

US EPA ARCHIVE DOCUMENT

21E INC.



424054

IMMEDIATE RESPONSE ACTION PLAN
DEP CASE #3-13444

228 SALEM STREET
WOBURN, MASSACHUSETTS

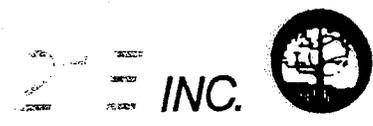
PREPARED FOR:
WEDEL CORPORATION

PREPARED BY:

21E INC.
330 BOSTON ROAD
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PROJECT NUMBER 90-0505 - DATED 04/12/96

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Hazardous Waste Soil Testing
Environmental Site Assessment

April 12, 1996

Department of Environmental Protection
Bureau of Waste Site Cleanup
Northeast Regional Office
10 Commerce Way
Woburn, MA 01801

**RE: Immediate Response Action (IRA) Plan
Soil Contamination
228 Salem Street
Woburn, MA
DEP Case #3-13444**

To Whom It May Concern:

This IRA Plan is being submitted on behalf of Wedel Corporation, the Potentially Responsibility Party (PRP). The contact, Mr. John J. Riley, may be reached by mail at 154 Ocean Boulevard in Seabrook, NH 03874.

BACKGROUND INFORMATION

The IRA Site (herein referred to as the "Site") addressed in this IRA Plan is the southern portion (see Site Plan, Figure 1) of a listed L.T.B.I. (John J. Riley Co./Beatrice DEP site #3-0482) for which an LSP Evaluation Opinion has been filed. The L.T.B.I. was formerly operated as a tannery and several investigations have been completed on the L.T.B.I. to date.

During a DEP approved soil sampling program conducted on January 30 and 31, 1996, 28 test pits were excavated across the L.T.B.I. site. Soil samples were collected in each test pit from the surface and at changes in lithology to a maximum depth of 14 feet. Selected soil samples from across the L.T.B.I. were submitted for laboratory analysis. On February 12, 1996, the laboratory reported that a surface sample collected from TP-1 at 0-1' below ground surface (BGS) contained arsenic at 95 parts per million (ppm). This concentration, although reported for a soil sample collected from the 0 to 1 foot BGS interval, indicated that a potential imminent hazard condition may exist at the Site because arsenic was potentially present at a concentration above



40 ppm in the top 6 inches of soil at a Site within 500 feet of a residence. Subsequently, Mr. Scott Sayers of the Northeast Regional Office of the DEP was notified and approval for an "assessment only" IRA was granted because it was unclear at the time if the conditions of 310 CMR 40.0321(2)(b) were met.

On February 13, 1996, additional soil samples collected around TP-1, revealed that arsenic was present at concentrations above 40 ppm in on-Site soils from 0-6" BGS. It was determined that while the surficial loam, which is present from about 0-1' BGS, contains high arsenic levels, the underlying sand does not. Therefore, the vertical extent in the area surrounding TP-1 was defined. However, horizontal extent was not defined so additional test pits were excavated on February 26 and March 14, 1996, in an effort to determine the horizontal extent.

Selected soil samples from the test pits were submitted for laboratory analysis of arsenic. Based on these results, two areas of contamination were defined at the Site. The two areas where the high arsenic concentrations were detected were previously open areas not covered by buildings or asphalt paving. See attached Table for summary of results and attached laboratory analysis for further details. The presence of arsenic in only the top one foot of soil is indicative of a surface application and may be indicative of past spraying of pesticides.

As required by 310 CMR 40.0426, an imminent hazard evaluation was conducted at the Site which commenced on February 15th, 1996 (see Imminent Hazard Evaluation submittal). The area of contamination is currently enclosed by a six foot high, chain-link fence. Two gates exist and both are secured with a chain and padlock. Therefore, the presence of the fence has limited access to unauthorized personnel and eliminated the imminent hazard. However, given the concentration of arsenic in the top six inches of soil, it is our recommendation that response actions be conducted in a timely manner under an IRA Plan.

IRA PLAN

Excavation Activities

The objective of the IRA is to mitigate the release of arsenic detected over two areas at the Site (see Figure 2). The first area of contamination extends approximately 212 feet east of Wildwood Avenue along Salem Street and 52 feet north of Salem Street, by 1 foot deep totaling 408 cubic yards. The second area of contamination is an "L" shaped area, the southern boundary of



which is located 114 feet north of Salem Street, the southeastern boundary is located 142 feet east of Wildwood Avenue, the northeastern boundary is located 67 feet east of Wildwood Avenue, and the northern boundary is 214 feet north of Salem Street, to a 1 foot depth totaling approximately 400 cubic yards.

Only the top 1 foot of soil with one exception, identified as loam, will be excavated and loaded directly to a dump truck for transport to the disposal facility. The limits of the excavation have been determined based upon previous test pit activities and supporting analytical data. Once all of the contaminated loam is excavated, limited confirmatory soil samples will be collected and analyzed for arsenic.

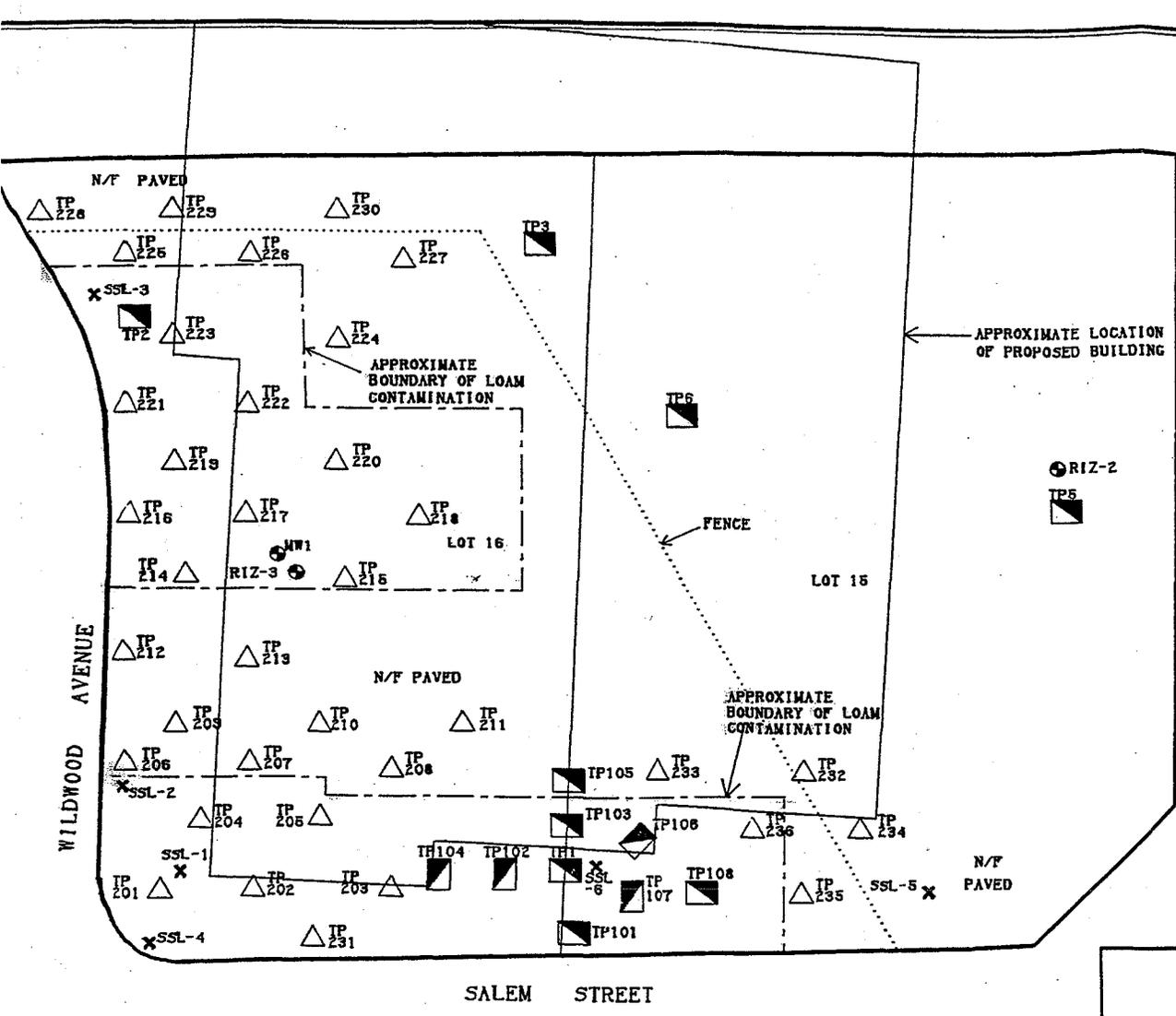
During excavation activities, Site personnel will be dressed in Level D personal protection and an air monitor will be in use to monitor particulates. Dust filter respirators will be available for Site workers should conditions necessitate. A Site specific Health & Safety Plan will be prepared and present at the Site during all remedial actions.

Remediation Waste

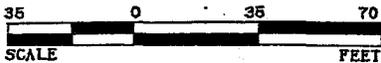
Approximately 800 cubic yards of arsenic contaminated soil will be generated as remediation waste. Because the arsenic levels are high it is not practical to recycle or incorporate the soil into asphalt and it is not feasible to extract the metal from the soil, therefore, the contaminated soil will be disposed of at an approved lined landfill.

Permits

The total arsenic concentrations exceed the allowable contaminant levels for soil reuse at lined landfills in Massachusetts. Subsequent TCLP extraction results reported levels below the maximum allowable concentration, therefore, an application for a Special Waste Permit will be submitted for DEP approval prior to disposal of the arsenic contaminated soils at a Massachusetts landfill. If the excavated material is disposed of at an out of state landfill, the landfill and state environmental agency will be consulted as to the required permitting for disposal. All excavated soil will be removed under a Bill of Lading or Shipping Manifest Record.



- KEY**
- MONITORING WELL
 - TEST PIT LOCATION
 - × SURFACE SAMPLE LOCATION
 - △ SURFICIAL TEST PIT LOCATION



IRA SITE PLAN (RTN 3-13444) 228 Salem Street Woburn, MA	
Scale: As shown	Prepared by: 21E INC
Date: 04/12/96	Consulting Geologists, Inc. Environmental C
Project Number: 90-0505	
Drafted by: HLP	

228 Salem Street
Woburn, MA

ARSENIC CONCENTRATIONS IN SURFICIAL SOIL
(in ppm)

SAMPLE LOCATION	DATE COLLECTED	DEPTH	As
TP-1	1/30/96	1'	95
TP-5	1/30/96	0-0.5'	3.5
TP-6	1/30/96	0-0.5'	8.6
TP-10	1/30/96	0-0.5'	6.2
		6'	3.5
TP-101	2/13/96	0-0.5'	170
		0.5-1'	98
TP-102	2/13/96	0-0.5'	310
		0.5-1'	220
		1-1.5'	8
TP-103	2/13/96	0-0.5'	77
		0.5-1'	17
TP-104	2/13/96	0-0.5'	110
		0.5-1'	58
TP-105	2/13/96	0-0.5'	5
		0.5-1'	4
TP-106	2/13/96	0-0.5'	160
		0.5-1'	50
TP-108	2/13/96	0-0.5'	72
		0.5-1'	8
SSL-1	2/26/96	0-0.5'	190
		0.5-1'	860
SSL-2	2/26/96	0-0.5'	41
		0.5-1'	94
SSL-3	2/26/96	0-0.5'	64
		0.5-1'	31
SSL-4	2/26/96	0-0.5'	11/14(1)
		0.5-1'	17
SSL-5	2/26/96	0-0.5'	6.1
		0.5-1'	9.8

SAMPLE LOCATION	DATE COLLECTED	DEPTH	As
TP-201	3/14/96	0-0.5'	335
		0.5-1'	352
		1-1.5'	33
TP-204	3/14/96	0-0.5'	52
		0.5-1'	82
		1-1.5'	7.6
TP-205	3/14/96	0-0.5'	98
		0.5-1'	164
TP-207	3/14/96	0-0.5'	13
		0.5-1'	4.3
TP-208	3/14/96	0-0.5'	29
		0.5-1'	4.7
TP-210	3/14/96	0-0.5'	3.9
		0.5-1'	3.2
TP-211	3/14/96	0-0.5'	3.2
		0.5-1'	5.6
TP-212	3/14/96	0-0.5'	5.3
		0.5-1'	3.9
TP-215	3/14/96	0-0.5'	102
		0.5-1'	80
TP-216	3/14/96	0-0.5'	84
		0.5-1'	214
		1-1.5'	11
TP-217	3/14/96	0-0.5'	72
		0.5-1'	79
TP-218	3/14/96	0-0.5'	13
		0.5-1'	230
TP-219	3/14/96	0-0.5'	43
		0.5-1'	7.5

SAMPLE LOCATION	DATE COLLECTED	DEPTH	As
TP-224	3/14/96	0-0.5'	7.1
		0.5-1'	6.8
TP-225	3/14/96	0-0.5'	15
		0.5-1'	4.6
TP-226	3/14/96	0-0.5'	5.7
		0.5-1'	6.7
TP-227	3/14/96	0-0.5'	7.8
		0.5-1'	9.4
TP-228	3/14/96	0-0.5'	8.4
		0.5-1'	5.7
TP-229	3/14/96	0-0.5'	7.8
		0.5-1'	7.9
TP-230	3/14/96	0-0.5'	7.4
		0.5-1'	2.4
TP-231	3/14/96	0-0.5'	358
		0.5-1'	499
		1-1.5'	15
TP-232	3/14/96	0-0.5'	19
		0.5-1'	8.5
TP-235	3/14/96	0-0.5'	9.4
		0.5-1'	9.5
TP-235	3/14/96	0-0.5'	141
		0.5-1'	95

NOTE: (1) Sample split and analyzed at 2 certified laboratories

TABLE OF ANALYTICAL (RTN 3-13444) 228 Salem Street Woburn, MA	
Scale: N/A	Prepared by: 27 Consulting En
Date: N/A	
Project Number: 90-050	
Drafted by: N/A	