## **REMEDIAL ACTION REPORT**

FORMER PLAZA DRY CLEANER ORANGE PLAZA MALL NYS ROUTE 211 EAST MIDDLETOWN, NEW YORK Site #: V-00415-3

**Prepared For:** 

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Langan

Engineering and Environmental Services

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#### REMEDIAL ACTION REPORT FORMER PLAZA DRY CLEANER ORANGE PLAZA MALL MIDDLETOWN, NEW YORK SITE NO. V-00415-3

#### 1.0 INTRODUCTION

On behalf of the National Realty & Development Corporation ("NRDC"), Langan Engineering and Environmental Services, Inc. ("Langan") has prepared this report to summarize remedial action activities completed at the former Plaza Dry Cleaner ("Dry Cleaner"). The Dry Cleaner operated from 1987 to 1992 at the former Orange Plaza Mall situated at NYS Route 211in Middletown, New York. A site location map and a site layout map are provided as Figure 1 and Figure 2, respectively.

Tetrachloroethene impacted soil was identified along the northern wall of the Dry Cleaner as a result of a limited subsurface investigation completed as part of due diligence activities. As such, to solicit guidance from the New York State Department of Environmental Conservation ("NYSDEC") a Voluntary Cleanup Agreement was executed with the State, and an *Investigation Work Plan*, dated 5 December 2000 was submitted to NYSDEC. The Work Plan summarized the findings of the limited subsurface investigation and recommended necessary remedial action activities that would meet NYSDEC's technical requirements and would be protective of human health and the environment.

Due to time constraints the recommended remedial action activities of soil excavation, soil disposal and post excavation sampling were completed prior to NYSDEC review of the Voluntary Cleanup Agreement and Work Plan. However, to ensure their involvement, representatives of NYSDEC provided oversight during the completion of the remedial action activities. A summary of the completed activities, findings and conclusions is provided within.

#### 2.0 BACKGROUND

On 7 September 2000, Langan completed an investigation of the subsurface along the northern wall of the Dry Cleaner. Investigation activities consisted of randomly advancing two (2) soil borings (B-1 and B-2) into the subsurface for field screening purposes. Each boring was advanced into weathered bedrock as it was encountered at approximately 8 feet below ground surface (b.g.s.). Soil boring locations are illustrated in Figure 3.

As there was no evidence of impacts to the soil [i.e. lack of photo ionization detector ("PID") readings, soil staining, sheens, odors, etc.], two soil samples were collected from each boring (5.5-6 feet and 8.5-9 feet) for the analysis of volatile organic compounds. Based on reported analytical results, tetrachloroethene was observed at a concentration of 4.42 mg/kg in soil boring B-1at 5.5-6 feet below ground surface (b.g.s.). This concentration is above the NYSDEC soil cleanup standard of 1.4 mg/kg. No other exceedances of the regulatory level were observed in the remaining samples and groundwater was not encountered.

On 19 October 2000, Langan returned to the area of the soil exceedance to define its extent (vertical and horizontal). Ten soil borings (D-1 through D-10) were advanced surrounding boring location B-1, and in most instances, they were completed into weathered bedrock (approximately 8 feet b.g.s.). Soil boring locations are illustrated in Figure 3. Soil samples were collected at 3.5-4 feet b.g.s., 5.5-6 feet b.g.s. and 8.5-9 feet b.g.s. from most soil borings for the analysis of volatile organic compounds.

Analytical results for each delineation sample were reported as either "not detected" or at concentrations well below NYSDEC soil cleanup standards. As such, the tetrachloroetheneimpacted soil was presumed to be limited to a 5 foot by 8 foot area surrounding former location B-1 (see Figure 3). The vertical extent of tetrachloroethene impacted soil was determined to extend to a depth slightly greater than 6 feet but less than 8.5 feet b.g.s. Groundwater was not encountered during the investigation.

#### 3.0 REMEDIAL ACTION PERFORMANCE STANDARDS

The NYSDEC has promulgated recommended soil cleanup objective for volatile organic contaminants in their Technical and Administrative Guidance Memorandum ("TAGM"): Determination of Soil Cleanup Objectives and Cleanup Levels. These guidelines were used as a primary guidance for comparing the analytical results from the soil investigation and subsequent remedial action. As such, the primary contaminant at this site is tetrachloroethene with a recommended soil cleanup objective of 1.4 mg/kg.

#### 4.0 REMEDIAL ACTION ACTIVITIES

As recommended in the Work Plan, remedial action activities were to consist of soil excavation and disposal. Furthermore, field screening was recommended to ensure the effectiveness of the remedy and aid in the selection of post excavation soil sample locations. As such, a discussion of these methodologies and completed remedial action activity findings are presented within this Section along with supportive figures, tables and appendices. The information contained within this Section forms the basis of conclusions and recommendations provided in Section 5.0 of this report.

#### 4.1 Soil Excavation and Post Excavation Sampling

On 13 December 2000, under the on-site supervision of Langan and NYSDEC, EISCO-NJ of Port Reading, New Jersey ("EISCO") excavated the area containing the tetrachloroethene-contaminated soil with a backhoe. The excavation was completed in the area of B-1 and extend toward former soil sample locations D-1, D-3, D-4, D-5, D-7 and D-10 (see Figure 3). The 5 foot by 8 foot area of impacted material was removed to a depth of 7.5 feet b.g.s. (above bedrock). Excavated materials were directly hauled off-site (see Section 4.2).

Afterwards, the boundaries of the excavation were field screened with a PID to confirm the absence of volatile organic compounds. This process consisted of placing soil samples in a zip-lock bag, and measuring the headspace in the bag with a PID. No elevated PID readings were observed along the northern and western sidewalls of the excavation; however, slightly elevated readings were observed along the southern and eastern sidewalls of the excavation. As such, the excavation was expanded where possible to the south along the building footing and to the east adjacent to an underground waterline. At the new limits of the excavation (approximately 14 feet by 10 feet), elevated PID readings were still observed (i.e. <80 ppm along the southern sidewall and 9 ppm along eastern sidewall). Soil excavation boundaries are illustrated in Figure 4. Photographs are presented in Appendix A.

Six post-excavation soil samples were collected by hand from the limits of the excavation at the direction of the on-site NYSDEC representative, Mr. Jim Schreyer. Each sample was collected for the analysis of volatile organic compounds ("VOCs"). The soil samples were collected as follows:

<u>Sample ID</u>	<u>Sample Depth</u>	Sample Location
PE-1	4.5-5	Eastern Sidewall
PE-2	4.5-5	Southern Sidewall
PE-3	4.5-5	Southern Sidewall

<u>Sample ID</u>	Sample Depth	Sample Location
PE-4	4.5-5	Western Sidewall
PE-5	4.5-5	Northern Sidewall
PE-6	7-7.5	Excavation Bottom

In addition, a VOC field blank sample and a VOC field duplicate sample were collected for quality assurance/quality control measures. The field blank sample was collected by passing laboratory provided analyte free water over the sampling equipment (i.e. stainless steel trowel) and capturing the rinseate in sample containers. The purpose of the field blank is to detect additional sources of contaminants that may influence analytical results. The field duplicate sample was collected in conjunction with post excavation soil sample PE-1. The field duplicate sample provides for a comparative evaluation of the laboratory's performance between two identical samples.

After the completion of post excavation sampling, the excavation was lined with plastic and remained open. All samples were sent to STL-Envirotech of Edison, New Jersey (New York Certification #10997) for analysis. A trip blank accompanied the shipment to provide a check on the sample shipment. Each sample was analyzed for VOCs by NY CLP-Methods (version 1095) and the analytical results were reported according to the format specified by the method. Analytical data packages are provided in Appendix B.

As shown in Table 1, analytical results for post excavation soil samples PE-4, PE-5 and PE-6 were reported well below NYSDEC guidelines. However, analytical results for soil samples PE-1 and its field duplicate sample, PE-2 and PE-3 indicated the presence of tetrachloroethene above the NYSDEC soil cleanup objective of 1.4 mg/kg. Specifically, tetrachloroethene was reported at levels of 3.5 mg/kg (3.8 mg/kg in the field duplicate sample), 1.8 mg/kg and 2.4 mg/kg, respectively. Analytical results for the field blank and trip blank were reported as "not detected".

On 29 December 2000, Langan returned to the site with EISCO to remove the impacted soil remaining along the eastern and southern sidewalls of the excavation (sample locations PE-1, PE-2 and PE-3). Ms. Tanya Reinhard of the NYSDEC was present to provide oversight. While accessing the area of the excavation it was apparent that the excavation was backfilled with concrete construction debris, as a

result of on-site demolition activities. It was further discovered that precipitation and surface water runoff from the neighboring area had filled the bottom 4-feet of the excavation above the plastic liner. The standing water prevented the excavation of the impacted soils along the southern wall of the excavation, underneath the building wall. Photographs are provided in Appendix A.

As a result, a test pit was dug approximately 1 foot to the east of PE-1 (along side of the water line; see Figure 4). The purpose of this test pit was to delineate the extent of the contamination found at PE-1. The test pit extended approximately 6 feet to the east of the water line, ranged the entire width of the original excavation, and was completed to the top of bedrock (7.5 feet b.g.s.). No groundwater, precipitation or surface water runoff was present in the test pit.

Based on field screening results (<5 ppm) and olfactory indictors, suspect soils were removed from the test pit directly alongside (within 1 foot) and beneath the adjacent waterline (see Figure 4). The soil was placed on and covered with plastic for future disposal. Once field screening results were negative, 2 post-excavation soil samples were collected from the sidewalls of the test pit at a depth of 4.5-5 feet b.g.s. Sample PE-8 was collected from the western sidewall within 1-foot of the waterline (2 feet from PE-1), and soil sample PE-9 was collected from the southern sidewall beneath the building's wall (see Figure 4). As reported in Table 1, analytical results of PE-8 and PE-9 were reported as either "not detected" or at concentrations well below NYSDEC soil cleanup objectives.

After the completion of post excavation sampling, the excavation was lined with plastic and designated clean soils that were removed from the test pit were placed back into the area of the test pit. The entire area of the test pit was covered with plastic.

Due to time constraints, final remedial action activities were completed on 3 January 2001 without NYSDEC oversight. In order to access the impacted soils which remained beneath the building's wall, at post excavation soil sample locations PE-2 and PE-3, the standing water (precipitation, surface water runoff) in the original excavation was pumped out and transported off-site for disposal (see Section 4.2). Afterwards, the underlying plastic liner was raised, and the building's wall and footing was removed along with the underlying tetrachloroethene impacted soil. Thus, the original excavation was extended 5 feet to the south, into and beneath the former

building. In addition, the excavation was completed to the top of bedrock, 7-7.5 feet b.g.s. Suspect soil was placed on and covered with plastic for removal on 11 January 2001 (see Section 4.2). Photographs are provided in Appendix A.

Soils were screened with a PID before post-excavation soil samples were collected. No readings were registered above 5 ppm. Eight post-excavation soil samples were collected for VOC analysis from the locations shown in Figure 4. The samples were collected as follows:

<u>Sample ID</u>	Sample Depth	Sample Location
PE-10	4.5-5	Southern Sidewall
PE-11*	4.5-5*	Characterization*
PE-12	4.5-5	Southern Sidewall
PE-13	4.5-5	Western Sidewall
PE-14	4.5-5	Eastern Sidewall
PE-15	7-7.5	Excavation Bottom
PE-16	7-7.5	<b>Excavation Bottom</b>
PE-17	7-7.5	Excavation Bottom
PE-18*	2.5-3*	Characterization*

\*: Characterization samples collected to confirm of the absence of tetrachloroethene at selected locations and depths. Soils at sample location PE-11 were ultimately removed.

A VOC field blank sample and a VOC field duplicate sample were also collected for quality assurance/quality control measures. The field duplicate sample was collected in conjunction with post excavation soil sample PE-17. Each of the aforementioned soil samples and quality assurance/quality control samples were reported as either "not detected" as demonstrated in Table 1.

#### 4.2 Waste Disposal

Approximately 106 tons of tetrachloroethene impacted soil was transported off site for disposal. Willis Trucking, a New York licensed hazardous waste hauler, transported the soil to USL City Environmental, Inc. of Detroit, Michigan for disposal as an F002 waste. Hazardous waste manifests are provided in Appendix C.

Approximately 141 gallons of precipitation/surface water runoff was pumped out of the 13 December 2000 excavation by a vacuum truck supplied by EISCO. As such, the water was transported to CR Warner in Newark, New Jersey for disposal. Manifests are provided in Appendix C.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

A summary of the previous limited subsurface investigation findings and remedial action activities is provided below. From these findings, drawn conclusions and recommendations are also provided.

As a result of the limited subsurface investigation completed in September 2000 and October 2000, tetrachloroethene was observed in soil along the northern wall of the former Plaza Dry Cleaner. One soil concentration of 4.42 mg/kg marginally exceeded the NYSDEC soil cleanup objective of 1.4 mg/kg at 5.5-6 feet b.g.s. at location B-1. Through further subsurface evaluation, it was assumed that the impacted area was isolated to a 5 foot by 8 foot area that extended to a depth slightly greater than 6 feet but less than 8.5 feet b.g.s. Weathered bedrock was determined to be present at approximately 8 feet b.g.s. No groundwater was encountered during the investigation.

In December 2000 and January 2001, under the on-site supervision of Langan and NYSDEC representatives, the area of tetrachloroethene impacted soil was excavated. As observed through field screening and post excavation soil sample analytical results, additional tetrachloroethene impacted soils were present along the southern and eastern sidewalls of the excavation. As such, the excavation was expanded to permanently remediate the impacted soils. Effectiveness of the remedial action activities was confirmed through the analysis of post excavation samples collected from the excavation bottom (above weathered bedrock at 7-7.5 feet b.g.s.) and excavation sidewalls (4.5-5 feet b.g.s.). Groundwater was not encountered during the completion of the remedial action activities and the impacted soil was disposed of off-site.

Based on the aforementioned findings, it is concluded that the remedial action activities were completed in accordance with the Work Plan and Voluntary Cleanup Agreement, met the remedial action performance standards (i.e. NYSDEC soil cleanup objectives), and allow for the unrestricted use of the site. It is further concluded that no environmental concern is associated with groundwater since it was not encountered at any time during the limited subsurface investigation and remedial action activities. In addition, no environmental concern exists in association with the underlying bedrock. As confirmed by analytical results for soil samples collected during the limited subsurface investigation and remedial action activities (samples collected at 8.5-9 feet b.g.s. and 7-7.5 feet b.g.s., respectively) the tetrachloroethene impacts were isolated to soils shallower than 7 feet b.g.s. and did not extend into bedrock.

As there is no future risk to human health and the environment, it is recommended that no further actions are required. To confirm NYSDEC's acknowledgement of no further actions required, receipt of a "Release and Covenant Not to Sue" letter is recommended. In addition, it is recommended that the Voluntary Cleanup Agreement that was executed with NYSDEC is terminated.

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Table 1
Post-Excavation Soil Sample Analytical Results - VOCs
Plaza Dry Cleaners
Middletown, New York

Sample ID	NYSDEC	PI	E-1	Dup	icate	P	E-2	PE	-3	PE	-4	PE	-5	PE	-6	PE	-8	PE	.9
Sample Location	Recommended Soil	Pl	E-1	PE	-1	P	E-2	PE	-3	PE	-4	PE	-5	PE	-6	PE	-8	PE	-9
Sample Depth (feet b.g.s.)	Cleanup Objectives	4.	5-5	4	5-5	4.	5-5	4.,	5-5	4.	5-5	4.5	5-5	7-7	7.5	4.5	5-5	4.5	5-5
Laboratory ID		247	7114	247	120	247	7115	247	7116	247	117	247	118	247	119	249	867	249	868
Sample Date	Soil Cleanup Objectives	12/13	3/2000	12/13	/2001	12/13	3/2000	12/13	3/2000	12/13	/2000	12/13	/2000	12/13	/2000	12/29	/2000	12/29	/2000
Sample Matrix	to Protect Ground Water		oil	So	oil	S	oil	Se	oil	Se	oil	Sc	oil	Sc	oil	Sc	oil		sil
Units	Quality (ppm)	m	g∕kg	mg	/kg	m	z/kg	mg	₂/kg	mg	/kg	mg	/kg	mg	/kg	mg	/kg	mg	/kg
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VOCs		Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
Chloromethane	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Bromomethane	NS	ND	1.4	ND	1.4	ND_	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Vinyl Chloride	0.12	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Chloroethane	1.9	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Methylene Chloride	0.1	ND	1.4	ND	1,4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	0.002	J	ND	0.011
Acetone	0.11	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND_	0.011
Carbon Disulfide	2.7	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
1,1-Dichloroethene	0.4	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
1,1-Dichloroethane	0.2	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
1,2-Dichloroethene	0.3	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	0.004	J	0.0006	]	ND	0.011	0.091	
Chloroform	0.3	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
1,2-Dichloroethane	0.1	ND	1.4	ND	1.4	ND	1.4	ND_	1.4	ND_	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
2-Butanone	0.3	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
1,1,1-Trichloroethane	0.76	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Carbon Tetrachloride	0.6	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Bromodichloromethane	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
cis-1,3-Dichloropropene	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Trichloroethene	0.7	0.16	]	0.22	]	0.14	<u> </u>	ND	1.4	ND	0.011	0.008	J	ND	0.012	0.001	J	0.044	
1,1,2-Trichloroethane	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Benzene	0.06	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
trans-1,3-Dichloropropene	N <u>\$</u>	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Bromoform	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
4-Methyl-2-Petanone	1	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
2-Hexanone	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Tetrachloroethene	1.4	3.5		3.8		1.8		2.4		ND	0.011	0.048		0.004	J	0.056		0.049	
1,1,2,2-Tetrachloroethane	0.6	ND	1.4	ND	1.4	ND	1_4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Toluene	1.5	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	0.004	J	ND	0.011
Chlorobenzene	1.7	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Ethylbenzene	5.5	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Styrene	NS	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011
Xylenes (Total)	1.2	ND	1.4	ND	1.4	ND	1.4	ND	1.4	ND	0.011	ND	0.01	ND	0.012	ND	0.011	ND	0.011

#### **Tentatively Identified Compounds**

	Total TIC's	NS	0.7	0.79	3.4	1	0	0	0	0	1.18	
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NS = Not Specified ND = Not Detected J: Estimated value below the method detection limit. ME Bold and highlighted values indicates an exceedence of NJDEP Soil Cleanup Criteria.

MDL: Method Detection Limit

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Table 1
Post-Excavation Soil Sample Analytical Results - VOCs
Plaza Dry Cleaners
Middletown, New York

NS NS 0.12 1.9 0.1	PE-1 4.5- 2501 1/3/2 Soi mg/ Result ND ND ND ND 0.002	-5   41 001 	PE- 7-7 250 1/3/2 Sc mg Result ND ND	7.5 1 <b>42</b> 2001 pil	PE- 4.5 250 1/3/2 Sc mg/ Result ND	6-5 143 2001 vil /kg MDL	4 250 1/3/. So mg Result	-13 5-5 0144 2001 oil 2/kg MDL	PE- 4.5 250 1/3/2 Sc mg Result	5-5 145 2001 Dil /kg	PE- 7-7 250 1/3/2 Sc mg	7.5 146 2001 bil	PE- 7-7 250 1/3/2 Sc mg	7.5 147 2001 bil	PE- 7-7 250 1/3/2 Sc mg	7.5 148 001 il	PE- 7 -7 2 50 1/3/2 So mg/	7.5 149 2001 bil
Cleanup Objectives otect Ground Water Quality (ppm) NS NS 0.12 1.9 0.1	2501 1/3/2 Soi mg/ Result ND ND ND ND	I41   001   ii   /kg   MDL   0.012   0.012   0.012	250 1/3/2 So  Result ND ND	142 2001 jil /kg MDL 0.011	250 1/3/2 Sc mg Result ND	143 2001 oil /kg MDL	250 1/3/2 Sc mg Result	0144 2001 oil 2/kg	250 1/3/2 Sc mg	145 2001 pil /kg	250 1/3/2 Sc	146 2001 pil	250 1/3/2 50	147 2001 pil	250 1/3/2 Sc	148 001 il	250 <sup>-</sup> 1/3/2 	149 2001 bil
NS 0.12 0.1	1/3/2 Soi mg/ Result ND ND ND	001 ii /kg 0.012 0.012 0.012	1/3/2 So  Result ND 	2001 pil /kg 	1/3/2 Sc mg Result ND	2001 vil /kg MDL	1/3/2 So mg Result	2001 oil ½/kg	1/3/2 Sc mg	2001 bil /kg	1/3/2 Sc	2001 oil	1/3/2 Sc	2001 oil	1/3/2 Sc	001 il	1/3/2 	001 bil
NS 0.12 0.1	Soi mg/ Result ND ND ND	il /kg 0.012 0.012 0.012 0.012	Sc mg Result ND ND	<u>/kg</u> /kg MDL 0.011	So mg Result ND	il /kg MDL	So mg Result	oil 2/kg	Sc mg	bil /kg	Sc	oil	Sc	bil	Sc	il	So	oil
Quality (ppm)	Result ND ND ND ND	MDL 0.012 0.012 0.012	Result ND ND	/kg MDL 0.011	Result ND	/kg	Result	z/kg	mg	/kg	_							
NS NS 0.12 1.9 0.1	Result ND ND ND ND	MDL 0.012 0.012 0.012	Result ND ND	MDL 0.011	Result ND	MDL	Result	201			mg	/kg	mg	/kg	mg	′kg	mg/	/kg
NS NS 0.12 1.9 0.1	ND ND ND ND	0.012 0.012 0.012	ND ND	0.011	ND			MDL	Recult									
NS NS 0.12 1.9 0.1	ND ND ND ND	0.012 0.012 0.012	ND ND	0.011	ND			MDL	Pocult									
NS 0.12 1.9 0.1	ND ND ND	0.012 0.012	ND			0.011				MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
0.12 1.9 0.1	ND ND	0.012		0.011		0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
1.9 0.1	ND		ND		ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
0.1		0.012		0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
	0.001 1	5.0.2	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
0.11		J	0.0006	J	0.001	]	0.001	}	0.001	}	0.001	J	0.001	J	0,003	J	0.003	J
			ND						=						ND	0.011	ND	0.01
	ND	0.012		_			ND			0.012				0.012	ND	0.011	ND	0.01
	ND	0.012					ND			0.012		_		0.012		0.011	ND	0.01
0.2	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
	0.0004 J	J		0.011	0.0009	J	0.0005	}	0.0008	}	0.0006	<u>}</u>	0.003	}	ND	0.011	ND	0.01
	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012		0.012	ND	0.012	ND	0.011	ND	0.01
0.1	ND	0.012	ND	0.011	ND	0.011	ND	0.0093		0.012	-	0.012		0.012	ND	0.011	ND	0.01
0.3	ND	0.012		0.011	ND_	0.011								0.012	ND	0.011	ND	0.01
0.76		0.012		0.011	ND	0.011								0.012	ND	0.011		0.01
	_	0.012	ND	0.011		0.011	ND		_	_				0.012	ND	0.011	ND	0.01
		0.012	ND	0.011		0.011	ND							0.012	ND	0.011	ND	0.01
		0.012	ND	0.011	_	0.011	ND	0.0093		0.012	_		_	0.012		0.011	ND	0.01
	,	ł	0.001	J		J		]		J				]	-	0.011	ND	0.01
		0.012		0.011		0.011	ND		ND			0.012		0.012		0.011		0.01
		0.012				0.011					-	0.012			. –	0.011		0.01
	ND	0.012	ND	0.011	ND	0.011	ND									0.011	ND	0.01
	ND	0.012	ND	0.011	ND	0.011	ND		ND	0.012	_	0.012	_	0.012	ND	0.011	ND	0.01
1	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	-	0.012		0.012	ND	0.011	ND	0.01
NS	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
1.4	0.057		0.017		0.019		0.051		0.002	]	0.033		0.2		0.007	J	0.006	J
0.6	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
1.5	ND	0.012	ND	0.011	ND	0.011	] ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
1.7	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
5.5	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
NS	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
1.2	ND	0.012	ND	0.011	ND	0.011	ND	0.0093	ND	0.012	ND	0.012	ND	0.012	ND	0.011	ND	0.01
	0.11 2.7 0.4 0.2 0.3 0.3 0.1 0.3 0.76 0.6 NS 0.7 NS 0.7 NS 0.7 NS 0.7 NS 1 NS 1 NS 1.4 0.6 1.5 1.7 5.5 NS	0.11 ND   2.7 ND   0.4 ND   0.2 ND   0.3 0.0004   0.3 ND   0.1 ND   0.3 ND   0.1 ND   0.3 ND   0.76 ND   0.6 ND   NS ND   0.7 0.002   NS ND   0.6 ND   NS ND   0.7 0.002   NS ND   1 ND   NS ND   1 ND   NS ND   1.4 0.057   0.6 ND   1.5 ND   1.7 ND   5.5 ND   NS ND	0.11 ND 0.012   2.7 ND 0.012   0.4 ND 0.012   0.2 ND 0.012   0.3 0.0004 J 0.012   0.3 ND 0.012   0.76 ND 0.012   0.6 ND 0.012   NS ND 0.012   0.7 0.002 j   NS ND 0.012   1.4 0.057 0.6   0.6 ND 0.012   1.5 ND 0.012   1.7 ND 0.012	0.11 ND 0.012 ND   2.7 ND 0.012 ND   0.4 ND 0.012 ND   0.2 ND 0.012 ND   0.3 0.0004 J ND   0.3 ND 0.012 ND   0.6 ND 0.012 ND   0.6 ND 0.012 ND   0.6 ND 0.012 ND   0.5 ND 0.012 ND   0.7 0.002 J 0.001   NS ND 0.012 ND   0.06 ND 0.012 ND   NS ND 0.012 ND   NS ND 0.012 ND	0.11 ND 0.012 ND 0.011   2.7 ND 0.012 ND 0.011   0.4 ND 0.012 ND 0.011   0.2 ND 0.012 ND 0.011   0.3 0.0004 J ND 0.011   0.3 0.0004 J ND 0.011   0.3 ND 0.012 ND 0.011   0.6 ND 0.012 ND 0.011   0.6 ND 0.012 ND 0.011   NS ND 0.012 ND 0.011   0.7 0.002 J 0.0012 ND 0.011   0.7 0.002 J ND 0.011   NS ND 0.012 ND 0.011   NS ND 0.012	0.11 ND 0.012 ND 0.011 ND   2.7 ND 0.012 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND   0.2 ND 0.012 ND 0.011 ND   0.3 0.0004 j ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND   0.1 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND   0.1 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND   0.6 ND 0.012 ND 0.011 ND   0.6 ND 0.012 ND 0.011 ND   0.5 ND 0.012 ND 0.011 ND   0.7 0.002 j 0.001 J 0.002 NS ND 0.011 </td <td>0.11 ND 0.012 ND 0.011 ND 0.011   2.7 ND 0.012 ND 0.011 ND 0.011   0.4 ND 0.012 ND 0.011 ND 0.011   0.4 ND 0.012 ND 0.011 ND 0.011   0.2 ND 0.012 ND 0.011 ND 0.011   0.3 0.0004 J ND 0.011 ND 0.011   0.1 ND 0.012 ND 0.011 ND 0.011   0.3 ND 0.012 ND 0.011 ND 0.011   0.3 ND 0.012 ND 0.011 ND 0.011   0.4 ND 0.012 ND 0.011 ND 0.011   0.6 ND 0.012 ND 0.011 ND 0.011   NS ND 0.012 ND 0.011 ND 0.011   0.7</td> <td>0.11 ND 0.012 ND 0.011 ND 0.011 ND   2.7 ND 0.012 ND 0.011 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND   0.2 ND 0.012 ND 0.011 ND 0.011 ND   0.3 0.0004 J ND 0.011 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND   0.1 ND 0.012 ND 0.011 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND   0.6 ND 0.012 ND 0.011 ND 0.011 ND   0.7 0.002 j 0.001 J 0.0011 ND 0.011 ND</td> <td>0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.0093   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.6 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   NS ND 0.012 ND 0.011 ND</td> <td>0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.001 ND 0.003 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0003 ND   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.0003 ND   0.1 ND 0.012 ND 0.011 ND 0.011 ND 0.0003 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND   0.5 ND 0.012 ND 0.011 ND 0</td> <td>0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.005 0.0093 ND 0.012   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.005 0.0093 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0033 ND 0.012   0.6 ND 0.012 ND 0.011 ND 0.011 ND 0.0033 ND</td> <td>0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.0005 J 0.0008 J 0.0012 ND   0.1 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND 0.012 ND   0.6 ND 0.012 ND 0.011</td> <td>0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND 0.012 ND 0.012   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.6 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.012</td> <td>0.11 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND   2.7 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND   0.4 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND   0.4 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND</td> <td>ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 N</td> <td>0.11 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.</td> <td>0.11 ND 0.012 ND 0.011 ND 0.003 ND 0.012 ND 0.012 ND 0.011 ND 0.003 ND 0.012 ND 0.0</td> <td>0.11 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND 0.011 ND   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.012 ND 0.012 ND 0.012 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.012 ND 0.011 ND   0.2 ND 0.011 ND 0.011 ND 0.003 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND</td>	0.11 ND 0.012 ND 0.011 ND 0.011   2.7 ND 0.012 ND 0.011 ND 0.011   0.4 ND 0.012 ND 0.011 ND 0.011   0.4 ND 0.012 ND 0.011 ND 0.011   0.2 ND 0.012 ND 0.011 ND 0.011   0.3 0.0004 J ND 0.011 ND 0.011   0.1 ND 0.012 ND 0.011 ND 0.011   0.3 ND 0.012 ND 0.011 ND 0.011   0.3 ND 0.012 ND 0.011 ND 0.011   0.4 ND 0.012 ND 0.011 ND 0.011   0.6 ND 0.012 ND 0.011 ND 0.011   NS ND 0.012 ND 0.011 ND 0.011   0.7	0.11 ND 0.012 ND 0.011 ND 0.011 ND   2.7 ND 0.012 ND 0.011 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND   0.2 ND 0.012 ND 0.011 ND 0.011 ND   0.3 0.0004 J ND 0.011 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND   0.1 ND 0.012 ND 0.011 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND   0.6 ND 0.012 ND 0.011 ND 0.011 ND   0.7 0.002 j 0.001 J 0.0011 ND 0.011 ND	0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.0093   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   0.6 ND 0.012 ND 0.011 ND 0.011 ND 0.0093   NS ND 0.012 ND 0.011 ND	0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.001 ND 0.003 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0003 ND   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.0003 ND   0.1 ND 0.012 ND 0.011 ND 0.011 ND 0.0003 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND   0.5 ND 0.012 ND 0.011 ND 0	0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.005 0.0093 ND 0.012   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.005 0.0093 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0033 ND 0.012   0.6 ND 0.012 ND 0.011 ND 0.011 ND 0.0033 ND	0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.3 0.0004 J ND 0.011 ND 0.011 ND 0.0005 J 0.0008 J 0.0012 ND   0.1 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND 0.012 ND   0.6 ND 0.012 ND 0.011	0.11 ND 0.012 ND 0.011 ND 0.011 ND 0.003 ND 0.012 ND 0.012   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.4 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.2 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.3 ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 ND 0.012   0.6 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.012	0.11 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND   2.7 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND   0.4 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND   0.4 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND	ND 0.012 ND 0.011 ND 0.011 ND 0.0093 ND 0.012 N	0.11 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.	0.11 ND 0.012 ND 0.011 ND 0.003 ND 0.012 ND 0.012 ND 0.011 ND 0.003 ND 0.012 ND 0.0	0.11 ND 0.012 ND 0.011 ND 0.0033 ND 0.012 ND 0.012 ND 0.011 ND   2.7 ND 0.012 ND 0.011 ND 0.011 ND 0.012 ND 0.012 ND 0.012 ND 0.011 ND   0.4 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.012 ND 0.011 ND   0.2 ND 0.011 ND 0.011 ND 0.003 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND 0.011 ND   0.3 ND 0.012 ND 0.011 ND 0.0093 ND 0.012 ND

#### **Tentatively Identified Compounds**

	Total TIC's	NS	0.212	0.0202	0.0064	0.058	0.0066	0	0.008	0	0
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cified J: Estimated value below the method detection limit. MI tected Bold and highlighted values indicates an exceedence of NJDEP Soil Cleanup Criteria.

MDL: Method Detection Limit

NS = Not Specified ND = Not Detected

#### Table 1 Post-Excavation Soil Sample Analytical Results - VOCs Plaza Dry Cleaners Middletown, New York

Sample ID	NYSDEC	PE-18	]	Field	Blank	Trip E	3lank 🗌	Trip 6	Blank	Trip E	Blank	Field	Blank
Sample Location	Recommended Soil	PE-18		Field	Blank	Trip E	Blank	Ĩ rip 8	Blank	Trip E	Blank	Field	Blank
Sample Depth (feet b.g.s.)	Cleanup Objectives	2.5-3	1		-		-		-				
Laboratory ID	Call Classer Ohia-time	250150	]	247	121	247	122	249	869	250	140	250	151
Sample Date	Soil Cleanup Objectives to Protect Ground Water	1/3/2001		12/13	/2001	12/12	/2001	12/28	/2000	1/2/2	2001	1/3/2	2001
Sample Matrix		Soil		Aqu	eous	Aqu	eous	Aqu	eous	Aqu	eous	Aqu	eous
Units	Quality (ppm)	mg/kg	1	m	g/l	mg	/kg	mg	/kg	mg	/kg	m	g/I
	·	¥	-			- · · · · ·							
VOCs		Result MDL		Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
Chloromethane	NS	ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Bromomethane	NS	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Vinyl Chloride	0.12	ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Chloroethane	1.9	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Methylene Chloride	0.1	0.002 J		ND	0.01	ND	0.01	ND	0.01	ND _	0.01	ND	0.01
Acetone	0.11	ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Carbon Disulfide	2.7	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,1-Dichloroethene	0.4	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,1-Dichloroethane	0.2	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,2-Dichloroethene	0.3	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Chloroform	0.3	ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,2-Dichloroethane	0.1	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
2-Butanone	0.3	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,1,1-Trichloroethane	0.76	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND_	0.01	ND	0.01
Carbon Tetrachloride	0.6	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Bromodichloromethane	NS	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
cis-1,3-Dichloropropene	NS	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Trichloroethene	0.7	ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,1,2-Trichloroethane	NS	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Benzene	0.06	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
trans-1,3-Dichloropropene	NS	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Bromoform	NS	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
4-Methyl-2-Petanone	1	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
2-Hexanone	NS	ND 0.011	1	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Tetrachloroethene	1.4	0.023	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
1,1,2,2-Tetrachloroethane	0.6	ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Toluene	1.5	ND 0.011	1	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Chlorobenzene	1.7	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Ethylbenzene	5.5	ND 0.011		ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Styrene		ND 0.011	]	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Xylenes (Total)	1.2	ND 0.011	1	ND	0.01	ND	0.01	ND	0.01	ND	0.01	ND	0.01
<u> </u>			-						· · · · ·				

#### **Tentatively Identified Compounds** Г

- and a - e - j	identica a	Compound	· .
otal TIC's			

0	0	0	0	0

NS = Not Specified

J: Estimated value below the method detection limit.

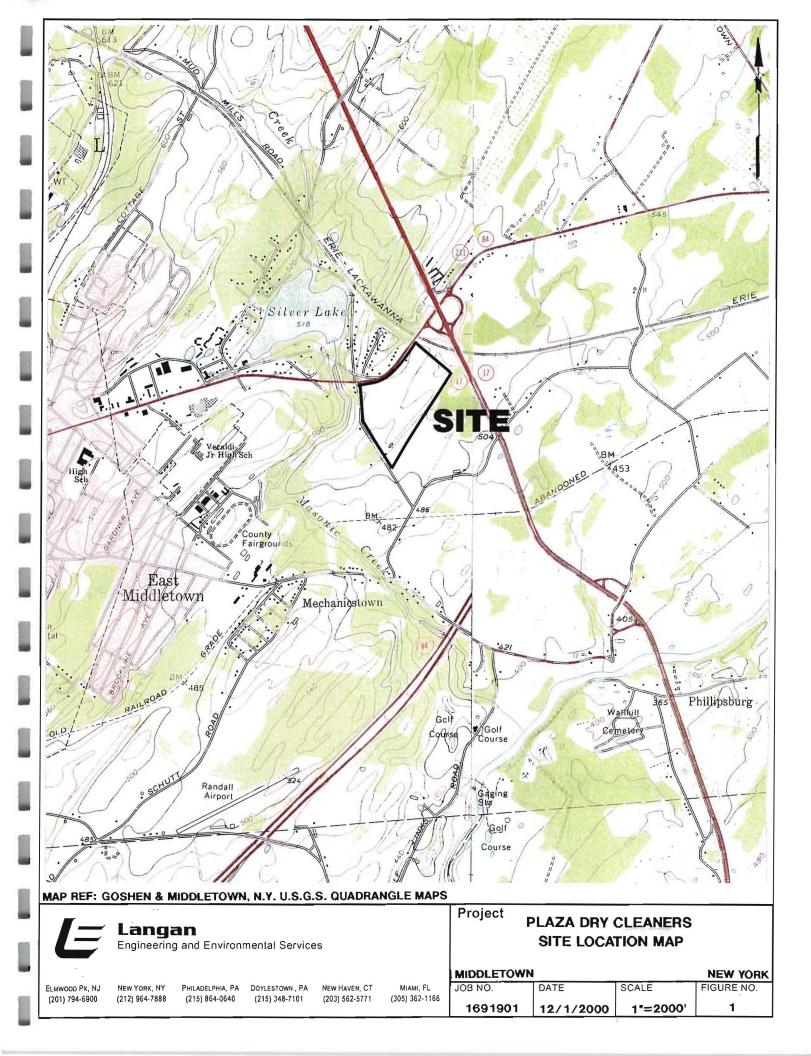
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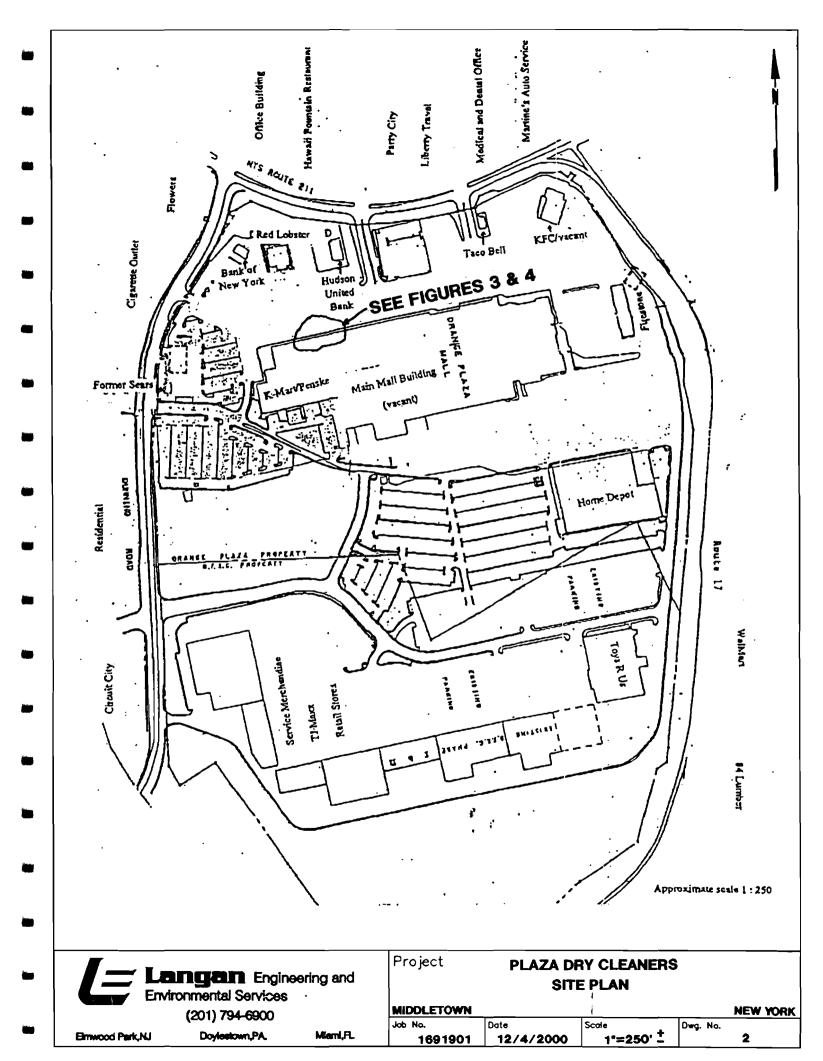
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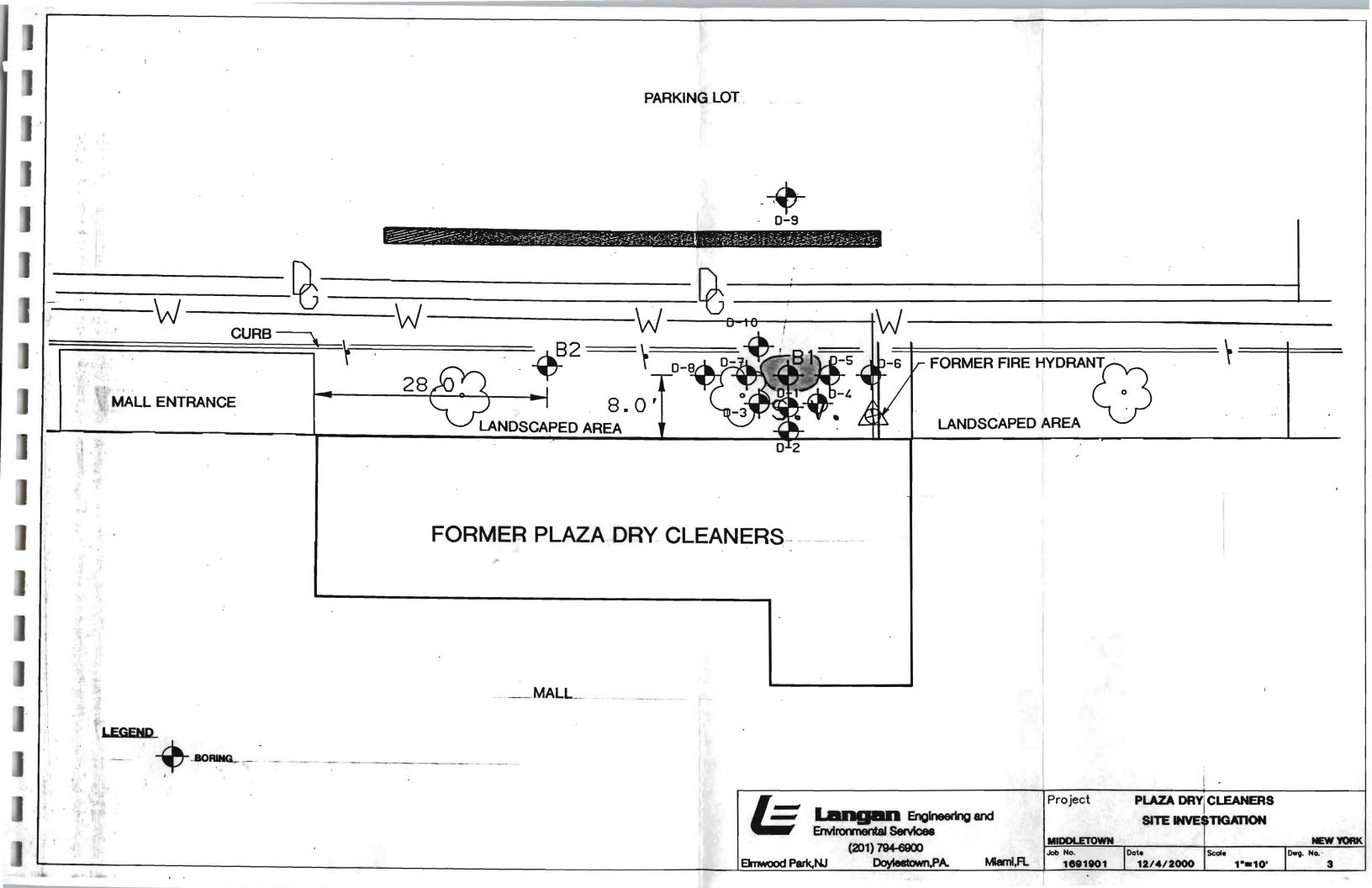
MDL: Method Detection Limit

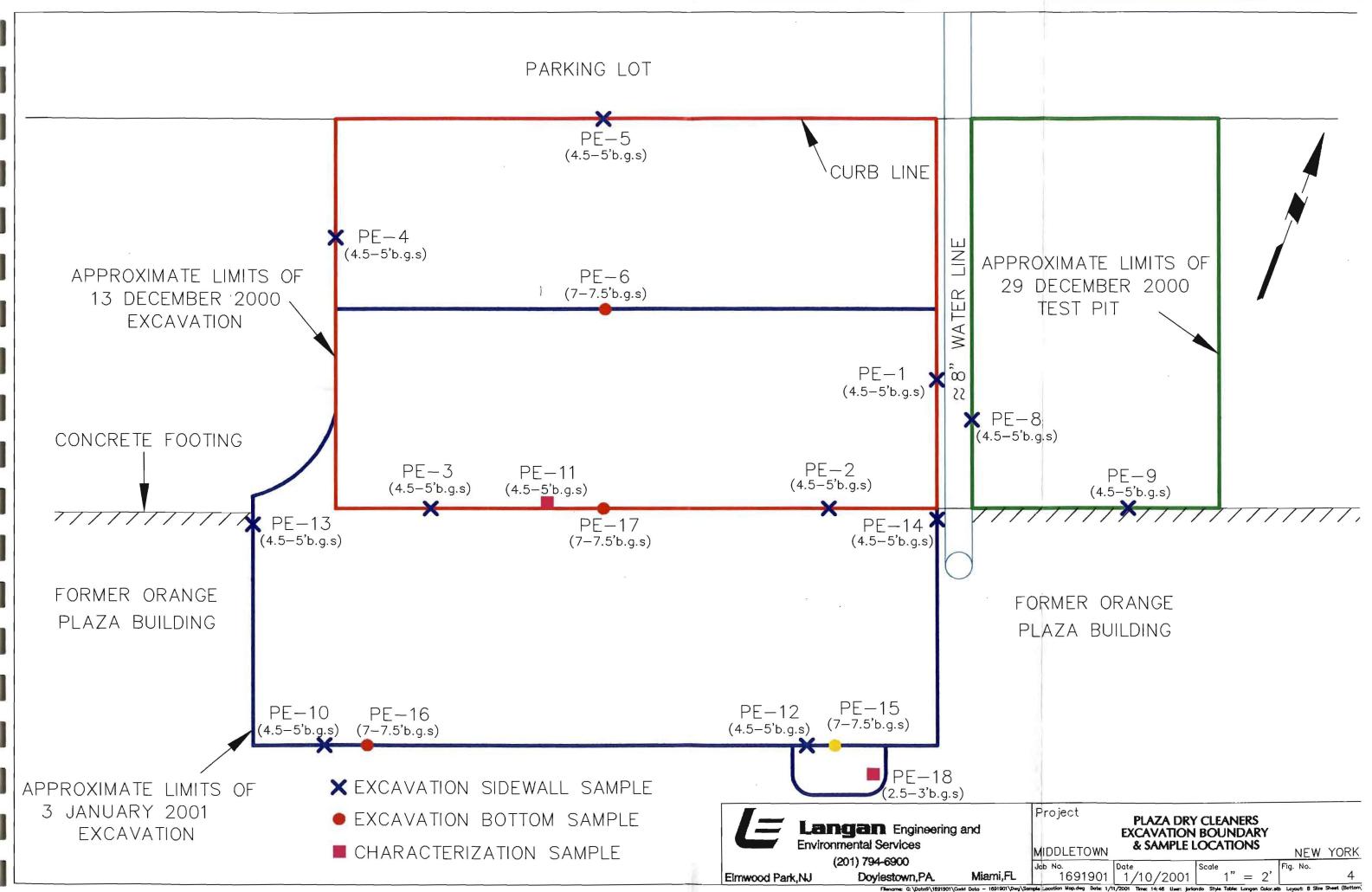
ND = Not Detected

Bold and highlighted values indicates an exceedence of NJDEP Soil Cleanup Criteria.









# **APPENDIX A**

# PHOTOGRAPHIC LOG



1

Southern wall after completion of 13 December 2000 remedial activities. Also the area of sample location PE-3.



Western wall after completion of 13 December 2000 remedial activities. Also the area of sample location PE-1.



Loading of impacted soils during 13 Decmber remdial activities



Excavation covered with plastic after completion of 13 December 2000 remedial activites.



Remaining soils stockpiled after completion of 13 Decemeber remedial activities.



Stormwater pumped out of excavation at the beginning of the 3 January 2001 remedial activities.



Concrete footing removed to access impacted soils.



3 January 2001 excavated to a depth of seven feet below ground surface.



Impacted soil stockpiled after completion of 3 January 2001 remedial activities.



Remaining soil removed from site on 11 January 2001.

# **APPENDIX B**

# LABORATORY ANALYTICAL DATA PACKAGES (Under Separate Cover)

# APPENDIX C

# WASTE MANIFESTS

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12/28/00 THU 13:12 FAX 313 923 0217 CEI Ø002 and Pert 121 of Act 451, 1994, as WASTE MANAGEMENT DIVISION emended **MICHIGAN DEPARTMENT OF** Fallure to file may subject you to crimi-DO NOT WRITE IN THIS SPACE nai and/or civil penalilies under Section 324 11161 or 324,12118 MCL **ENVIRONMENTAL QUALITY** ATT. 🗌 DIS. 🗌 REJ. 🗋 PR. 🛛 Please prim or type Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Generator's US EPA ID No. Manifest 2.Page 1 Information in the shaded areas Generator's Name and Mailing Address Document No is not required by Foderal ol law. 1.5 -MIDDLE TOWN ONE RESOURCES i inggan ter ar RESPONS 3 - MANHAVIANVINE AD PURCHASE NY 10577 4444 4 Generator's Phone (9/4) 699-5. Transporter 1 Company Name US EPA ID Number THE NATIONAL 1 der diam'ret 040068913409 WIIIS TRUCKING ING EPA 1D Numbe QNV 9. Designated Facility Name and Site Address 10. US EPA ID Number USL CITY ENLICONNEMAL INC. 517-273-7660 1973 FREDALIUST DETROIT MI 48211 LMID 980991566 12 Containers 11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM ID NUMBER). 13 14 2 Total Unit HM STATE Type Quantity No. w/w a . RO HAZARDOUS WASTE Solid 🧖 € N X 5 Æ 9, NA:3077 KX 1 DT 50 E\$T A N 0 S ۸ b. 5 Ŧ M 0 81728-072 A ¢. ¥ MICHIGAN d. formation Appage 2 ..... z TING SYSTEM to sout ere and for the state 1. 1 and the second second 10 ALEN 15 Special Handling Instructions and Additional Information APRROVAL & 30241 H EMERGENCY ERC T71 IN EMERCLUCY CALL 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and eccurately described above by proper shipping name and are 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and eccurately described above by proper shipping name and are 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and eccurately described above by proper shipping name and are and landed, and are in all respects in proper condition for transport by highway according to applicable international and instional government regulations. POLLUTION If I am a large quantity generator, i certify that I have a program in piece to reduce the volume and loadity of waste generator to the degree I have determined to a be second to the degree I have determined to be second to the volume and loadity of waste generator to the volume and loadity of waste generator to the volume and the second to the degree I have determined to the degree I have determined to be second to the volume and have a good faith attor to minimize my week generation and exist the best waste management method but is evaluable to me and that I can attend. ž Printed/Typed Name Signature Monih Day Year MICP KOBERT 121300 JSMITH TRANSPORTER 17. Transporter 1 Acknowledgement of Receipt of Materials Dele Ĩ - Printed Typed Name - RM THAZ C. HEM 18. Transporter 2 Acknowledgement of Receipt of Materials Signature Month Day Yea 22 211300 ONTED . n Date NUST BE NEPOI Printed/Typed Name Monin Day Signature Year 1 1 19 Discrepancy Indication Space CENTER AT 14 20 facility Owner or Operator. Certification of receipt of hexardous meterials covered by this manifest except as noted in team 19 iz Item Dale Printed/Typed Name Signatur Monin Day Yes pq 12111 lu Gantean WASTE MANAGEMENT DIVISION FO 6110 To be mailed by EPA Form 8700-22 (Rev. 9/66) MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY TSD Facility to: PID BOX STONE

12/28/00 THU 13:14 FAX 313 923 0217 C = E - 1003 and Part 121 of Act 451 1894 at amended. WASTE MANAGEMENT DIVISION **MICHIGAN DEPARTMENT OF** Fallure to the may subject you to crimi-DO NOT WRITE IN THIS SPACE hal and/or alvii penaitias under Section 324 11161 or 324 12116 MCL ENVIRONMENTAL QUALITY ATT. 🗌 🗄 PR. 🗋 DIS. REJ. Please print or type Form Approved. OMB No. 2050-0039 T. Generator's US EPA ID No. UNIFORM HAZARDOUS Manifest Information in the shaded areas is not required by Foderal law 2.Page 1 WASTE MANIFEST NYR 00009/15 Generator's Name and Mapping Address miDDICTOWN ONE RESOURCES Document No NYR 00009115 of 3 492 IONAL RESPONSE 1.5 . 1. 3- MANAATTANKING RD PURCLASENY 10577 enerator's Phone (9144694- 4444 Generator's Phone Transporter 1 Company Name 5 US EPA ID Number Will S TRUCKING En Transporter 2 Company Name 0HD062913409 8 USEPAID Number Å THE Designated Facility Name and Site Address AND 9 US EPA ID Number USL City Environtential FNC. 817-273-7860 1923 FREDALLY ST **1**, mi 0 980991 566 DETRO:T MI 48211 13. 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and HM ID NUMBER). 12.Conteiners R Total Unit нм STATE No. Quantity Туре Q We Ab RQ HAZAR DOUS ۵. hASTE SOID £ NERA X 5 9. XX I DT ESTZZ NA 3077 NOS JT. 20 b. 5 Ŧ 0 1-100-213-1704 Π. R C. t ¥ **WICHIGAN** đ. ž Star Sort Tor FARMONCY CAN 800-362-35 70 SYSTEM. ALERTING ER6 # 171 15. Special Handling Instructions and Additional Information ENERGENCY 1 LUTION 18. GENERATOR'S CEATIFICATION: I hereby declare that the contents of this consignment are fully, and ecourately described above by proper ehipping name and are classified, packed, marked, and labeled, and are in bit respects in proper condition for transport by highway according to upplicable international and national government regulations. Cassames, packed, marke, and isource, its are in an inspect in proter Lational an damport by inginity according an appreciate interview development and the lation of the second protection of the second secon ĕ 2 NYD Printed/Typed Nama Signature Month Day Year MICHI y suri Ford 12115200 BE REFORTED TO THE M 20 0002 20 HOURS FER D 20 1002 20 HOURS FER D 17. Transporter 1 Acknowledgement of Receipt of Materials Date 121500 Printed/Typed Name Signatu)e Sawks SAN -hul Date 18 Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Monin Day Year MUST BE 1-800-424-8 1 19. Discrepancy Indication Space FACILITY ALL SPILLS D CENTER AT 1 20. Facility Owner or Operator. Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19 Date ripted/Typed Name Dø, Signature 121/181010 CU 10 4 E MANAGEMENT DIVISION 1.7 . . . EPA Form 8700-22 (Rev 8/88) To be mailed by MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY Per 6/98 TSD Facility to