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Ms. Cheryl Howe  
Michigan Department of  
Natural Resources  
Senior Environmental Engineer  
POB 30028  
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November 6, 1989

RE: GM - Central Foundry, Saginaw Nodular Iron Plant

Dear Ms. Howe,

I am forwarding to you by copy of this letter four (4) copies each of the DOCUMENTATION REPORT FOR THE RCRA CLOSURE OF A PAINT STORAGE BUILDING DRUM STORAGE AREA and DOCUMENTATION REPORT FOR RCRA CLOSURE OF A HAZARDOUS WASTE CONTROL TANK to document the final closure activities of these areas. The documents have been stamped by a third party professional engineer and the General Motors - Central Foundry signatory authority for the Saginaw Nodular location.

For your information, all further activities at the Nodular Iron site will be coordinated via Central Foundry Divisional office. I am also enclosing my card for your convenience.

Sincerely,

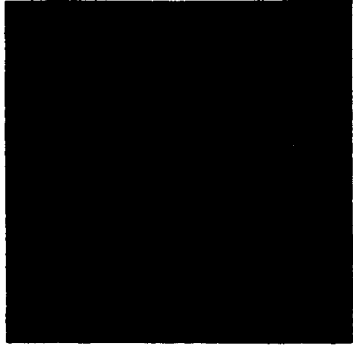
G. Keith West  
Senior Engineer -  
Environmental Activities

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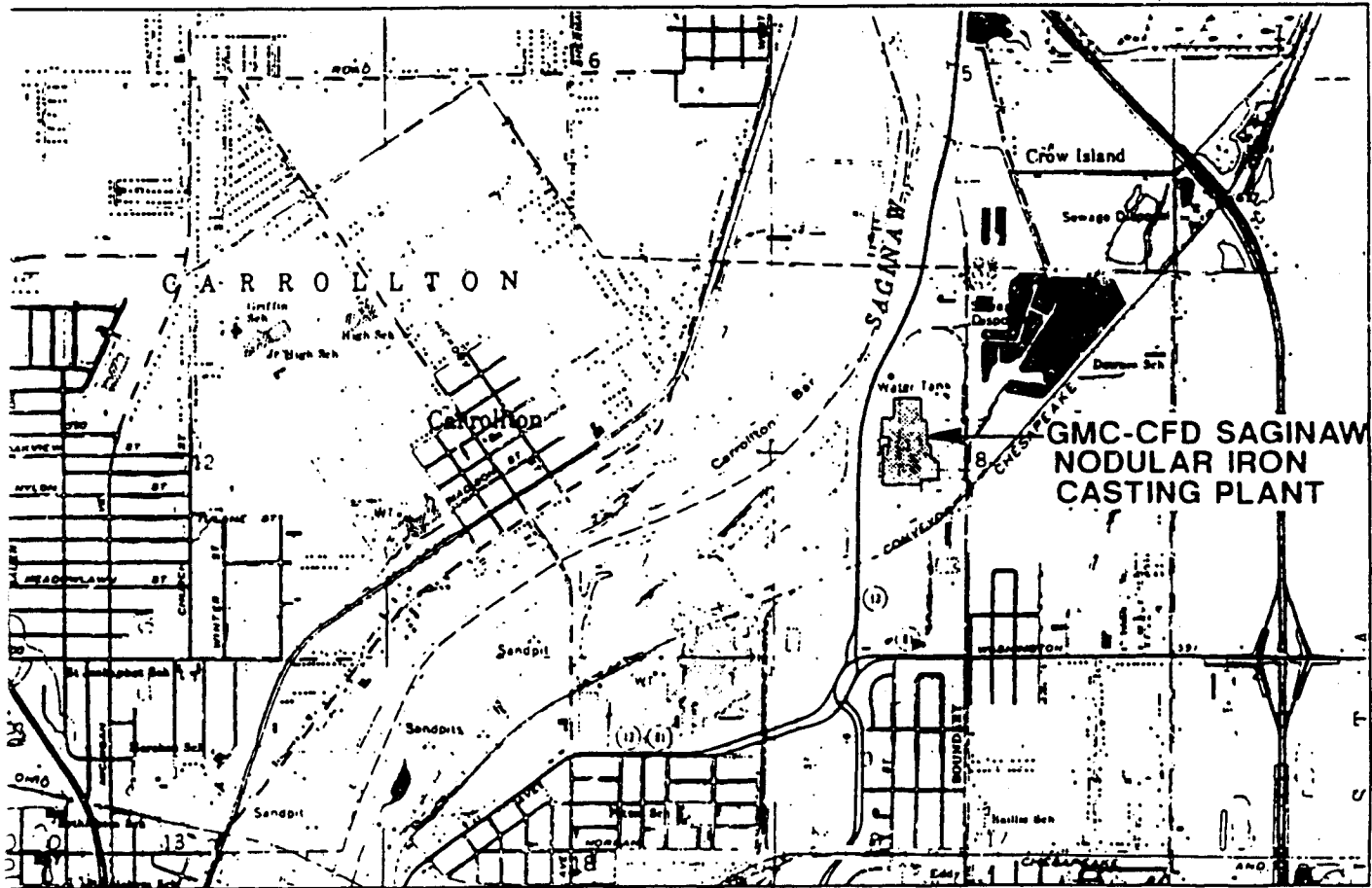
Waste Management  
Division





**SAGINAW NODULAR IRON CASTING PLANT  
SAGINAW, MICHIGAN**

**DOCUMENTATION REPORT FOR RCRA CLOSURE OF A  
PAINT STORAGE BUILDING DRUM STORAGE AREA**





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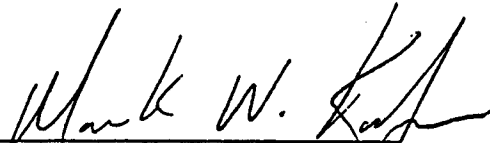
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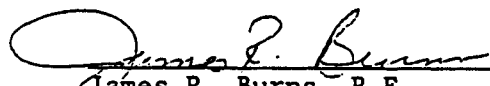
DOCUMENTATION REPORT FOR  
RCRA CLOSURE OF THE PAINT STORAGE BUILDING  
DRUM STORAGE AREA

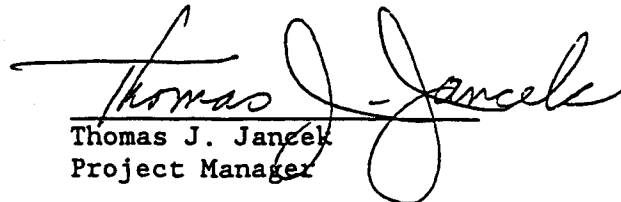
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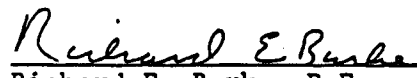
GENERAL MOTORS CORPORATION  
CENTRAL FOUNDRY DIVISION  
SAGINAW NODULAR IRON PLANT  
SAGINAW, MICHIGAN

SEPTEMBER 1989

  
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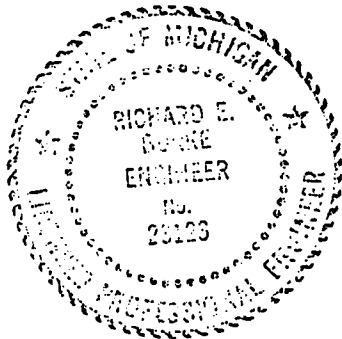
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Waste Management  
Division

CERTIFICATION OF CLOSURE

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and believe, true, accurate, and complete, and the closure activities for this unit have been conducted in substantial conformance with the approved closure plan. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Richard E. Burke  
Richard E. Burke, P.E.  
Manager of Technical Operations

James E. Wheeler  
James E. Wheeler  
Manufacturing Manager  
GMC-CFD

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1. INTRODUCTION

1.1 Background

Since November 1980, the General Motors Corporation - Central Foundry Division Saginaw Nodular Iron Casting Plant (GM-SNI) in Saginaw, Michigan has operated the paint storage building (PSB) drum storage area as a hazardous waste unit due to the storage of spent non-hazardous and hazardous waste that requires transportation manifesting under Michigan Act 64 and 136.

This unit operated under RCRA Interim Status Regulations contained in 40 CFR Part 265 and under Michigan Act 64 hazardous waste regulations. The Paint Storage Building Drum Storage Area had been identified on the plants original RCRA Part "A" Permit Application and on the subsequent revisions of the Part A.

The GM-SNI plant began preparing a closure plan for the paint storage building drum storage area in mid-1987 and submitted the closure plan to the Michigan Department of Natural Resources (MDNR) in December 1987.

The closure plan described the activities, tests, and closure performance standards used to document the closure of the drum storage area in accordance with Michigan Public Act 64. The following documents all relate to the submittal, modification, and approval of the closure plan for the paint storage building drum storage area.

Interim Status Closure Plan for the Paint Storage Building Drum Storage Area, December 1987.

Addenda for RCRA Closure Plans, May 1988.

Summary of March 10, 1989 meeting with the MDNR regarding approved closure methods for four RCRA units at the GM-SNI plant.

## 1.2 Purpose and Scope

The purpose of this report is to describe the MDNR-approved closure activities performed by GM-SNI. These closure activities were proposed to MDNR in the previously listed documents, and subsequently approved by MDNR.

The scope of this report includes the following:

A description of the closure performance standard and specifications.

A description of the impacts of the drum storage area on the underlying soils by means of establishing background concentrations, sampling and analyzing soils within and adjacent to the hazardous waste management unit and the evaluation of those results.

A description of the excavation of the impacted soils, depth determinations and methods to prevent track-out.

A description of final decontamination of equipment.

A description of the backfill and final cover procedures.

A description of the post-excavation sampling activities and analytical results.

The scope of RMT's involvement in the closure process has included the following:

- . Assist GM-SNI in the development of a closure plan for the paint storage building drum storage area.
- . Collect soil samples from background locations and analyze for the parameters defined in the approved closure plan.
- . Observe the removal and disposal of the impacted soils and decontamination of excavation equipment.
- . Collect and analyze soil samples from the excavation area for the parameters defined in the approved closure plan.
- . Observe the backfill and final cover operation.

2. CLOSURE PERFORMANCE STANDARD AND SPECIFICATIONS

The closure performance standard specified in the MDNR approved closure plan is detailed below:

1. Minimization of further maintenance.
2. Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to ground or surface waters or to the atmosphere.

The closure of the paint storage building drum storage area consisted of the following elements:

1. Evaluation of underlying soils
2. Excavation of impacted soils
3. Evaluation of the remaining soils
4. Decontamination of equipment
5. Backfill and compaction of excavation

This closure documentation report details how closure activities were conducted at the site to achieve the above referenced closure performance standard.

3. DOCUMENTATION OF CLOSURE ACTIVITIES

3.1 Description of Wastes Stored in Drum Storage Area

The drum storage area had been used to store spent non-hazardous and hazardous waste that require manifest under Michigan Acts 64 and 136. The list below describes each of the RCRA hazardous waste (40 CFR Part 261 Subparts C & D) generated at the GM-SNI plant and stored within the drum storage area:

- D001 Waste Petroleum Naphtha  
Combustible Liquid, UN 1255
- F002 Waste Compound, Cleaning Liquid,  
Corrosive Material, NA 1760  
(Halogenated Solvents)
- F004 Waste Compound, Cleaning Liquid,  
Corrosive Material, NA 1760  
(Non Halogenated Solvents)

In addition, three non hazardous wastes that require manifesting under Michigan Act 136 were stored in this area prior to off-site disposal. These wastes are identified in Table 3-1.

All hazardous wastes stored in the paint storage building drum storage area were disposed by GM-SNI at a licensed hazardous waste disposal facility prior to the development of the closure plan approved by MDNR.

TABLE 3-1

MICHIGAN ACT 136 WASTES MANIFESTED FOR  
THE PAINT STORAGE BUILDING DRUM STORAGE AREA

<u>Michigan Act 136 Waste Classification</u>	<u>Description of Act 136 Classification</u>	<u>Identification of Wastes From Manifest Using Act 136 Classification</u>
016L	Covers industrial non-hazardous plasticizers monomers, resins and elastomers.	Phenol Formaldehyde Resin and Sand, N.O.S.(1)
021L	Industrial nonhazardous waste oils not covered by any other specific declassification of oil wastes.	Waste Oil, N.O.S.
029L	Industrial nonhazardous wastes not covered under any other classification. This would be the "catch all" for any miscellaneous waste.	Phenolic Hot Box Resins, N.O.S. Waste Catalyst N.O.S. Wastewater and Oil N.O.S. Waste sand and Oil N.O.S. Waste De-Icer/Hydrocarbon, N.O.S.

(1) N.O.S. - Not Otherwise Specified

### 3.2 Decontamination of the Paint Storage Building Drum Storage Area

Drums and debris were removed from the paint storage building drum storage area prior to initiating decontamination activities for the storage pad. The surfaces of the concrete slab and curb were washed with a mild alkaline detergent and triple rinsed with water from the City of Saginaw potable water supply. The wash and rinse waters generated during decontamination were collected in two barrels. The liquids were tested for benzene, toluene, xylene, methyl-ethyl ketone (MEK), methyl-isobutyl ketone (MIBK). Since these constituents were not found in the wash or rinse waters, these materials were disposed of at the GM-SGI wastewater treatment plant.

### 3.3 Evaluation of Impacts of the Drum Storage Area on the Surrounding Soil

The sampling and analysis plan described in the closure plan was conducted during 1987 and 1988. These activities are summarized in the following sections.

#### 3.3.1 Establishment of Background Conditions

Background soil samples were collected from four soil borings located in areas believed to be unaffected by the drum storage area or by the use of the original materials. The locations of the borings are presented in Figure 3-1. The analytical results of the four borings were used to establish the upper 99% prediction limits for background concentrations of arsenic, barium, chromium, cadmium, copper, lead, mercury, selenium, silver, and zinc. The laboratory results are summarized in Table 3-2.

TABLE 3-2  
 CMC - CFD - SAGINAW MODULAR IRON PLANT  
 BACKGROUND SOIL SAMPLE RESULTS

PARAMETER	Background 97% Prediction Limit	BB-1B (0-2)	BB-1 (1-3)	BB-1 (5-6)	BB-1B (8-10)	BB-2B (0-2)	BB-2 (1-2.5)	BB-2B (4-6)	BB-2 (5.5-6.5)	BB-3B (0-2)	BB-3 (0.5-1.5)	BB-3 (4-5)	BB-3B (16-18)	BB-4B (0-2)	BB-4 (1-2)	BB-4 (3-4)	BB-4B (4-6)	SAMPLE MEAN*
Arsenic	16	3.6	10	6.6	2.6	1.3	8.4	4.7	4.8	3.7	14	12	2.5	2.3	4.5	1.8	4.6	5.6
Barium	250	63	NS	NS	NS	110	NS	NS	NS	81	NS	NS	NS	25.00	NS	NS	NS	70.00
Cadmium	1.8	<0.52	1.2	<1.0	<0.62	<0.49	<1.0	<1.2	<1.0	<0.53	<1.0	<1.0	<0.57	<0.50	<1.0	<1.0	<0.64	0.43
Chromium	178	63	NS	NS	15	140	NS	32*	NS	38	NS	NS	13	22	NS	NS	43	46
Copper	137	58	NS	NS	NS	25	NS	NS	NS	21	NS	NS	NS	7.0	NS	NS	NS	28.00
Fluoride	10,300	930	NS	NS	1000	61	NS	240	NS	860	NS	NS	320	200	NS	NS	8300	1490
Lead	136	140	120	18	18	15	32	<12	<10	26	15	<10	14	17	<10	<10	14	28
Mercury	0.261	<0.093	NS	NS	NS	<0.073	NS	NS	NS	<0.083	NS	NS	NS	<0.079	NS	NS	NS	0.038
Phenols	3.3	<1.4	NS	NS	<1.5	<1.3	NS	<1.5	NS	<1.3	NS	NS	<1.4	<1.3	NS	NS	<1.6	0.75
Selenium	1.5	<0.88	0.78	<0.60	<0.99	<0.81	<0.60	<0.96	<0.60	<0.86	<0.60	<0.60	<0.91	<0.83	<0.60	<0.60	<1.0	0.38
Silver	3.4	<1.1	NS	NS	NS	<1	NS	NS	NS	<1	NS	NS	NS	<1	NS	NS	NS	0.50
Zinc	1050	650	NS	NS	22	600*	NS	140	NS	40	NS	NS	32	43	NS	NS	24	194

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Concentrations in mg/kg dry weight.

\* - indicates sample matrix interferences.

\*\* - For concentrations below the detection limits,  $\mu_0$  and the detection value were alternately used in the statistical calculations.

Prediction limit -  $X_0(t, s, v)(1 + 1/n)0.5(s)$ ; where  $\mu$  = mean, number of samples,  $s$  = standard deviation,  $n$  and  $v$  are the

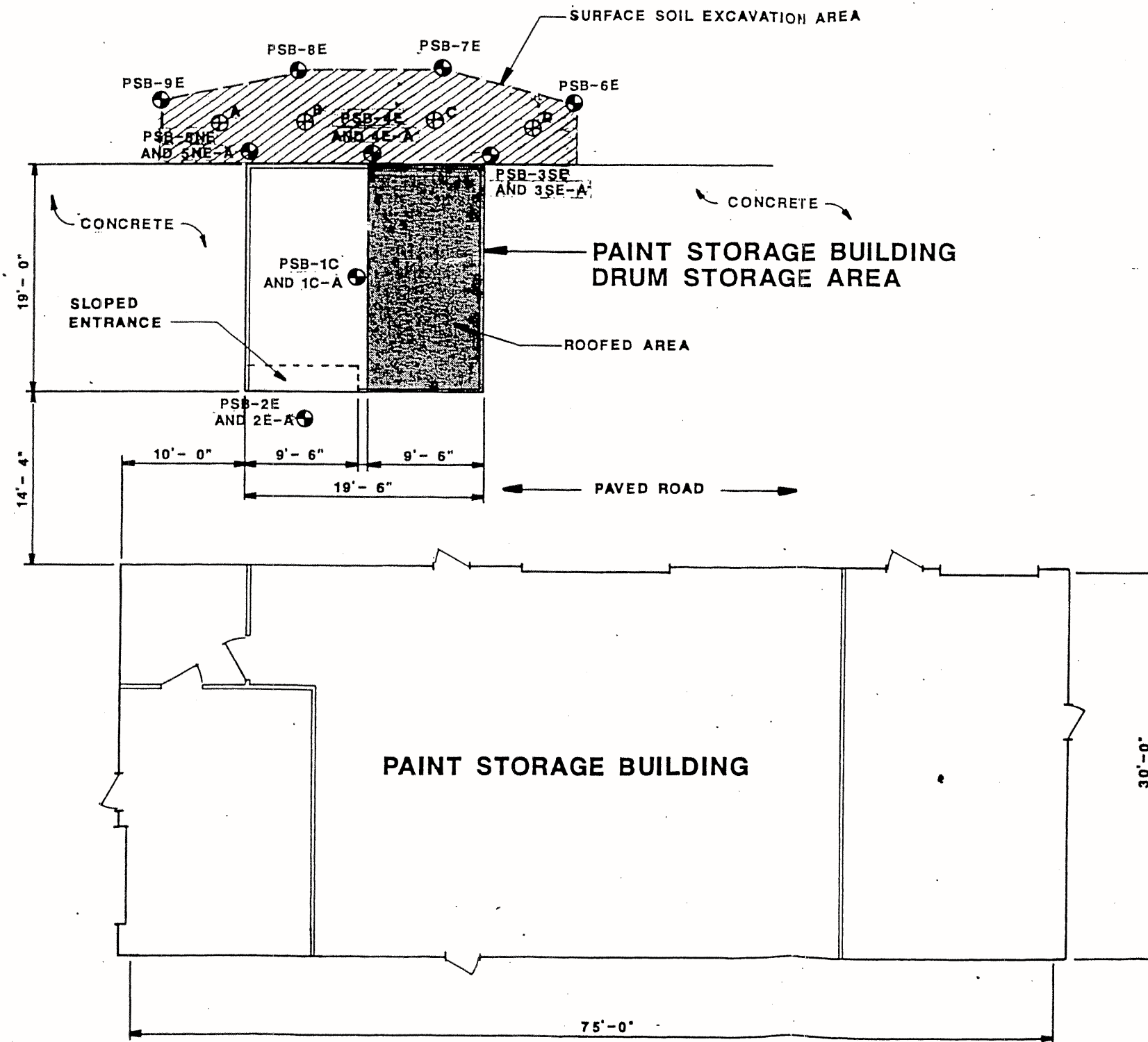
level of significance and degrees of freedom for the critical value (t) from a  $t$  = distribution

NS - Soil in these locations were not analyzed for this parameter.

### 3.3.2 Sampling of Underlying Soils Near Drum Storage Area

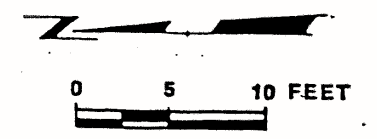
Soil samples were obtained in the vicinity of the paint storage building drum storage area in July and October 1988. One boring was advanced through the concrete pad (PSB-1C), one boring was advanced through the entrance ramp concrete (PSB-2E) and nine samples were collected in an unpaved area adjacent to the paint storage building drum storage pad (3SE, 3SE-A, 4E, 5NE, 5NE-A, 6E, 7E, 8E, 9E). Samples were collected in the unpaved areas at depths of 0-0.5 feet with a hand trowel and 1.5-2.0 feet using a hand auger. In paved areas, the sample was collected from the top six inches of soil using a hand trowel directly below the concrete core. The locations of the borings are identified in Figure 3-2.

Soil samples were analyzed for compositional (total) arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, zinc, benzene, toluene, xylene, MEK, and MIBK. The compositional analysis was performed as described in the approved closure plan and addenda. This data is reported in Table 3-3.



LAYOUT OF PAINT STORAGE BUILDING DRUM STORAGE AREA

**LEGEND**  
 ⊕ SOIL BORING (PHASES I AND II)  
 ⊕ POST-EXCAVATION SAMPLE LOCATIONS



APPROX. SCALE: 1" = 10'

<b>RMT</b> INC	Dwn. by: SLH
	Date: AUGUST, 1989
	Proj. #: 1125.25

TABLE 3-3  
 GNC - CFD - SAGINAW MODULAR IRON PLANT  
 Compositional Analytical Results for Soil Samples of  
 Paint Storage Building Drum Storage Area  
 Sampling Location and Depth (feet)

CHEMICAL PARAMETER	Background 99% Prediction Limit	Phase I - Collected July 1988						Phase II - Collected October 1988									
		IC	2E	3SE	4E	5ME	3SE-A	5ME-A	6E	7E	8E	9E	DE	9E	DE	9E	
		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1.5-2.0	1.5-2.0	0 - 0.5	1.5-2.0	0 - 0.5	1.5-2.0	0 - 0.5	1.5-2.0	0 - 0.5	1.5-2.0	0 - 0.5
Arsenic	16	2.3	1.9	3.6	1.9	3.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	250	48	40	58	100	58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1.8	<0.54	<0.55	<0.57	<0.49	30	NS	<0.6	NS	NS	NS	NS	NS	<0.6	<0.5	<0.6	<0.6
Chromium	178	90	12	270	170	91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	137	30	7.7	26	51*	88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	138	13	7.2	1300	58	300	NS	<11	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.261	<0.080	<0.092	0.11	<0.082	<0.082	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	1.5	<0.86	<0.90	<0.89	<0.77	<0.81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	3.4	<1.1	<1.1	<1.2	<0.99	<1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	1050	36	15	700	580*	1300	NS	110	NS	NS	NS	NS	NS	180	19	190	24

1125-25 MOD20906 NET N

Concentrations in mg/kg dry weight.

\* - Indicates sample matrix interferences.

NS - Soil in these locations were not analyzed for this parameter.



### 3.3.3 Statistical Comparisons

The concentrations of metal parameters were statistically compared with the background upper 99% prediction limits. The results of the soil analyses found "above background" concentrations of cadmium, chromium, lead, and zinc in the adjacent soils near the paint storage building drum storage area (PSB-3SE and PSB-5NE) when compared to the background upper 99% prediction limit (Table 3-3). Benzene, xylene, MEK, and MIBK were not detected (Table 3-3). Toluene was detected in several soil samples, however, toluene was also detected in the trip blank at a similar concentration to the samples. As a result, these samples were resampled and analyzed. The resampling and re-analysis for toluene found there were no detectable concentrations of toluene (Table 3-3) in the soils. It was concluded that toluene was present as a laboratory contaminant and was not a constituent of the soil.

### 3.3.4 Identification of Impacted Soils

The data presented in Table 3-3 indicate that soils immediately surrounding borings PSB-3SE and PSB-5NE at depths of 0.5 feet had concentrations of metal parameters of concern above the background upper 99% prediction limit. As a result, the soils in this area were considered impacted to the depth of the second sample at each boring locations (1.5 feet). These soils were designated for excavation and disposal as part of this closure plan as MDNR approved at the March 10, 1989, meeting.

### 3.4 Removal of Impacted Soils

#### 3.4.1 Area of Impacted Soils Excavated

Soil sampling and analysis determined that "Clean Closure" of the paint storage building drum storage area would require removal and disposal of the soils surrounding sample locations PSB-3SE and PSB-5NE as MDNR approved at the March 10, 1989, meeting. The boundaries of the excavation were PSB-6E, 7E, 8E, and 9E (Figure 3-2) to a depth of 1.5 feet below grade. The area of soil removal was approximately 30'x8'x1.5'.

#### 3.4.2 Removal of Impacted Soils

Impacted soils were removed with a backhoe using a sand bucket. Approximately 13 cubic yards were removed and placed in a plastic lined roll-off box.

### 3.5 Decontamination of Equipment

After the excavation was completed, the equipment was decontaminated. The bucket of the backhoe was the only equipment that contacted impacted soils. Therefore, the bucket was placed over the rolloff box and was steam cleaned. The water from the steam cleaner (approximately one gallon) was absorbed into the dry soils.

### 3.6 Backfill and Cover

Because the results of the post-excavation soil analyses were below the upper 99% prediction limits for metal parameters of concern, GM-SNI met with MDNR on August 8, 1989, and both concluded that no further excavation was needed. Therefore, the excavated area was filled with approximately 20 cubic yards of

soil and compacted with the bulldozer to the existing grade. At this point the clean closure activities were completed at the paint storage building drum storage area.

3.7 Photographic Documentation of the Closure Activities

The closure activities are pictorially documented in Appendix A.

#### 4. POST-EXCAVATION SOIL SAMPLING

##### 4.1 Sampling Locations

The soil remaining after excavation was complete was sampled and analyzed to document conditions at closure based upon the following procedures approved by MDNR at the March 10, 1989, meeting. An eight foot spacing was used as the interval for "Clean Closure" documentation sampling. The excavated area was divided into four sampling locations (A, B, C & D), as detailed in Figure 3-2.

##### 4.2 Sampling Methods

The soil samples were collected using a plastic hand trowel to collect the top six inches of soil at each sampling locations. For each location, an individual sample was mixed in a plastic container to generate a composite sample for laboratory analysis, and shipped overnight to the RMT laboratory in Madison, Wisconsin. Analytical methods used are summarized in Table 4-1 and the chain of custody forms are presented in Appendix B.

##### 4.3 Sampling Analysis

The soil samples from each location were tested for the parameter(s) (cadmium, chromium, lead or zinc) at that particular location that were in excess of the background upper 99% prediction limit as MDNR approved at the March 10, 1989, meeting. Samples A and B were analyzed for cadmium, lead and zinc. Samples C and D were analyzed for chromium and lead. The results of this sampling is reported in Table 4-2 and the laboratory data sheets are presented in Appendix C. The data reported in Table 4-2 indicate that the constituents in each sample were less than the background upper 99% prediction limit. Therefore, additional soil removal was not required.

TABLE 4-1

ANALYTICAL METHODS FOR  
SOIL COMPOSITIONAL ANALYSIS

<u>Parameter</u>	<u>Analytical Method</u>	<u>Detection Limit</u>
Cadmium	7130	0.0001 mg/l
Chromium	7190	0.001 mg/l
Lead	7420	0.001 mg/l
Zinc	7950	0.005 mg/l

3rd Edition of USEPA Document SW-846 "Test Methods for Evaluation Solid Waste,  
November 1986.

TABLE 4-2

GMC - CFD - SAGINAW NODULAR IRON  
 PAINT STORAGE BUILDING - DRUM STORAGE AREA

CHEMICAL PARAMETER	BACKGROUND 99% PREDICTION LIMIT	SAMPLING LOCATION			
		A	B	C	D
CADMIUM	1.8	<0.07	<0.07	NS	NS
CHROMIUM	178	NS	NS	24	34
LEAD	138	3.8	3.0	3.3	12
ZINC	1050	15	16	NS	NS

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NOTE: Concentrations in mg/kg dry weight.  
 NS - Samples were not analyzed for this parameter based upon  
 previous agreement with MDNR at a March 10, 1989 meeting.

**APPENDIX A**

**PHOTOGRAPHIC DOCUMENTATION OF CLOSURE ACTIVITIES**

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# PHOTOGRAPH ORIENTATION

<b>1</b>	<b>2</b>
<b>3</b>	<b>4</b>

- 1) Decontamination of concrete pad.
- 2) Decontamination of concrete pad.
- 3) Decontaminated concrete pad.
- 4) Decontaminated concrete pad.



C-LINE #52584  
35MM PRINTS

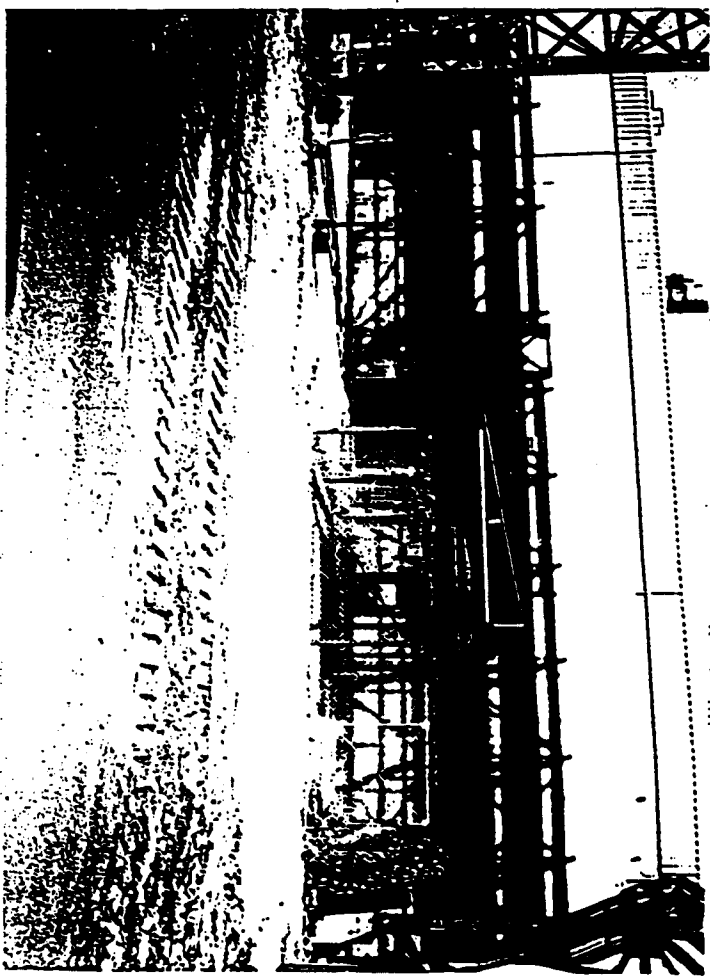
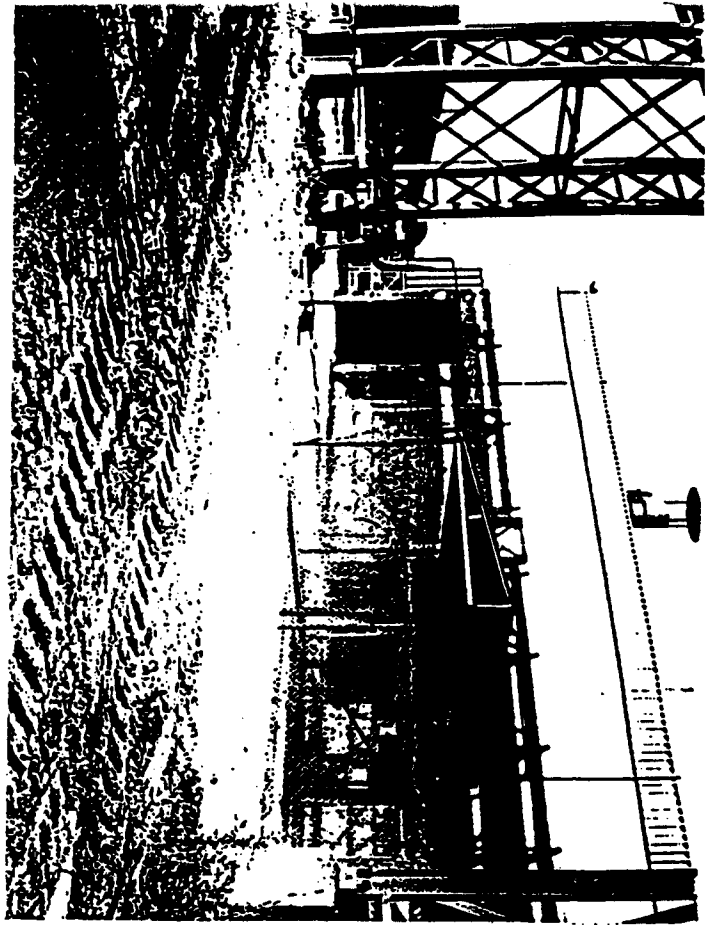


- 1) Excavating upper 1.5 feet of soil.
- 2) Excavating upper 1.5 feet of soil.
- 3) Excavating upper 1.5 feet of soil.
- 4) Excavating upper 1.5 feet of soil.

- 1) Excavating upper 1.5 feet of soil.
- 2) Excavating upper 1.5 feet of soil.
- 3) Rolloff box used for transport of excavated materials.
- 4) Loading of the rolloff box with soil.

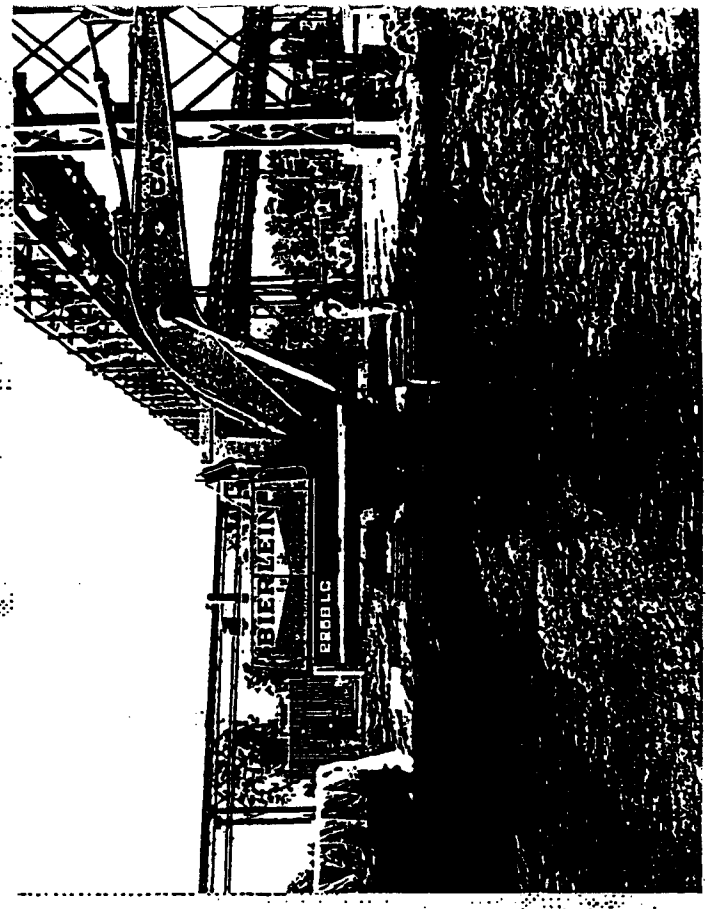
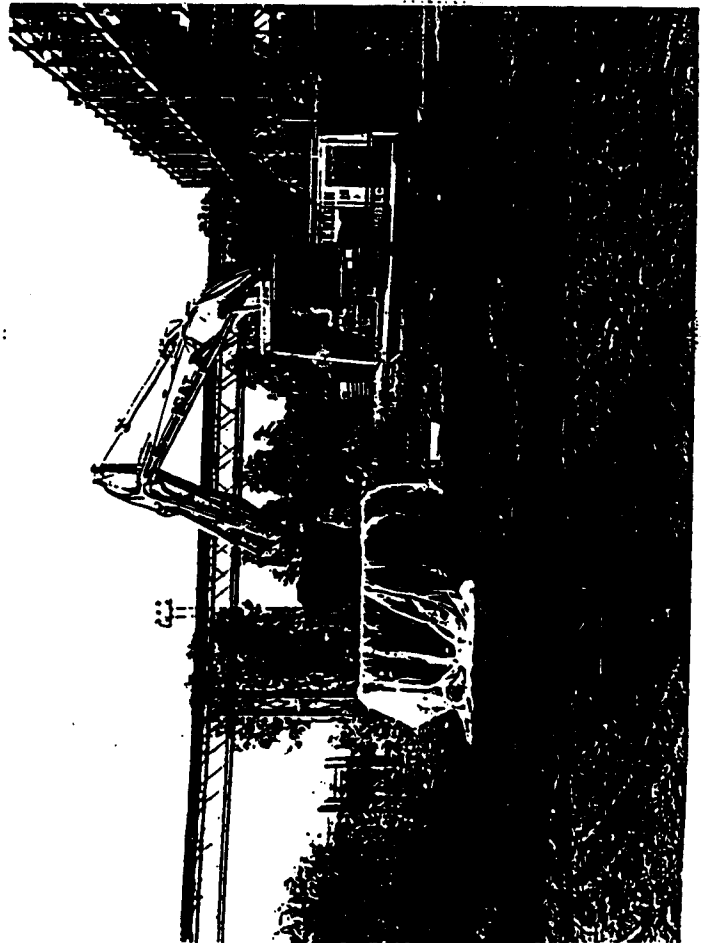
- 1) Excavating upper 1.5 feet of soil.
- 2) Completed excavation.
- 3) Completed excavation.
- 4) Completed excavation.

C-LINE #52584  
35MM PRINTS



- 1) Completed excavation.
- 2) Completed excavation.
- 3) Soil in rolloff box.
- 4) Decontaminating the backhoe bucket.

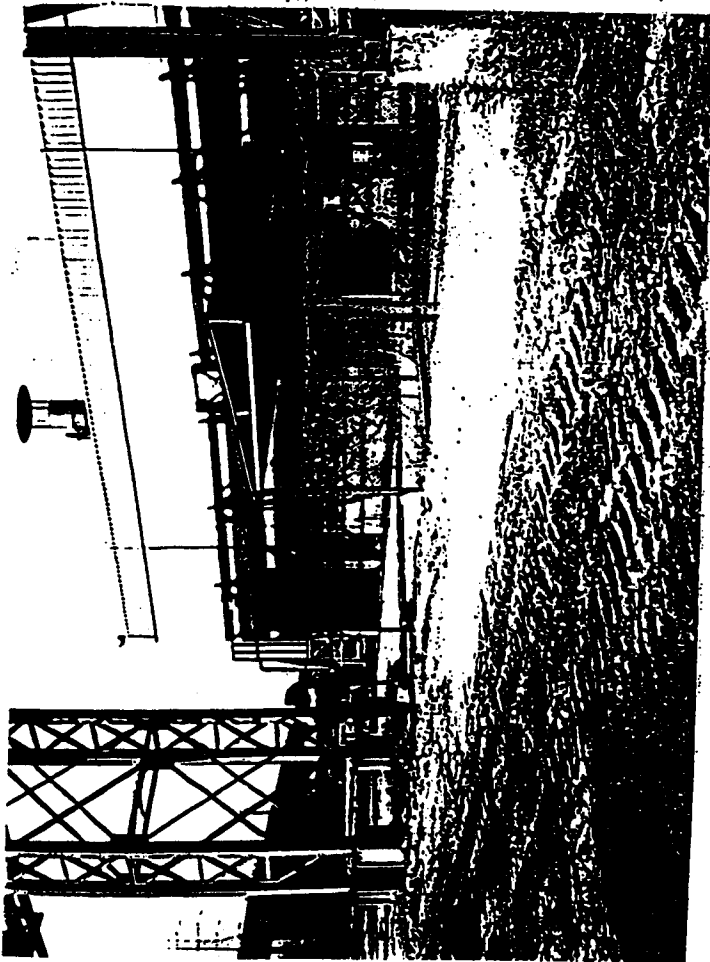
C-LINE #52584  
35MM PRINTS



- 1) Decontaminating the backhoe bucket.
- 2) Final backfill.
- 3) Final backfill.

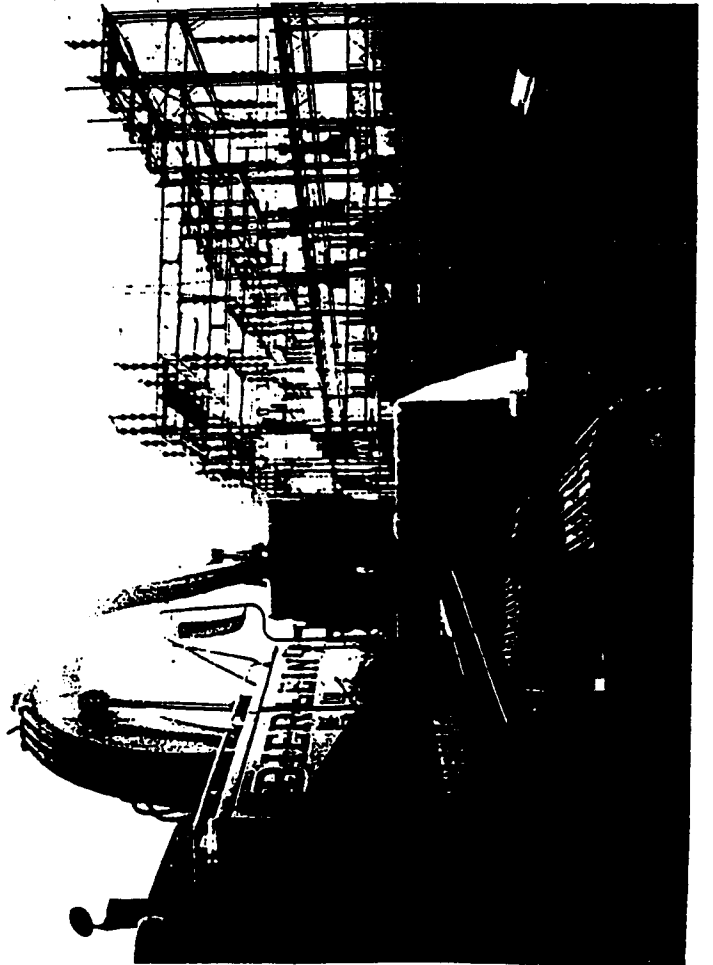


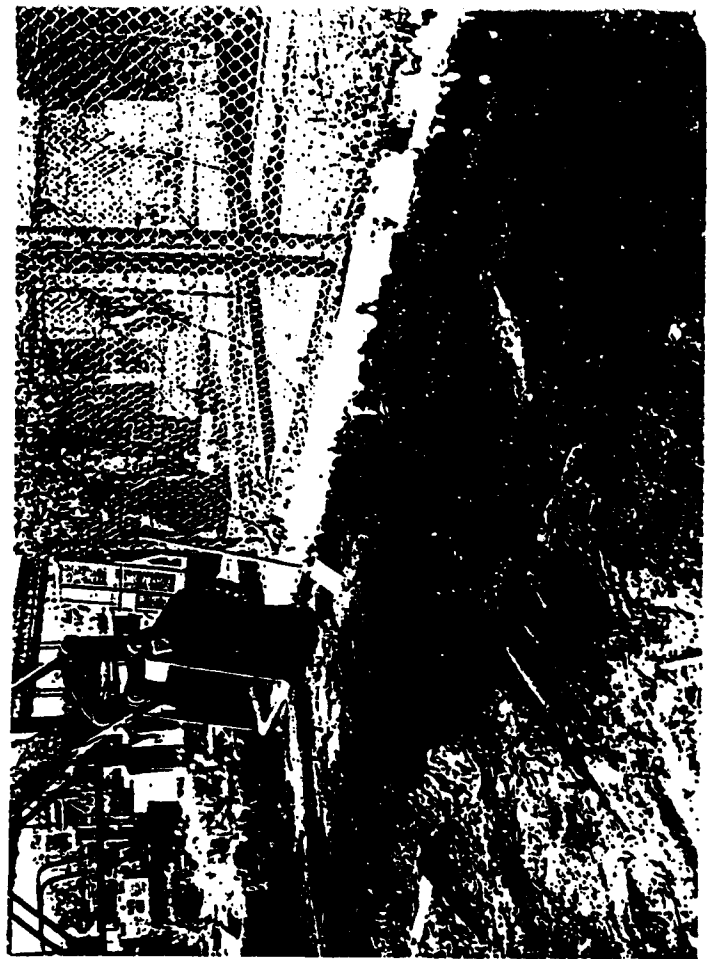
C-LINE #52584  
35MM PRINTS

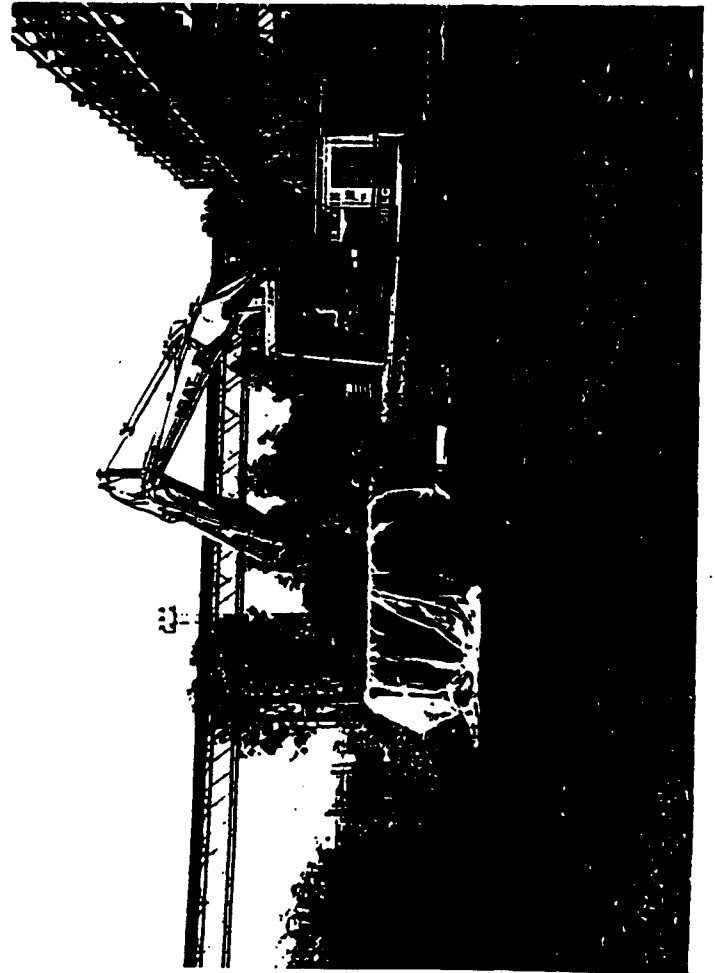
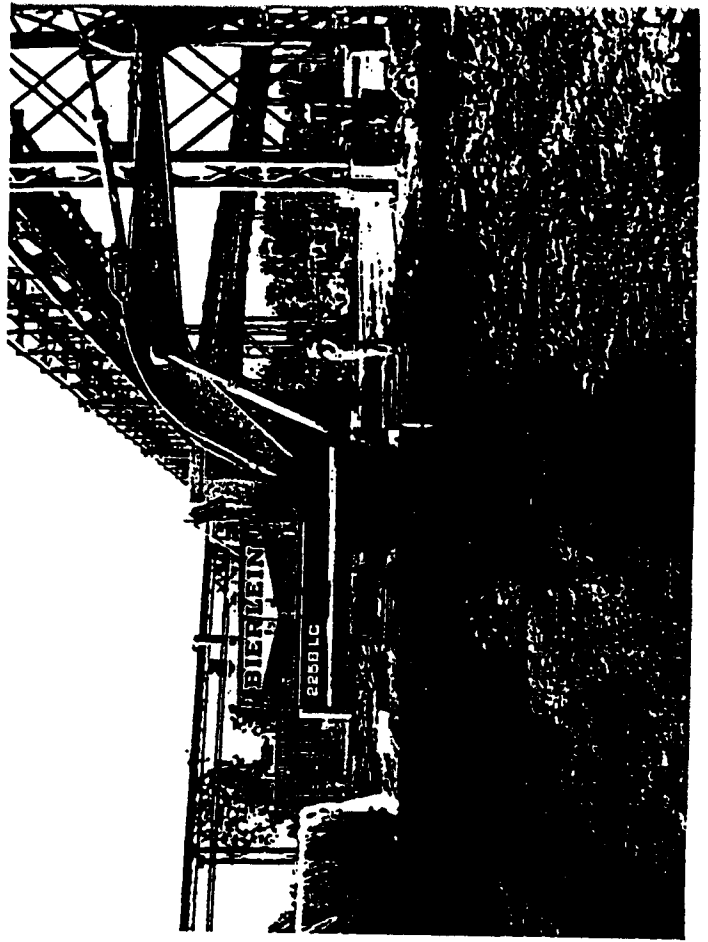


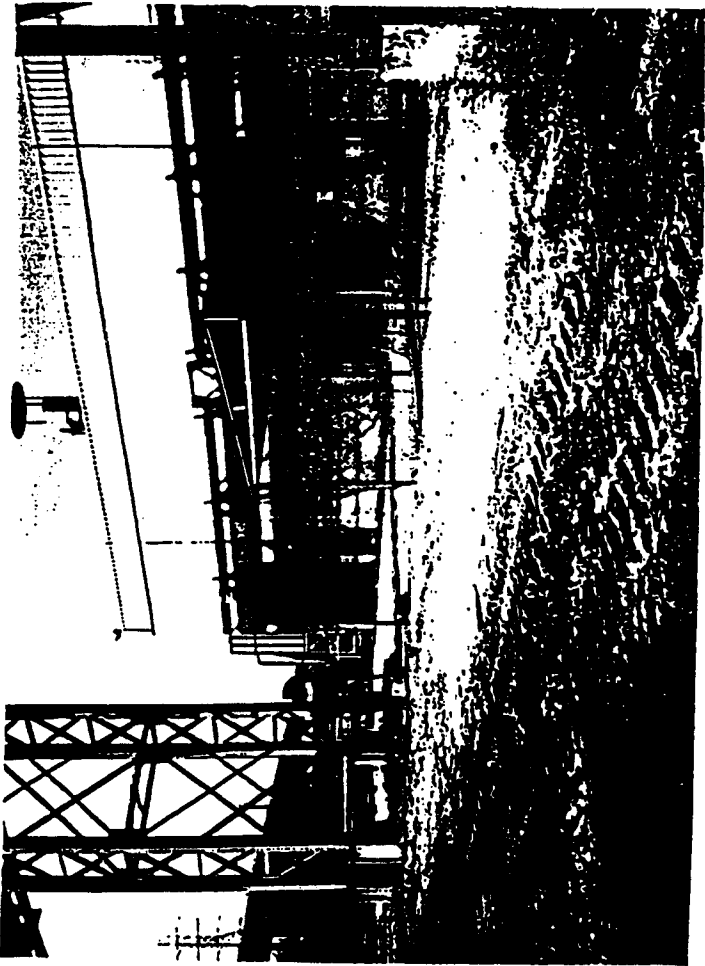













APPENDIX B  
CHAIN OF CUSTODY FORMS

1125.25 gmc0918



APPENDIX C

LABORATORY SHEETS FOR POST EXCAVATION SAMPLING

 1125.25 gmc0918



**LABORATORIES**

page: 1 of 1

CLIENT: GMC CFD SAGINAW NODULAR IRON  
SAMPLE #: 41115 REPORT DATE: 08/04/89  
PROJECT #: 01125.25 COLLECTION DATE: 07/26/89  
WORK ORDER #: 072889-0112525 STATION ID: A  
SAMPLE COLLECTOR: MK

COMPOSITIONAL ANALYSIS REPORT

PARAMETER -----	RESULT -----	UNITS -----
Solids, Total	91	%
Cadmium, Total	<0.07	mg/kg dry wt.
Lead, Total	3.8	mg/kg dry wt.
Zinc, Total	15	mg/kg dry wt.

Alan Doughty, Ph.D., Laboratory Director





**LABORATORIES**

page: 1 of 1

CLIENT: GMC CFD SAGINAW NODULAR IRON  
SAMPLE #: 41117                      REPORT DATE: 08/04/89  
PROJECT #: 01125.25                COLLECTION DATE: 07/26/89  
WORK ORDER #: 072889-0112525    STATION ID: C  
    SAMPLE COLLECTOR: MK

**COMPOSITIONAL ANALYSIS REPORT**

PARAMETER -----	RESULT -----	UNITS -----
Solids, Total	92	%
Chromium, Total	24	mg/kg dry wt.
Lead, Total	3.3	mg/kg dry wt.

Alan Doughty, Ph.D., Laboratory Director



**LABORATORIES**

page: 1 of 1

CLIENT: GMC CFD SAGINAW NODULAR IRON  
SAMPLE #: 41118 REPORT DATE: 08/04/89  
PROJECT #: 01125.25 COLLECTION DATE: 07/26/89  
WORK ORDER #: 072889-0112525 STATION ID: D  
SAMPLE COLLECTOR: MK

COMPOSITIONAL ANALYSIS REPORT

PARAMETER -----	RESULT -----	UNITS -----
Solids, Total	92	%
Chromium, Total	34	mg/kg dry wt.
Lead, Total	12	mg/kg dry wt.

Alan Doughty, Ph.D., Laboratory Director