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**CLOSURE ASSESSMENT REPORT FOR
PETROLEUM UNDERGROUND STORAGE TANKS
JANUARY 22, 1991**

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**DOE-FMPC/STATE FIRE MARSHAL
92
ENCLOSURE**

1211

CLOSURE ASSESSMENT REPORT
FOR
PETROLEUM UNDERGROUND STORAGE TANKS

January 22, 1991

Feed Materials Production Center
Fernald, Ohio

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INTRODUCTION

This document provides the information required by the State of Ohio, Division of State Fire Marshal for the closure assessment of ten petroleum underground storage tanks at the Feed Materials Production Center, Fernald, Ohio. It addresses the closure assessment of seven tank or tank cluster locations.

The report is divided into seven subparts with each subpart corresponding to a tank or tank cluster location. The subparts are further divided into the following 12 sections:

1. General Background
2. Visual Site Evaluation
3. Sample Collection Procedures
4. Sampling Equipment and Containers
5. Sample Locations
6. Sample Dates
7. Sample Preservation Techniques
8. Chain-of-Custody
9. Sample Collector Identification
10. Laboratory Identification
11. Fire Inspector Identification
12. Tank System Removal Date

Each section provides the specific information for that tank or tank cluster location.

SUBPART I - TANK 31. General Background

Tank No. 3 was located about 25 feet northeast of Building 24B. It was a 12,500 gallon steel tank which was formerly used to store diesel fuel. Tank locations can be found on the site maps provided in Appendix A.

2. Visual Site Evaluation

The visible surface features were as follows:

1. Vertical 3-inch diameter fill line which terminated above the tank approximately 18 inches above grade.
2. Vertical 3-inch diameter auxiliary fill line which terminated above the tank approximately 48 inches above grade.
3. Vertical 3-inch diameter vent line which terminated above the tank approximately 6 feet above grade.
4. Dispensing pump with a concrete base located just south of the tank.

The ground surface in the area of the tank was covered with approximately 6 inches of crushed limestone. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc. The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

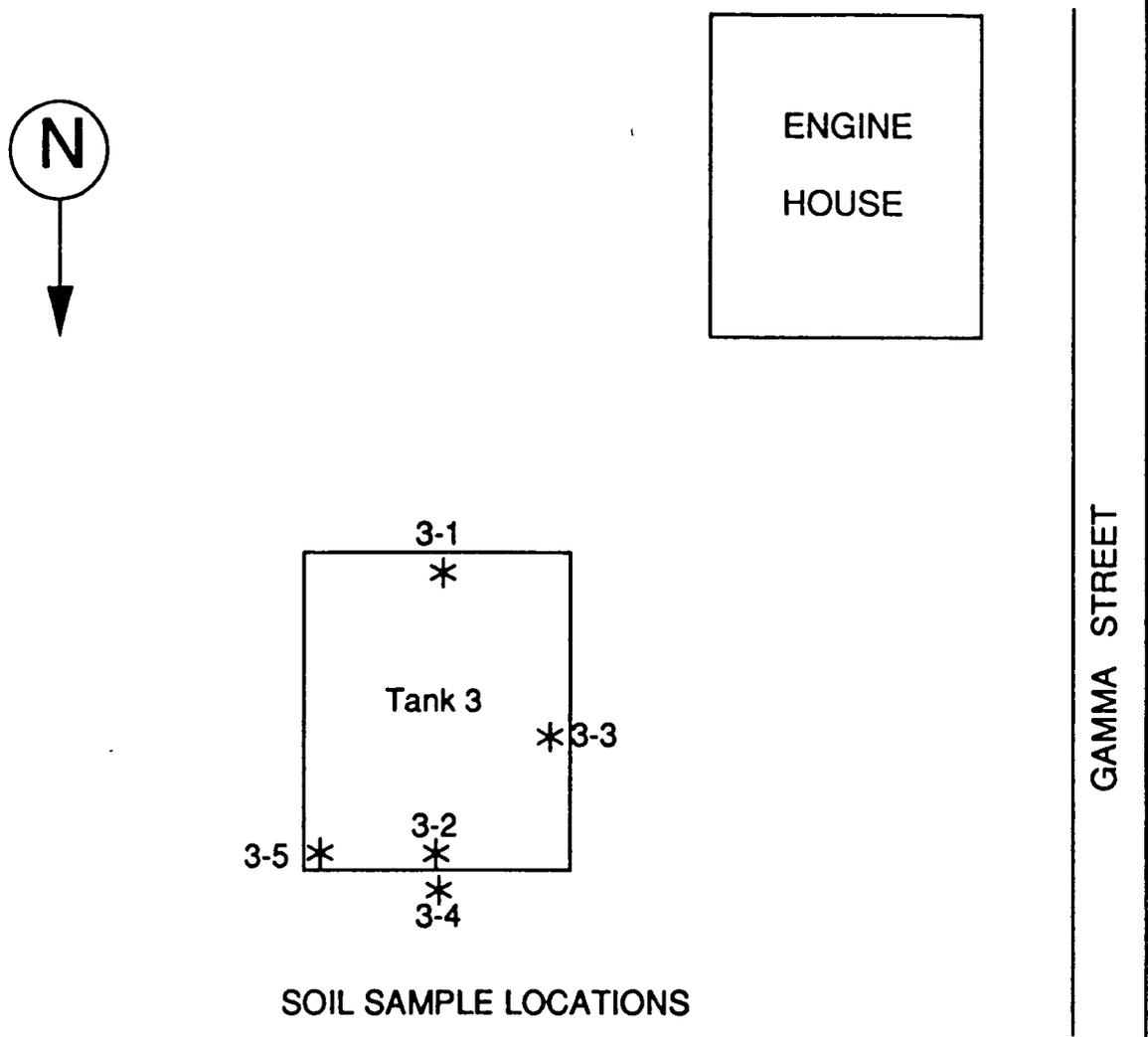
Samples were taken from the floor of the excavation at the north and south ends of the tank about 15 feet below the surface (Samples 3-1 and 3-2). Sample 3-3 was taken from the west side of the excavation, near the center, at a depth of about 5 feet. Sample 3-4 was taken about 4 feet below the surface under the pump island location. At the northeast corner of the excavation, in the vent line area, Sample 3-5 was taken, approximately 2 feet below the surface.

After screening with the photo ionization detector, Samples 3-1, 3-4, and 3-5

were found to have the highest soil vapor levels. These samples were submitted to the laboratory for analysis. Additional samples shall be taken from the excavation and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

The locations of the soil sample points are shown in Figure I. Analytical results are provided in Table 1.

FIGURE I



SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
3-1	15	14:10	15:05	2.2 **
3-2	15	14:15	15:06	1.6
3-3	5	14:20	15:07	1.6
3-4	4	14:25	15:08	3.6 **
3-5	2	14:30	15:09	3.4 **

** Sample forwarded to laboratory for analysis.

TABLE 1
ANALYTICAL RESULTS
TANK 3 - SOIL

Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
3-1	13.3	< 5.0	38.9	< 5.0	320	1270
3-4	9.46	< 50	116	< 50	820	2160
3-5	8.43	66.7	794	747	6180	23600

TANK 3 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
3W-1	0.613	< 5.0	< 5.0	< 5.0	< 10.0	67
3W-2	0.306	< 5.0	< 5.0	< 5.0	< 10.0	79

NOTE: Copies of the original analytical reports are provided in Appendix B.

6. Sample Dates

The samples were collected from the Tank 3 excavation on November 29, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technicians were Andy Russell, Matt Arnett, John Grace, and Greg Henderson. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

11. Fire Inspector Identification

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

The Tank 3 system was removed on October 19, 1990.

SUBPART II - TANK 6

1. General Background

Tank No. 6 was located about 1 foot north of maintenance Building 12. It was a 1,000 gallon steel tank which previously held gasoline. Tank locations can be found on the site maps provided in Appendix A.

2. Visual Site Evaluation

The visible surface features were as follows:

1. A 2-inch diameter vertical vent line connected to the north exterior wall of Building 12.
2. A 2-inch diameter vertical fill line which terminated at the top of the pavement above the tank.

The ground surface in the area of the tank is paved with a 5-inch thick concrete slab. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc.

The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

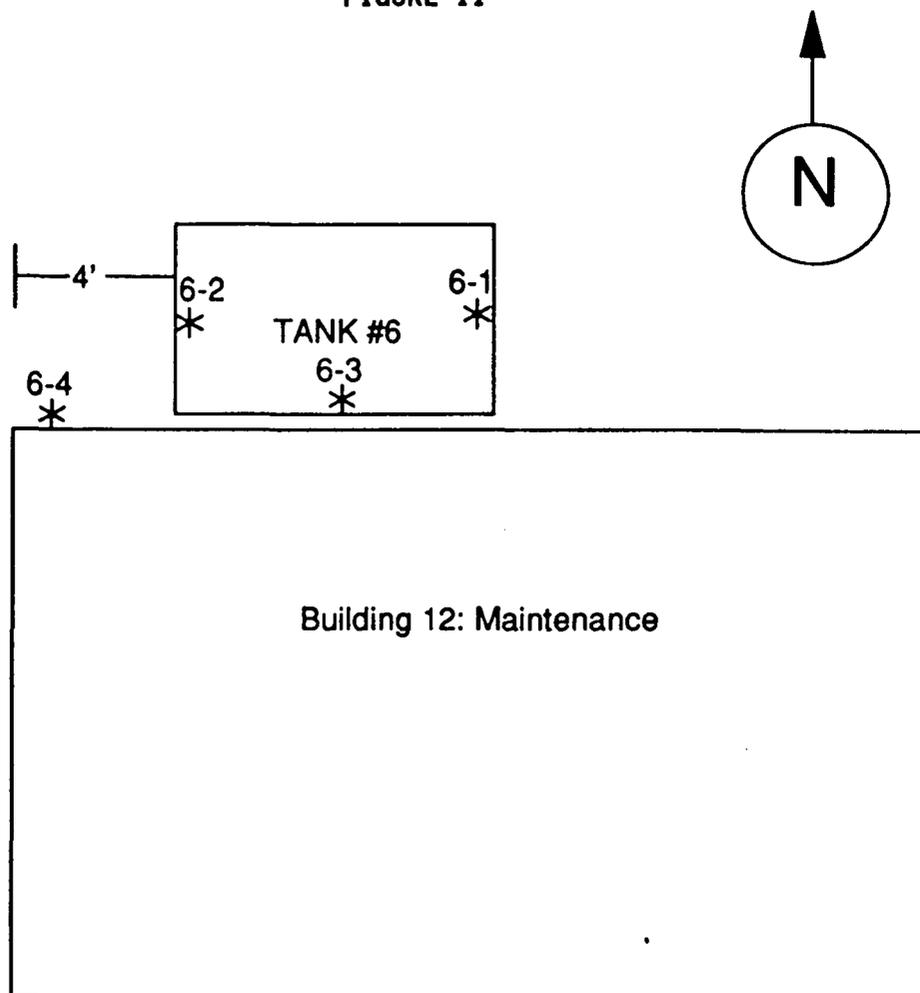
Samples were taken from the floor of the excavation at the east and west ends of the tank approximately 10 feet below the surface (Samples 6-1 and 6-2). Sample 6-3 was taken at from the south wall of the excavation at a depth of about 4 feet. A fourth sample (6-4) was taken about 1 foot below the surface just west of the excavation at the former vent line location.

After screening with the photo ionization detector, Samples 6-2, 6-3, and 6-4 were found to have the highest soil vapor levels. Therefore, these three samples were sent to the laboratory for analysis.

Additional samples shall be taken and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

The locations of the soil sample points are shown in Figure II. Analytical results are provided in Table 2.

FIGURE II



SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
6-1	10	14:30	15:19	4.0
6-2	10	14:30	15:20	6.0 **
6-3	4	14:30	15:22	6.0 **
6-4	1	14:35	15:23	6.1 **

** Sample forwarded to laboratory for analysis.

TABLE 2
ANALYTICAL RESULTS
TANK 6 - SOIL

Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
6-2	5.98	< 5.0	5.48	< 5.0	11.8	<10.0
6-3	7.09	< 5.0	< 5.0	< 5.0	< 10.0	<10.0
6-4	8.85	< 5.0	< 5.0	< 5.0	< 10.0	<10.0

TANK 6 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
6W-1	<0.005	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
6W-2	0.636	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0

NOTE: Copies of the original analytical reports are provided in Appendix B.

6. Sample Dates

The samples were collected from the Tank 6 excavation on December 14, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technicians were Dave Back, Greg Henderson, Andy Russell, John Grace, and Kevin Hubbard. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

11. Fire Inspector Identification

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

The Tank 6 system was removed on September 25, 1990.

SUBPART III - TANK 81. General Background

Tank No. 8 was located approximately 12 feet northeast of Building 31. It was a 1,000 gallon steel tank which was previously used to store gasoline. Tank locations can be found on the site maps provided in Appendix A.

2. Visual Site Evaluation

The visible surface features were as follows:

1. A concrete pump base located above the north end of the tank which indicated the former location of the pump.
2. A remote fill line which was terminated at the top of the pavement approximately 10 feet west of the tank.
3. A 2-inch diameter vent line penetrated the pavement at the north wall of the garage building and extended upwards along the wall.

The ground surface in the area was paved with approximately 2 inches of asphalt. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc. The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

Samples were taken from the floor of the excavation, at the north and south ends, approximately 10 feet below the surface (Samples 8-1 and 8-1). Sample 8-3 was taken from the west wall of the excavation under the fill line location at a depth of approximately 2 feet. Another sample (8-4) was taken from the east wall about 4 feet from the surface. A fifth sample (A-2) was taken about 2 inches under the asphalt east of the excavation where a vent line was located.

After screening with the photo ionization detector, Samples 8-1, 8-2, and 8-4 were determined to have the highest soil vapor levels. These three samples were submitted to the laboratory for analysis.

Additional samples shall be taken and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

The location of the soil sample points are shown in Figure III. Analytical results are provided in Table 3.

TABLE 3
ANALYTICAL RESULTS
TANK 8 - SOIL

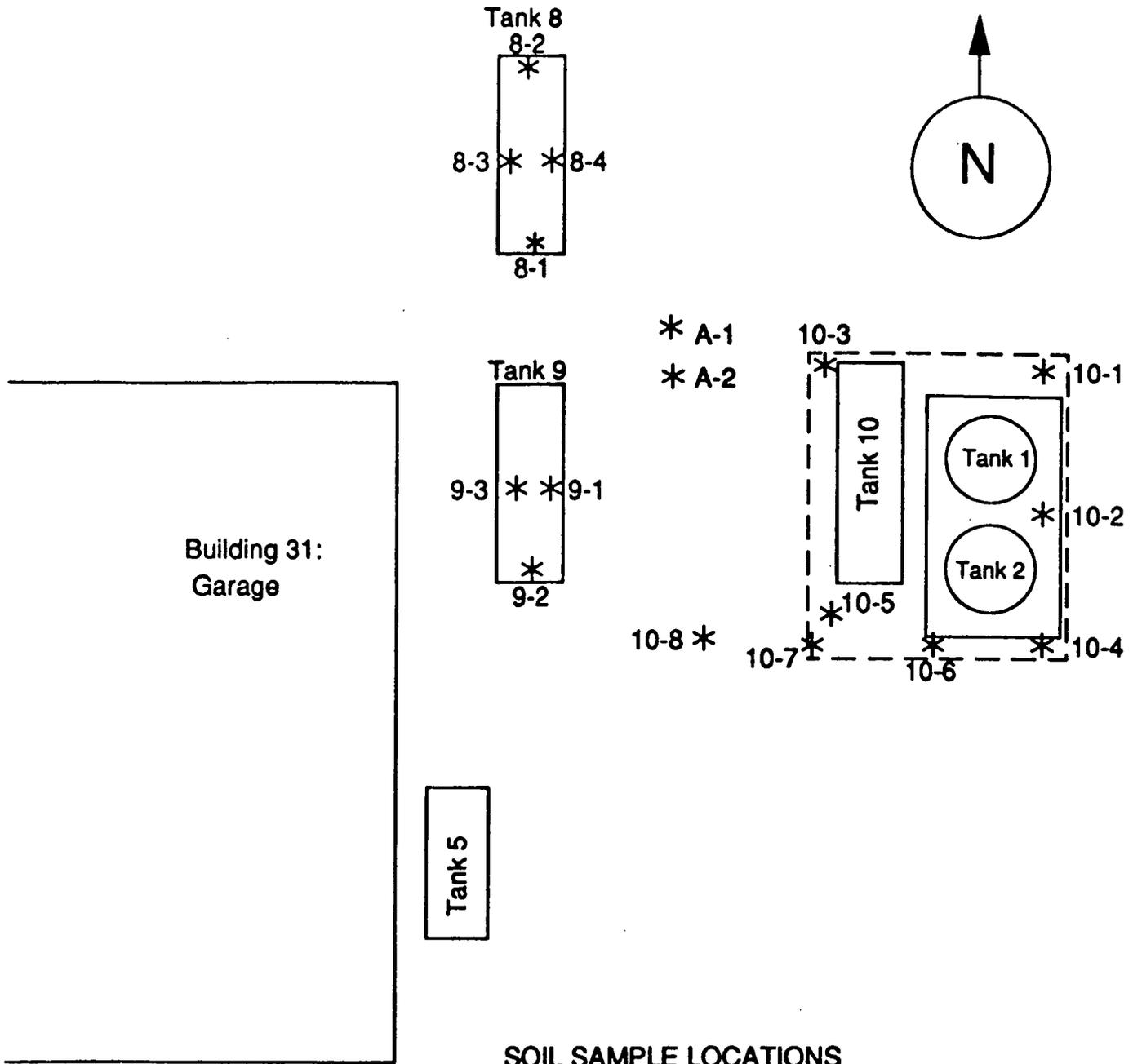
Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
8-1	13.2	271	382	1190	11300	285
8-2	11.2	1210	379	4470	1320	287
8-4	10.0	14.1	8.26	23.9	202	56

TANK 8 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
8W-1	0.083	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
8W-2	0.019	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0

NOTE: Copies of the original analytical reports are provided in Appendix B.

FIGURE III



SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
8-1	10	9:45	13:00	200 **
8-2	10	9:55	13:05	200 **
8-3	2	9:59	13:10	40
8-4	4	10:50	13:12	180 **
A-2	2	10:40	13:15	15

** Sample forwarded to laboratory for analysis.

6. Sample Dates

The samples were collected from the Tank 8 excavation on December 7, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technician was Andy Russell and Jim Price. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

11. Fire Inspector Identification

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

The Tank 8 system was removed on September 21, 1990.

SUBPART IV - TANK 91. General Background

Tank No. 9 was located approximately 8 feet from the northeast corner of Building 31. It was a 1,000 gallon steel tank which was used to store diesel fuel. Tank location can be found on the site maps provided in Appendix A.

2. Visual Site Evaluation

The visible surface features were as follows:

1. A 3-inch diameter fill line terminated above the tank. This line had been plugged with concrete.
2. A 3-inch diameter remote fill line terminated at pavement level at the east wall of the garage building. This line had been plugged with concrete.
3. A 2-inch diameter vent line penetrated the pavement at the east wall of the garage building and extended upwards along the wall.

The ground surface in the area was paved with approximately two inches of asphalt. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc. The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

Sample 9-1 was taken from the floor at the north end of the excavation, about 10 feet from the surface. Sample 9-2 was taken from the south end of the excavation, also at a depth of about 10 feet. At the northwest end, Sample 9-3 was taken at the fill line location, about 2 feet from the surface. A fourth sample, (A-1) was taken about 2 inches below the pavement east of the excavation, along the vent line.

After screening with the photo ionization detector, Samples 9-1, 9-2, and A-1 were found to have the highest soil vapor levels. These three samples were submitted to the laboratory for analysis.

Additional samples shall be obtained and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

The locations of the soil sample points are shown in Figure IV. Analytical results are provided in Table 4.

TABLE 4
ANALYTICAL RESULTS
TANK 9 - SOIL

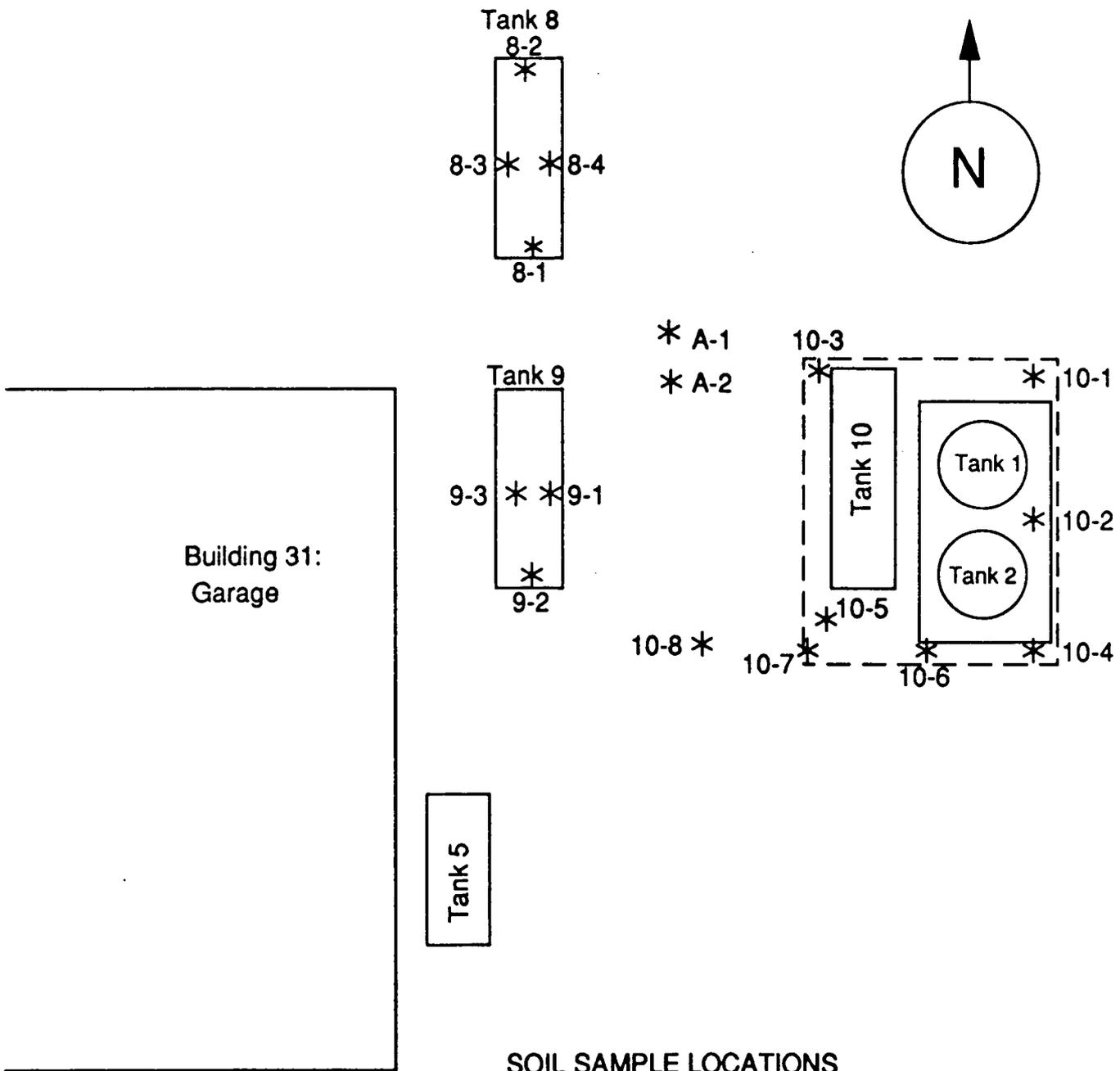
Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
9-1	8.92	34.6	14.4	528	11.4	656
9-2	7.67	< 5.0	< 5.0	< 5.0	< 10.0	519
A-1	35.6	< 5.0	< 5.0	< 5.0	< 10.0	19

TANK 9 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
9W-1	0.011	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
9W-2	0.011	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0

NOTE: Copies of the original analytical reports are provided in Appendix B.

FIGURE IV



SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
9-1	10	10:10	13:16	13 **
9-2	10	10:15	13:18	11 **
9-3	2	10:25	13:20	3
A-1	2	10:35	13:21	7 **

** Sample forwarded to laboratory for analysis.

6. Sample Dates

The samples were collected from the Tank 9 system on December 13, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technician was Dave Back, Andy Russell, and Greg Henderson. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

11. Fire Inspector Identification

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

The Tank 9 system was removed on September 19, 1990.

1. General Background

Tank 1 was located such that its centerline was approximately 51 feet east of Building 31. It was a 1,500 fiberglass gallon tank which previously contained unleaded gasoline.

Tank 2 was also located with its centerline about 51 feet east of Building 31. It was a 1,500 gallon fiberglass tank which was used to store unleaded gasoline.

Tank 10 was located with its centerline approximately 43 feet east of Building 31. It was a 3,000 gallon tank which previously held gasoline.

Due to their close proximity, the tank cluster comprised of Tanks 1, 2, and 10 is considered as one excavation site. The tank locations can be found on the site maps provided in Appendix A.

2. Visual Site Evaluation

The visible surface features of this tank cluster were as follows:

1. A concrete pump island approximately 3 feet wide by 20 feet long projected above the pavement surface. This island was located directly above Tank No. 10. There were two pumps located on the island.
2. A concrete slab was positioned above Tank Nos. 1 and 2. Two fill caps embedded in the pavement indicated the tank locations.
3. Two vent lines penetrated the pavement at the east wall of the garage building and extended upwards along the wall.

With the exception of the concrete island and concrete slab over Tanks 1 and 2, the ground surface in the area was paved with approximately 3 inches of asphalt. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc. The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

Four samples were taken from the floor of the excavation at approximately 10 feet below the ground surface. Sample 10-1 was taken from the northeast corner of the excavation. Sample 10-2 was taken from the east side, near the center of the excavation. Sample 10-3 was taken from the northwest side of the excavation. Sample 10-4 was taken from the southeast corner of the excavation. At approximately 4 feet below the surface, Sample 10-6 was taken from the south wall of the excavation and Sample 10-7 was taken from the southwest wall. Sample 10-8 was taken east of the excavation along the pipe line at a depth of approximately 18 inches.

After screening with the photo ionization detector, Samples 10-1, 10-2, and 10-5 were determined to have the highest soil vapor levels. Hence, these samples were submitted to the laboratory for analysis.

Additional samples shall be taken and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

The locations of the soil sample points are shown in Figure IV. Analytical results are provided in Table 5.

TABLE 5
ANALYTICAL RESULTS
TANKS 1,2,10 - SOIL

Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
10-1	7.20	41.4	106	18.1	149	61
10-2	5.34	< 5.0	5.96	< 5.0	27.7	<10.0
10-5	4.24	< 5.0	< 5.0	< 5.0	< 10.0	<10.0

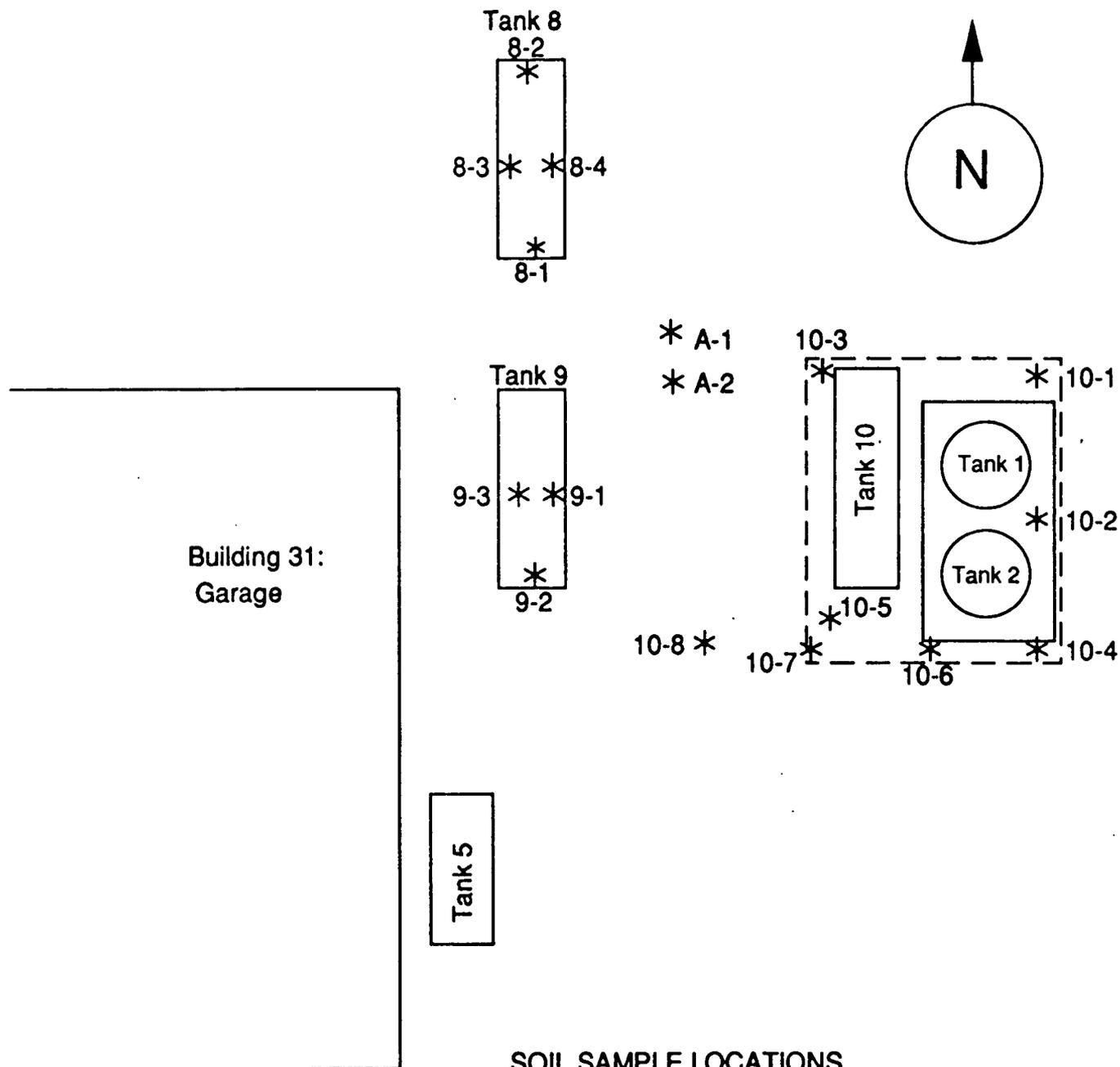
TANKS 1,2,10 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
10W-1	0.005	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
10W-2	<0.005	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0

NOTE: Copies of the original analytical reports are provided in Appendix B.

FIGURE V

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SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
10-1	10	12:55	14:59	7.8 **
10-2	10	13:02	15:00	6.8 **
10-3	10	13:05	14:57	5.2
10-4	10	13:10	15:02	6.5
10-5	10	13:16	15:03	6.6 **
10-6	4	14:23	15:33	5.0
10-7	4	14:27	15:34	5.6
10-8	1.5	14:38	15:35	4.4

** Sample forwarded to laboratory for analysis.

6. Sample Dates

The samples were collected from the Tank 1, 2, and 10 cluster excavation on December 11, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technician was Dave Back, Andy Russell, and Greg Henderson. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

11. Fire Inspector Identification

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

Tanks 1, 2, and 10 were removed on September 16, 1990.

1. General Background

Tank 11 was located approximately 6 feet east of the Building 1 truck dock and south of Building 1. It was a 3,000 gallon multi-use steel tank which alternately contained kerosene and gasoline.

Tank 12 was also located approximately 6 feet east of the Building 1 truck dock and south of Building 1. It was a 3,000 gallon steel tank which previously contained unleaded gasoline.

Due to their close proximity, the tank cluster comprised of Tanks 11 and 12 are considered to be one excavation site. The tank locations can be found on the site maps provided in Appendix A.

2. Visual Site Evaluation

The visible surface features of this tank cluster were as follows:

1. Two vertical vent stacks penetrated the ground surface above each tank and terminated approximately 8 feet above grade.
2. Two vertical fill lines penetrated the ground surface above each tank and terminated approximately 1 foot above grade.
3. Two remote fill lines terminated at the ground surface at the south edge of the concrete paved area located north of this tank cluster.
4. Two pumps with concrete bases were located at the south edge of the concrete paved area located north of the tank cluster.

The ground surface in the area of the tanks was covered with approximately 6 inches of crushed limestone. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc. The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

Four samples were taken from the floor of the excavation at approximately 10 feet

below the ground surface. Sample 12-1 was taken from the northwest corner of the excavation. Sample 12-2 was taken from the northeast corner of the excavation. Sample 11-1 was collected from the southwest corner of the cavity. Sample 11-2 was taken from the southeast corner of the excavation. Sample F-1 was taken just northeast of the excavation under the location of the fill line at a depth of about 2 feet. Just northwest of the excavation, Sample P-2 was taken under the location of the pump line for Tank 11, at a depth of about 2 feet below the surface. Another sample, P-1 was taken just north of the excavation, near the center, at the location of the pump line for Tank 12, about 2 feet below the ground surface.

After screening with the photo ionization detector, Samples 11-1, 12-1, and 12-2 were found to have the highest soil vapor levels. These samples were submitted to the laboratory for analysis.

Additional samples shall be taken and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

The location of the soil sample points are shown in Figure VI. Analytical results are provided in Table 6.

TABLE 6
ANALYTICAL RESULTS
TANKS 11,12 - SOIL

Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
11-1	4.47	67.2	70.4	652	3850	1410
12-1	19.7	77.7	255	690	5210	374
12-2	8.02	342	519	2920	11400	1810

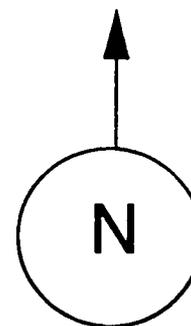
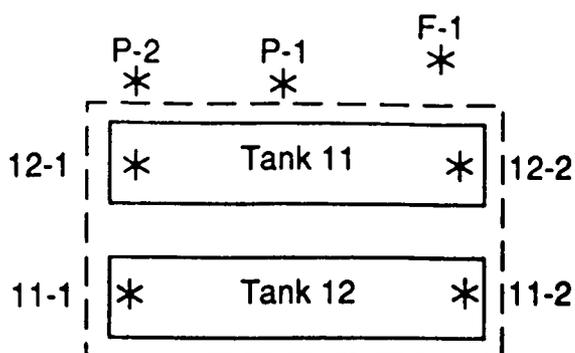
TANKS 11,12 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
11W-1	0.026	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
11W-2	0.031	< 0.5	< 0.5	< 0.5	< 1.0	2.0

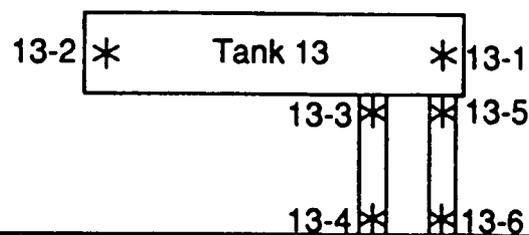
NOTE: Copies of the original analytical reports are provided in Appendix B.

FIGURE VI

1211



Building 1
Truck Dock



2ND STREET

SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
11-1	0.8	16:00	17:10	150 **
11-2	10	16:15	17:22	20
12-1	0.8	15:50	16:59	320 **
12-2	10	16:05	17:17	280 **
F-1	2	16:18	17:25	108
P-1	2	16:25	17:30	48
P-2	2	16:30	17:35	64

** Sample forwarded to laboratory for analysis.

6. Sample Dates

The samples were collected from the Tank 11 & 12 excavation on December 13, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technician was Andy Russell. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

11. Fire Inspector Identification

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

The Tank 11 and 12 cluster was removed on September 14, 1990.

1. General Background

Tank 13 was located approximately 25 feet east of the Building 1 truck dock and 40 feet south of the Building 1 cyclone fence. It was a 3,000 gallon multi-use steel tank which was used alternately to store kerosene and gasoline. The tank location can be found on the site maps which are provided in Appendix A.

2. Visual Site Evaluation

The visible surface features were as follows:

1. A concrete pump base remained at the north edge of the paved road located south of the tank.
2. A remote fill line terminated at the ground surface at the north edge of the paved road located south of the tank.

The ground surface in the area of the tanks was covered with approximately 6 inches of crushed limestone. The visual site evaluation indicated no visible evidence of a release.

3. Sample Collection Procedures

A rubber tired backhoe was used to bring full scoops of previously undisturbed soil from the floor of the excavation to the surface. At the surface, the sampling technician immediately used a spatula to remove the sample from the center of the bucket and placed it in a plastic tubular sample container. The sample containers were then sealed at once.

4. Sampling Equipment and Containers

Photo Ionization Detectors (PID) were used in the screening of the soil samples. The particular PID used for UST soil sampling was the H-Nu Model HW-101 with a 10.2 probe, made by H-Nu Systems, Inc. The photo ionization detectors used at the FMPC are calibrated prior to each use. Calibration is performed by exposing the instrument probe to 100 ppm isobutylene and performing any necessary adjustments to coordinate the resulting meter level.

The sampling tubes were 6" x 2 1/2" diameter containers. The samples for final laboratory disposition were placed in glass jars with teflon lined lids.

5. Sample Locations

Two samples were taken from the floor of the excavation at approximately 11 feet below the ground surface. Sample 13-1 was taken from the east side of the excavation. Sample 13-2 was collected from the west side of the excavation. Along the supply line, two samples were taken. Sample 13-3 was taken at the northern end of the supply line at a depth of about 2 feet. Sample 13-4 was taken at the southern end of the supply line at a depth of about 1.5 feet. Two samples were also collected along the dispensing line. Sample 13-5 was taken at the northern end of the dispensing line at a depth of about 5 feet. Sample 13-6 was collected at the southern end of the dispensing line about 4 feet below the ground surface.

Additional samples shall be taken and analyzed consistent with FMPC RI/FS Quality Assurance Project Plan protocols and procedures to support the development of required CERCLA documentation.

After screening with the photo ionization detector, Samples 13-3, 13-4, and 13-6 were determined to have the highest soil vapor level. These samples were sent the laboratory for analysis.

The locations of the soil sample points are shown in Figure VII. Analytical results are provided in Table 7.

TABLE 7
ANALYTICAL RESULTS
TANK 13 - SOIL

Sample Location	Lead mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Xylene ug/Kg	TPH mg/Kg
13-3	10.5	< 5.0	< 5.0	< 5.0	19.3	85
13-4	9.72	< 5.0	< 5.0	< 5.0	133	979
13-6	5.96	< 5.0	< 5.0	< 5.0	157	588

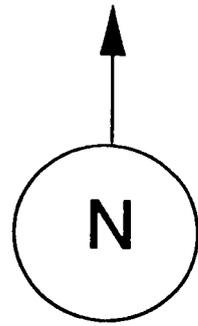
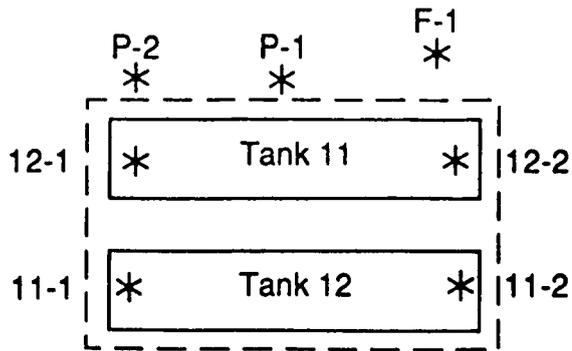
TANK 13 - WATER IN EXCAVATION

Sample Location	Lead mg/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylene ug/L	TPH mg/L
13W-1	0.011	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0
13W-2	0.006	< 0.5	< 0.5	< 0.5	< 1.0	2.0

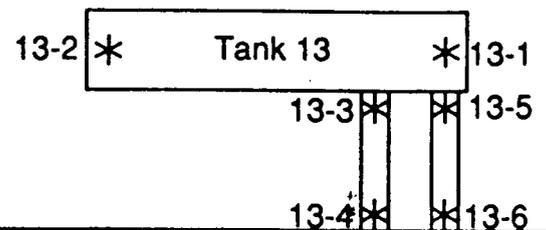
NOTE: Copies of the original analytical reports are provided in Appendix B.

FIGURE VII

1211



Building 1
Truck Dock



2ND STREET

SOIL SAMPLE LOCATIONS

Sample Location	Sample Depth (ft.)	Sample Time	Screening Time	HNu Reading (ppm)
13-1	11	13:55	15:30	4.2
13-2	11	14:00	15:31	4.2
13-3	2	14:10	15:33	6.6 **
13-4	1.5	14:15	15:34	23 **
13-5	5	14:25	15:36	4.4
13-6	4	14:30	15:37	6.8 **

** Sample forwarded to laboratory for analysis.

6. Sample Dates

The samples were collected from the Tank 13 excavation on December 13, 1990.

7. Sample Preservation Techniques

Samples were capped immediately after collection. After the samples were screened with field instruments, they were sealed in glass containers with teflon lined caps, and chilled to a temperature of 4 degrees Celsius. The samples remained refrigerated until they were shipped to an independent laboratory for analysis.

8. Chain-of-Custody

Copies of the completed chain-of-custody forms for the submitted samples are included in Appendix C.

9. Sampling Company Identification

The soil sampling and screening was performed by Executive Resource Associates. The sampling technician was Andy Russell. The address is:

Executive Resource Associates
4985 Cincinnati-Brookville Road
Cincinnati, OH
(513) 738-0002

10. Laboratory Identification

The soil samples were analyzed by National Environmental Testing, Inc.(NET). Their address is:

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
(513) 294-6856

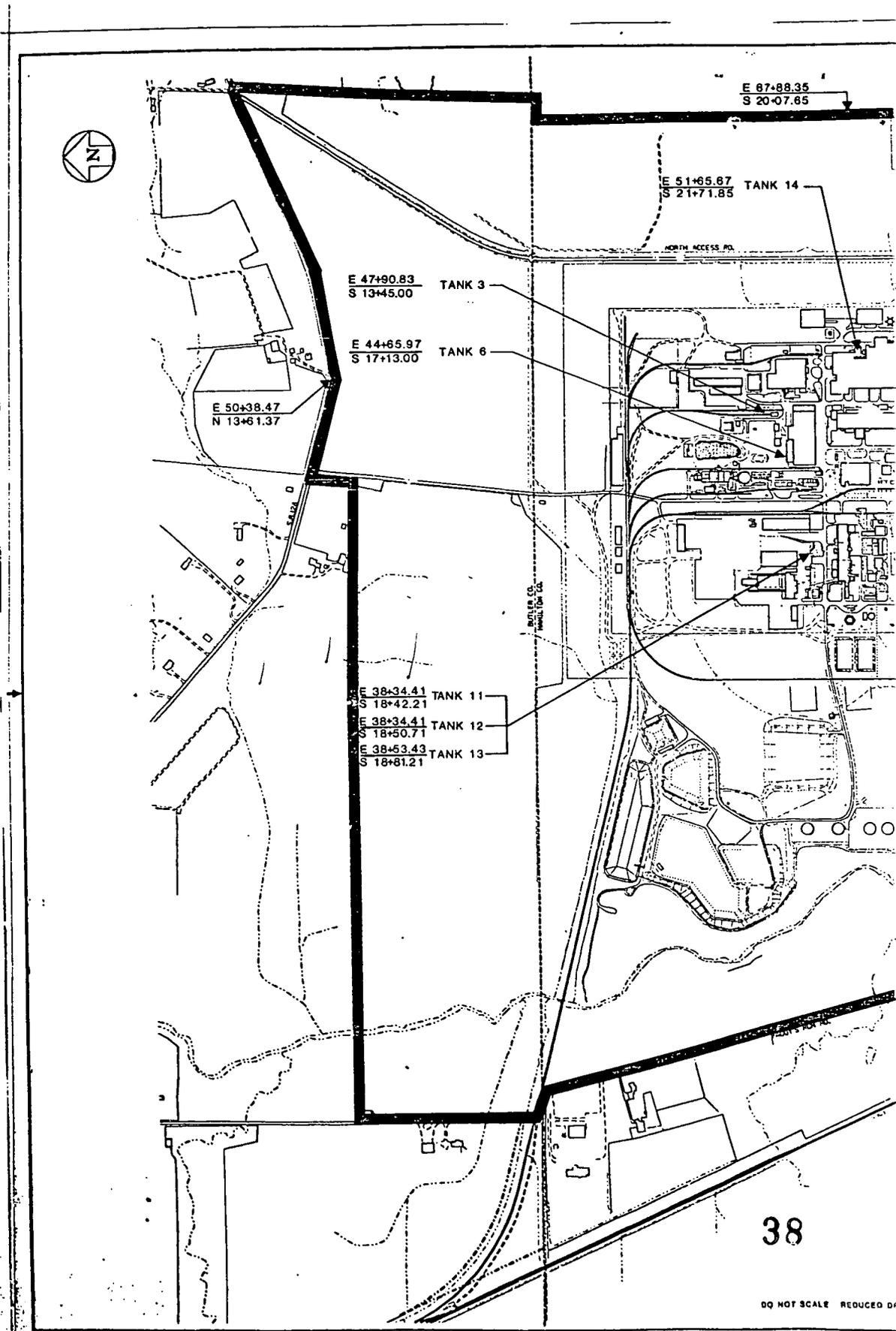
11. Fire Inspector Identification

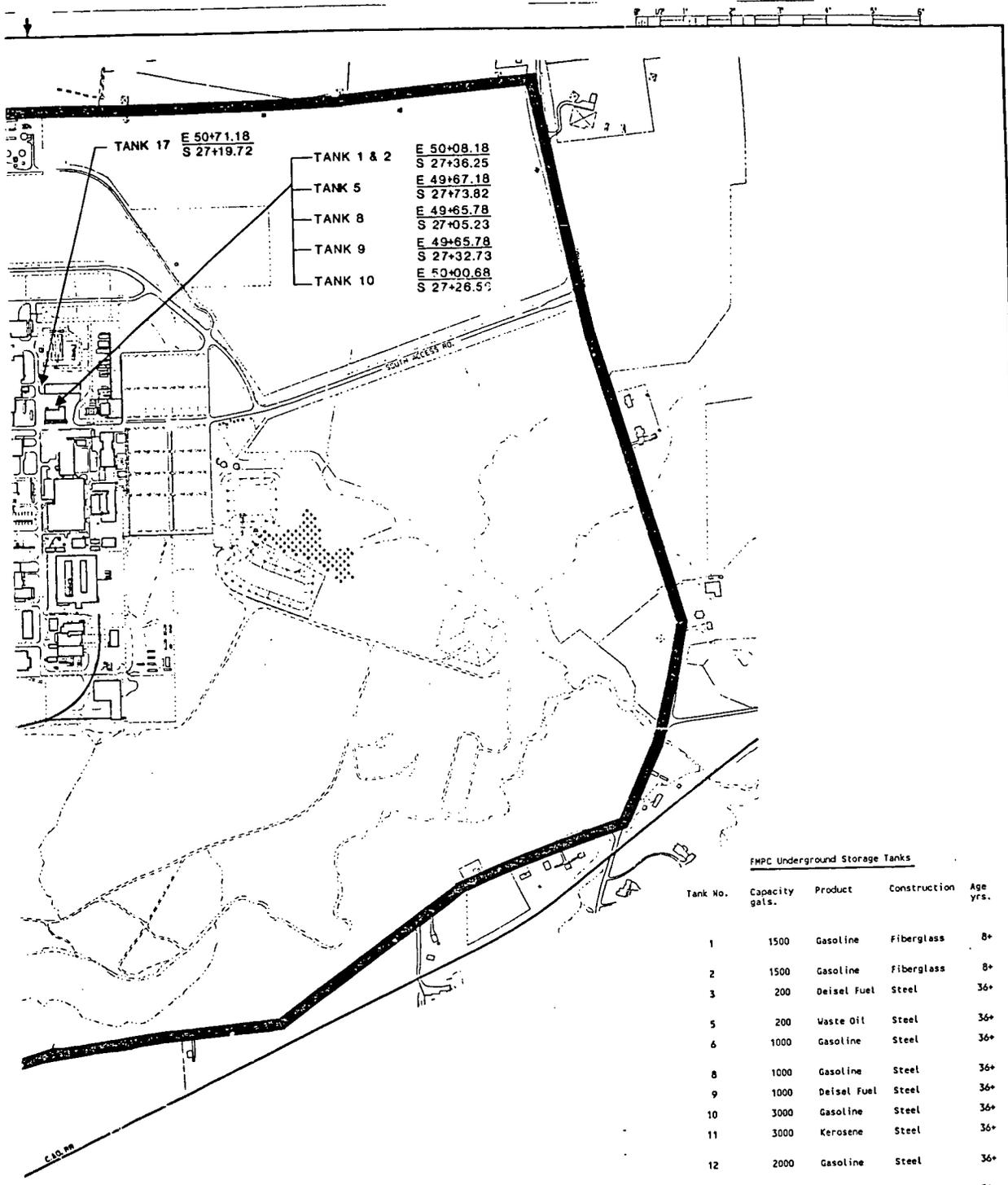
Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main Street
P.O. Box 525
Reynoldsburg, OH 43068-3395

12. Tank System Removal Dates

The Tank 13 system was removed on September 17, 1990.

APPENDIX A





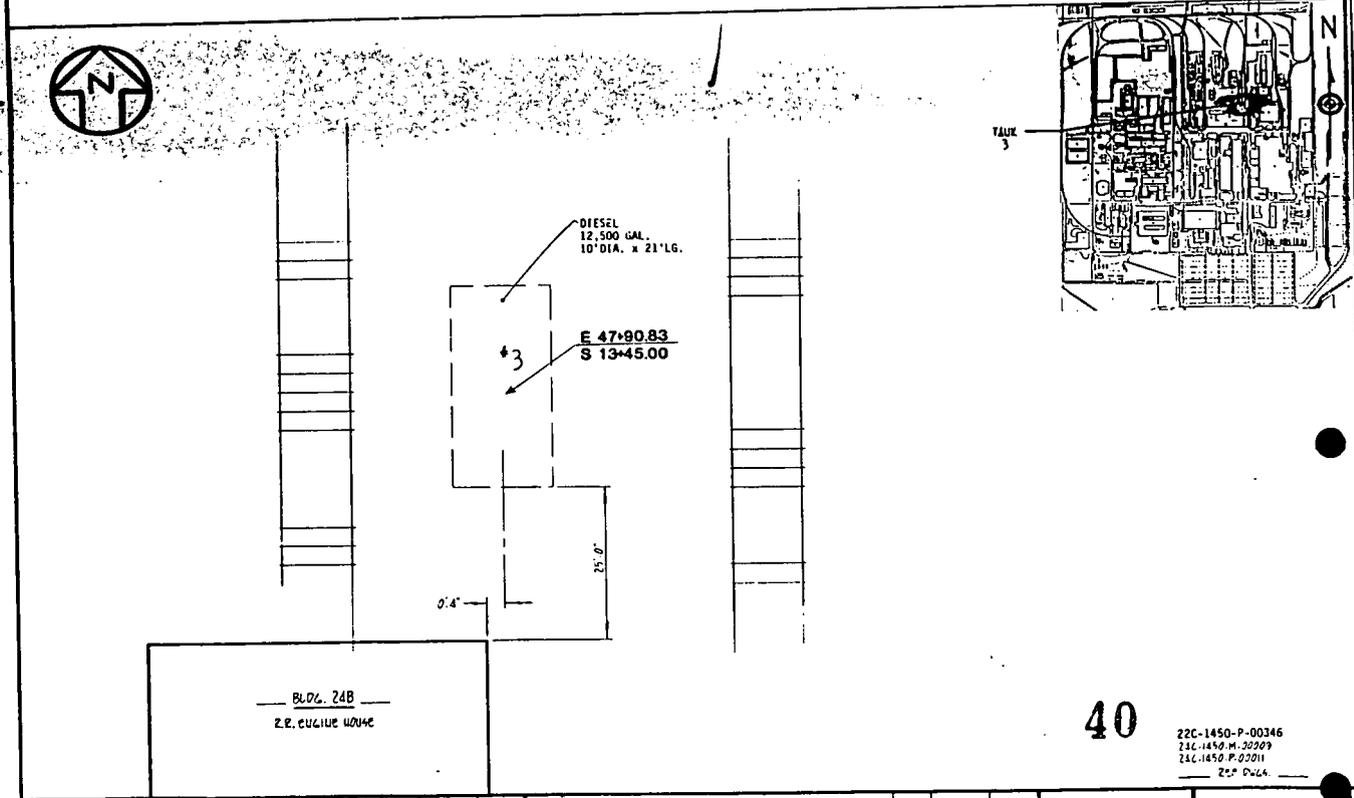
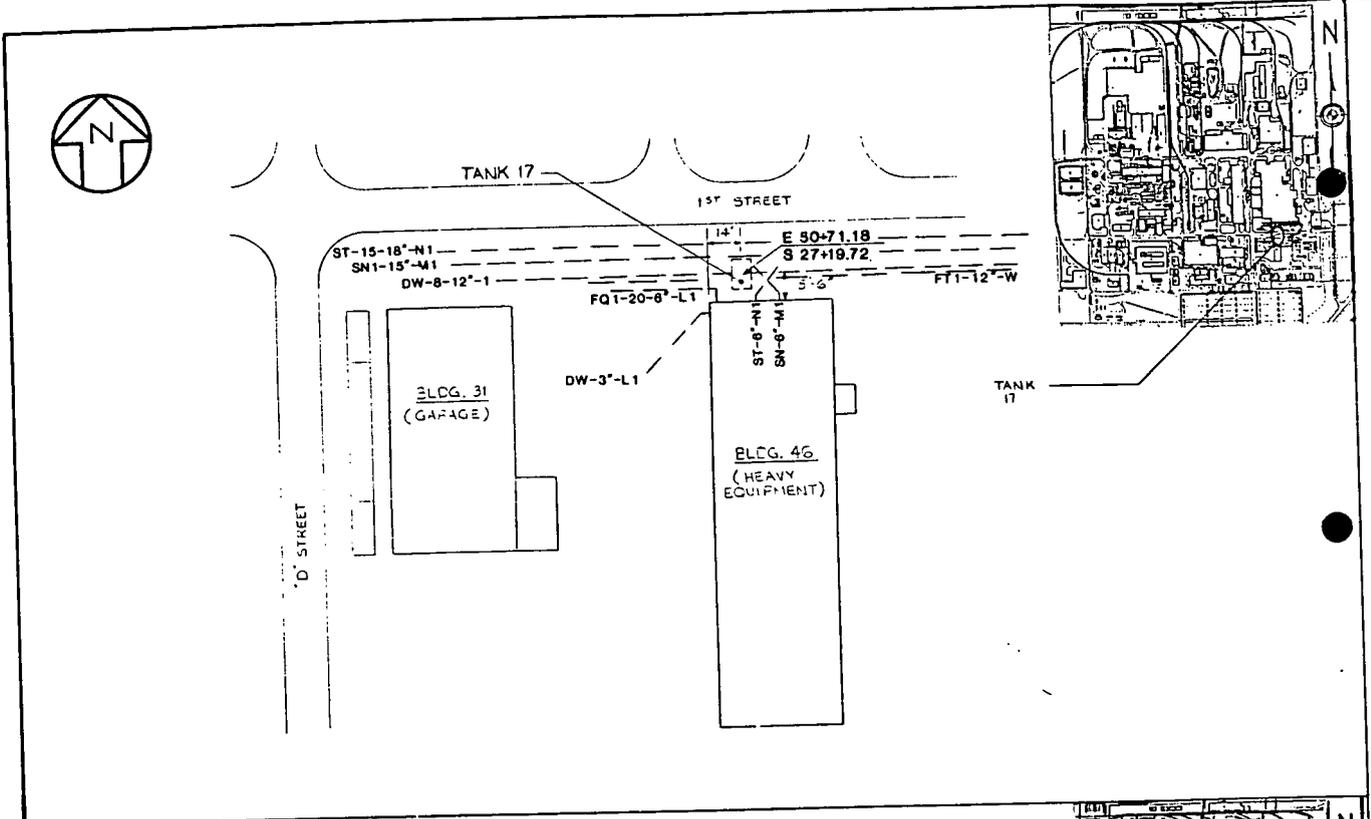
FMPC Underground Storage Tanks

Tank No.	Capacity gals.	Product	Construction	Age yrs.
1	1500	Gasoline	Fiberglass	8+
2	1500	Gasoline	Fiberglass	8+
3	200	Deisel Fuel	Steel	36+
5	200	Waste Oil	Steel	36+
6	1000	Gasoline	Steel	36+
8	1000	Gasoline	Steel	36+
9	1000	Deisel Fuel	Steel	36+
10	3000	Gasoline	Steel	36+
11	3000	Kerosene	Steel	36+
12	2000	Gasoline	Steel	36+
13	3000	Kerosene	Steel	36+
14	3000	Soluble Oil	Steel	26+
17	200	Waste Oil	Steel	36+

REFERENCE DWGS:
 22X-ESDD-G-3067
 22X-ESDD-G-3065B

39

NOTE: FMPC C.A.D. DRAWING NOT TO BE REVISED MANUALLY	CHECKED DATE: 11/27/79 BY: [Signature]	APPROVALS [Signatures]	WESTINGHOUSE MATLS.CO.OP OHIO PERNALD, OHIO	UNDERGROUND STORAGE TANKS FMPC SITE MAP SCALE-1"=300' DATE: 11/27/79 BY: [Signature]
	WESTINGHOUSE MATLS.CO.OP OHIO PERNALD, OHIO FEED MATERIALS PRODUCTION CENTER U.S. DEPARTMENT OF ENERGY	22X-ESDD-G-3067 0		

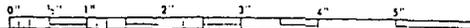


40

22C-1450-P-00346
23C-1450-M-00209
23C-1450-P-00011
23C-1450-P-00011

NO.	REVISIONS	DATE	OWN. BY	APPD.	NO.	REVISIONS	DATE	OWN. BY	APPD.	REF. DWG. NO.
										22A-5500-G-00657
										22A-5500-G-00719
										25C-5529-L-00216 (1)

1211



JAN 24 '91

NOTES:

1. ALL DIMENSIONS ARE APPROXIMATE. NO VERIFICATION HAS BEEN DONE.
2. REFERENCED DRAWINGS ARE NOT AS-BUILTS. CHANGES MAY HAVE OCCURRED SINCE INSTALLATION.
3. TANK REMOVAL TO INCLUDE REMOVAL OF PIPING AND VENTS.

41

NOTE: ALL DIMENSIONS ARE APPROX.

<p>NO DIMENSIONS SPECIFIED UNLESS OTHERWISE NOTED</p> <p>SCALE: 1" = 1'-0"</p> <p>DATE: 1/17/91</p> <p>DRAWN: JLB</p> <p>CHECKED: JLB</p> <p>APPROVED: JLB</p>	<p>APPROVALS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">CHEMICAL</td> <td style="width: 33%;">ES & M</td> <td style="width: 33%;"></td> </tr> <tr> <td>CIVIL & STR</td> <td>MAINTENANCE</td> <td></td> </tr> <tr> <td>ELECTRICAL</td> <td>NU SAFETY</td> <td></td> </tr> <tr> <td>ENGINEER</td> <td>QA</td> <td></td> </tr> <tr> <td>INSTRUMENT</td> <td>PRODUCTION</td> <td></td> </tr> <tr> <td>MECHANICAL</td> <td>PROD TECH</td> <td></td> </tr> <tr> <td>ENGINEER</td> <td>WASTE MANAGE</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> <td></td> </tr> <tr> <td>APPROVED</td> <td></td> <td></td> </tr> </table>	CHEMICAL	ES & M		CIVIL & STR	MAINTENANCE		ELECTRICAL	NU SAFETY		ENGINEER	QA		INSTRUMENT	PRODUCTION		MECHANICAL	PROD TECH		ENGINEER	WASTE MANAGE		CHECKED			APPROVED			<p>WESTINGHOUSE MAT'L'S. CO. OF OHIO</p> <p> FERNALD, OHIO </p> <p>FEDERAL MATERIALS PRODUCTION CENTER U.S. DEPARTMENT OF ENERGY</p>	<p>PL 76-243, 46</p> <p style="text-align: center;">UNDERGROUND STORAGE TANKS REMOVAL PLAN</p> <p>PROJ. NO. 22X 5500 G C0658 0 DATE 1/17/91 DRAWN JLB</p>
CHEMICAL	ES & M																													
CIVIL & STR	MAINTENANCE																													
ELECTRICAL	NU SAFETY																													
ENGINEER	QA																													
INSTRUMENT	PRODUCTION																													
MECHANICAL	PROD TECH																													
ENGINEER	WASTE MANAGE																													
CHECKED																														
APPROVED																														

1211

APPENDIX B



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Midwest, Inc.
Dayton Division 1211
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

ANALYTICAL REPORT

Sample Location: 10-1

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-10-91

Sample No.: 61671

PAGE 1

Sample Description: EM-2125

Date Taken: 12-07-90

Date Received: 12-12-90

Lead	7.20	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	41.4	ug/Kg
Toluene	106.	ug/Kg
Ethyl Benzene	18.1	ug/Kg
Xylene	149.	ug/Kg
TPH Method 418.1-Soil	61.	mg/Kg

John Andrejcio
John Andrejcio
Project Manager



NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc. 1211
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

ANALYTICAL REPORT

Sample Location: 10-2

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-10-91

Sample No.: 61672

PAGE 2

Sample Description: EM-2126

Date Taken: 12-07-90

Date Received: 12-12-90

Lead	5.34	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	5.96	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	27.7	ug/Kg
TPH Method 418.1-Soil	<10.	mg/Kg


John Andrejcio
Project Manager



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

ANALYTICAL REPORT

Sample Location: 10-5

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-10-91

Sample No.: 61673

PAGE 3

Sample Description: EM-2127

Date Taken: 12-07-90

Date Received: 12-12-90

Lead	4.24	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	<10.	ug/Kg
TPH Method 418.1-Soil	<10.	mg/Kg


John Andrejcio
Project Manager



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7818

ANALYTICAL REPORT

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-10-91

Sample No.: 61677

PAGE 4

Sample Description: 901204-028

Date Taken: 12-04-90

Date Received: 12-12-90

Cyanide, Total

<0.005

mg/L

A handwritten signature in black ink, appearing to read "John Andrejcio".
John Andrejcio
Project Manager



NATIONAL
ENVIRONMENTAL
TESTING, INC.

1211
NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

NOTES AND COMMENTS

PAGE 5

Samples were analyzed as authorized by purchase order 898000, release number 155.

Parameter	Method	Detection Limit
Cyanide	9010 distillation	
	9012 automated coloring	<0.005 mg/L
Lead	7420	<4. mg/Kg
Benzene	8020	<5. ug/Kg
Toluene	8020	<5. ug/Kg
Ethyl Benzene	8020	<5. ug/Kg
Xylene	8020	<10. ug/Kg
TPH	418.1	<10. mg/Kg


John Andrejcio
Project Manager



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

1211

ANALYTICAL REPORT

Sample Location: 3-1

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-11-91

Sample No.: 60605

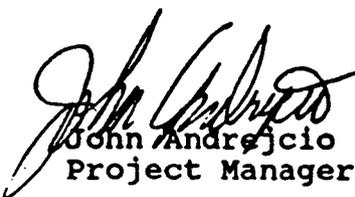
PAGE 1

Sample Description: EM-2119

Date Taken: 11-29-90

Date Received: 12-04-90

Lead	13.3	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	38.9	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	320.	ug/Kg
TPH Method 418.1-Soil	1,270.	mg/Kg


John Andrejcio
Project Manager



NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

1211

ANALYTICAL REPORT

Sample Location: 3-5

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-11-91

Sample No.: 60606

PAGE 2

Sample Description: EM-2120

Date Taken: 11-29-90

Date Received: 12-04-90

Lead	8.43	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	66.7	ug/Kg
Toluene	794.	ug/Kg
Ethyl Benzene	747.	ug/Kg
Xylene	6180.	ug/Kg
TPH Method 418.1-Soil	23,600.	mg/Kg


John Andrejcio
Project Manager



NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Dayton Division
3601 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

1211

ANALYTICAL REPORT

Sample Location: 3-4

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-11-91

Sample No.: 60607

PAGE 3

Sample Description: EM-2121

Date Taken: 11-29-90

Date Received: 12-04-90

Lead	9.46	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<50.	ug/Kg
Toluene	116.	ug/Kg
Ethyl Benzene	<50.	ug/Kg
Xylene	820.	ug/Kg
TPH Method 418.1-Soil	2,160.	mg/Kg


John Andrejcio
Project Manager



NOTES AND COMMENTS

Samples were analyzed as authorized by purchase order 898000, release number 152.

Parameter	Method	Detection Limit
Lead	7420	<4. mg/Kg
Benzene	8020	<5. ug/Kg
Toluene	8020	<5. ug/Kg
Ethyl Benzene	8020	<5. ug/Kg
Xylene	8030	<10. ug/Kg
TPH	418.1	<10. mg/Kg


John Andrejcio
Project Manager



1211

ANALYTICAL REPORT

William Hayes
WESTINGHOUSE MATERIALS
COMPANY OF OHIO
P.O. Box 398704
Cincinnati OH 45239

01-15-91

PAGE 1

DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62572	EM-2166 Sample Location: 8-1	12-13-90
Lead	13.2	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	271.	ug/Kg
Toluene	382.	ug/Kg
Ethyl Benzene	1190.	ug/Kg
Xylene	11300.	ug/Kg
TPH Method 418.1-Soil	285.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62573	EM-2167 Sample Location: 8-2	12-13-90
Lead	11.2	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	121.	ug/Kg
Toluene	379.	ug/Kg
Ethyl Benzene	4470.	ug/Kg
Xylene	1320.	ug/Kg
TPH Method 418.1-Soil	287.	mg/Kg


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SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62574	EM-2168 Sample Location: 8-4	12-13-90
Lead	10.0	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	14.1	ug/Kg
Toluene	8.26	ug/Kg
Ethyl Benzene	23.9	ug/Kg
Xylene	202.	ug/Kg
TPH Method 418.1-Soil	56.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62575	EM-2169 Sample Location: 9-1	12-13-90
Lead	8.92	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	34.6	ug/Kg
Toluene	14.4	ug/Kg
Ethyl Benzene	528.	ug/Kg
Xylene	11.4	ug/Kg
TPH Method 418.1-Soil	656.	mg/Kg


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Project Manager



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DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62576	EM-2170 Sample Location: 9-2	12-13-90
Lead	7.67	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	<10.	ug/Kg
TPH Method 418.1-Soil	519.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62577	EM-2171 Sample Location: A-1	12-13-90
Lead	35.6	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	<10.	ug/Kg
TPH Method 418.1-Soil	19.	mg/Kg


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DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62578	EM-2172 Sample Location: 13-3	12-13-90
Lead	10.5	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	19.3	ug/Kg
TPH Method 418.1-Soil	85.	mg/Kg


John Andrejcio
Project Manager



NOTES AND COMMENTS

Samples were analyzed as authorized by purchase order 898000, release number 160.

Parameter	Method	Detection Limit
Lead	7420	<4. mg/Kg
Benzene	8020	<5. ug/Kg
Toluene	8020	<5. ug/Kg
Ethyl Benzene	8020	<5. ug/Kg
Xylene	8020	<10. ug/Kg
TPH	418.1	<10. mg/Kg


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DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62579	EM-2173 Sample Location: 13-4	12-13-90
Lead	9.72	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	133.	ug/Kg
TPH Method 418.1-Soil	979.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62580	EM-2174 Sample Location: 13-6	12-13-90
Lead	5.96	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	157.	ug/Kg
TPH Method 418.1-Soil	588.	mg/Kg


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ANALYTICAL REPORT

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PAGE 2

DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62581	EM-2175 Sample Location: 12-1	12-13-90
Lead	19.7	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	77.7	ug/Kg
Toluene	255.	ug/Kg
Ethyl Benzene	690.	ug/Kg
Xylene	5210.	ug/Kg
TPH Method 418.1-Soil	374.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62582	EM-2176 Sample Location: 11-1	12-13-90
Lead	4.47	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	67.2	ug/Kg
Toluene	70.4	ug/Kg
Ethyl Benzene	652.	ug/Kg
Xylene	3850.	ug/Kg
TPH Method 418.1-Soil	1410.	mg/Kg

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Project Manager



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DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62583	EM-2177 Sample Location: 12-2	12-13-90
Lead	8.02	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	342.	ug/Kg
Toluene	519.	ug/Kg
Ethyl Benzene	2920.	ug/Kg
Xylene	11400.	ug/Kg
TPH Method 418.1-Soil	1810.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62584	EM-2178 Sample Location: 6-2	12-14-90
Lead	5.98	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	5.48	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	11.8	ug/Kg
TPH Method 418.1-Soil	<10.	mg/Kg


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Project Manager



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DATE RECEIVED: 12-19-90

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62585	EM-2179 Sample Location: 6-3	12-14-90
Lead	7.09	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	<10.	ug/Kg
TPH Method 418.1-Soil	<10.	mg/Kg

SAMPLE NO.	SAMPLE DESCRIPTION	DATE TAKEN
62586	EM-2180 Sample Location: 6-4	12-14-90
Lead	8.85	mg/Kg
TPH Method 8020-BTEX-Soil		
Benzene	<5.	ug/Kg
Toluene	<5.	ug/Kg
Ethyl Benzene	<5.	ug/Kg
Xylene	<10.	ug/Kg
TPH Method 418.1-Soil	<10.	mg/Kg


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NOTES AND COMMENTS

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Samples were analyzed as authorized by purchase order 898000, release number 160.

Parameter	Method	Detection Limit
Lead	7420	<4. mg/Kg
Benzene	8020	<5. ug/Kg
Toluene	8020	<5. ug/Kg
Ethyl Benzene	8020	<5. ug/Kg
Xylene	8020	<10. ug/Kg
TPH	418.1	<10. mg/Kg


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ANALYTICAL REPORT

Sample Location: 11W-1

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11-29-90

Sample No.: 55490

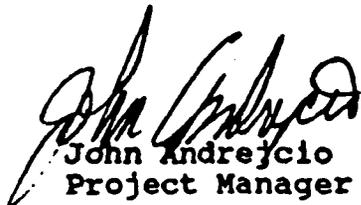
PAGE 1

Sample Description: EM2104

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.026	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water		
	<1.	mg/L


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ANALYTICAL REPORT

Sample Location: 11W-2

William Hayes
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COMPANY OF OHIO
P.O. Box 398704
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11-29-90

Sample No.: 55491

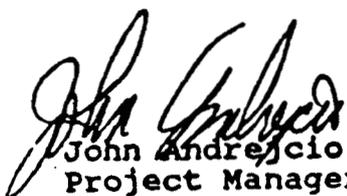
PAGE 2

Sample Description: EM2105

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.031	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	2.	mg/L


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Sample Location: 13W-1

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11-29-90

Sample No.: 55492

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Sample Description: EM2106

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.011	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water		
	<1.	mg/L

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Sample Location: 13W-2

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11-29-90

Sample No.: 55493

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Sample Description: EM2107

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.006	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	2.	mg/L


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ANALYTICAL REPORT

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Sample Location: 6W-1

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11-29-90

Sample No.: 55494

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Sample Description: EM2108

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	<0.005	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water		
	<1.	mg/L


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ANALYTICAL REPORT

Sample Location: 6W-2

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11-29-90

Sample No.: 55495

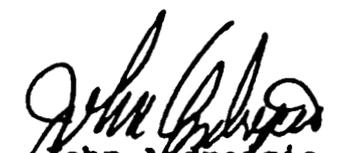
PAGE 6

Sample Description: EM2109

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.636	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	<1.	mg/L


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ANALYTICAL REPORT

Sample Location: 3W-1

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11-29-90

Sample No.: 55496

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Sample Description: EM2110

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.613	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<5.	ug/L
Toluene	<5.	ug/L
Ethyl Benzene	<5.	ug/L
Xylene	<10.	ug/L
TPH Method 418.1-Water	67.	mg/L


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Sample Location: 3W-2

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Sample No.: 55497

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Sample Description: EM2111

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.306	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<5.	ug/L
Toluene	<5.	ug/L
Ethyl Benzene	<5.	ug/L
Xylene	<10.	ug/L
TPH Method 418.1-Water	79.	mg/L


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ANALYTICAL REPORT

Sample Location: 8W-1

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11-29-90

Sample No.: 55498

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Sample Description: EM2112

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.083	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	<1.	mg/L


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ANALYTICAL REPORT

Sample Location: 8W-2

William Hayes
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11-29-90

Sample No.: 55499

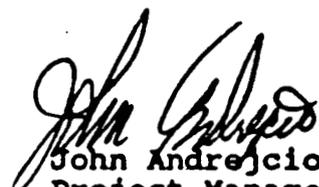
PAGE 10

Sample Description: EM2113

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.019	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	<1.	mg/L


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Sample Location: 9W-1

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11-29-90

Sample No.: 55500

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Sample Description: EM2114

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.011	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	<1.	mg/L

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Sample Location: 9W-2

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11-29-90

Sample No.: 55501

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Sample Description: EM2115

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.011	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water	<1.	mg/L


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Sample Location: 10W-1

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11-29-90

Sample No.: 55502

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Sample Description: EM2116

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	0.005	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water		
	<1.	mg/L


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Sample Location: 10W-2

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11-29-90

Sample No.: 55503

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Sample Description: EM2117

Date Taken: 10-26-90

Date Received: 10-26-90

Lead	<0.005	mg/L
TPH Method 8020-BTEX-Water		
Benzene	<0.5	ug/L
Toluene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene	<1.	ug/L
TPH Method 418.1-Water		
	<1.	mg/L


John Andrejcio
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NOTES AND COMMENTS

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Samples were analyzed as authorized by purchase order 898000, release number 137.

Samples were analyzed as follows:

Parameter	Method	Detection Limit
Lead	7421	<0.005 mg/L
BETX	8020	<0.5 ug/L
		<1. ug/L (Xylene only)
TPH	418.1	<1. mg/L

Sample numbers 55496 and 55497 exhibited a very prominent odor. They were run at a 1:10 dilution, which results in the higher detection limits given. The presence of apparent higher weight hydrocarbons would not allow a lower dilution to be used.


John Andrejcio
Project Manager

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APPENDIX C

WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Pg 1 of 1

PROJECT: <i>UST Soil Sampling</i>	CLIENT: <i>Env. Char. & Surv.</i>	TECHNICIAN/EXT.:
PROJECT #:	CLIENT CONTACT: <i>Lance Hall</i>	CHARGE #:
PE/PM: <i>John Eckstein</i>	PHONE: <i>6727</i>	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>					
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE					
							1	2	3	4	5	6
<i>EM-2119</i>		<i>UST # 3 samples</i>	<i>soil</i>	<i>11/29/90 1400</i>	<i>Glass-TLC/nohc</i>	<i>1-4oz</i>		<i>X</i>		<i>X</i>		<i>X</i>
<i>EM-2120</i>		<i>" " S5</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		<i>X</i>		<i>X</i>		<i>X</i>
<i>EM-2121</i>		<i>" " S4</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		<i>X</i>		<i>X</i>		<i>X</i>

Copy To: _____

ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
<i>Submission of samples</i>	<i>Ray Henderson</i>	<i>Carl Anderson</i>	<i>12-7-90</i>	<i>0925</i>					

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WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Page of 2

PROJECT: <i>U5T Soil Sampling</i>	CLIENT: <i>Env. Char. & Surv.</i>	TECHNICIAN/EXT.:
PROJECT #:	CLIENT CONTACT: <i>Lance Hall</i>	CHARGE #:
PE/PM: <i>John Eckstein</i>	PHONE: <i>6862</i>	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>					
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE					
							1	2	3	4	5	6
<i>EM-2176</i>		<i>U5T1142 sample 11-1</i>	<i>Soil</i>	<i>12/13/90/</i>				<i>Y</i>		<i>Y</i>		<i>Y</i>
<i>EM-2177</i>		<i>U5T1142 sample 12-2</i>	<i>Soil</i>	<i>12/13/90/</i>				<i>Y</i>		<i>Y</i>		<i>Y</i>

Copy To:									
ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
<i>12 samples</i>	<i>Cheryl Russell</i>	<i>Carol Anderson</i>	<i>12/14/90</i>	<i>1100</i>					

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WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Pg. of

PROJECT: <i>UST Removal</i>	CLIENT: <i>Env. Char. and Surv.</i>	TECHNICIAN/EXT.: <i>L. Hall / 6862</i>
PROJECT #:	CLIENT CONTACT: <i>L. Hall</i>	CHARGE #: <i>RZ 01</i>
PE/PM: <i>John Eckstein</i>	PHONE: <i>6862</i>	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>					
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE					
							1	2	3	4	5	6
<i>EM-2178</i>		<i>UST #6, sample 6-2</i>	<i>Soil</i>	<i>12-14-90/1435</i>	<i>glass-PLC/nope</i>	<i>1-4oz</i>		<i>X</i>		<i>X</i>		<i>X</i>
<i>EM-2179</i>		<i>" " 6-3</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		<i>X</i>		<i>X</i>		<i>X</i>
<i>EM-2180</i>		<i>" " 6-4</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		<i>X</i>		<i>X</i>		<i>X</i>

Copy To:

ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
<i>analy 6.5</i>	<i>Doug Henderson</i>	<i>Carol Anderson</i>	<i>12-17-90</i>	<i>0935</i>					

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WESTINGHOUSE MATERIALS COMPANY OF OHIO
Analytical Laboratories
Sample and Data Management

OFFSITE CUSTODY TRANSFER RECORD - ANALYSIS REQUEST

1211

Receiving Laboratory NET Midwest

Release # 160

3601 S. Dixie Avenue

Purchase Order # 8-98000

Dayton, OH 45439

Page 2 of 2

Sample Type: Soil (from underground storage tanks)

Analyses Requested: TPH, BTEX, TOTAL LEAD

<u>ITEM</u>	<u>SAMPLE NO.</u>	<u>OFF-SITE LAB NO.</u>	HOLDING TIME EXPIRATION Sample Collection Date
1.	<u>EM-2176</u>	_____	<u>12/13/90</u>
2.	<u>EM-2177</u>	_____	_____
3.	<u>EM-2178</u>	_____	_____
4.	<u>EM-2179</u>	_____	_____
5.	<u>EM-2180</u>	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____

WMCO: The container(s) in which the above samples were packaged were sealed by William H. Hayes on 12/19/90.

RECEIVER: I certify that the seal(s) on the container(s) in which the above samples were packaged were intact when received.
Peg Rose Date 12-19-90

NOTE: If the seal(s) were not intact, please contact Bill H. Hayes at (513) 738-6221 or Robert H. Hilbert at (513) 738-6522 as soon as possible and send a nonconformance report to Robert H. Hilbert.

Please return this form to Bill H. Hayes in the envelope provided.

WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Pg 1 of 2

PROJECT: UST Soil Sampling	CLIENT: ENV. Chem. & Surv.	TECHNICIAN/EXT.:
PROJECT #:	CLIENT CONTACT: Lane Hall	CHARGE #:
PE/PM: John Eckster	PHONE: 6802	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>					
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE					
							1	2	3	4	5	6
EM-2166		UST #8 Sample 8-1	Soil	12/13/90, 1300	Glass-TLC/none	-4oz		X		X		X
EM-2167		" Sample 8-2	"	" , 1305	" "	"		X		X		X
EM-2168		" Sample 8-4	"	" , 1312	" "	"		X		X		X
EM-2169		UST #9 Sample 9-1	"	" , 1316	" "	"		X		X		X
EM-2170		" Sample 9-2	"	" , 1318	" "	"		X		X		X
EM-2171		" Sample A-1	"	" , 1324	" "	"		X		X		X
EM-2172		UST 13 Sample 13-3	"	" , 1410	" "	"		X		X		X
EM-2173		UST 13 Sample 13-4	"	" , 1415	" "	"		X		X		X
EM-2174		UST 13 Sample 13-6	"	" , 1430	" "	"		X		X		X
EM-2175		UST #12 Sample 12-1	Soil	12/13/90 , 1550	Glass-TLC/none	1-4oz		X		X		X

Copy To:

ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
12 Sample	Amy Russell	Carol Anderson	12/14/90	1000					

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WEST JEROME HOUSE MATERIALS COMPANY OF OHIO
Analytical Laboratories
Sample and Data Management

1211

OFFSITE CUSTODY TRANSFER RECORD - ANALYSIS REQUEST

Receiving Laboratory NET Midwest
3601 S. Dixie Avenue
Dayton, OH 45439

Release # 160
Purchase Order # 8-98000
Page 1 of 2

Sample Type: Soil (from underground storage tanks)

Analyses Requested: TPH, BTEX, TOTAL LEAD

ITEM	SAMPLE NO.	OFF-SITE LAB NO.	HOLDING TIME
			EXPIRATION
1.	EM-2166		Sample Collection Date 12/13/90
2.	EM-2167		
3.	EM-2168		
4.	EM-2169		
5.	EM-2170		
6.	EM-2171		
7.	EM-2172		
8.	EM-2173		
9.	EM-2174		
10.	EM-2175		

WCMCO: The container(s) in which the above samples were packaged were sealed by William H. Hayes on 12/19/90.

RECEIVER: I certify that the seal(s) on the container(s) in which the above samples were packaged were intact when received.
Peg Rose Date 12-19-90

NOTE: If the seal(s) were not intact, please contact Bill H. Hayes at (513) 738-6221 or Robert H. Hilbert at (513) 738-6522 as soon as possible and send a nonconformance report to Robert H. Hilbert.

Please return this form to Bill H. Hayes in the envelope provided.

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WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Pg 1 of 1

PROJECT: <i>UST Soil Sampling</i>	CLIENT: <i>Env. Char. & Surv.</i>	TECHNICIAN/EXT.:
PROJECT #:	CLIENT CONTACT: <i>Lance Hall</i>	CHARGE #:
PE/PM: <i>John Eckstein</i>	PHONE: <i>6862</i>	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>					
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE					
							1	2	3	4	5	6
<i>En 2125</i>		<i>UST #10 Sample 10-1</i>	<i>Soil</i>	<i>12-7-90/1255</i>	<i>glass-TLC/None</i>	<i>1-4oz</i>		X		X		X
<i>" 2126</i>		<i>" " 10-2</i>	<i>↓</i>	<i>" / 1302</i>	<i>↓</i>	<i>↓</i>		X		X		X
<i>" 2127</i>		<i>" " 10-5</i>	<i>↓</i>	<i>" / 1316</i>	<i>↓</i>	<i>↓</i>		X		X		X

Copy To: *J Eckstein*

ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
<i>Analysis</i>	<i>[Signature]</i>	<i>Carol Anderson</i>	<i>12-10-90</i>	<i>1005</i>					

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WESTINGHOUSE MATERIALS COMPANY OF OHIO
Analytical Laboratories
Sample and Data Management

1211

OFFSITE CUSTODY TRANSFER RECORD - ANALYSIS REQUEST

Receiving Laboratory NET Midwest
3601 S. Dixie Avenue
Dayton, OH 45439

Release # 155
Purchase Order # 8-98000
Page 1 of 1

Sample Type: Soil

Analyses Requested: BTEX, TPH, total lead

ITEM	SAMPLE NO.	OFF-SITE LAB NO.	SAMPLE COLLECTION DATE
			HOLD TIME EXPIRATION
1.	<u>10-1</u>	<u> </u>	<u>12/7/90</u>
2.	<u>10-2</u>	<u> </u>	<u>12/7/90</u>
3.	<u>10-5</u>	<u> </u>	<u>12/7/90</u>
4.	<u> </u>	<u> </u>	<u> </u>
5.	<u> </u>	<u> </u>	<u> </u>
6.	<u> </u>	<u> </u>	<u> </u>
7.	<u> </u>	<u> </u>	<u> </u>
8.	<u> </u>	<u> </u>	<u> </u>
9.	<u> </u>	<u> </u>	<u> </u>
10.	<u> </u>	<u> </u>	<u> </u>

WMCO: The container(s) in which the above samples were packaged were sealed by William H. Hayes on 12/10/90.

RECEIVER: I certify that the seal(s) on the container(s) in which the above samples were packaged were intact when received.
Peg Rose Date 12-12-90

NOTE: If the seal(s) were not intact, please contact Bill H. Hayes at (513) 738-6221 or Robert H. Hilbert at (513) 738-6522 as soon as possible and send a nonconformance report to Robert H. Hilbert.

Please return this form to Bill H. Hayes in the envelope provided.

WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Pg 1 of 2

PROJECT: <u>Underground Storage Tank</u>	CLIENT: <u>Env Chem & Serv</u>	TECHNICIAN/EXT.: <u>L Hall</u>
PROJECT #:	CLIENT CONTACT: <u>L Hall</u>	CHARGE #: <u>RZN 01</u>
PE/PM: <u>J. E. Batein</u>	PHONE: <u>6727</u>	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>							
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE							
							1	2	3	4	5	6		
Em 2104		Station 11/12	liquid	10/26/90/1000	Pb ₂ /HNO ₃ Glass/	3.40ml 1.950cc 1 liter		X						X
2105		11/12		1000				X						X
2106		13		1010 1010 10/26/90				X						X
2107		13		1010				X						X
2108		6		1045				X						X
2109		6		1045				X						X
2110		3		1310				X						X
2111		3		1310				X						X
2112		8		1340				X						X
2113		8		1340				X						X

Copy To:

ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
	<u>Sam Beck</u>	<u>W. H. ...</u>	<u>10/26</u>	<u>1330</u>					

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WESTINGHOUSE MATERIALS COMPANY OF OHIO

P.O. BOX 398704, CINCINNATI, OHIO 45239-8704

Control #: _____

ANALYSIS REQUEST / CUSTODY RECORD

Pg 2 of 2

PROJECT: <u>Underground Storage Tank</u>	CLIENT: <u>Enr Chart Secu</u>	TECHNICIAN/EXT.: <u>L Hall</u>
PROJECT #:	CLIENT CONTACT: <u>L Hall</u>	CHARGE #: <u>R7 N 91</u>
PE/PM: <u>J. Epstein</u>	PHONE: <u>6207</u>	LOT MARK CODE:

SAMPLE IDENTIFICATION							ANALYSIS REQUESTED <small>(SEE REVERSE FOR PARAMETERS)</small>							
SAMPLE NUMBER	CUSTOMER NUMBER	DESCRIPTION	MATRIX	DATE/TIME COLLECTED	CONTAINER/PRESERVATIVE	# CONT/VOLUME	TABLE							
							1	2	3	4	5	6		
EM 2114		Station 9	Liquid	10/26/90/1355	Poly/HNO3 Glass/—	3-45 ml 1-95cc 1-6 liter		X						X
2115		↓ 9	↓	↓ 1355	↓	↓		X						X
2116		↓ 10	↓	↓ 1325	↓	↓		X						X
2117		↓ 10	↓	↓ 1325	↓	↓		X						X

Copy To: _____

ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME	ITEM/REASON	RELINQUISHED BY	RECEIVED BY	DATE	TIME
	<u>James B. ...</u>	<u>W. H. ...</u>	<u>10/26</u>	<u>1330</u>					

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1211

WEST WAGHOUSE MATERIALS COMPANY OF OHIO
Analytical Laboratories
Sample and Data Management

1211

OFFSITE CUSTODY TRANSFER RECORD - ANALYSIS REQUEST

Receiving Laboratory NET Midwest Release # 137
3601 S. Dixie Avenue Purchase Order # 8-98000
Dayton, OH 45439 Page 1 of 2

Sample Type: Water

Analyses Requested: BTEX, TPH, Total Lead

ITEM	SAMPLE NO.	OFF-SITE LAB NO.	HOLDING TIME EXPIRATION
1.	EM2104		October 31, 1990
2.	EM2105		" "
3.	EM2106		" "
4.	EM2107		" "
5.	EM2108		" "
6.	EM2109		" "
7.	EM2110		" "
8.	EM2111		" "
9.	EM2112		" "
10.	EM2113		" "

WMCO: The container(s) in which the above samples were packaged were sealed by William H. Hayes on 10/25/90.

RECEIVER: I certify that the seal(s) on the container(s) in which the above samples were packaged were intact when received.
Mary Ellen Courtney Date 10-29-90.

NOTE: If the seal(s) were not intact, please contact Bill H. Hayes at (513) 738-6221 or Robert H. Hilbert at (513) 738-6522 as soon as possible and send a nonconformance report to Robert H. Hilbert.

Please return this form to Bill H. Hayes in the envelope provided.

WESTHOUSE MATERIALS COMPANY OF OHIO
Analytical Laboratories
Sample and Data Management

1211

OFFSITE CUSTODY TRANSFER RECORD - ANALYSIS REQUEST

Receiving Laboratory NET Midwest
3601 S. Dixie Avenue
Dayton, OH 45439

Release # 137
Purchase Order # 8-98000
Page 2 of 2

Sample Type: Water

Analyses Requested: BTEX, TPH, Total Lead

ITEM	SAMPLE NO.	OFF-SITE LAB NO.	HOLDING TIME EXPIRATION
1.	EM2114		October 31, 1990
2.	EM2115 ^{mic} (5)		" "
3.	EM2116		" "
4.	EM2117 ^{mic} (2117)		" "
5.			
6.			
7.			
8.			
9.			
10.			

WMCO: The container(s) in which the above samples were packaged were sealed by William H. Hayes on 10/25/90.

RECEIVER: I certify that the seal(s) on the container(s) in which the above samples were packaged were intact when received.
Mary Ellen Courtney Date 10-29-90.

NOTE: If the seal(s) were not intact, please contact Bill H. Hayes at (513) 738-6221 or Robert H. Hilbert at (513) 738-6522 as soon as possible and send a nonconformance report to Robert H. Hilbert.

Please return this form to Bill H. Hayes in the envelope provided.