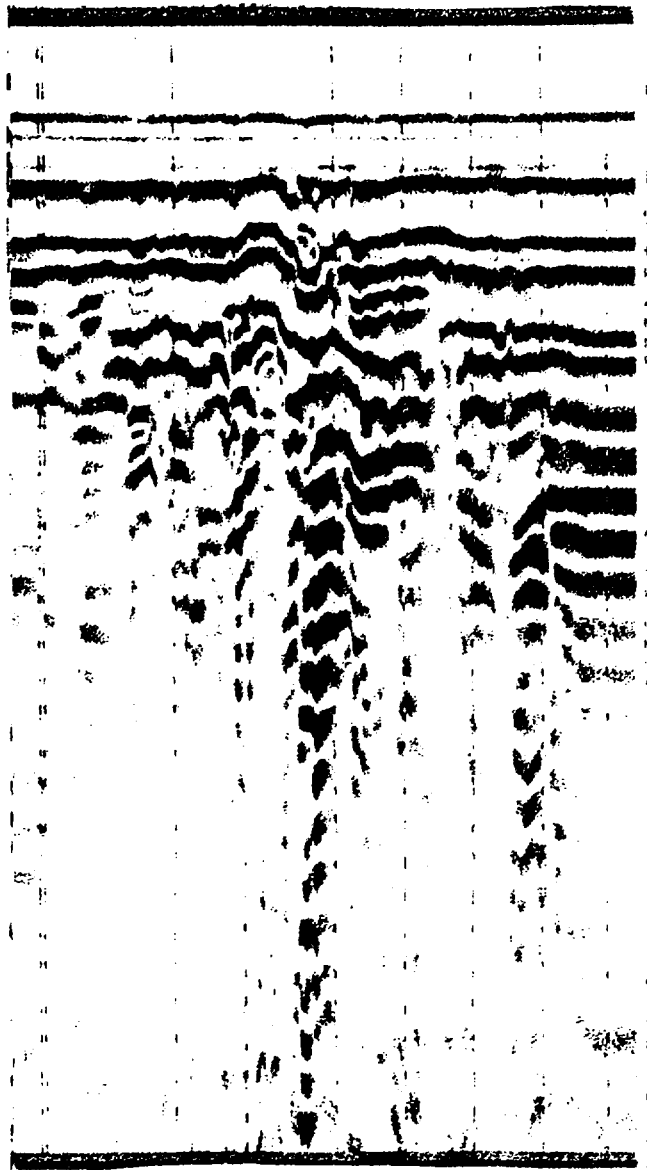


Figure 3: Radar Scan #25, Example of Area B Anomaly
(The darkened section in the center of the chart is the area of interest)

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
INTER-OFFICE MEMO

TO: Alicia Good

DATE: April 2, 1986

DEPT :

FROM: John Leo

DEPT :

SUBJECT: Investigation of Buried Barrel Complaint at Centerdale Manor, No. Prov.

March 24, 1986, I met David G. Cimon, an engineering technical with Geo Centers, Inc. at Centerdale Manor in North Providence.

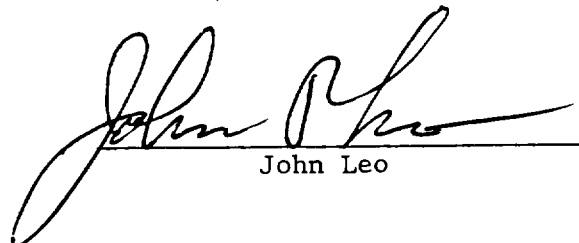
This Division received information from the Providence Journal that there were several 5000 gallon tanks filled with hazardous waste buried near Centerdale Manor. This waste was supposedly brought from chemical plants in New Jersey in 1966-1969. The liquid waste was put into underground steel tanks at the former Metro Atlantic Chemical Plant located on the site of the present Centerdale Manor. The waste was then supposedly mixed with paper and sent to the Central Landfill for disposal. The Division of Air & Hazardous Materials contracted Geo Centers to survey the area where the tanks were buried to see if they do exist. Geo Centers used Ground Piercing Radar to survey the area. The area was, thoroughly checked and no indication of buried tanks was found. However, several areas were found that should be investigated more thoroughly. These areas could contain buried barrels and chemically contaminated soil.

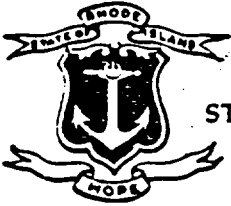
After a review of the data, Geo Centers will be submitting a report to this office.

Before I left the Centerdale Manor location I met with Ann Vallaro, site manager of Centerdale Manor for Marshall Properties. I explained our findings and said that after the report has been reviewed by our Division I would be sending a copy to her. She suggested that I send it to Mr. Ralph McGarrigle.

Mr. Ralph McGarrigle is in charge of Centerdale Manor for Marshall Properties. He can be reached at 77 Newman Avenue, East Providence, RI 02916

JL:jmc


John Leo



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

38 State Street
Providence, R. I. 02908

January 18, 1982

Mr. Gerhard H. Graf, P.E.
c/o The Robinson Green Beretta Corporation
2 John Street
Providence, Rhode Island 02906

APPLICATION NO. 5027

Dear Mr. Graf:

Kindly be advised that this Department has reviewed your Request for Fresh Water Wetlands Applicability Determination and inspected the site of proposed building and parking area construction located south of Smith Street, North Providence, Rhode Island,

and as described by the site plan submitted with your request and entitled "Centredale Manor North Providence, Rhode Island" dated November 20, 1981 Sheets 1 and 2.

Under the following provisions: 1. Only work specifically shown on the aforementioned site plan is allowed. 2. Adequate measures are taken to prevent sediments from entering adjacent wetlands to include at least those measures delineated on the aforementioned plan.

it is our conclusion that this proposal represents an insignificant alteration of a fresh water wetland. Therefore, under the aforementioned provisions, a permit to alter fresh water wetlands will not be required.

Please note that this does not remove your obligation to obtain any necessary permits from local, federal or other state agencies.

Very truly yours,

Peter M. Janaros, P.E.
Peter M. Janaros, P. E.
Chief
Division of Land Resources

JT/PNJ/lp

RECEIVED BY THE RCB CORP.
RAD____ JAB____ GJJ____
JRB____ DMN____ GHG____
ACTION BY____
JAN 20 1982
TRZ____ WG____ RJF____
JRC____ WKA____ GEM____
MS____ RMS____ JEB____
JTN____ RJG____ KRW____

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

INTER-OFFICE MEMO

TO: File
Division of Air and Hazardous Materials
DEPT: Environmental Management

FROM: John Leo JS
Division of Air and Hazardous Materials
DEPT: Environmental Management

SUBJECT: Sampling at Metro Chemical - North Providence

DATE:

At 1:30 p.m. February 2, 1982 I verified that 10 samples were taken at the former Metro Chemical site in North Providence. These samples were taken to give a representative sample of the 6,000 cubic yards of soil that are to be removed to put in the foundation for the new high rise that Marshall Contracting is building.

The first two feet were augured because of the debris in the area and the next two feet were samples by a split spoon. The two samples were composited and this one sample will be analyzed for metals, PCB, Pesticides and Primary polutants.

JL/km

MACDONALD & WATSON WASTE OIL CO., INC.

(401) 946-020

DATE _____

DAILY JOB REPORT

Job Number 	Customer Number 	Job Type 	Date Started Mo. Day Yr.	Date Completed Mo. Day Yr.	Customer P.O. Number
---------------------------	--------------------------------	-------------------------	---	---	--

CUSTOMER RI DEM DIVISION

BILLING ADDRESS 2000 1st St. N. W. Wash DC 20001

LOCATION 1000 1st St. N. W. Wash DC 20001

MATERIAL USED:

Loose Absorb	Rain Gear	Garbage Bags	Miscellaneous
Speedl Ori	Absorb Boom	Boots	
Soda Ash	Gloves	Disposable Suits	

Number	Equipment	Hourly Rate	Hours	Total	Miles	Tolls	Fuel	Repair	Disposable Waste	Amount Per Gallon	Gals. of Waste Oil Received
TOTAL											

Employee Name	Time Start	Time Finish	Total Hours	Hourly Rate	TOTAL
Explanation	<u>Gen Center under contract</u> <u>To Mac Donald & Watson Gen</u> <u>Center under contract</u> <u>Contract Price \$1336</u>				
Approval			Date		

Amount quoted for job	
Amount for waste oil	
Amount from resale	
Summary of expenses	
Materials used	
Equipment	
Misc. equipment expense	
Disposable waste	
Employee	
Subcontractor	
Processing waste	
Waste oil	
Total expenses	

SUB-CONTRACTOR

Disposal:	Quantity	Type	Manifest	Foreman
Date				
Customer's Approval	<u>John O'Hara DEM</u>			
SALES				

UN-52

UN-47

UN-42

UN-36

UN-48

UN-43

UN-37

UN-44

UN-39

Centuriale

UN-49

UN-40

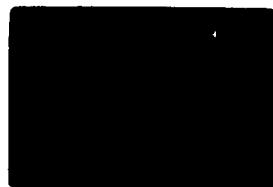
UN-50

UN-51

UN-38

UN-41

Centerdale

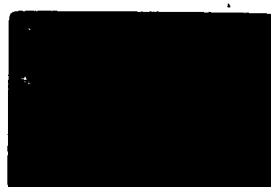


2

Centerdale

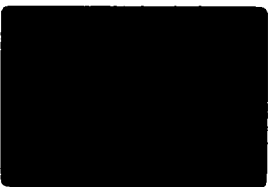


Centerdale



35

Centerdale



Centerdale



UN-45



36

Centerdale



37

Centerdale



UN-46



29

3

27

17

Drums To be Sampled

- # 1 empty - Crushed
- # 2 empty - "
- # 3 empty - "
- # 4 empty - "
- # 5 empty - "
- # 6 empty - "
- # 7 empty - "
- # 8 Acid drum - PH-1 sample was Total amount.
- # 9 empty - Crushed
- # 10 empty - "
- # 11 water? - Frozen sample
- # 12 acid drum - PH-1 almost empty
- # 13 empty - crushed
- # 14 water? - frozen sample
- # 15 empty - crushed
- # 16 empty - crushed
- # 17 water? - frozen sample
- # 18 empty - crushed
- # 19 empty - "
- # 20 water? - frozen sample
- # 21 water? - "
- # 22 empty - crushed
- # 23 empty - crushed
- # 24 empty - crushed
- # 25 solid - Dirt like
- # 31 solid - fine white powder
- # 36 solid flaky white solid - paint chip
- # 50 solid light orange color
- # 51 empty - Garbage - crushed

- #53 - solid - white flakey
- #54 empty - crushed
- #55 solid - orange paint
- #56 solid aqua - marine
- #57 solid - Raspberry color
- #58 solid - white flakes
- #59 solid - solidified blue ink
- #60 solid - orange color
- #61 solid - Raspberry color
- #62 lab pack various small bottles
- #63 35 gal. - solid white paint
- #64 " " - " Purple "
- #65 " " - Brown semi solid
- #66 " " orange colored semi solid
- #67 " " green semi solid
- #68 " " Brown semi solid
- #69 empty - crushed
- #70 empty - crushed
- #71 solid - Raspberry color
- #72 " " " "
- #73 solid - Black ink
- #74 solid - Black powdering material

Analyses need on composite samples
of Petro Chemical

Sample # 12 heavy metals & sulfate
know PH-1 heavier than water

Sample # 65 check PH - about 9-10
Brownish liquid with ammoniacal
odor
check for PH- CN^- & heavy metals

Sample # 62A & 62B Lab pack samples
check for Flash pt, volatile organics
(has formaldehyde in it.)

Sample # 56 & 55 check for FL. pt. Heavy metals
volatile organics.
Paint solids

Sample # 59 Blueish colored solids
64 Check for Flash point & Heavy
73 metals & volatile organics.
74

Sample # 25 # 50 white flaky solid
34 # 53 Heavy metals & Flash point
36 # 58 (no organic smell)

Sample #57 Check for heavy metals
#61 Flush paint, Volatile organics
#71 (Raspberry colored solids)
#72

Sample #63 Paint solids
#66 Check for: Flash paint
#67 volatile organics
#68 heavy metals

sample work up at Golberg Zaino on March 2/8

Sample #14 clear liquid no odor
water pH-5-6 probably water
no reaction with H_2O

Sample #11 pH-4 clear liquid
water no odor
no reaction with H_2O

Sample 17 pH-5-6 clear liquid
water no odor
no reaction with H_2O

Sample 20 pH-5-6 clear liquid
water no odor
no reaction with H_2O

Sample 21 pH-5-6 clear liquid
water no odor
no reaction with H_2O

Sample 8 pH-1-2 clear liquid
acid no odor
no reaction with H_2O

all of sample used up
Sample 12 pH 1-2 clear liquid
acid no odor
heavier than H_2O - check for
metals - probably H_2SO_4

Sample # 75 - in March bottle

PH-6-7 - SG ≈ 1 KR - R with H_2O

yellow liquid - used up in
analysis - Disposed of

out of lab book

Sample # 62 B - heavy viscous liquid
PH-7 SG > 1 KR water

62 B - Somaldebryke

check for F P & Volatile organic

Samples - 71, 57, 72 - Raspberry like material
check for Metals.

Sample 36 chunky white solid

Sample 56 - ashy gray colored
material.

Sample 60 - chunky brown solid

Sample 58 - ash - grey lumpy solid

Sample 50 - yellowish lumpy solid

Sample 25 - musty soil like material

Sample 74 - bluish ink like solid

Sample 64 " " " " (Turpentine
odor)

Sample 59 " " " " (mineral
spirit)

Sample 73 " " " " (Turpentine)

Paint Sample 55 orange color orange color

" " " " " " " "

Bottle 63: white paint semi-sol

66 Red " " "

67 Green " " "

68 Brown " " "

Check for 5 L pt volatile organic
Heavy metals

Sample 53 clear liquid - cloudy
white solid - flaky
PH-6 - Sp Gr > 1 NR with H₂O

Sample 31 - cloudy - liquid
solid - whitish brown flakes
PH-6 - Sp Gr > 1 NR with H₂O

Sample 61 - Raspberry colored liquid
+ solid
PH-4-5 Sp Gr about 1 NR with H₂O

Sample 65 ammonia smell
brownish liquid
PH-9-10 - Sp Gr > 1 NR with H₂O

Hazardous DRUMS To a secure landfill

12

64

74

54

57 73

56

55

Smoking drums.

Waste Solvents & paints
Type 3 B

Waste solvents & paint.
Type 3 B.

Set EPP # for Marshal cont.

DRKO pint - ~~HAZ~~ Hazardous. because
irritating
ORM-D UN2209

Pozzolith 122-HIE Non Hazardous

Waste ink Flammable liquid
UN1210

Vance, Myles
5 Deborah St
Narragansett, R.I.
181-789-7455

as of Feb 1, 1982
the license to
Joseph Bernando

Beal Hollis

~~Beal~~ O'Hara attorney
Beal O'Hara
in Howard Building

Owner of project.

take out ~~6~~ 6-7000 cu yds.

Alonso Andreadini - Bernando lawyer
421 - 1353

Plat 14 - 250

Joseph E Buonomano

Edward Ricci

6.11 P. Land

1.91 P - water

Deed

12/11/79

Joseph E Buonomano et al Edward Ricci

5/10/71

Centradale Properties Corp

Joe. Buonomano & Edward Ricci

5/10/71

Joseph Buonomano et al

Centradale Enterprise Inc. 40-452

Joseph E Buonomano 40-442

Sold to Buonomano in 1943 by
Henry F Sweet et al.

Current owner as of 11/13/81
Joseph Burzayano et al
Edward Russ

owned since 12/11/79

address

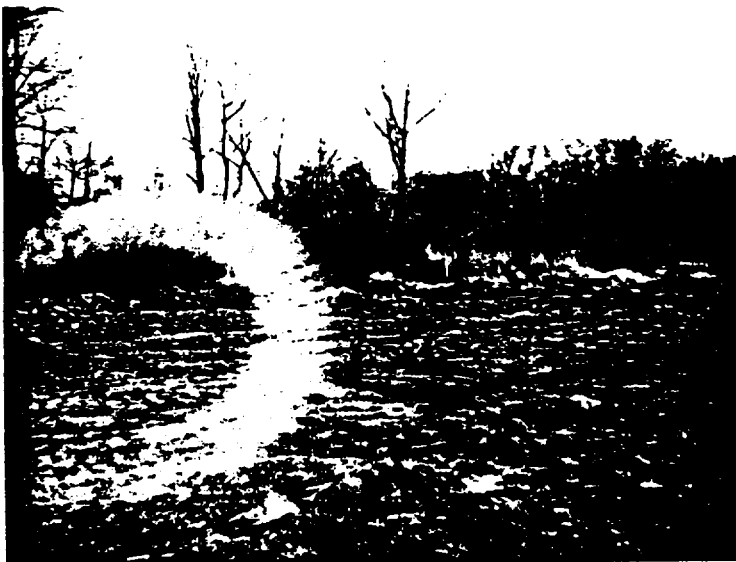
201 Watkinson St
Pross -

Cost \$62,400 ~~less~~ evaluation
6.11 Acres.

Photo of
old Petro-Atlantic
chemical site.



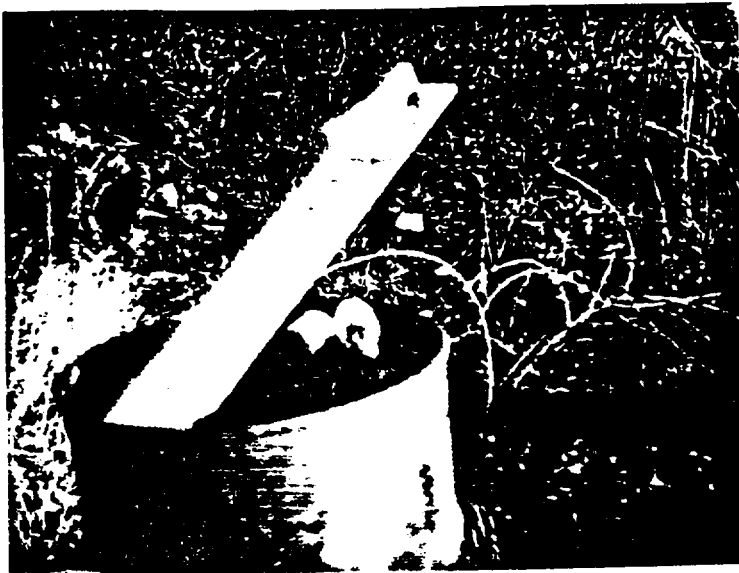
#1 Clear area behind
High rise



#2 Same Location
as #1 but looking
opposite toward
river & marsh.
area
also showing
DRUMS scattered
in this area.



3 Drums scattered
along edge of
cleared area.



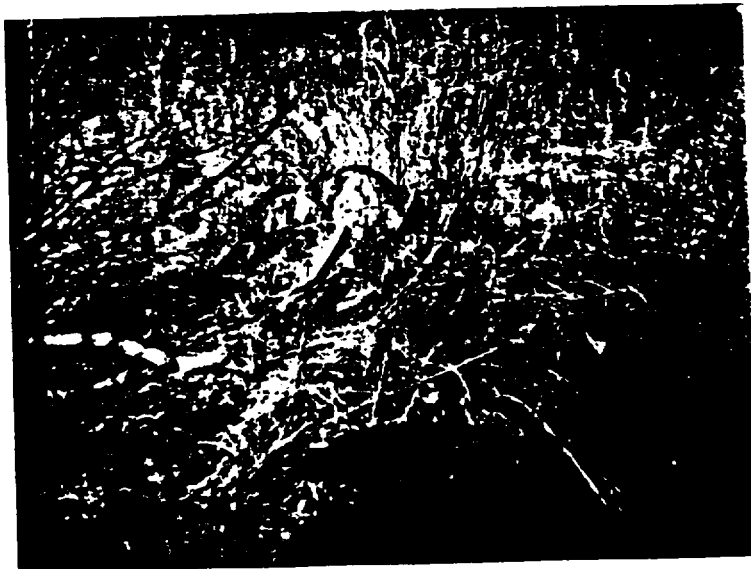
#4

Drum marked
For DEM by
Complaintant



#5

Scattered Drums
showing rusting
and holes in
sides & top.



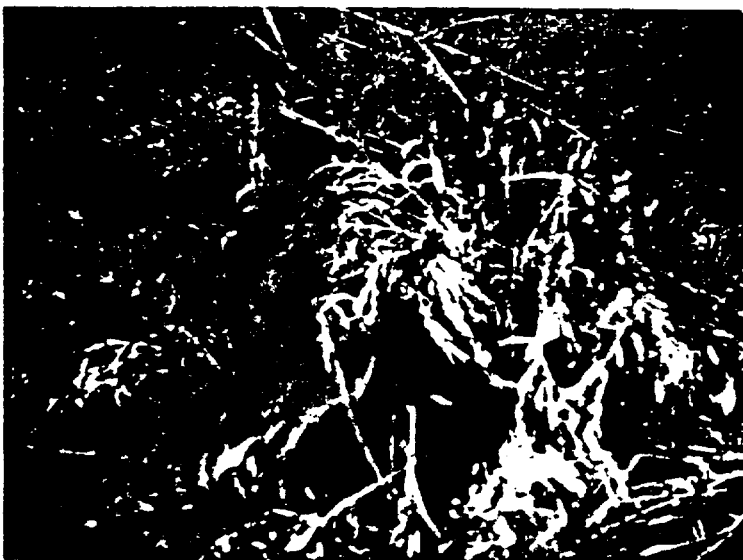
#6 some of
the visible drums
are Fiberglass
Type.



#7 DRUMS along
River bank



8) Piles of DRUMS
along River Bank
Notice Rusted Drum
showing in grass



9) open head
drums containing
solid buried in the
grass.



10

Spilled chemicals
in Kill area



#11 Down with
Polyliner &
possible evidence
of spillage

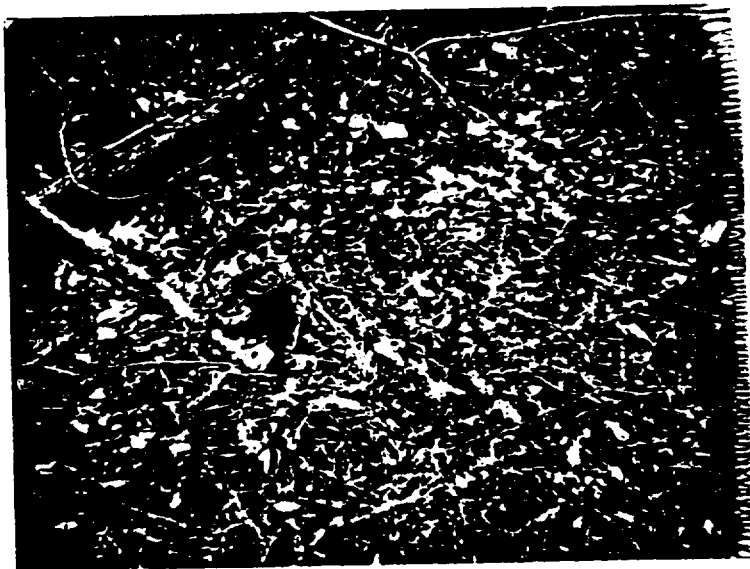


12

Kill area in
marsh due to
chemical spillage



#13
Chemical residue
on ground
in Transhona

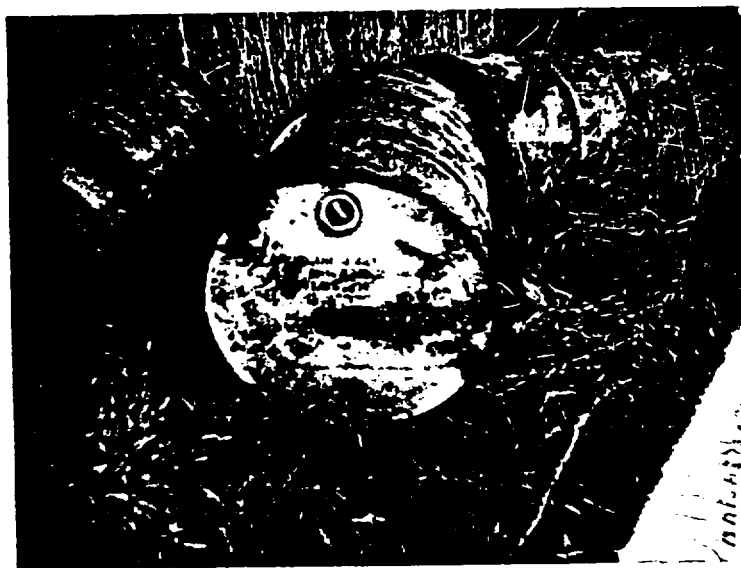


#14
Monitoring
well #5



#15

Barrel marked
"KICKSANTO"
Damped along
Chained area



#16

Top of #16
Showing label
AROCK #1221
PCB

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

INTER-OFFICE MEMO

TO: File

DATE:

DEPT: --

FROM: John P. Leo, Engineer *JPL*
Division of Air and Hazardous Materials

DEPT: Environmental Management

SUBJECT: Removal Of Drums From The Old Metro Chemical Site, Centerdale, North Providence

Removal of the drums was begun on 22 February 1982 by Marshall's subcontractor, C. Pezza & Sons of Johnston, under the supervision of both Goldberg, Zoino & Associates and the Rhode Island Department of Environmental Management. The removal of about 300-400 55 gallon drums was accomplished in about four days without incidents except for the uncovering of a drum of Sulfur Trioxide, a fuming substance in the presence of water vapor.

Of the 400 drums removed, only 30 drums had any chemical residue which had to be analyzed. These drums were sampled by Michael Scherrill of Goldberg, Zoino & Associates and I on 27 February 1982. The samples were then checked for compatibility and bulked for determination as to whether it is hazardous or not.

A total of eight samples will be sent to the laboratory for analysis. (See attached sheets)

The remaining empty drums having been verified to be empty and non-hazardous were crushed and sent to a solid waste facility of the subcontractor's choice for proper disposal.

The remaining drums will be kept in a secure area to await determination as to whether they are hazardous or not. If they are hazardous, they will be removed to a secure hazardous waste facility for disposal and if they are not hazardous, they will be sent to a solid waste facility.

JPL/kz

Enc.

Drums To Be Sampled

- #1 Empty - Crushed
- #2 Empty - Crushed
- #3 Empty - Crushed
- #4 Empty - Crushed
- #5 Empty - Crushed
- #6 Empty - Crushed
- #7 Empty - Crushed
- #8 Acid Drum - pH 1 - Sample was total amount.
- #9 Empty - Crushed
- #10 Empty - Crushed
- #11 Water? Frozen Sample
- #12 Acid Drum - pH 1 - Almost Empty
- #13 Empty - Crushed
- #14 Water? - Frozen Sample
- #15 Empty - Crushed
- #16 Empty - Crushed
- #17 Water? - Frozen Sample
- #18 Empty - Crushed
- #19 Empty - Crushed
- #20 Water? - Frozen Sample
- #21 Water? - Frozen Sample
- #22 Empty - Crushed
- #23 Empty - Crushed
- #24 Empty - Crushed
- #25 Solid - Dirt Like
- #31 Solid - Fine White Powder
- #36 Solid - Flakey White Solid - Paint Chip
- #50 Solid - Light Orange Color
- #51 Empty - Garbage - Crushed
- #52 Empty - Garbage - Crushed
- #53 Solid - White Flakey
- #54 Empty - Crushed
- #55 Solid - Orange Paint
- #56 Solid - Aqua Marine
- #57 Solid - Raspberry Color
- #58 Solid - White Flakes
- #59 Solid - Solidified Blue Ink
- #60 Solid - Orange Color
- #61 Solid - Raspberry Color
- #62 Lab Pack - Various Small Bottles
- #63 35 Gal. - Solid White Paint
- #64 35 Gal. - Solid Purple Paint
- #65 35 Gal. - Brown Semi-Solid
- #66 35 Gal. - Orange Colored Semi-Solid
- #67 35 Gal. - Green Semi-Solid
- #68 35 Gal. - Brown Semi Solid
- #69 Empty - Crushed
- #70 Empty - Crushed
- #71 Solid - Raspberry Color
- #72 Solid - Raspberry Color
- #73 Solid - Black Ink
- #74 Solid - Black Powdery Material

Analysis Needed On Composite Samples Of Metro Chemical

- Sample #12 Heavy Metals & Sulfate
Know pH - 1 Heavier than water
- Sample #65 Check pH - About 9-10
Brownish liquid with ammonia odor
Check for pH - CN^- & heavy metals
- Sample #62A & 62B Lab pack samples
Check for flash point, volatile organics (has formaldehyde in it).
- Sample #56 & 55 Check for flash point, heavy metals, volatile organics.
Paint solids.
- Sample #59, 64, 73, 74 Bluish colored solids
Check for flash point and heavy metals and volatile organics
- Sample #25, 34, 36, 50, 53, 58 White flakey solid.
Heavy metals and flash point.
(No organic smell)
- Sample #57, 61, 71, 72 Check for heavy metals, flash point, volatile organics
Raspberry colored solids
- Sample #63, 66, 67, 68 Paint solids
Check for flash point, volatile organics, heavy metals

Sample Work Up At Goldberg, Zoino & Associates
2 March 1982

Sample #14 Clear Liquid. No Odor.
pH 5-6 Probably Water
Water No reaction with water.

Sample #11 pH 4
Clear Liquid. No Odor.
Water No reaction with water.

Sample #17 pH 5-6
Clear Liquid. No Odor.
Water No reaction with water.

Sample #20 pH 5-6
Clear Liquid. No Odor.
Water No reaction with water.

Sample #21 pH 5-6
Clear Liquid. No Odor.
Water No reaction with water.

Sample #8 pH 1-2
Clear Liquid. No Odor.
Acid No reaction with water.
All of sample used up.

Sample 12 pH 1-2
Clear Liquid. No odor.
Acid Heavier than water.
Check for metals. Probably H_2SO_4

Sample #25 In Merck bottle.
pH 6-7 SPG = 1.
No reaction with water.
Yellow liquid.
Used up in analysis. Disposed of.

Out of Lab Pack

Sample #62A - Heavy viscous liquid.
pH 7
SG > 1
No reaction with water.

Sample #62B - Formaldehyde
Check for flash point and volatile organics

Samples #71, 57, 72 Raspberry solid material.
Check for metals.

Sample #30 Chunky white solid.

Sample #56 - Aqua marine colored material.

Sample #60 - Chunky brown solid.

Sample #58 - Ash Green lumpy solid.

Sample #50 Yellowish lumpy solid.

Sample #25 Musty soil like material.

Sample #74 Bluish ink like solid.

Sample #64 Bluish ink like solid. (Turpentine odor)

Sample #59 Bluish ink like solid. (Mineral spirits)

Sample #73 Bluish ink like solid. (Turpentine)

Sample #55 Paint. Orange color. Organic odor.

Sample #63 Paint. White color. Organic odor.

Bottle 63 White paint semi-solid. Check for flash point, ~~volatile organics~~, heavy met

Bottle 66 Red paint semi-solid. Check for flash point, volatile organics, heavy met

Bottle 67 Green paint semi-solid. Check for flash point, volatile organics, heavy met

Bottle 68 Brown paint semi-solid.

Sample #53 Clear liquid. Cloudy. White solid. Flakey.
pH 6. SPG > 1. No reaction with water.

Sample #31 Cloudy. Liquid.
Solid. Whitish brown flakes.
pH 6. SPG > 1. No reaction with water.

Sample #61 Raspberry colored liquid and solid.
pH 4-5. SPG about 1
No reaction with water.

Sample #65 Ammonia smell.
Brownish liquid.
pH 9-10. SPG > 1