PART I

Final Closure Certification Documentation

REALM
Coldwater Road Facility
6220 Horton Street
Flint, Michigan
(MID 005356860)

for

Remediation and Liability Management Company, Inc.
Detroit, Michigan

November 2000

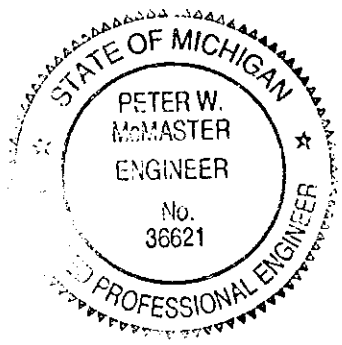


O'BRIEN & GERE
ENGINEERS, INC.

Certification Report - Part I

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REALM Coldwater Road Plant
6220 Horton Street
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(MID 005356860)

for
Remediation and Liability Management Company, Inc.
Detroit, Michigan



Peter W. McMaster, P.E.
Senior Vice President

November 2000

O'BRIEN & GERE
ENGINEERS, INC.

39830 Grand River Avenue
Suite B-2
Novi, Michigan 48375

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Closure certification

This section presents the certification statement as required by 40 CFR 264.115 and R299.9613(2).

Professional Engineers Certification

I, Peter W. McMaster, a Professional Engineer in the State of Michigan, certify under penalty of law that this document and 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 belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

O'BRIEN & GERE ENGINEERS, INC.



Peter W. McMaster, P.E.
Senior Vice President

Owner's Certification

I, William J. McFarland, representing Remediation and Liability Management Company, Inc., 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 belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

REMEDIATION AND LIABILITY MANAGEMENT COMPANY, INC.

William J. McFarland

William J. McFarland
President- Remediation and Liability Management Company, Inc.

1. Introduction

Final closure of the Resource Conservation and Recovery Act (RCRA) units, solid waste management units (SWMUs) and other corrective action areas (CAAs) at the Remediation and Liability Management Company, Inc. (REALM) Coldwater Road facility at 6220 Horton Street (formerly 1245 East Coldwater Road) in Flint, Michigan (MID05356860) (see Figure 1) is documented in a final closure report, consisting of two parts:

- Part I - Final Closure Certification Documentation, November 2000, O'Brien & Gere Engineers, Inc. (O'Brien & Gere)

- Part II - Final Closure Certification Documentation, November 2000, Roy F. Weston, Inc. (Weston).

Closure of the RCRA units, SWMUs, and CAAs (hereinafter referred to as "units") was completed in accordance with the 1992 Corrective Action Consent Order for this site and the Michigan Department of Environmental Quality (MDEQ, formerly MDNR) approved Closure Plan and Post Closure Plan (Closure Plan), O'Brien & Gere, August 1989.

Several of the units were closed during construction of the on-site hazardous waste landfill between 1990 and 1994. Weston provided quality assurance oversight and closure verification during this construction phase; however, there were several units that were not closed by 1994 (documented in the "Draft Weston Closure Certification Documentation Package, November 1994). Closure of these remaining units was completed between 1994 and 1999 with oversight provided by O'Brien & Gere. The closure report for the units is a two-part report: This Part I by O'Brien & Gere documents final closure for the remaining units closed after 1994 and Part II by Weston documents closure activities completed before 1994. A summary of the closure activities with oversight by O'Brien & Gere and Weston is included in Appendix A in the Summary of Closure Activities Table and graphically represented on the Figure.

This two-part closure report is the last of three reports documenting closure at the Coldwater Road site. The other two final closure reports are:

- Final Closure Certification Documentation Package - Decontamination of Pits/Sump and Chromium Reduction Basins, October 1998 (revised November 11, 1998), Weston.

- Final Closure Certification Documentation Package for the Former Peregrine facility - the Drum Storage Area and Waste Pile Pad, June 1999, Weston.

The following introductory sections of this report outline the current property ownership at the Coldwater Road site, define the closure objectives, and summarize the history of closure activities between 1994 and 1999.

1.1. Current property ownership

On December 10, 1996, an asset Purchase Agreement for the manufacturing portion on the Coldwater Road site was signed by GM and Peregrine, U.S., Inc. (Peregrine). GM retained ownership of the northern portion of the Coldwater Road Site (which is now referred to as the "REALM Coldwater Road facility") sold the manufacturing facility (referred to as the "Former Peregrine facility MID 000020743"). In August 1999, REALM took back ownership of the manufacturing facility. Refer to Figure 2 for a Site Plan detailing the two site property lines. A copy of the property boundary survey depicting the REALM Coldwater Road facility is included in Appendix B.

Two of the units (drum storage area and waste pile pad) remained on the Former Peregrine facility property (presently owned by REALM). Clean closure of these two units is presently being documented and will be submitted as a separate report.

On April 14, 2000 an MDEQ Notification of Regulated Waste Activity form (EQP5150) and U.S. E.P.A. Hazardous Waste Permit Application Part A (EPA form 8700-23) were submitted to document change of ownership of the landfill and the former wastewater treatment plant property from GM to REALM, a wholly-owned subsidiary of GM. A copy of these forms are included in Appendix C.

Future site caretaking and monitoring efforts for the REALM Coldwater Road facility will be managed by REALM.

1.2. Objective

This closure report has been prepared to satisfy the closure certification requirements of 40 CFR 265.115, R299.9613 (2), and the October 1992 Consent Order for the RCRA units, SWMUs, and other CAAs (units) at the Coldwater Road site (See Figure 3 for unit locations). The objective of this two-part closure report is to provide documentation of corrective action activities completed and the verification sampling results in sufficient detail to obtain MDEQ closure approval.

1.3. Site history (1994 - 1999)

Site history prior to 1994 is described in Part II, Section 1.2 Background Information (Weston). Site history between 1994 and 1999 is described below.

Following capping of the landfill in the summer of 1994, a landfill Post-Closure Care Plan, dated August 24, 1994, prepared by GM was submitted to the MDEQ on August 31, 1994. This Post-Closure Care Plan described the long-term monitoring and maintenance to be performed at the landfill. The MDEQ approved the landfill Post-Closure Care Plan on March 15, 1995 (copy of the approval letter is included in Appendix D). REALM presently performs the monitoring and maintenance at the landfill in accordance with the approved landfill Post-Closure Care Plan. As noted in Chapter 4, the Post-Closure Care Plan has been updated to reflect current conditions.

In the summer of 1994, the MDEQ also requested that GM submit a certification document for the areas decontaminated, remediated and restored as of September 1994. A Draft Closure Certification Documentation Package, dated November 1994, prepared by Weston was submitted to the MDEQ by GM on November 7, 1994. The Draft Closure Certification Documentation Package was prepared to document that the following units were certified clean to Closure Plan criteria (background) as of September 1994:

RCRA Units:
- Primary Settling Lagoon
- Sludge Drying Beds
- Drum Storage Area

SWMUs:
- Landfarm (except for the haul road area)
- Sludge Lakes
- Area North of Sludge Lakes
- Decontamination Pits/Sump
- Waste Pile Pad

Other CAAs: Klein Street Right-of-Way
Daniel's Property
Wetlands Area

Several units were not certified closed as of September 1994 because the landfill did not have the capacity to accommodate additional material. The units that were not certified clean based on the November 1994 Draft Closure Certification Documentation Package, were:

RCRA Units: Secondary and Final Settling Lagoons

SWMUs: Sludge Retention Basin
Landfarm Haul Road

Other CAAs: Chromium Reduction Basins (closure included in the October 1998 Final Closure Certification Documentation Package, Weston).

On August 31, 1994, GM also submitted a work plan to address closure of these units. The work plan proposed submittal of a delisting petition to the MDEQ and the North Dakota Division of Solid Waste for the remaining materials in these units to be considered non-hazardous. If the work plan was approved, GM planned to remove and transport the remaining materials to a solid waste landfill in North Dakota for disposal. The MDEQ approved the work plan on November 14, 1994 (a copy of the approval letter is included in Appendix D).

GM submitted a Delisting Petition to the MDEQ in January 1995. Several clarification submittals were made by GM on June 29, 1995, July 7, 1995, and October 16, 1995 regarding comments by the MDEQ. On February 7, 1996, the MDEQ approved the Delisting Petition and redesignated the remaining material as a non-hazardous solid waste for off-site disposal (delisted material). A copy of the MDEQ approval letter is included in Appendix D.

Following MDEQ approval, GM's disposal subcontractor pursued disposal approval of the delisted material at a solid waste landfill in Utah.

The State of Utah, Department of Environmental Quality, Division of Solid and Hazardous Waste approved disposal of this material in Utah in a letter to GM's subcontracted disposal facility ECDC Environmental, L.C., dated February 23, 1996.

A work plan outlining the excavation, staging, loading, transportation, and disposal of the delisted material was submitted by GM to the MDEQ on February 15, 1996. The work plan described the proposed excavation of delisted materials from the (secondary and final settling lagoons, sludge retention basin, and the landfarm haul road).

Also included in the work plan were two remaining stockpiles of delisted material, an off-site railroad property area adjacent to the landfarm haul road, and several miscellaneous areas within the previous solidification and/or traffic zones considered to have likely surficial impacts due to the former construction activities. The MDEQ approved the work plan on February 16, 1996 (a copy of the approval letter is in Appendix D).

Delisted materials were excavated and disposed off site between February 1996 and February 1997. However, after excavation and disposal of approximately 46,000 cy^3 of delisted material and several phases of excavation, verification sampling indicated remaining concentrations of metals above the Closure Plan cleanup criteria (background) in the "remaining materials area" (see Figure 3), including the sludge retention basin. The (secondary and final settling lagoons, haul road, and railroad areas were closed to the Closure Plan criteria). Therefore, following several discussions with the MDEQ, a request to modify the Closure Plan by allowing delisted material to remain in-place in the "remaining materials area or RMA", provided Act 307 Type B cleanup criteria requirements were met, was submitted to the MDEQ by O'Brien & Gere on April 23, 1997. Following an October 30, 1997 clarification response submittal to the MDEQ by O'Brien & Gere, the MDEQ approved the Closure Plan modification on June 26, 1998 to leave the delisted materials in-place at the RMA (a copy of the approval is in Appendix D), contingent upon GM completing four quarterly rounds of ground water sampling and analysis downgradient of the RMA.

GM completed final grading, top soil placement, and seeding of the RMA in the fall of 1998; however, vegetative growth was not considered acceptable by GM until the spring of 1999. Additionally, the fourth round of ground water sampling and analysis was completed on April 26, 1999 and submitted to the MDEQ on July 28, 1999. A copy of the letter summarizing the results is included in Appendix E.

This Part I of the two-part Final Closure Certification Documentation documents the closure activities conducted at the REALM Coldwater Road facility between 1994 and 1999 (see Part II, Final Closure Certification prepared by Weston and dated May 1999 for closure activities before 1994).

1.4. Report format

This Part I of the Final Closure Certification Documentation has been subdivided into the following chapters:

- Chapter 1: This section describes the contents of Part I by O'Brien & Gere and Part II by Weston, outlines current property ownership and future management of the caretaking and monitoring, and summarizes the history of closure activities between 1994 and 1999.

- Chapter 2: This section provides further details regarding closure activities of the delisted materials, including work plan approvals, construction activities, verification sampling and analysis results, and the closure plan modification allowing in-place closure of the remaining materials within the RMA.

- Chapter 3: This section summarizes all MDEQ-approved amendments to the Closure Plan (including those prior to 1999) and outlines several modifications to the landfill after capping (summer of 1994).

- Chapter 4: This section summarizes the need for revisions to the current MDEQ-approved Post-Closure Plan as a result of changes to site ownership, security, future management, and landfill modifications.

- Chapter 5: This section summarizes closure of the units to MDEQ-approved criteria; requests closure approval for the units, and requests MDEQ review and approval of the revised Post-Closure Care Plan.

2. Delisted material construction activities

This Chapter describes the construction activities at the REALM Coldwater Road facility completed subsequent to submittal of the November 1994 Draft Closure Certification Documentation Package prepared by Weston and approval of the Delisting Petition (February 7, 1996). These construction activities, which consisted of excavation, verification sampling, delineation investigations, loading, transportation, and disposal, were completed between February 1996 and February 1997.

2.1. Work plan for excavation of delisted materials

As requested by the MDEQ in the February 7, 1996 Delisting Petition approval, GM submitted a proposed Work Plan for Excavation of Delisted Materials, dated February 1996 and prepared by O'Brien & Gere to the MDEQ on February 15, 1996. The work plan outlined proposed construction activities involved with the excavation, staging, loading, transportation, and disposal methods for removal of the delisted material at the Coldwater Road site. The work plan described the excavation of delisted material from the units not closed as of September 1994 (secondary and final settling lagoons, sludge retention basin, and the landfarm haul road) as reported by Weston in the November 1994 Draft Closure Certification Documentation Package. Excavation in the secondary and final lagoons and the haul road area was proposed for the areas where verification samples exceeded Closure Plan cleanup criteria.

Also included in the work plan were two remaining stockpiles of delisted material (stabilized and solidified), an off-site railroad property area adjacent to the landfarm haul road, and several miscellaneous areas where the previous sludge solidification and construction traffic activities may have impacted the surface. The work plan was approved by the MDEQ on February 16, 1996.

As described below, a number of construction activities were performed concurrently to complete the project in a timely manner. Descriptions of individual tasks are outlined in the following sections.

2.2. Construction activities

Prior to initiation of construction activities, mobilization of equipment, clearing and grubbing, and setup of the health and safety/construction trailer

were performed. Temporary utilities were provided to the trailer and equipment decontamination pads were constructed. An existing 8 ft chain link fence provided security for the site for the duration of construction. Work zone limits were designated within the property boundaries and temporary haul roads were constructed or upgraded by grading and/or adding gravel as required.

Initial construction activities consisted of dewatering the retention basin and secondary/final lagoons. Dewatering was accomplished using several sump pumps and trash pumps connected to temporary piping to pump the accumulated water to the former on-site industrial waster water treatment plant (WWTP) for treatment and discharge to the city storm sewer under the existing permit.

The delisted soil material to be excavated was located in several areas across the REALM Coldwater Road facility. These areas, located on the Site Layout Plan, Figure 3 were:

- Secondary and Final Lagoons - berm and limited sidewall/bottom areas
- Haul Road area
- Railroad area
- Remaining Materials Area (RMA) - sludge retention basin, miscellaneous cleanup area, stabilized and stockpiled materials, east and west areas, and the construction related landfarm area.

The in-place delisted soil material was excavated towards the rail car staging area (east of the RMA area at the northwest end of the landfill) in such a way that once an area was remediated it would not become impacted by construction equipment again. Offroad dump trucks were loaded with impacted soil and transported the material to the rail car staging area where the material was stockpiled prior to loading in gondola rail cars. After excavation of an area, verification closure samples of soil remaining in the excavation were collected and analyzed in accordance with the work plan. The results of the samples collected and analyzed per area are discussed in Section 2.4 and 2.5.

Some railroad cars were prepared to receive the impacted soils by lining the cars with plastic sheeting to prevent loss of material through weep holes. Other rail cars had the holes plugged before receiving materials. The delisted soil materials were loaded into the railroad cars and sprayed down with a surface sealant to minimize airborne dust during transportation.

The delisted soil material was loaded into 100 ton capacity rail cars. Loaders with bucket scales were used to transfer the stockpiled soil into the rail cars. As the staged soil was loaded, newly excavated soil was temporarily stockpiled in its place.

After the rail cars were loaded to their capacity, they were transported to the ECDC Environmental , L.C. landfill facility in East Carbon, Utah for disposal. Approximately 46,000 yd^3 of delisted soil material was excavated, loaded, transported, and disposed. Waste manifests were completed in accordance with state and federal regulations for the transportation of the excavated material. A summary of the waste manifests, including the date, manifest number and weight (tons) for each rail car is included in Appendix F.

Following excavation, staging, and loading activities, the construction equipment was decontaminated in the designated area. Decontamination fluids were discharged to the ground surface at the decontamination pad.

2.3. Air monitoring

On-site air monitoring was performed by O'Brien & Gere personnel during excavation activities in accordance with the work plan. Air monitoring was performed to document airborne levels of dust and compounds of concern associated with the health and safety of on-site workers and to detect the potential for airborne dusts to migrate off site.

Organic vapor monitoring was performed using a photoionization detector (PID), calibrated to an isobutylene standard and equipped with a 11.7eV energy lamp. Dust monitoring was performed with portable, Real Time Aerosol Monitors (RAMs) to assess the concentration of total dust during on-site activities.

On-site air monitoring focused on two areas, the breathing zone of the workers and the site boundary. Monitoring was conducted daily during on-site activities which involved handling of the delisted soil materials. Background monitoring was performed daily prior to the start of on-site activities. The background locations were established by the on-site inspector and were located upwind from the area of work.

Air monitoring for VOCs was initially performed daily at a minimum frequency of 30 min intervals, during activities involving disturbance of the materials. If PID readings for the first hour of the day in a given field activity were consistently below the action level, VOC monitoring would continue at a frequency of once hourly for the remainder of the day. The reading was recorded as the average of a 1 min observation of the PID response. On-site dust monitoring was performed continuously throughout daily on-site activities. Readings were recorded by the on-site inspector at a minimum of hourly intervals during on-site work or more frequently at the discretion of the on-site inspector.

The results of air monitoring indicated levels of VOCs and dust consistently below the action levels established in the February 1996 work plan at the work areas and site boundary. Air monitoring logs are included in Appendix G.

2.4. Verification closure sampling

The verification closure sampling strategy outlined in the work plan followed the MDEQ Draft Verification of Soil Remediation (VSR) guidance document, dated April 1994 for medium sites. The excavation areas were addressed separately. The strategy employed the use of a sampling grid to facilitate the unbiased selection of sampling points and number of samples per area. Sampling grid representation was based on the size of the area that was excavated. The equation recommended by the MDEQ in the VSR guidance document was used to calculate grid intervals for sampling. The grid used for the secondary and final lagoon excavations was previously outlined in the Closure Plan.

Discrete grab samples from the grid locations were collected to verify remediation after impacted soil was removed from the excavated areas. Samples were collected using hand trowels or stainless steel spoons. The samples were analyzed for copper, chromium, nickel, and zinc. If laboratory results indicated a certain metal exceeded the Closure Plan background cleanup criteria (cleanup criteria) then additional soil material was excavated from that area and another verification sample was collected and analyzed for that metal. A statistical approach using the upper confidence level (UCL) was also incorporated to confirm closure for the area.

Prior to and after sampling, the equipment was decontaminated with an alconox\distilled water wash and distilled water rinse.

Pin flags or wood stakes were placed in the location the verification samples were collected and a picture was taken of the sample location. Horizontal measurements of the sample location were recorded by the sample collector and were recorded in a logbook.

The verification sampling analytical results for three areas (secondary and final lagoon area, haul road area, and railroad area) indicated closure to the cleanup criteria. Several areas within the RMA did not meet the closure criteria after excavation of the delisted soil material to proposed depths. As approved by the MDEQ, test pits were initially installed in these areas and samples were collected and analyzed in vertical order to estimate the final depth for further excavation. Following the test pit phase, geoprobe samples were collected at the same locations at deeper depths to further evaluate the vertical extent of metals concentrations above the closure criteria. The results

of these additional sampling phases are discussed in Section 2.5 - Sampling and analysis within the RMA.

2.4.1. Settling lagoons

The secondary and final lagoon areas had four areas where previous closure sampling indicated concentrations of metals above the cleanup criteria (November 1994, Draft Closure Certification Documentation Package, Weston). These four areas were the lagoon sidewalls, lagoon berm, northern floor of the final lagoon, and a section of floor of the secondary lagoon as shown on Figure 4. Closure analytical results for the four areas within the settling lagoons are summarized on Table 1 and analytical data sheets are included in Appendix H. The following paragraphs describe the verification sampling and analysis activities for the four areas:

Lagoon Sidewalls After removal of 6 inches of material from the lagoon sidewalls, eighteen closure samples (LSW1 through LSW18) were collected and analyzed for the presence of the four metals of concern (chromium, copper, nickel, and zinc). The locations of the soil samples are shown on Figure 4. Based on the initial results, ten locations exceeded the cleanup criteria; therefore, a second round of sampling was performed at these locations after an additional 6 inch layer of material was excavated in these ten areas. The second round results indicated three locations (LSW7, LSW8, and LSW10) continued to exhibit concentrations above cleanup criteria.

At locations LSW7 and LSW10, removal of a 6 inch layer of soil continued until closure sample analytical results were below the cleanup criteria. Clean closure was achieved following removal of 24 inches of material at LSW7 and after 12 inches of material at LSW10.

Closure samples collected from each phase of excavation were designated with a corresponding letter indicating the depth of excavation into the sidewalls.

At location LSW8, removal in 6 inch layers continued to a depth of 12 inches into the sidewall and closure sample analytical results were still above the cleanup criteria. A test pit was then installed into the sidewall to expedite remediation at this location by assessing the horizontal extent of impact. The MDEQ approved this approach in a letter dated April 18, 1996. The results of the test pit installation and sampling indicated metals concentrations at a depth of 18 inches into the sidewall were below the cleanup criteria. Additional excavation was then performed to the 18 inch depth indicating closure to the clean up criteria for the lagoon sidewalls.

Lagoon Berm The berm which existed between the secondary lagoon and final lagoon was removed in its entirety and six closure samples (LB1 through LB6) were collected from the underlying soil for analysis of the four metals. Analytical results for these samples indicated concentrations below the cleanup criteria.

Lagoon Floors After removal of 6 inches of material from a section of the floor from the secondary lagoon and the northern floor of the final lagoon (shown on Figure 4), six soil samples (LB7 through LB12) were collected from these areas. The results from the samples of the floor of the secondary lagoon (LB7 and LB8) were below the cleanup criteria. Results of two of the four soil samples from the final lagoon floor area indicated concentrations above the cleanup criteria (LB9 and LB12); therefore, an additional 6 inches of soil was excavated at these locations and additional closure samples were collected and analyzed. The analytical results for these additional samples indicated concentrations below the cleanup criteria.

Based on the verification closure results summarized in Part II of this Final Closure Certification Documentation (Weston) and the results of the additional delisted materials excavation and closure sampling activities described above, the secondary and final settling lagoons are closed to the Closure Plan cleanup criteria.

2.4.2. Haul Road area

Initially, seventeen closure samples (HR1 through HR17) were collected subsequent to removing 6 inches of delisted material from the haul road area (associated with the landfarm unit previously closed as documented in Part II of the Final Closure Certification Documentation, Weston). Based on the initial analytical results (Table 2), thirteen of these samples exceeded the cleanup criteria. In an attempt to expedite remediation in this area, test pits were installed at these thirteen locations and closure samples collected at 6 inch intervals to evaluate the vertical extent of impact. The samples were analyzed based on the vertical distribution until the results for the four metals were below the cleanup criteria. The test pit samples were considered to be the verification closure samples for this area. The area around the thirteen closure sample locations was then excavated corresponding to the depth at which the cleanup criteria was met based on the test pit sample results. Up to 36 inches of material was removed from the haul road area based on the closure sample results. The locations of the closure samples are shown on Figure 5. Analytical results are summarized in Table 2 and analytical data sheets are included in Appendix I.

Subsequent to the above described excavation and sampling efforts, GM received the MDEQ approval letter, dated April 18, 1996 which required the collection of an additional 10% more sampling locations due to uncertainty of

the vertical extent of impact. This letter also requested that the additional 10% of samples be added to the previously collected data to be used in the final UCL statistical evaluation. Based on this request by the MDEQ, an additional six closure samples (HR18 through HR24) were collected from the haul road area. The analytical results for three of these samples (HR18, HR21, and HR24) indicated concentrations of metals above the cleanup criteria. However, based on the UCL statistical evaluation, 95% confidence was achieved for each of the metals of concern for the haul road area. A table showing results of the UCL calculation is included as Table 3.

Based on the verification closure results for the landfarm unit summarized in Part II of this Final Closure Certification Documentation (Weston) and the results of the additional delisted material excavation and closure sampling activities described above for the haul road area of the landfarm unit, the landfarm unit is considered closed to the Closure Plan cleanup criteria.

2.4.3. Railroad area

Following completion of an access agreement from the railroad property owner and excavation of 6 inches of delisted material from the railroad area, fourteen closure samples (RR1 through RR14) were collected and analyzed for the four metals. The locations of the closure samples are shown on Figure 5. Based on the analytical results, four metals in one sample (RR13) exceeded the cleanup criteria. An additional 6 inches of soil was removed from this area and the area was resampled. Analytical results from the additional sampling round were below the cleanup criteria. Analytical results are summarized in Table 4 and analytical data sheets are included in Appendix J.

Subsequent to the above described excavation and sampling efforts, GM received the April 18, 1996 MDEQ approval letter which required the collection of an additional 10% more sampling locations due to uncertainty of the vertical extent of impact. This letter also requested that the additional 10% of samples be added to the previously collected data to be used in the final UCL statistical evaluation. Therefore, samples RR15 through RR20 were collected and analyzed for the four metals. The analytical results for one of these additional samples (RR16) indicated concentrations of zinc above the cleanup criteria. However, based on the UCL statistical evaluation, the 95% confidence was achieved for each of the metals of concern for the railroad area. A table showing results of the UCL calculation is included as Table 5. Therefore, the railroad area is considered closed to the Closure Plan cleanup criteria.

Following closure, the railroad area was backfilled to the original grade with topsoil and seeded.

2.5. Sampling and analysis within the RMA

In spite of the removal of substantial delisted material in each of the following areas, closure samples analyzed for the four metals indicated that several areas still exceeded the background cleanup criteria for one or more metals. These areas are shown on Figure 3. These seven areas listed below are hereinafter referred to collectively as the "Remaining Materials Area" (RMA) and were the subject of the Closure Plan modification request dated April 23, 1997:

- Miscellaneous cleanup area
- Sludge retention basin
- Stockpiled soil area
- Stabilized materials area
- Construction related landfarm area
- East area
- West area.

The O'Brien & Gere April 23, 1997 Closure Plan modification request letter to the MDEQ requested an amendment to the Closure Plan by changing the closure criteria from background to Act 307 Type B. This request was approved by the MDEQ on June 26, 1998 and is discussed in more detail in Section 3.1, Amendment No. 7. The following discussion summarizes the closure sampling at these seven areas within the RMA.

2.5.1. Miscellaneous cleanup area

Following excavation of 6 inches of impacted material at the miscellaneous cleanup area, thirteen closure samples (MC1 through MC13) were initially collected and analyzed for the four metals. Closure sample locations are shown on Figure 6. Analytical results from the initial round indicated concentrations of metals above the cleanup criteria at eleven of the thirteen locations. An additional 6 inches of material was removed at the eleven locations (MC1, MC3 through MC8, MC10, MC11, MC12, and MC13) and a second round of closure samples were collected. Based on analytical results from the second round of samples exceeding the cleanup criteria at nine of the eleven locations, test pits were installed at these nine locations to evaluate the vertical extent of impact. These nine locations were MC1, MC3 through MC8, MC12, and MC13. Nine test pits were installed to a depth of 4 fbg with closure samples collected from each 6 inch interval. The sampling scheme was to first analyze the shallow closure sample interval. If results of the shallow sample exceeded the cleanup criteria, the next closure sample interval would be analyzed for the metal(s) exceeding the cleanup criteria until sample results indicated a depth in which results were below the cleanup criteria.

Results of the test pit sampling indicated these areas were assessed vertically to the cleanup criteria at different depths. The area was excavated to the corresponding depths in which closure samples indicated analytical results were below the closure criteria. Analytical results are summarized in Table 6 and analytical data sheets are included in Appendix K. Therefore, the miscellaneous cleanup area is considered closed to the Closure Plan cleanup criteria.

2.5.2. Sludge retention basin

Following dewatering and excavation of 1 ft of material in the retention basin, fifteen closure samples (RB1 through RB15) were collected and analyzed for the four metals. Closure sample locations are shown on Figure 6. Analytical results indicated eight of these initial samples exceeded the closure criteria. Test pits were then installed at the eight locations to evaluate the vertical extent of impact. Test pits were installed at locations RB3, RB4, RB6, RB7, RB9, RB10, RB11, and RB14. Analytical results are summarized in Table 7 and analytical data sheets are included in Appendix L. Results from the test pit samples indicated these areas were assessed vertically to the cleanup criteria at different depths.

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact values, additional excavation in this area was not required and closure was obtained.

2.5.3. Stockpiled soil area

Following excavation of the stockpiled soil to 6 inches below grade, seven closure samples (SS1 through SS7) were initially collected and analyzed for the four metals. Closure sample locations are shown on Figure 6. Analytical results indicated concentrations of metals above the cleanup criteria at three of the seven samples collected. Analytical results are summarized in Table 8 and analytical data sheets are included in Appendix M.

A geoprobe investigation was then performed, in lieu of test pits, to evaluate the vertical extent of impact. A total of ten geoprobe borings were installed (SS3, SS8, SS9, SS10, SS11, SS12, SS13, SS14, SS15, and SS16) within the stockpiled materials area and the samples analyzed vertically in 6 inch intervals as previously discussed. Although only three closure samples exceeded the closure criteria in the initial round, ten geoprobes were installed across this area to provide additional confidence for closure and to assess the estimated volume of delisted material remaining. The geoprobe closure sample locations are shown on Figure 6.

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact

values, additional excavation in this area was not required and closure was obtained.

2.5.4. Stabilized materials area

Following excavation of the stabilized materials stockpile to 6 inches below grade, thirteen closure samples (SM1 through SM13) were initially collected and analyzed for the four metals. Closure sample locations are shown on Figure 6. Analytical results indicated concentrations of metals above the cleanup criteria at eleven of the thirteen samples collected. Analytical results are summarized in Table 9 and analytical data sheets are included in Appendix N.

Two geoprobe borings (SM14 and SM15) were installed at the stabilized materials area to evaluate the vertical extent of impact and the in place volume of impacted material. The results of the geoprobe sampling indicated both of the borings exhibited metals below the cleanup criteria at 54 inches below grade in SM14 and at 60 inches below grade at SM15.

Based on soil sample results above the cleanup criteria, a statistical evaluation was performed to determine the statistically relevant "cutoff" values for the four metals of concern.

Two closure samples (SM9 and SM10) analytical results exceeded the cutoff value. Delineation of the samples exceeding the cutoff value was performed by collection and analysis of samples radially outward from these locations. Although the cutoff values and the results of samples with concentrations above the cutoff values were below MDEQ Type B direct contact values, GM implemented an excavation and disposal program for the area above the cutoff value. At the request of the MDEQ, the materials exceeding the cutoff values were removed based on the MDEQ's concern regarding waste materials left inplace. The excavation and disposal program incorporated the construction methods, air monitoring protocols, and decontamination procedures as outlined in the February 1996 work plan. Material was excavated and disposed off site to the extent determined by previous sampling. The cutoff value evaluation and soil excavation activities are discussed in detail in the Closure Plan modification request to the MDEQ dated April 23, 1997 (see Section 3.1).

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact values additional excavation in this area was not required and closure was obtained.

2.5.5. Construction related landfarm area

Following excavation of 6 inches of delisted material at the landfarm area, twelve closure samples (LF1 through LF12) were collected and analyzed for the four metals. Closure sample locations are shown on Figure 6. Analytical results indicated concentrations of metals above the cleanup criteria at ten of the twelve samples collected. Analytical results are summarized in Table 10 and analytical data sheets are included in Appendix O.

Ten geoprobe borings (LF13-LF23) were installed at the landfarm area to evaluate the vertical extent of impact and the in place volume of impacted material. The results of the geoprobe sampling indicated the deepest interval analyzed for each location was below the cleanup criteria.

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact values additional excavation in this area was not required and closure was obtained.

2.5.6. East area

Twenty-six closure samples (EA1 through EA26) were collected in this area. Closure sample locations are shown on Figure 6. Analytical results for twenty-one of the twenty-six samples indicated concentrations of metals above the cleanup criteria. Following analysis of intervals at deeper depths, fourteen remained above the cleanup criteria. Analytical results are summarized in Table 11 and analytical data sheets are included in Appendix P.

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact values additional excavation in this area was not required and closure was obtained.

2.5.7. West area

Thirty-one closure samples (WA1 through WA31) were collected in this area. Closure sample locations are shown on Figure 6. Analytical results for twenty-nine of the thirty-one samples indicated concentrations of metals above the cleanup criteria.

Following analysis of intervals at deeper depths, only two remained above the cleanup criteria. Analytical results are summarized in Table 12 and analytical data sheets are included in Appendix Q.

Based on soil sample results above the cleanup criteria, a statistical evaluation was performed to determine the statistically relevant "cutoff" values for the four metals of concern. Two closure sample (WA9 and WA15) analytical results exceeded the cutoff value. Delineation of the samples exceeding the

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WA15) analytical results exceeded the cutoff value. Delineation of the samples exceeding the cutoff value was performed by collection and analysis of samples radially outward from these locations.

Although the cutoff values and the results of samples with concentrations above the cutoff values were below MDEQ Type B direct contact values, GM implemented an excavation and disposal program for the areas above the cutoff value. At the request of the MDEQ, the materials exceeding the cutoff values were removed based on the MDEQ's concern regarding waste materials left in place. The excavation and disposal program incorporated the construction methods, air monitoring protocols, and decontamination procedures as outlined in the February 1996 work plan. Material was excavated and disposed off site to the extent determined by previous sampling. The cutoff value evaluation and soil excavation activities are discussed in detail in the Closure Plan modification request to the MDEQ dated April 23, 1997 (see Section 3.1).

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact values additional excavation in this area was not required and closure was obtained.

2.6. Final site grading

Following MDEQ approval of the Closure Plan modification request, the RMA was restored for aesthetic and run-off control purposes. A low altitude aerial survey of the RMA and adjacent areas was performed to facilitate the design of final grades. The delisted material within the RMA was graded to promote controlled run-off to a sedimentation basin which ultimately drains to the wetlands area northwest of the RMA via a drainage swale. A minimum of 6 inches of clean topsoil was placed over the RMA and grass seed was planted to provide a vegetative cover. A final site grade of the RMA is included as Figure 7.

Although the cutoff values and the results of samples with concentrations above the cutoff values were below MDEQ Type B direct contact values, GM implemented an excavation and disposal program for the areas above the cutoff value. At the request of the MDEQ, the materials exceeding the cutoff values were removed based on the MDEQ's concern regarding waste materials left in place. The excavation and disposal program incorporated the construction methods, air monitoring protocols, and decontamination procedures as outlined in the February 1996 work plan. Material was excavated and disposed off site to the extent determined by previous sampling. The cutoff value evaluation and soil excavation activities are discussed in detail in the Closure Plan modification request to the MDEQ dated April 23, 1997 (see Section 3.1).

Based on Closure Plan amendment No. 7 (described in Section 3.1), as the analytical results were below the MDEQ Act 307 Type B direct contact values additional excavation in this area was not required and closure was obtained.

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3. Summary of closure plan amendments and landfill modifications

Seven amendments to the 1989 Closure Plan have been approved by the MDEQ and implemented at the REALM Coldwater Road facility. These amendments are summarized in the following sections.

3.1. Closure plan amendments

Amendment No. 1 and No. 2 During the course of the closure construction, unanticipated site conditions and findings of the corrective measures study (CMS) in March 1992 resulted in additional waste volumes (F006 sludge and soil). The need to accommodate final disposal of these additional waste volumes required two Closure Plan amendments:

1. The first Closure Plan amendment was approved by the MDNR on April 5, 1991. The Closure Plan amendment was to enlarge the landfill with an additional 200-ft wide by 460-ft long cell (Cell E) to contain the additional volumes of waste encountered during excavation of impacted soils and sludges (F006) from the sludge lakes, area north of the sludge lakes and the landfarm areas.

2. The second Closure Plan amendment was approved by the MDNR on October 6, 1992. It proposed to extend the landfill disposal cell of the first Closure Plan amendment by 50 ft, and then to add another 250 ft wide cell (Cell F) to the landfill. In addition, the elevation of the landfill was raised 5 ft over the entire landfill. This amendment was made as the result of additional impacted soils and sludges encountered in the impoundments and a corrective action requirement to remediate an on-site wetland area impacted by F006 waste constituents from historical Site surface runoff.

Amendment No. 3 Attachment VI to the Consent Order modifies the Closure Plan for the "Marshy Area west of the sludge drying bed ditch outlet". Attachment VI includes Exhibit A- Wetlands Restoration Plan. The CMS for this area was approved by the MDEQ on March 18, 1992.

Amendment No. 4 The Post-Closure Care Plan, dated August 24, 1994, which included the ground water sampling work plan and chemical monitoring plan was approved by the MDEQ on March 15, 1995.

Amendment No. 5 The Delisting Petition was approved by the MDEQ on February 7, 1996. The Work Plan for the Excavation of Delisted Material was approved by the MDEQ on February 16, 1996. During the delisted materials excavation activities, a number of work plan amendments were requested to expedite the cleanup of certain areas at the site. These requests included the installation of test pits and soil borings to assess the area of impact, schedule extension requests for the submittal of the certification closure report, and the reduction of air monitoring intervals during the excavation activities. MDEQ approved the test pit and soil boring installation program in a letter dated April 18, 1996, the schedule extension request was approved by the MDEQ in a letter dated October 9, 1996, and the air monitoring frequency reduction was verbally approved by the MDEQ as confirmed in a letter from O'Brien & Gere to the MDEQ, dated April 25, 1996.

Amendment No. 6 A letter from O'Brien & Gere dated November 25, 1996 to the MDEQ proposed the installation of two monitoring wells (MW-25 and MW-26) downgradient of the RMA (shown on Figure 8). These wells were proposed to evaluate the ground water migration to surface water pathway. The MDEQ approved the installation of these two wells in a letter dated December 10, 1996.

Amendment No. 7 The seventh Closure Plan amendment is described in the O'Brien & Gere April 23, 1997 and October 30, 1997 letters to the MDEQ requesting a modification to the Closure Plan background cleanup criteria. Copies of the letters are included in Appendix R. The modification requests incorporated statistical analyses to identify "cutoff" values, additional excavation and disposal of the delisted material in the areas above "cutoff" values, and an evaluation of site specific migration pathways documenting compliance with Act 307 Type B Health Based criteria. After discussions and a meeting with the MDEQ to review the statistical methods used, the modification request to amend the Closure Plan by changing the cleanup criteria from background to Type B Health Based criteria per Act 307 was approved by the MDEQ as outlined in the June 26, 1998 approval letter which incorporates the following conditions:

- REALM shall place a notification on the deed of the facility that informs future landowners of conditions or considerations of soil restrictions or soil relocation. Such a notification is identified in Part 201, Environmental Remediation, of the Natural Resources and Environmental protection Act, 1994 PA 451, as amended, as a "Notice of Approved Environmental Remediation".

This notification is not a restrictive covenant, but it is a mechanism that identifies potential site restrictions. This mechanism shall be filed with the local zoning agency following the MDEQs approval of the mechanism. In addition, if REALM has a corporate site access plan to mark out buried utilities, the Remaining Materials Area shall be included in that plan.

- Ground water monitoring of the Remaining Materials Area shall be conducted for 1 yr on a quarterly basis. At the end of 1 yr, REALM must submit a report for MDEQ WMD review and approval that includes a proposal to either continue or terminate the ground water monitoring.

In response to the request for quarterly ground water monitoring for 1 yr at the RMA (in wells MW-25 and MW-26 shown on Figure 8), GM completed four quarters of sampling from the wells on April 26, 1999. Based on the results of the analyses, GM, in a letter dated July 28, 1999, (included in Appendix E) requested approval to terminate monitoring and to properly decommission the two wells downgradient of the RMA. This letter also notified the MDEQ of GM's intention to decommission 22 unused monitoring wells at the Coldwater Road facility. The MDEQ approved the request to terminate ground water monitoring of the two wells downgradient of the RMA and decommissioning of unused wells in a later dated September 7, 1999 (a copy of this letter is included in Appendix S).

The wells were decommissioned in November 1999 in accordance with ASTM method D5299-92. Details on the decommissioning methods, number of wells and well locations are included in the letter to the MDEQ dated April 12, 2000 included in Appendix S.

3.2. Summary of landfill modifications

Several modifications to the landfill were required after capping in the summer of 1994. These modifications were due to erosion issues, sale of the manufacturing property to Peregrine, and deactivation of the WWTP. The landfill modifications are discussed in more detail in the following sections.

3.2.1. Landfill leachate collection system

The landfill leachate was previously automatically pumped from the collection sumps to the former WWTP for treatment and discharge to the sanitary sewer. Leak detection vaults, which collected condensation, storm water runoff and/or ground water, were also manually pumped to the leachate sumps and included in the waste stream influent to the former WWTP.

As a result of the sale of the manufacturing facility to Peregrine in 1996 (the former WWTP was not included in the sale), the only influent to the former WWTP was the landfill leachate. Therefore, GM decided to demolish the WWTP and construct a leachate accumulation facility to collect leak detection water and leachate for temporary disposal off site pending approval from the local municipality to directly discharge into the sanitary sewer. The forcemain handling the combined landfill leachate and leak detection system flow was rerouted to transfer this liquid to the accumulation tank in the new building. A figure showing the location of the forcemain, accumulation facility, and ultimate discharge piping is shown on Figure 9.

GM formerly received interim approval from the Beecher Metropolitan Sewer District to directly discharge from the effluent control facility to the sanitary sewer (interim sewer user permit no. 6-08-04-04-GML1). REALM is in the process of requesting a permanent discharge permit from the City of Flint prior to expiration of the interim permit.

Following a site inspection, the MDEQ issued a letter to GM, dated September 9, 1999, regarding the accumulation of F006/F039 leachate in the aboveground storage tank located at the REALM Coldwater Road facility. The MDEQ's comments were:

- The accumulation of F006/F039 leachate in the storage tank was approved in the closure plan revisions. However, leachate accumulated in the tank prior to discharge to the municipal sewer was specifically excluded from the Part 111, Rule 204 (1) exemption discussed in Mr. Jack Schinderle's June 19, 1997 letter to Mr. Scott Cormier.

- Unless the F006/F039 leachate is delisted, or the nature of the leachate has changed sufficiently to warrant recharacterization pursuant to Part 111, Rule 302, GM/REALM must manage accumulated landfill leachate as a hazardous waste and the new storage tank as a hazardous waste tank. Commingling of leak detection sump water with leachate sump water results in the combined quantity being subjected to the mixture rule, Part111, Rule 203(1)(c).

- GM/REALM should promptly submit documentation of compliance with the generator requirements in 40 CFR 265, Subpart J, including tank labeling, inspection records, and new hazardous waste tank certification by an independent, qualified, registered professional engineer.

GM responded in a letter dated October 8, 1999 from O'Brien & Gere, addressing these comments. A copy of each of these letters is included in Appendix T.

3.2.2. Storm Water runoff

A stipulation in the asset Purchase Agreement between GM and Peregrine required that runoff from the landfill be rerouted to eliminate flow onto Peregrine property (see Figure 2 for approximate property boundaries).

A berm and ditch were designed and installed around the perimeter of the southern and eastern sides of the landfill to prevent runoff onto Peregrine property. The ditch along the east side of the landfill is sloped such that overland flow from the landfill discharges to a catch basin located at the north end of the landfill. The ditch along the south side of the landfill, including a portion of the ditch on the east side of the landfill, is sloped to discharge overland flow from the landfill to the railroad drainage swale at the southwest corner of the landfill. The final elevation of the berm around the landfill is shown on Figure 10.

3.2.3. Culvert installation

To minimize the retention of water in the drainage trenches at the base of the landfill and minimize eroding portions of the access road around the landfill, six additional culverts were installed under the access road to provide control of surface runoff. The culverts are 18 inches in diameter and are approximately 22 to 32 ft in length. The culverts are constructed of helical corrugated galvanized asphalt-coated steel pipe and are placed at locations to provide for drainage directly away from the landfill on the east and west sides of the landfill. The culverts were installed at approximately 29 inches below the landfill road surface and have a 0.02 ft slope away from the landfill. The locations of the culverts are shown on Figure 11.

4. Post-closure care plan

The MDEQ-approved Post-Closure Care Plan, dated August 24, 1994 for the REALM Coldwater Road facility has been revised to reflect the changes to the landfill, ground water monitoring program, and site contact and also incorporates future inspections of the RMA. A copy of the proposed revised Post-Closure Care Plan, dated September 2000 is included as Appendix U. A summary of the proposed changes to this Post-Closure Care Plan are:

- Remediation and Liability Management Company, Inc. (REALM), a wholly-owned subsidiary of GM, will be responsible for future post-closure care efforts at the Coldwater Road site. The site contact, mailing address, legal documents, etc. are is changed to reflect REALM as the site manager.

- REALM has contracted with an outside operations company to provide caretaking at the Coldwater Road site.

- Physical changes to the landfill such as; installation of additional culverts rerouting storm water runoff and the new leachate accumulation facility have been incorporated. A separate operation and maintenance plan for the leachate accumulation facility has been prepared and is kept inside the new leachate accumulation building.

- Permit conditions for discharge of the leak detection water and landfill leachate to the sanitary sewer will be incorporated for reference.

- Security provisions have been modified due to the division of the property into two sites. REALM has contracted with an outside security company to provide periodic inspections of the access gates located on Stanley Road and Horton Street.

- The leak detection system has been updated with an automatic dialer. REALM's security company provides a 24-hour call answering service. When an alarm condition is called in, the security company contacts in order, and if necessary the REALM site contact. REALM's outside caretaking contractor, Troubleshooting can be performed via telephone and the caretaking contractor will respond to the site within 8 hr of the alarm call, if necessary.

- The Post-Closure Care cost estimate and financial assurance mechanism have been updated to reflect site changes.

- The restrictive covenant and land use restrictions will be filed by REALM within 60 days of submittal of this Final Closure Certification Documentation (Part I and Part II) in accordance with the Consent Order.

5. Summary and request for closure approval

Based on the verification closure sampling results and MDEQ-approved amendments to the Closure Plan for the REALM Coldwater Road facility as documented in this Final Closure Certification Documentation, dated September 2000, (Part I by O'Brien & Gere and Part II by Weston), closure is obtained for the remaining units in accordance with the MDEQ-approved Closure Plan, subsequent amendments and closure verification requirements of 40 CFR 265.115, R299.9613(2), and the October 1992 Consent Order. With the inclusion of this third and Final Closure Certification Documentation (Part I and Part II), dated August 2000 REALM hereby requests MDEQ closure approval for the REALM Coldwater Road facility.

Table 5-1 below is a summary of the closed units described in Part I and Part II of this Final Closure Certification Documentation.

Table 5-1. *Closure Summary.*

Unit Description	Type	Closure Objective Met
Settling Lagoons (Primary, Secondary, and Final)	RCRA	Background Cleanup Criteria
Sludge Drying Beds	RCRA	Background Cleanup Criteria
Landfarm, including haul road area	SWMU	Background Cleanup Criteria
Sludge Retention Basin	SWMU	Act 307 Type B Criteria
Sludge Lakes	SWMU	Background Cleanup Criteria
Area North of Sludge Lakes	Other CAA	Background Cleanup Criteria
Wetlands Area	Other CAA	Background Cleanup Criteria
Haul Road	Other CAA	Background Cleanup Criteria
Klein Street Right-of-Way	Other CAA	Background Cleanup Criteria
Daniel's Property	Other CAA	Background Cleanup Criteria
Remaining Materials Area (RMA)[1]	Other CAA	Act 307 Type B Criteria
Railroad Area	Other CAA	Background Cleanup Criteria

[1]RMA includes: miscellaneous cleanup area; stabilized materials area; stockpiled soil area; construction related land farm area; east area; and west area.

Source: O'Brien & Gere Engineers, Inc.

Refer to Appendix A for a summary Table and Figure documenting closure of all units at the Coldwater Road facility as presented in the three Final Closure Certification Documentation Packages.

The manufacturing plant is now owned by REALM which also retained ownership of the northern portion of the Coldwater Road facility. The REALM northern portion of the Coldwater Road site includes the new wetlands area, hazardous waste landfill (containing solidified F006 sludge and soil), RMA (containing subsurface delisted materials), the former settling lagoon area (closed to background), and the new leachate collection and accumulation facility. The former WWTP has been demolished and backfilled, except for the chromium reduction basins and decontamination pits which are scheduled to be demolished by the end of 2000.

The MDEQ-approved August 24, 1994 Post-Closure Care Plan has been revised to reflect the current status of the property. The revised Post-Closure Care Plan, dated September 2000 is included in Appendix U. REALM requests MDEQ review and approval of this revised Post-Closure Care Plan. Future ground water monitoring, inspections, and MDEQ reporting will continue at the REALM Coldwater Road facility in accordance with the August 24, 1994 Post-Closure Care Plan and subsequent amendment dated October 8, 1999, until MDEQ approves the September 2000 revisions.

References

Closure Plan and Post-Closure Plan, O'Brien & Gere Engineers, Inc., August 1989.

Consent Order, Michigan Department of Natural Resources, October 1992.

Corrective Measures Study, General Motors Corporation, March 1992.

Delisting Petition, O'Brien & Gere Engineers, Inc., January 1995.

Draft Weston Closure Certification Documentation Package, Roy . Weston, Inc., November 1994.

Excavation of Delisted Material Work Plan, O'Brien & Gere Engineers, Inc., February 15, 1996.

Guidance Document Verification of Soil Remediation, Michigan Department of Natural Resources, April 1994, Revision I.

Post Closure Care Plan, General Motors Corporation, March 15, 1995.

TABLES

Table 1
Soil Analytical Data
Coldwater Road - Flint, MI

Lagoon (L) Area

LOCATION		LSW1	LSW1A	LSW2	LSW3	LSW3A	LSW4	LSW5	LSW6	LSW6A	LSW7	Background	Direct
	Date Collected	2/8/96	3/19/96	2/8/96	2/8/96	3/21/96	2/8/96	2/8/96	2/8/96	3/22/96	2/8/96	Clean-up	Contact
	Depth	0"	6"	0"	0"	6"	0"	0"	0"	6"	0"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	39.5	7.4	4.8	129	5.4	9.3	6.4	924	5.5	399	30	390,000
Copper	6020	23.8	4.2	6.1	118	5.6	9.7	8.3	512	4.3	159	28	9,800
Nickel	6020	87.5	10.2	4.8	85.3	7.0	24.2	20.6	559	13.0	232	46	20,000
Zinc	6020	98.1	22.2	13.7	118	24.4	32.1	25.7	435	12.3	322	80	86,000

LOCATION		LSW7A	LSW7B	LSW7C	LSW7D-1	LSW8	LSW8A	LSW8B-1	LSW8B-2	LSW9	LSW9A	Background	Direct
	Date Collected	3/22/96	03/25/96	03/27/96	3/29/96	2/8/96	03/26/96	3/29/96	3/29/96	2/8/96	3/21/96	Clean-up	Contact
	Depth	6"	12"	18"	24"	0"	6"	12"	18"	0"	6"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	669	53.5	64.7	11.4	170	32.9	7.9	4.5	210	28.1	30	390,000
Copper	6020	274	27.9	NA	NA	86.8	20.5	NA	NA	111	15.5	28	9,800
Nickel	6020	248	31.1	NA	NA	108	34.9	NA	NA	231	21.6	46	20,000
Zinc	6020	497	52.5	NA	NA	141	38.8	NA	NA	178	38.0	80	86,000

LOCATION		LSW10	LSW10A	LSW10B	LSW11	LSW11A	LSW12	LSW13	LSW13A	LSW14	LSW15	Background	Direct
	Date Collected	2/8/96	3/21/96	03/25/96	2/8/96	3/21/96	2/8/96	2/8/96	2/8/96	2/8/96	2/8/96	Clean-up	Contact
	Depth	0"	6"	12"	0"	6"	0"	0"	6"	0"	0"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	189	35	9.5	325	5.2	5.3	179	26.2	6.8	5.4	30	390,000
Copper	6020	75.5	31.5	10.3	126	5.9	8.8	102	13.9	7.2	8.1	28	9,800
Nickel	6020	118	41.5	NA	207	15.3	23.8	170	28.5	21.3	20.0	46	20,000
Zinc	6020	106	42.3	NA	215	18.1	23.8	148	41.4	28.0	30.0	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 1
Soil Analytical Data
Coldwater Road - Flint, MI

Lagoon (L) Area

LOCATION		LSW16	LSW16A	Dup1(16A)	LSW17	LSW18	LB1	LB2	Background Clean-up Level	Direct Contact Values
	Date Collected	2/8/96	3/19/96	03/19/96	2/8/96	2/8/96	3/14/96	3/14/96		
	Depth	0"	6"	6"	0"	0"	0"	0"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	34.2	13.5	14.7	8.4	7.5	13.4	8.0	30	390,000
Copper	6020	28.4	11.1	11.8	12.4	11.1	10.8	5.3	28	9,800
Nickel	6020	45.7	23.3	28.3	44.2	19.1	20.3	5.9	46	20,000
Zinc	6020	56.3	32.8	38.0	45.5	26.4	30.2	20.5	80	86,000

LOCATION		LB3	LB4	LB5	LB6	LB7	LB8	LB9	Background Clean-up Level	Direct Contact Values
	Date Collected	3/15/96	3/18/96	3/18/96	3/18/96	3/12/96	3/12/96	3/12/96		
	Depth	0"	0"	0"	0"	0"	0"	0"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.7	1.7	7.4	7.5	1.8	6.4	95.0	30	390,000
Copper	6020	6.3	2.6	4.9	3.9	3.0	7.8	41.3	28	9,800
Nickel	6020	4.5	1.4	18.4	19.2	1.6	17.2	62.7	46	20,000
Zinc	6020	17.6	5.8	20.7	18.5	6.2	22.6	76.8	80	86,000

LOCATION		LB9A	LB10	LB11	LB12	LB12A	Background Clean-up Level	Direct Contact Values
	Date Collected	3/12/96	3/12/96	3/12/96	3/12/96	3/21/96		
	Depth	6"	0"	0"	0"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2.9	6.0	5.7	216	2.7	30	390,000
Copper	6020	5.2	4.6	7.4	85.8	4.6	28	9,800
Nickel	6020	5.6	13.6	15.9	135	3.3	46	20,000
Zinc	6020	14.9	19.0	16.9	159	8.9	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 2
Soil Analytical Data
Coldwater Road - Flint, MI

Haul Road (HR) Area

LOCATION		HR1	HR-1A	HR2	HR3	HR3A	HR3B-1	HR4	HR4A	HR4B-1	HR4B-2	Background	Direct
	Date Collected	3/21/96	3/25/96	3/21/96	3/22/96	3/25/96	3/29/96	3/22/96	3/25/96	3/29/96	3/29/96	Clean-up	Contact
	Depth	6"	12"	6"	6"	12"	18"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	220	4.2	15.4	70.5	78.8	13.6	116	170	236	26.3	30	390,000
Copper	6020	27.8	7.3	13.9	63.5	87.5	16.2	149	152	272	27.8	28	9,800
Nickel	6020	317	10.8	23.7	74.7	103	29.6	166	196	272	35.2	46	20,000
Zinc	6020	411	14.3	27.7	69.5	90.5	31.4	137	217	289	44.6	80	86,000

LOCATION		HR5-1	HR5-2	HR6-1	HR6-2	HR7-1	HR7-2	HR8-1	HR8-2	HR8-3	HR8-4	Background	Direct
	Date Collected	3/27/96	3/27/96	3/27/96	3/27/96	3/27/96	3/27/96	3/27/96	3/27/96	3/27/96	3/27/96	Clean-up	Contact
	Depth	6"	12"	6"	12"	6"	12"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	34.5	21.9	30.7	21.5	32.5	4.2	65.1	39.3	59.8	24.8	30	390,000
Copper	6020	27.1	NA	28.9	19.6	26.1	NA	37.1	25.8	NA	NA	28	9,800
Nickel	6020	43.7	NA	44.5	NA	40.3	NA	61.2	39.4	NA	NA	46	20,000
Zinc	6020	66.1	NA	81.5	47	47.9	NA	64.4	NA	NA	NA	80	86,000

LOCATION		HR9-1	HR9-2	HR9-3	HR10-1	HR10-2	HR11-1	HR12-1	HR12-2	HR12-3	HR12-4	Background	Direct
	Date Collected	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	Clean-up	Contact
	Depth	6"	12"	18"	6"	12"	6"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	31.1	54.7	7.9	31.9	29.3	18.1	46.0	206	46.4	9.0	30	390,000
Copper	6020	23.5	NA	NA	22.3	NA	12.8	26.9	NA	NA	NA	28	9,800
Nickel	6020	80.3	75.8	15.0	40.9	NA	25.2	43.1	NA	NA	NA	46	20,000
Zinc	6020	41.1	NA	NA	43.4	NA	22.7	36.3	NA	NA	NA	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 2
Soil Analytical Data
Coldwater Road - Flint, MI

Haul Road (HR) Area

LOCATION		HR13-1	HR13-2	HR13-3	HR13-4	HR14-1	HR14-2	HR14-3	HR14-4	HR15-1	HR16-1	Background	Direct
	Date Collected	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	Clean-up	Contact
	Depth	6"	12"	18"	24"	6"	12"	18"	24"	6"	6"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	94.7	176	262	15.9	177	161	148	15.6	2.8	208	30	390,000
Copper	6020	43.9	95.2	120	9.1	91.9	52.9	79.6	9.3	4.3	119	28	9,800
Nickel	6020	69.2	187	180	22.3	128	107	113	22.4	5.1	154	46	20,000
Zinc	6020	52.5	NA	NA	NA	125	98.5	101	19.6	13.7	149	80	86,000

LOCATION		HR16-2	HR16-3	HR16-4	HR16-5	HR17-1	HR17-2	HR17-3	HR17-4	HR17-5	HR17-6	Background	Direct
	Date Collected	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	4/08/96	Clean-up	Contact
	Depth	12"	18"	24"	30"	6"	12"	18"	24"	30"	36"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	46.0	180	35.9	19.8	1,540	969	70.2	109	65.2	6.7	30	390,000
Copper	6020	27.9	NA	NA	NA	780	571	40.8	58.6	34.0	4.4	28	9,800
Nickel	6020	43.6	NA	NA	NA	970	667	58.4	92.7	59.9	12.6	46	20,000
Zinc	6020	43.6	NA	NA	NA	660	538	53.3	NA	NA	NA	80	86,000

LOCATION		HR18	HR19	HR20	HR21	HR22	HR23	HR24	Background	Direct
	Date Collected	4/26/96	4/26/96	4/26/96	4/26/96	4/26/96	4/26/96	4/26/96	Clean-up	Contact
	Depth	6"	6"	6"	6"	6"	6"	6"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	87.7	30.0	3.5	85.9	5.2	16.1	14.3	30	390,000
Copper	6020	47.0	16.9	3.5	51.0	4.6	13.3	16.9	28	9,800
Nickel	6020	63.8	22.7	3.1	64.8	14.5	24.4	22.3	46	20,000
Zinc	6020	57.1	18.4	9.4	76.0	19.0	35.2	88.0	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 3
UCL Calculation- Haul Road Area

SAMPLE	Parameter Results			
LOCATION	CR	CU	NI	ZN
HR-1A	4.2	7.3	10.8	14.3
HR2	15.4	13.9	23.7	27.7
HR3B-1	13.6	16.2	29.6	31.4
HR4B-2	26.3	27.8	35.2	44.6
HR5-1,2	21.9	27.1	43.7	66.1
HR6-1,2	21.5	19.6	44.5	47.0
HR7-1,2	4.2	26.1	40.3	47.9
HR8-1,2,4	24.8	25.8	39.4	64.4
HR9-1,2,3	7.9	23.5	15.0	41.1
HR10-1,2	29.3	22.9	40.9	43.4
HR11-1	18.1	12.8	25.2	22.7
HR12-1,4	9.0	26.9	43.1	36.3
HR13-1,4	15.9	9.1	22.3	52.5
HR14-4	15.6	9.3	22.4	19.6
HR15-1	2.8	4.3	5.1	13.7
HR16-2,5	19.8	27.9	43.6	43.6
HR17-3,6	6.7	4.4	12.6	53.3
HR18	87.7	47.0	63.8	57.1
HR19	30.0	16.9	22.7	18.4
HR20	3.5	3.5	3.1	9.4
HR21	85.9	51.0	64.8	76.0
HR22	5.2	4.6	14.5	19.0
HR23	16.1	13.3	24.4	35.2
HR24	14.3	16.9	22.3	88.0

Notes:

-Soil data and cleanup criteria measured in mg/kg (ppm).

Cleanup	CR	CU	NI	ZN
Criteria	30.00	28.00	46.00	80.00
X=	20.82	18.51	29.71	38.82
S=	21.91	12.98	16.49	22.26
Sx=	4.47	2.65	3.36	4.47
S^2=	480.233	168.425	271.76	495.614
95% UCL=	18.5387	21.1585	34.72	45.993732
l=	0.41887	0.73137	0.98827	1.8499053

- UCL= Upper Confidence Level
- Lambda= (CC-X)/S
- CC= Cleanup Criteria
- X = Mean
- S= Standard Deviation
- Sx= Standard Error of the Mean
- S^2= Standard Variance

Based on Attachment 2, Number of Observations for t Test of Mean, page 36 of MDNR's Guidance Document Verification of Soil Remediation, approximately 11 samples need to be taken. The lambda calculation indicates the appropriate number of samples have been collected.

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Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Railroad (RR) Area

LOCATION		RR1	RR2	RR3	RR4	RR5	RR6	RR7	RR8	Background Clean-up Level	Direct Contact Values
	Date Collected	3/21/96	3/21/96	3/22/96	3/22/96	3/22/96	3/26/96	3/26/96	3/26/96		
	Depth	6"	6"	6"	6"	6"	6"	6"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.0	5.5	2.9	3.1	3.5	6.9	6.4	6.5	30	390,000
Copper	6020	2.3	4.9	3.4	4.1	4.4	5.9	5.1	7.5	28	9,800
Nickel	6020	11.6	12.6	6.5	10.4	11.1	11.3	19.9	16.4	46	20,000
Zinc	6020	12.4	17.5	10.4	10.4	8.8	21.8	20.6	22.8	80	86,000

LOCATION		RR9	RR10	RR11	Dup2(RR11)	RR12	RR13	RR13A	RR14	Background Clean-up Level	Direct Contact Values
	Date Collected	3/26/96	3/26/96	3/26/96	3/26/96	3/26/96	3/26/96	4/11/96	3/26/96		
	Depth	6"	6"	6"	6"	6"	6"	12"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.9	1.9	6.0	5.3	3.6	90.1	15.4	9.9	30	390,000
Copper	6020	5.8	1.2	11.5	4.2	2.8	54.0	12.4	6.2	28	9,800
Nickel	6020	11.9	2.0	5.4	10.3	2.8	71.2	29.9	19.6	46	20,000
Zinc	6020	20.4	5.4	18.8	16.7	8.4	122	45.5	23.9	80	86,000

LOCATION		RR15	RR16	RR17	RR18	RR19	RR20	Background Clean-up Level	Direct Contact Values
	Date Collected	4/25/96	4/25/96	4/25/96	4/25/96	4/25/96	4/25/96		
	Depth	6"	6"	6"	6"	6"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.5	17.8	6.1	5.2	1.1	2.3	30	390,000
Copper	6020	4.5	12.9	5.9	5.1	5.0	2.9	28	9,800
Nickel	6020	6.1	17.9	9.8	7.0	2.0	4.4	46	20,000
Zinc	6020	8.8	160	37.0	52.1	9.0	6.3	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 5
UCL Calculation- Railroad Area

Sample Location	Parameter Results			
	CR	CU	NI	ZN
RR1	3.0	2.3	11.6	12.4
RR2	5.5	4.9	12.6	17.5
RR3	2.9	3.4	6.5	10.4
RR4	3.1	4.1	10.4	10.4
RR5	3.5	4.4	11.1	8.8
RR6	6.9	5.9	11.3	21.8
RR7	6.4	5.1	19.9	20.6
RR8	6.5	7.5	16.4	22.8
RR9	6.9	5.8	11.9	20.4
RR10	1.9	1.2	2.0	5.4
RR11	6.0	11.5	5.4	18.8
RR12	3.6	2.8	2.8	8.4
RR13A	15.4	12.4	29.9	45.5
RR14	9.9	6.2	19.6	23.9
RR15	3.5	4.5	6.1	8.8
RR16	17.8	12.9	17.9	160.0
RR17	6.1	5.9	9.8	37.0
RR18	5.2	5.1	7.0	52.1
RR19	1.1	5.0	2.0	9.0
RR20	2.3	2.9	4.4	6.3

Notes:
-Soil analytical results and cleanup criteria shown in mg/kg (ppm).

UCL Calculation

Cleanup Criteria	CR	CU	NI	ZN
	30	28	46	80
X=	5.88	5.07	10.93	26.02
S=	4.26	3.81	7.10	34.05
Sx=	0.95	0.85	1.59	7.61
S^2=	18.17	14.52	50.37	1159.47
95% UCL=	7.52	6.54	13.68	39.17
Lambda=	5.660	6.018	4.941	1.585

Notes:
- UCL= Upper Confidence Level
- Lambda= (CC-X)/S
- CC= Cleanup Criteria
- X = Mean
- S= Standard Deviation
- Sx= Standard Mean

Using Attachment 2, Number of Observations for t Test of mean, page 36 of MDNR's Guidance Document -Verification of Soil Remediation, using a single-sided test with alpha equal to 0.05 and beta equal to 0.05, no additional samples need to be collected.

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Table 6
Soil Analytical Data
Coldwater Road - Flint, MI

Miscellaneous Cleanup (MC) Area

LOCATION		MC1	MC1A	MC1A-1	MC2	MC3	MC3A	MC3A-1	MC3A-2	MC4	Background Clean-up Level	Direct Contact Values
	Date Collected	4/01/96	4/11/96	4/09/96	4/01/96	4/01/96	4/09/96	4/09/96	4/09/96	4/01/96		
	Depth	6"	12"	18"	6"	6"	12"	18"	24"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	346	407	4.5	1.9	117	13.9	49.9	13.9	249	30	390,000
Copper	6020	239	268	4.9	2.2	62.8	10.4	37.4	10.4	127	28	9,800
Nickel	6020	154	199	5.8	5.0	72.7	19.4	46.2	19.4	176	46	20,000
Zinc	6020	220	290	15.3	6.0	80.4	NA	59.0	NA	157	80	86,000

LOCATION		MC4A	MC4A-1	MC5	Dup3(MC5)	MC5A-1	MC5A-2	MC6	MC6-1	MC6-2	Background Clean-up Level	Direct Contact Values
	Date Collected	4/11/96	4/09/96	4/01/96	4/01/96	4/09/96	4/09/96	4/17/96	4/17/96	4/17/96		
	Depth	12"	18"	6"	6"	18"	24"	6"	12"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	112	9.3	362	458	65.9	8.7	167	104	5.2	30	390,000
Copper	6020	66.0	10.0	196	198	34.2	5.8	85.9	43.2	3.7	28	9,800
Nickel	6020	84.2	17.6	245	278	33.1	NA	121	74.1	11.0	46	20,000
Zinc	6020	101	23.1	231	284	49.0	NA	102	56.9	NA	80	86,000

LOCATION		MC7	MC7-1	MC8	MC8A-1	MC8A-2	MC8A-3	MC9	MC10	Background Clean-up Level	Direct Contact Values
	Date Collected	4/17/96	4/17/96	4/01/96	4/09/96	4/09/96	4/09/96	4/01/96	4/01/96		
	Depth	6"	12"	6"	18"	24"	30"	6"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	217	22.3	128	162	92.6	7.5	4.9	64.9	30	390,000
Copper	6020	88.4	16.0	68.1	91.2	51.6	7.6	5.5	25.7	28	9,800
Nickel	6020	146	20.7	97.2	1,125	71.8	17.3	13.5	33.4	46	20,000
Zinc	6020	114	30.1	90.1	128	125	21.3	14.1	41.9	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 6
Soil Analytical Data
Coldwater Road - Flint, MI

Miscellaneous Cleanup (MC) Area

LOCATION		MC10A	MC11	MC11A	MC11-1A	MC12	MC12A	MC12A-1	Background	Direct
	Date Collected	4/10/96	4/01/96	4/11/96	4/09/96	4/01/96	4/10/96	4/09/96	Clean-up	Contact
	Depth	12"	6"	12"	12"	6"	12"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.9	315	6.8	14.7	117	185	284	30	390,000
Copper	6020	NA	176	5.4	10.9	70.2	102	156	28	9,800
Nickel	6020	NA	208	16.0	20.5	73.4	118	162	46	20,000
Zinc	6020	NA	196	21.8	24.8	94.0	139	190	80	86,000

LOCATION		MC12A-2	MC12A-3	MC12A-4	MC13	MC13A	MC13A-1	MC13A-2	Background	Direct
	Date Collected	4/10/96	4/10/96	4/10/96	4/01/96	4/05/96	4/08/96	4/05/96	Clean-up	Contact
	Depth	24"	30"	36"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	40.0	46.8	6.8	345	128	270	32.7	30	390,000
Copper	6020	24.8	NA	NA	187	63.0	130	21.2	28	9,800
Nickel	6020	25.5	NA	NA	113	57.8	102	16.9	46	20,000
Zinc	6020	53.0	NA	NA	181	78.0	NA	NA	80	86,000

LOCATION		MC13A-3	Background	Direct
	Date Collected	4/05/96	Clean-up	Contact
	Depth	30"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg
Chromium	6020	16.1	30	390,000
Copper	6020	NA	28	9,800
Nickel	6020	NA	46	20,000
Zinc	6020	NA	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 7
Soil Analytical Data
Coldwater Road - Flint, MI

Retention Basin (RB) Area

LOCATION		RB1	RB2	RB3	RB3-1	RB3-2	RB4	RB4-1	RB5	RB6	Dup4(RB6)	Background	Direct
	Date Collected	4/03/96	4/03/96	4/03/96	4/11/96	4/11/96	4/03/96	4/11/96	4/03/96	4/03/96	4/03/96	Clean-up	Contact
	Depth	6"	6"	6"	12"	18"	6"	12"	6"	6"	6"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.3	4.1	272	6.8	NA	239	14.0	9.7	107	80.0	30	390,000
Copper	6020	4.2	8.4	174	9.2	NA	126	11.8	16.2	59.8	46.5	28	9,800
Nickel	6020	24.6	23.6	229	48.8	12.5	195	25.0	22.3	88.8	70.0	46	20,000
Zinc	6020	18.6	16.9	182	28.9	NA	150	30.2	26.7	80.9	54.8	80	86,000

LOCATION		RB6-1	RB6-2	RB6-3	RB7	RB7-1	RB8	RB9	RB9-1	RB10	RB10-1	Background	Direct
	Date Collected	4/11/96	4/11/96	4/11/96	4/03/96	4/11/96	4/03/96	4/03/96	4/11/96	4/03/96	4/11/96	Clean-up	Contact
	Depth	12"	18"	24"	6"	12"	6"	6"	12"	6"	12"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	34.5	119	3.3	186	10.0	2.0	3.9	NA	647	12.4	30	390,000
Copper	6020	30.7	86.0	6.9	106	8.2	3.4	7.7	NA	420	12.2	28	9,800
Nickel	6020	40.8	NA	NA	156	22.6	22.4	63.6	15.6	494	20.8	46	20,000
Zinc	6020	37.5	NA	NA	110	24.6	6.2	19.5	NA	403	29.1	80	86,000

LOCATION		RB11	RB11-1	RB11-2	RB11-3	RB12	RB13	RB14	RB14-1	RB15	Background	Direct
	Date Collected	4/02/96	4/11/96	4/11/96	4/11/96	4/02/96	4/02/96	4/02/96	4/11/96	4/02/96	Clean-up	Contact
	Depth	6"	12"	18"	24"	6"	6"	6"	12"	6"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	289	372	51.9	4.1	2.7	5.8	539	4.3	9.2	30	390,000
Copper	6020	134	196	38.6	7.0	5.0	4.3	304	3.6	4.3	28	9,800
Nickel	6020	174	283	57.9	27.1	8.6	13.9	390	11.2	13.3	46	20,000
Zinc	6020	151	234	53.9	NA	9.1	10.0	305	16.0	11.3	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 8
Soil Analytical Data
Coldwater Road - Flint, MI

Stockpiled Soil (SS) Area

LOCATION		SS1	SS1-1	SS2	SS2-1	SS2-2	SS2-3	SS2-4	SS2-5	SS2-6	Background Clean-up Level	Direct Contact Values
	Date Collected	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96		
	Depth	6"	12"	6"	12"	18"	24"/30"	36"	42"	48"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	184	12.8	232	104	92.6	4,550	3,270	444	5.2	30	390,000
Copper	6020	86.5	14.7	114	57.0	44.4	3,050	1,950	284	3.6	28	9,800
Nickel	6020	117	16.6	142	72.9	72.4	2,970	2,210	333	3.6	46	20,000
Zinc	6020	136	21.9	148	68.9	NA	NA	NA	NA	NA	80	86,000

LOCATION		SS3-4.0	SS4	SS4-1	SS4-2	SS4-3	SS4-4	SS4-5	SS4-6	SS4-7	Background Clean-up Level	Direct Contact Values
	Date Collected	5/09/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	5/09/96		
	Depth	48"	6"	12"	18"	24"/30"	36"	42"	42"	48"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.4	503	2,620	2,740	3,190	3,270	3,700	35.9	10.8	30	390,000
Copper	6020	6.1	267	711	846	877	868	1,170	12.1	NA	28	9,800
Nickel	6020	6.5	337	1,520	1,540	1,800	1,770	2,120	31.7	NA	46	20,000
Zinc	6020	15.5	740	1,670	1,920	1,770	1,620	2,270	38.9	NA	80	86,000

LOCATION		SS5	SS5-1	SS5-2	SS5-3	SS5-4	SS5-5	SS5-6	SS6	SS6-1	Background Clean-up Level	Direct Contact Values
	Date Collected	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96		
	Depth	6"	12"	18"	24"/30"	36"	42"	42"	6"	12"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	639	940	664	424	378	85.8	10.9	381	442	30	390,000
Copper	6020	238	422	404	210	264	57.9	7.6	146	206	28	9,800
Nickel	6020	363	624	485	308	380	79.1	23.3	238	297	46	20,000
Zinc	6020	585	836	638	319	318	69.6	NA	280	349	80	86,000

Notes:
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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 8
Soil Analytical Data
Coldwater Road - Flint, MI

Stockpiled Soil (SS) Area

LOCATION		SS6-2	SS6-3	SS6-4	SS6-5	SS6-6	SS7	SS7-1	SS7-2	Background	Direct
	Date Collected	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	Clean-up	Contact
	Depth	18"	24"/30"	36"	42"	42"	6"	12"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	631	574	338	326	7.8	638	375	68	30	390,000
Copper	6020	286	290	163	140	8.8	325	140	31.4	28	9,800
Nickel	6020	413	426	205	200	17.0	445	233	50.4	46	20,000
Zinc	6020	624	394	227	203	31.7	611	252	65.4	80	86,000

LOCATION		SS7-3	SS8 4.0	SS9 3.0	SS10 3.5	SS11 4.0	SS12-3.5	SS13-2.5	SS14-0.5	Background	Direct
	Date Collected	4/11/96	5/13/96	5/13/96	5/13/96	5/13/96	5/09/96	5/09/96	5/09/96	Clean-up	Contact
	Depth	24"	48"	36"	42"	48"	42"	30"	48"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	20.8	3.5	5.4	2.3	6.8	11.4	6.5	3.5	30	390,000
Copper	6020	12.2	8.9	4.2	6.7	8.7	10.2	5.7	3.4	28	9,800
Nickel	6020	21.9	7.0	12.6	10.2	15.4	19.4	12.0	3.4	46	20,000
Zinc	6020	NA	15.7	15.3	12.2	21.7	27.0	12.5	7.7	80	86,000

LOCATION		SS15-5.0	SS15-5.5	SS16 1.5	Background	Direct
	Date Collected	5/09/96	5/09/96	5/13/96	Clean-up	Contact
	Depth	102"	108"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	31.8	5.7	4.3	30	390,000
Copper	6020	17.3	NA	4.1	28	9,800
Nickel	6020	30.6	NA	10.6	46	20,000
Zinc	6020	35.5	NA	12.5	80	86,000

FIELD DATA

SS 15 - 1, 2, 3, 4

Notes:

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3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 9
Soil Analytical Data
Coldwater Road - Flint, MI

Stabilized Materials (SM) Area

LOCATION		SM1	SM2	SM2-1	SM2-2	SM3	SM3-1	SM3-2	SM3-3	SM3-4	Background	Direct
	Date Collected	4/04/96	4/04/96	4/08/96	4/08/96	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96	Clean-up	Contact
	Depth	6"	6"	12"	18"	6"	12"	18"	24"	30"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.5	2,070	1,070	17.4	1,570	1,030	739	717	1,420	30	390,000
Copper	6020	7.9	1,170	692	15.7	704	764	511	608	482	28	9,800
Nickel	6020	8.2	1,480	777	25.5	1,010	814	795	609	898	46	20,000
Zinc	6020	16.8	1,240	770	35.3	728	823	558	759	530	80	86,000

LOCATION		SM3-5	SM4	SM4-1	SM5	SM6	DUP(SM6)	SM6-1	SM6-2	SM6-3	Background	Direct
	Date Collected	4/08/96	4/04/96	4/10/96	4/04/96	4/04/96	4/04/96	4/08/96	4/08/96	4/08/96	Clean-up	Contact
	Depth	36"	6"	12"	6"	6"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	11.1	428	18.6	8.9	400	1,350	790	170	207	30	390,000
Copper	6020	11.5	286	12.8	5.3	256	673	2,200	144	158	28	9,800
Nickel	6020	31.3	365	21.8	16.3	322	940	773	132	187	46	20,000
Zinc	6020	25.2	314	26.1	21.1	319	950	919	135	225	80	86,000

LOCATION		SM6-4	SM6-5	SM6-6	SM6-7	SM6-8	SM7	SM7-1	SM7-2	SM7-3	Background	Direct
	Date Collected	4/08/96	4/08/96	4/08/96	4/19/96	4/19/96	4/04/96	4/08/96	4/08/96	4/08/96	Clean-up	Contact
	Depth	30"	36"	42"	48"	54"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	143	589	60.2	319	6.0	1,140	580	337	22.3	30	390,000
Copper	6020	249	285	54.1	598	4.1	724	490	456	23.9	28	9,800
Nickel	6020	179	441	69.3	393	8.4	1,160	490	316	53.0	46	20,000
Zinc	6020	170	246	74.6	NA	NA	982	611	327	48.0	80	86,000

LOCATION		SM7-4	Background	Direct
	Date Collected	4/08/96	Clean-up	Contact
	Depth	30"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg
Chromium	6020	NA	30	390,000
Copper	6020	NA	28	9,800
Nickel	6020	15.2	46	20,000
Zinc	6020	NA	80	86,000

Notes:
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3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 9
Soil Analytical Data
Coldwater Road - Flint, MI

Stabilized Materials (SM) Area

LOCATION		SM8	SM8-1	SM8-2	SM8-3	SM8-4	SM8-5	SM9	SM9-1	SM9-2	Background	Direct
	Date Collected	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96	4/08/96	4/04/96	4/10/96	4/10/96	Clean-up	Contact
	Depth	6"	12"	18"	24"	30"	36"	6"	12"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2,300	1,390	879	4.9	NA	NA	344	3,700	7,908	30	390,000
Copper	6020	1,170	718	681	45.6	187	4.9	197	2,190	3,930	28	9,800
Nickel	6020	1,450	967	619	33.2	NA	NA	283	2,640	5,120	46	20,000
Zinc	6020	1,050	841	698	16.8	NA	NA	162	2,160	3,620	80	86,000

LOCATION		SM9-3	SM10	SM10-1	SM10-2	SM10-3	SM11	SM11-1	SM11-2	SM11-3	Background	Direct
	Date Collected	4/10/96	4/04/96	4/08/96	4/08/96	4/08/96	4/17/96	4/17/96	4/17/96	4/17/96	Clean-up	Contact
	Depth	24"	6"	12"	18"	24"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.6	2,810	14,700	111	22.2	615	1,218	716	41.8	30	390,000
Copper	6020	6.0	1,470	7,030	76.9	18.3	346	630	423	22.1	28	9,800
Nickel	6020	5.9	1,890	10,900	85.3	22.2	437	865	542	38.1	46	20,000
Zinc	6020	14.1	1,870	7,780	58.7	NA	345	692	575	46.4	80	86,000

LOCATION		SM11-4	SM12	SM12-1	SM12-2	SM12-3	SM13	SM13-1	SM14 4.0	SM15 4.5	Background	Direct
	Date Collected	4/17/96	4/17/96	4/17/96	4/17/96	4/17/96	4/04/96	4/08/96	5/13/96	5/13/96	Clean-up	Contact
	Depth	30"	6"	12"	18"	24"	6"	12"	54"	60"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.7	455	235	31.5	11.2	1,670	6.5	3.9	8.5	30	390,000
Copper	6020	NA	239	151	34.6	10.5	902	3.7	5.8	10.1	28	9,800
Nickel	6020	NA	321	169	34.0	NA	1,160	16.5	10.1	7.0	46	20,000
Zinc	6020	NA	260	150	29.1	NA	1,040	14.9	11.0	15.8	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
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Table 10
Soil Analytical Data
Coldwater Road - Flint, MI

Construction Related Land Farm (LF) Area

LOCATION		LF1	LF1-1	LF2	LF3	LF3A-1	LF3A-2	LF3A-3	LF3A-4	LF3A-5	LF3A-6	Background	Direct
	Date Collected	4/18/96	4/18/96	4/18/96	4/05/96	4/09/96	4/09/96	4/09/96	4/09/96	4/09/96	4/10/96	Clean-up	Contact
	Depth	6"	12"	6"	6"	12"	18"	24"	30"	36"	42"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	231	16.6	17.6	76.7	149	155	1,260	87.4	516	65.7	30	390,000
Copper	6020	109	16.1	13.2	37.5	108	81.2	455	41.9	277	42.8	28	9,800
Nickel	6020	139	23.1	20.8	60.7	151	110	756	58.2	386	53.4	46	20,000
Zinc	6020	130	22.9	27.5	63.1	193	157	948	65.2	NA	NA	80	86,000

LOCATION		LF3A-7	LF3A-8	LF4	LF4A-1	LF4A-2	LF4A-3	LF4A-4	LF4A-5	LF4A-6	LF4-7	Background	Direct
	Date Collected	4/19/96	4/19/96	4/05/96	4/09/96	4/09/96	4/09/96	4/09/96	4/09/96	4/09/96	4/19/96	Clean-up	Contact
	Depth	48"	56"	6"	12"	18"	24"	30"	36"	42"	48"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	33.6	5.7	2,080	1,130	1,820	1,130	1,820	2,200	1,820	1.7	30	390,000
Copper	6020	22.0	NA	1,010	792	947	518	800	1,130	922	4.1	28	9,800
Nickel	6020	29.3	NA	1,360	871	1,150	739	1,030	1,420	1,200	1.7	46	20,000
Zinc	6020	NA	NA	1,250	1,360	1,120	674	1,180	1,730	952	5.9	80	86,000

LOCATION		LF5	LF5-1	LF5-2	LF5-3	LF5-4	LF5-5	LF5-6	LF6	LF6A-1	LF6A-2	Background	Direct
	Date Collected	4/02/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/02/96	4/09/96	4/09/96	Clean-up	Contact
	Depth	6"	12"	18"	24"	30"	36"	42"	6"	12"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	688	584	614	531	338	33.2	8.4	148	117	206	30	390,000
Copper	6020	379	352	342	294	197	17.6	NA	72.4	68.4	111	28	9,800
Nickel	6020	489	389	438	353	239	33.1	NA	100	94.7	147	46	20,000
Zinc	6020	383	552	482	430	227	30.0	NA	83.6	92.8	148	80	86,000

LOCATION		LF6A-3	LF7	LF7-1	LF7-2	LF8	Dup6(LF8)	LF8-1	LF8-2	LF8-3	LF8-4	Background	Direct
	Date Collected	4/09/96	4/02/96	4/10/96	4/10/96	4/05/96	4/05/96	4/10/96	4/10/96	4/10/96	4/10/96	Clean-up	Contact
	Depth	24"	6"	12"	18"	6"	6"	12"	18"	24"	30"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.5	276	293	8.1	100	136	779	596	513	1,180	30	390,000
Copper	6020	4.0	141	134	5.4	90.2	125	450	330	485	518	28	9,800
Nickel	6020	15.3	184	182	10.8	96.6	151	551	485	458	833	46	20,000
Zinc	6020	15.0	161	170	22.4	100	122	741	433	602	1,010	80	86,000

Notes:

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Table 10
Soil Analytical Data
Coldwater Road - Flint, MI

Construction Related Land Farm (LF) Area

LOCATION		LF8-5	LF8-6	LF8-7	LF8-8	LF8-9	LF9	LF9-1	LF9-2	LF10	LF10-1	Background	Direct
	Date Collected	4/10/96	4/10/96	4/19/96	4/19/96	4/19/96	4/05/96	4/10/96	4/10/96	4/05/96	4/10/96	Clean-up	Contact
	Depth	36"	42"	48"	54"	60"	6"	12"	18"	6"	12"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	464	976	339	190	22.1	168	690	18.4	759	873	30	390,000
Copper	6020	306	523	270	228	25.0	184	395	19.6	359	547	28	9,800
Nickel	6020	370	653	292	183	35.3	177	479	28.0	504	608	46	20,000
Zinc	6020	421	730	292	164	49.3	224	529	45.0	357	644	80	86,000

LOCATION		LF10-2	LF10-3	LF10-4	LF10-5	LF10-6	LF10-7	LF10-8	LF10-9	LF10-10	LF10-11	Background	Direct
	Date Collected	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/19/96	4/19/96	4/19/96	4/18/96	4/19/96	Clean-up	Contact
	Depth	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	612	1,210	552	543	22.4	NA	NA	NA	NA	NA	30	390,000
Copper	6020	466	715	428	380	15.9	NA	NA	NA	NA	NA	28	9,800
Nickel	6020	590	855	512	431	16.7	NA	NA	NA	NA	NA	46	20,000
Zinc	6020	440	828	420	353	276	1,640	330	182	425	423	80	86,000

LOCATION		LF10-12	LF11	LF11-1	LF11-2	LF11-3	LF12	LF13 1.0	LF14 3.0	LF15 2.5	LF 16 3.5	Background	Direct
	Date Collected	4/19/96	4/18/96	4/18/96	4/18/96	4/18/96	4/17/96	5/13/96	5/13/96	5/13/96	5/13/96	Clean-up	Contact
	Depth	78"	6"	12"	18"	24"	6"	18"	42"	36"	48"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	NA	527	733	48.3	18.7	6.3	3.5	8.6	6.6	38.5	30	390,000
Copper	6020	NA	278	261	28.0	NA	5.9	3.1	7.4	4.6	767	28	9,800
Nickel	6020	NA	355	564	46.7	14.9	9.1	6.4	14.6	14.3	64.2	46	20,000
Zinc	6020	35.0	356	342	49.3	NA	17.3	15.6	21.5	17.5	110	80	86,000

LOCATION		LF16 4.0	LF16 4.5	LF17-3.0	LF18 4.0	LF18-7.0	LF19 3.0	LF20-4.5	LF21-5.5	LF22 1.0	LF23 2.0	Background	Direct
	Date Collected	5/13/96	5/13/96	5/09/96	5/13/96	5/09/96	5/13/96	5/09/96	5/09/96	5/13/96	5/13/96	Clean-up	Contact
	Depth	54"	60"	36"	78"	114"	42"	60"	72"	12"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	22.0	8.8	3.4	2.7	3.5	6.1	1.8	7.3	6.8	6.4	30	390,000
Copper	6020	60.7	6.9	5.5	5.6	10.5	8.5	3.9	9.1	7.3	6.9	28	9,800
Nickel	6020	81.2	29.8	5.7	3.0	5.3	12.6	1.8	15.9	13.4	14.3	46	20,000
Zinc	6020	81.4	45.3	11.9	9.7	15.6	19.5	6.4	22.8	38.3	21.6	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 11
Soil Analytical Data
Coldwater Road - Flint, MI

East Area (EA)

LOCATION		EA1-0	EA2-0	EA2-1	EA2-2	EA2-3	EA2-4	EA2-5	EA2-6	Background Clean-up Level	Direct Contact Values
	Date Collected	11/18/96	11/18/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96		
	Depth	0-0.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	123	357	5.0	106	95.2	14.9	14.6	12.7	30	390,000
Copper	6020	67.2	186	4.1	48.4	43.6	12.2	12.2	14.9	28	9,800
Nickel	6020	97.5	248	12.0	77.6	86.6	21.3	24.3	22.7	46	20,000
Zinc	6020	93.2	205	18.9	81.0	82.0	41.8	37.9	39.5	80	86,000

LOCATION		EA3-0	EA4-0	EA4-1	EA4-2	EA4-3	EA4-4	EA4-5	EA4-6	EA4-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/18/96	11/18/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96		
	Depth	0-0.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	183	196	51.7	22.3	16.7	16.0	7.3	9.2	54.1	30	390,000
Copper	6020	108	96.6	34.9	15.0	13.1	11.9	6.0	7.6	32.9	28	9,800
Nickel	6020	140	140	47.4	29.7	27.1	24.6	10.1	10.6	47.3	46	20,000
Zinc	6020	120	155	89.3	54.8	49.1	46.5	19.7	27.4	60.1	80	86,000

LOCATION		EA5-0	EA6-0	EA6-1	EA6-2	EA6-3	EA6-4	EA6-5	EA6-6	EA7-0	Background Clean-up Level	Direct Contact Values
	Date Collected	11/18/96	11/18/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/18/96		
	Depth	0-0.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	0-0.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	28.2	48.6	61.2	247	134	22.3	9.7	11.6	342	30	390,000
Copper	6020	16.9	27.6	40.3	142	74.7	15.7	7.7	8.3	207	28	9,800
Nickel	6020	27.2	43.6	51.9	197	101	28.2	16.3	20.2	258	46	20,000
Zinc	6020	34.0	50.0	71.2	210	135	42.0	30.1	28.3	268	80	86,000

Notes:

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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 11
Soil Analytical Data
Coldwater Road - Flint, MI

East Area (EA)

LOCATION		EA8-0	EA8-1	EA8-2	EA8-3	EA8-4	EA9-0	EA10-0	EA10-1	EA10-2	Background	Direct
	Date Collected	11/18/96	11/19/96	11/19/96	11/19/96	11/19/96	11/18/96	11/18/96	11/19/96	11/19/96	Clean-up	Contact
	Depth	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	0-0.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	210	186	362	176	95.2	102	337	91.1	19.1	30	390,000
Copper	6020	130	120	232	111	61.6	54.8	120	62.5	13.4	28	9,800
Nickel	6020	159	142	319	141	88.7	78.8	213	78.3	21.0	46	20,000
Zinc	6020	189	173	322	176	105	80.9	170	109	48.3	80	86,000

LOCATION		EA10-3	EA10-4	EA10-5	EA10-6	EA10-7	EA11-0	EA12-0	EA12-1	EA12-2	Background	Direct
	Date Collected	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/18/96	11/18/96	11/19/96	11/19/96	Clean-up	Contact
	Depth	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft	0-0.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	16.3	11.5	12.1	10.2	7.5	181	155	196	162	30	390,000
Copper	6020	11.1	6.8	7.5	7.3	6.4	95.6	83.1	131	154	28	9,800
Nickel	6020	16.3	13.4	19.2	17.8	15.2	134	114	147	164	46	20,000
Zinc	6020	29.1	28.1	34.1	32.9	25.2	138	140	188	258	80	86,000

LOCATION		EA12-4	EA12-5	EA12-6	EA12-7	EA13-0	EA14-0	EA15-0	EA16-0	EA17-0	Background	Direct
	Date Collected	11/19/96	11/19/96	11/19/96	11/19/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	Clean-up	Contact
	Depth	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	15.9	9.7	5.8	7.8	189	59.2	29.6	16.5	25.1	30	390,000
Copper	6020	13.2	7.7	5.9	6.7	91.9	43.4	25.0	13.3	16.4	28	9,800
Nickel	6020	25.7	12.1	6.5	9.3	158	57.3	31.2	22.1	31.8	46	20,000
Zinc	6020	35.0	25.5	15.3	23.2	134	109	78.8	49.8	51.7	80	86,000

LOCATION		EA18-0	EA19-0	EA20-0	EA21-0	EA23-0	EA24-0	EA25-0	EA26-0	Background	Direct
	Date Collected	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	Clean-up	Contact
	Depth	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	27.8	46.9	34.6	34.8	49.0	35.8	28.9	39.2	30	390,000
Copper	6020	17.6	26.2	21.1	22.0	32.1	18.5	20.3	23.0	28	9,800
Nickel	6020	29.6	33.0	36.2	33.6	44.4	28.0	28.7	35.2	46	20,000
Zinc	6020	41.2	85.9	66.5	57.1	54.5	26.5	40.1	30.6	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA1-0	WA1-1	WA1-2	WA1-3	WA1-4	WA1-5	WA1-6	WA1-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96		
	Depth	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	405	254	41.9	19.7	9.0	10.9	14.6	19.2	30	390,000
Copper	6020	232	184	29.9	12.9	4.7	6.6	8.8	14.4	28	9,800
Nickel	6020	277	216	43.6	26.1	9.4	12.5	24.4	28.9	46	20,000
Zinc	6020	400	354	88.0	38.8	25.9	27.6	39.8	55.0	80	86,000

LOCATION		WA2-0	WA2-1	WA2-2	WA2-3	WA2-4	WA2-5	WA2-6	WA2-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/14/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97		
	Depth	0-0.5 ft	1-0.5 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	106	172	324	359	47.8	5.0	5.8	5.3	30	390,000
Copper	6020	60.3	99.0	184	221	25.7	5.3	4.3	3.9	28	9,800
Nickel	6020	59.5	129	206	196	40.3	8.9	16.6	21.4	46	20,000
Zinc	6020	99.0	121	205	231	40.9	20.2	17.3	14.1	80	86,000

LOCATION		WA3-0	WA3-1	WA3-2	WA3-3	WA3-4	WA3-5	WA3-6	WA3-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/14/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97		
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	156	128	333	285	81.9	150	4.9	3.9	30	390,000
Copper	6020	81.5	72.7	175	151	41.6	55.3	4.8	5.1	28	9,800
Nickel	6020	79.0	92.4	201	188	56.0	60.7	16.5	19.3	46	20,000
Zinc	6020	181	100	209	185	63.6	72.8	16.7	15.3	80	86,000

LOCATION		WA4-0	WA4-1	WA4-2	WA4-3	WA4-4	WA4-5	WA5-0	WA5-1	Background Clean-up Level	Direct Contact Values
	Date Collected	11/26/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/26/96	01/22/97		
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	139	71.7	6.0	3.7	3.3	3.1	104	141	30	390,000
Copper	6020	69.7	42.5	4.9	3.3	4.2	3.2	40.6	79.7	28	9,800
Nickel	6020	78.8	51.0	13.3	13.8	8.8	15.6	44.0	85.5	46	20,000
Zinc	6020	127	62.7	16.0	9.8	12.3	11.3	63.3	94.5	80	86,000

Notes:
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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA5-2	WA5-3	WA5-4	WA5-5	WA5-6	WA6-0	WA6-1	WA6-2	Background	Direct
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/26/96	01/22/97	01/22/97	Clean-up	Contact
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	63.7	3.1	5.4	4.9	3.1	323	138	12.5	30	390,000
Copper	6020	41.1	4.0	4.6	4.0	3.1	273	178	6.0	28	9,800
Nickel	6020	37.2	15.4	15.3	15.7	17.7	308	212	17.1	46	20,000
Zinc	6020	46.4	13.4	16.7	14.8	12.2	650	622	21.7	80	86,000

LOCATION		WA6-3	WA6-4	WA6-5	WA6-6	WA6-7	WA7-0	WA7-1	WA7-2	Background	Direct
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/14/96	01/22/97	01/22/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.3	3.0	3.2	5.8	9.4	321	41.5	5.2	30	390,000
Copper	6020	4.9	3.8	3.6	4.5	6.4	182	28.7	6.7	28	9,800
Nickel	6020	19.2	3.9	5.4	8.6	16.7	228	52.6	21.2	46	20,000
Zinc	6020	17.7	8.7	9.5	15.3	25.7	299	45.5	31.1	80	86,000

LOCATION		WA7-3	WA7-4	WA7-5	WA7-6	WA7-7	WA8-0	WA8-1	WA8-2	Background	Direct
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/14/96	11/15/96	11/15/96	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.3	4.5	3.1	2.9	3.5	1,110	7,910	243	30	390,000
Copper	6020	8.0	7.6	3.7	3.3	4.4	582	15,500	492	28	9,800
Nickel	6020	20.6	5.6	5.6	5.2	12.9	667	11,500	323	46	20,000
Zinc	6020	28.4	12.3	12.3	9.6	12.7	787	11,200	425	80	86,000

LOCATION		WA8-3	WA8-4	WA8-5	WA8-6	WA8-7	WA9-0	WA9-1	WA9-2	Background	Direct
	Date Collected	11/15/96	11/15/96	11/15/96	11/15/96	11/15/96	11/14/96	11/15/96	11/15/96	Clean-up	Contact
	Depth	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.0-3.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	43.1	15.2	6.7	5.7	6.2	596	1,800	2,460	30	390,000
Copper	6020	73.4	24.1	10.6	5.1	5.0	399	761	1,020	28	9,800
Nickel	6020	55.5	19.7	8.2	5.4	7.2	464	1,150	1,580	46	20,000
Zinc	6020	86.0	44.9	15.6	13.0	16.4	549	1,740	1,280	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA9-3	WA9-4	WA9-5	WA9-6	WA9-7	WA10-0	WA10-1	WA10-2	WA10-3	WA10-4	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	11/15/96	11/15/96	11/15/96	11/15/96	11/14/96	11/15/96	11/15/96	11/15/96	11/15/96		
	Depth	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2,250	3,240	279	41.3	21.9	940	1,300	26.3	13.1	15.5	30	390,000
Copper	6020	1,040	1,210	116	21.9	13.4	427	766	20.0	8.0	9.9	28	9,800
Nickel	6020	1,380	1,980	189	42.7	27.8	620	898	33.0	22.9	24.2	46	20,000
Zinc	6020	1,580	1,720	174	54.4	38.6	637	813	36.6	28.7	31.5	80	86,000

LOCATION		WA10-5	WA10-6	WA10-7	WA11-0	WA11-1	WA11-2	WA11-3	WA11-4	WA11-5	WA11-6	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	11/15/96	11/15/96	11/15/96	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97		
	Depth	2.5-3.0 ft	3.0-3.5 ft	3.0-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	22.7	14.2	6.6	107	18.6	14.8	20.7	33.9	162	1,540	30	390,000
Copper	6020	16.2	8.9	13.1	118	11.9	8.7	13.8	15.5	86.9	741	28	9,800
Nickel	6020	28.6	22.1	13.6	134	26.6	23.3	26.1	33.2	180	1,100	46	20,000
Zinc	6020	46.5	33.2	20.7	139	26.2	25.4	30.7	36.2	131	902	80	86,000

(1) (2)

LOCATION		WA11-7	WA12-0	WA12-1	WA12-2	WA12-3	WA12-4	WA12-5	WA12-6	WA12-7	WA13-0	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96		
	Depth	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4ft	0-0.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	934	424	12.3	9.0	532	680	60.5	3,200	3,020	302	30	390,000
Copper	6020	639	270	10.0	6.8	426	548	55.2	1,590	1,450	196	28	9,800
Nickel	6020	765	332	34.9	21.0	543	662	63.6	2,100	1,970	241	46	20,000
Zinc	6020	622	315	27.5	20.6	451	503	70.8	1,840	1,740	240	80	86,000

LOCATION		WA13-1	WA13-2	WA13-3	WA13-4	WA13-5	WA13-6	WA13-7	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97		
	Depth	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	1,620	1,870	12.9	5.6	5.1	8.0	6.5	30	390,000
Copper	6020	950	1,070	19.4	9.0	4.3	4.1	2.8	28	9,800
Nickel	6020	1,140	1,370	11.7	6.8	8.1	15.8	21.7	46	20,000
Zinc	6020	1,040	1,260	53.9	14.8	10.8	10.4	10.2	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 9
Soil Analytical Data
Coldwater Road - Flint, MI

Stabilized Materials (SM) Area

LOCATION		SM1	SM2	SM2-1	SM2-2	SM3	SM3-1	SM3-2	SM3-3	SM3-4	Background	Direct
	Date Collected	4/04/96	4/04/96	4/08/96	4/08/96	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96	Clean-up	Contact
	Depth	6"	6"	12"	18"	6"	12"	18"	24"	30"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.5	2,070	1,070	17.4	1,570	1,030	739	717	1,420	30	390,000
Copper	6020	7.9	1,170	692	15.7	704	764	511	608	482	28	9,800
Nickel	6020	8.2	1,480	777	25.5	1,010	814	795	609	898	46	20,000
Zinc	6020	16.8	1,240	770	35.3	728	823	558	759	530	80	86,000

LOCATION		SM3-5	SM4	SM4-1	SM5	SM6	DUP(SM6)	SM6-1	SM6-2	SM6-3	Background	Direct
	Date Collected	4/08/96	4/04/96	4/10/96	4/04/96	4/04/96	4/04/96	4/08/96	4/08/96	4/08/96	Clean-up	Contact
	Depth	36"	6"	12"	6"	6"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	11.1	428	18.6	8.9	400	1,350	790	170	207	30	390,000
Copper	6020	11.5	286	12.8	5.3	256	673	2,200	144	158	28	9,800
Nickel	6020	31.3	365	21.8	16.3	322	940	773	132	187	46	20,000
Zinc	6020	25.2	314	26.1	21.1	319	950	919	135	225	80	86,000

LOCATION		SM6-4	SM6-5	SM6-6	SM6-7	SM6-8	SM7	SM7-1	SM7-2	SM7-3	Background	Direct
	Date Collected	4/08/96	4/08/96	4/08/96	4/19/96	4/19/96	4/04/96	4/08/96	4/08/96	4/08/96	Clean-up	Contact
	Depth	30"	36"	42"	48"	54"	6"	12"	18"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	143	589	60.2	319	6.0	1,140	580	337	22.3	30	390,000
Copper	6020	249	285	54.1	598	4.1	724	490	456	23.9	28	9,800
Nickel	6020	179	441	69.3	393	8.4	1,160	490	316	53.0	46	20,000
Zinc	6020	170	246	74.6	NA	NA	982	611	327	48.0	80	86,000

LOCATION		SM7-4	Background	Direct
	Date Collected	4/08/96	Clean-up	Contact
	Depth	30"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg
Chromium	6020	NA	30	390,000
Copper	6020	NA	28	9,800
Nickel	6020	15.2	46	20,000
Zinc	6020	NA	80	86,000

Notes:

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2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

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Table 8
Soil Analytical Data
Coldwater Road - Flint, MI

Stockpiled Soil (SS) Area

LOCATION		SS6-2	SS6-3	SS6-4	SS6-5	SS6-6	SS7	SS7-1	SS7-2	Background	Direct
	Date Collected	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	4/11/96	Clean-up	Contact
	Depth	18"	24"/30"	36"	42"	42"	6"	12"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	631	574	338	326	7.8	638	375	68	30	390,000
Copper	6020	286	290	163	140	8.8	325	140	31.4	28	9,800
Nickel	6020	413	426	205	200	17.0	445	233	50.4	46	20,000
Zinc	6020	624	394	227	203	31.7	611	252	65.4	80	86,000

LOCATION		SS7-3	SS8 4.0	SS9 3.0	SS10 3.5	SS11 4.0	SS12-3.5	SS13-2.5	SS14-0.5	Background	Direct
	Date Collected	4/11/96	5/13/96	5/13/96	5/13/96	5/13/96	5/09/96	5/09/96	5/09/96	Clean-up	Contact
	Depth	24"	48"	36"	42"	48"	42"	30"	48"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	20.8	3.5	5.4	2.3	6.8	11.4	6.5	3.5	30	390,000
Copper	6020	12.2	8.9	4.2	6.7	8.7	10.2	5.7	3.4	28	9,800
Nickel	6020	21.9	7.0	12.6	10.2	15.4	19.4	12.0	3.4	46	20,000
Zinc	6020	NA	15.7	15.3	12.2	21.7	27.0	12.5	7.7	80	86,000

LOCATION		SS15-5.0	SS15-5.5	SS16 1.5	Background	Direct
	Date Collected	5/09/96	5/09/96	5/13/96	Clean-up	Contact
	Depth	102"	108"	18"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	31.8	5.7	4.3	30	390,000
Copper	6020	17.3	NA	4.1	28	9,800
Nickel	6020	30.6	NA	10.6	46	20,000
Zinc	6020	35.5	NA	12.5	80	86,000

FIND DATA/ADD
SS 15 - 1, 2, 3, 4

Notes:

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3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 9
Soil Analytical Data
Coldwater Road - Flint, MI

Stabilized Materials (SM) Area

LOCATION		SM8	SM8-1	SM8-2	SM8-3	SM8-4	SM8-5	SM9	SM9-1	SM9-2	Background Clean-up Level	Direct Contact Values
	Date Collected	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96	4/08/96	4/04/96	4/10/96	4/10/96		
	Depth	6"	12"	18"	24"	30"	36"	6"	12"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2,300	1,390	879	4.9	NA	NA	344	3,700	7,908	30	390,000
Copper	6020	1,170	718	681	45.6	187	4.9	197	2,190	3,930	28	9,800
Nickel	6020	1,450	967	619	33.2	NA	NA	283	2,640	5,120	46	20,000
Zinc	6020	1,050	841	698	16.8	NA	NA	162	2,160	3,620	80	86,000

LOCATION		SM9-3	SM10	SM10-1	SM10-2	SM10-3	SM11	SM11-1	SM11-2	SM11-3	Background Clean-up Level	Direct Contact Values
	Date Collected	4/10/96	4/04/96	4/08/96	4/08/96	4/08/96	4/17/96	4/17/96	4/17/96	4/17/96		
	Depth	24"	6"	12"	18"	24"	6"	12"	18"	24"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.6	2,810	14,700	111	22.2	615	1,218	716	41.8	30	390,000
Copper	6020	6.0	1,470	7,030	76.9	18.3	346	630	423	22.1	28	9,800
Nickel	6020	5.9	1,890	10,900	85.3	22.2	437	865	542	38.1	46	20,000
Zinc	6020	14.1	1,870	7,780	58.7	NA	345	692	575	46.4	80	86,000

LOCATION		SM11-4	SM12	SM12-1	SM12-2	SM12-3	SM13	SM13-1	SM14 4.0	SM15 4.5	Background Clean-up Level	Direct Contact Values
	Date Collected	4/17/96	4/17/96	4/17/96	4/17/96	4/17/96	4/04/96	4/08/96	5/13/96	5/13/96		
	Depth	30"	6"	12"	18"	24"	6"	12"	54"	60"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.7	455	235	31.5	11.2	1,670	6.5	3.9	8.5	30	390,000
Copper	6020	NA	239	151	34.6	10.5	902	3.7	5.8	10.1	28	9,800
Nickel	6020	NA	321	169	34.0	NA	1,160	16.5	10.1	7.0	46	20,000
Zinc	6020	NA	260	150	29.1	NA	1,040	14.9	11.0	15.8	80	86,000

Notes:

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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

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Table 10
Soil Analytical Data
Coldwater Road - Flint, MI

Construction Related Land Farm (LF) Area

LOCATION		LF1	LF1-1	LF2	LF3	LF3A-1	LF3A-2	LF3A-3	LF3A-4	LF3A-5	LF3A-6	Background Clean-up Level	Direct Contact Values
	Date Collected	4/18/96	4/18/96	4/18/96	4/05/96	4/09/96	4/09/96	4/09/96	4/09/96	4/09/96	4/10/96		
	Depth	6"	12"	6"	6"	12"	18"	24"	30"	36"	42"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	231	16.6	17.6	76.7	149	155	1,260	87.4	516	65.7	30	390,000
Copper	6020	109	16.1	13.2	37.5	108	81.2	455	41.9	277	42.8	28	9,800
Nickel	6020	139	23.1	20.8	60.7	151	110	756	58.2	386	53.4	46	20,000
Zinc	6020	130	22.9	27.5	63.1	193	157	948	65.2	NA	NA	80	86,000

LOCATION		LF3A-7	LF3A-8	LF4	LF4A-1	LF4A-2	LF4A-3	LF4A-4	LF4A-5	LF4A-6	LF4-7	Background Clean-up Level	Direct Contact Values
	Date Collected	4/19/96	4/19/96	4/05/96	4/09/96	4/09/96	4/09/96	4/09/96	4/09/96	4/09/96	4/19/96		
	Depth	48"	56"	6"	12"	18"	24"	30"	36"	42"	48"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	33.6	5.7	2,080	1,130	1,820	1,130	1,820	2,200	1,820	1.7	30	390,000
Copper	6020	22.0	NA	1,010	792	947	518	800	1,130	922	4.1	28	9,800
Nickel	6020	29.3	NA	1,360	871	1,150	739	1,030	1,420	1,200	1.7	46	20,000
Zinc	6020	NA	NA	1,250	1,360	1,120	674	1,180	1,730	952	5.9	80	86,000

LOCATION		LF5	LF5-1	LF5-2	LF5-3	LF5-4	LF5-5	LF5-6	LF6	LF6A-1	LF6A-2	Background Clean-up Level	Direct Contact Values
	Date Collected	4/02/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/02/96	4/09/96	4/09/96		
	Depth	6"	12"	18"	24"	30"	36"	42"	6"	12"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	688	584	614	531	338	33.2	8.4	148	117	206	30	390,000
Copper	6020	379	352	342	294	197	17.6	NA	72.4	68.4	111	28	9,800
Nickel	6020	489	389	438	353	239	33.1	NA	100	94.7	147	46	20,000
Zinc	6020	383	552	482	430	227	30.0	NA	83.6	92.8	148	80	86,000

LOCATION		LF6A-3	LF7	LF7-1	LF7-2	LF8	Dup6(LF8)	LF8-1	LF8-2	LF8-3	LF8-4	Background Clean-up Level	Direct Contact Values
	Date Collected	4/09/96	4/02/96	4/10/96	4/10/96	4/05/96	4/05/96	4/10/96	4/10/96	4/10/96	4/10/96		
	Depth	24"	6"	12"	18"	6"	6"	12"	18"	24"	30"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.5	276	293	8.1	100	136	779	596	513	1,180	30	390,000
Copper	6020	4.0	141	134	5.4	90.2	125	450	330	485	518	28	9,800
Nickel	6020	15.3	184	182	10.8	96.6	151	551	485	458	833	46	20,000
Zinc	6020	15.0	161	170	22.4	100	122	741	433	602	1,010	80	86,000

Notes:

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Table 10
Soil Analytical Data
Coldwater Road - Flint, MI

Construction Related Land Farm (LF) Area

LOCATION		LF8-5	LF8-6	LF8-7	LF8-8	LF8-9	LF9	LF9-1	LF9-2	LF10	LF10-1	Background	Direct
	Date Collected	4/10/96	4/10/96	4/19/96	4/19/96	4/19/96	4/05/96	4/10/96	4/10/96	4/05/96	4/10/96	Clean-up	Contact
	Depth	36"	42"	48"	54"	60"	6"	12"	18"	6"	12"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	464	976	339	190	22.1	168	690	18.4	759	873	30	390,000
Copper	6020	306	523	270	228	25.0	184	395	19.6	359	547	28	9,800
Nickel	6020	370	653	292	183	35.3	177	479	28.0	504	608	46	20,000
Zinc	6020	421	730	292	164	49.3	224	529	45.0	357	644	80	86,000

LOCATION		LF10-2	LF10-3	LF10-4	LF10-5	LF10-6	LF10-7	LF10-8	LF10-9	LF10-10	LF10-11	Background	Direct
	Date Collected	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/19/96	4/19/96	4/19/96	4/18/96	4/19/96	Clean-up	Contact
	Depth	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	612	1,210	552	543	22.4	NA	NA	NA	NA	NA	30	390,000
Copper	6020	466	715	428	380	15.9	NA	NA	NA	NA	NA	28	9,800
Nickel	6020	590	855	512	431	16.7	NA	NA	NA	NA	NA	46	20,000
Zinc	6020	440	828	420	353	276	1,640	330	182	425	423	80	86,000

LOCATION		LF10-12	LF11	LF11-1	LF11-2	LF11-3	LF12	LF13 1.0	LF14 3.0	LF15 2.5	LF 16 3.5	Background	Direct
	Date Collected	4/19/96	4/18/96	4/18/96	4/18/96	4/18/96	4/17/96	5/13/96	5/13/96	5/13/96	5/13/96	Clean-up	Contact
	Depth	78"	6"	12"	18"	24"	6"	18"	42"	36"	48"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	NA	527	733	48.3	18.7	6.3	3.5	8.6	6.6	38.5	30	390,000
Copper	6020	NA	278	261	28.0	NA	5.9	3.1	7.4	4.6	76.7	28	9,800
Nickel	6020	NA	355	564	46.7	14.9	9.1	6.4	14.6	14.3	64.2	46	20,000
Zinc	6020	35.0	356	342	49.3	NA	17.3	15.6	21.5	17.5	110	80	86,000

LOCATION		LF16 4.0	LF16 4.5	LF17-3.0	LF18 4.0	LF18-7.0	LF19 3.0	LF20-4.5	LF21-5.5	LF22 1.0	LF23 2.0	Background	Direct
	Date Collected	5/13/96	5/13/96	5/09/96	5/13/96	5/09/96	5/13/96	5/09/96	5/09/96	5/13/96	5/13/96	Clean-up	Contact
	Depth	54"	60"	36"	78"	114"	42"	60"	72"	12"	24"	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	22.0	8.8	3.4	2.7	3.5	6.1	1.8	7.3	6.8	6.4	30	390,000
Copper	6020	60.7	6.9	5.5	5.6	10.5	8.5	3.9	9.1	7.3	6.9	28	9,800
Nickel	6020	81.2	29.8	5.7	3.0	5.3	12.6	1.8	15.9	13.4	14.3	46	20,000
Zinc	6020	81.4	45.3	11.9	9.7	15.6	19.5	6.4	22.8	38.3	21.6	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA14-0	WA14-1	WA14-2	WA14-3	WA14-4	WA14-5	WA15-0	WA15-1	Background	Direct
	Date Collected	11/15/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/15/96	01/22/97	Clean-up	Contact
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	0-0.5 ft	0.5-1 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	95.5	325	269	3.9	2.2	3.0	12,800	101	30	390,000
Copper	6020	73.2	255	194	5.6	2.7	2.0	9,840	93.4	28	9,800
Nickel	6020	87.5	358	258	8.7	1.7	2.0	15,700	104	46	20,000
Zinc	6020	96.8	277	223	11.3	4.4	6.5	8,880	93.4	80	86,000

LOCATION		WA15-2	WA15-3	WA15-4	WA15-5	WA15-6	WA15-7	WA16-0	WA16-1	Background	Direct
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/15/96	01/22/97	Clean-up	Contact
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.8	4.6	3.3	3.0	2.9	3.9	80.8	79.2	30	390,000
Copper	6020	5.1	4.4	4.2	3.5	3.5	5.4	40.8	55.1	28	9,800
Nickel	6020	15.4	13.7	10.2	10.8	12.3	13.3	48.9	59.4	46	20,000
Zinc	6020	18.6	15.1	13.4	12.3	13.8	18.5	77.7	69.7	80	86,000

LOCATION		WA16-2	WA16-3	WA16-4	WA16-5	WA16-6	WA16-7	WA17-0	WA17-1	Background	Direct
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/15/96	01/23/97	Clean-up	Contact
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	323	431	9.4	3.6	5.4	3.7	102	175	30	390,000
Copper	6020	176	244	7.4	4.9	4.9	4.2	66.1	112	28	9,800
Nickel	6020	225	313	21.7	11.9	13.1	15.9	65.6	81.0	46	20,000
Zinc	6020	218	287	14.4	14.4	14.2	18.8	99.6	119	80	86,000

LOCATION		WA17-2	WA17-3	WA17-4	WA17-5	WA17-6	WA17-7	WA18-0	WA18-1	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	Clean-up	Contact
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	530	240	419	390	757	355	50.4	14.7	30	390,000
Copper	6020	321	138	232	242	350	188	46.6	9.8	28	9,800
Nickel	6020	425	156	268	274	420	193	40.4	11.4	46	20,000
Zinc	6020	314	163	277	244	384	221	65.7	41.7	80	86,000

Notes:

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3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA18-2	WA18-3	WA18-4	WA18-5	WA18-6	WA18-7	WA19-0	WA19-1	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	Clean-up	Contact
	Depth	1-1.5ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.6	4.5	6.9	9.6	8.7	7.0	144	16.6	30	390,000
Copper	6020	4.7	2.1	4.8	6.6	6.1	5.8	95.6	11.7	28	9,800
Nickel	6020	6.4	4.7	10.0	16.2	15.0	16.0	80.6	22.9	46	20,000
Zinc	6020	22.7	14.2	22.7	30.5	29.6	24.0	132	43.7	80	86,000

LOCATION		WA19-2	WA19-3	WA19-4	WA19-5	WA19-6	WA21-0	WA21-1	WA21-2	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	Clean-up	Contact
	Depth	1-1.5 ft	1.5-21 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	90.9	55.9	8.1	13.2	10.9	144	1,010	112	30	390,000
Copper	6020	53.3	42	8.3	5.6	8.1	109	680	66.2	28	9,800
Nickel	6020	60.7	43.4	19.2	19.8	23.9	120	342	69.5	46	20,000
Zinc	6020	89.2	59.1	23.1	23.5	34.0	142	520	84.5	80	86,000

LOCATION		WA21-3	WA21-4	WA21-5	WA21-6	WA21-7	WA22-0	WA22-1	WA22-2	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	215	578	266	75.4	8.2	177	7.7	5.3	30	390,000
Copper	6020	130	386	173	69.8	6.0	169	4.9	4.5	28	9,800
Nickel	6020	144	478	194	74.0	10.3	177	9.5	7.5	46	20,000
Zinc	6020	146	384	188	70.4	25.3	196	19.3	17.7	80	86,000

LOCATION		WA22-3	WA22-4	WA22-5	WA22-6	WA23-0	WA23-1	WA23-2	WA23-3	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.5	9.7	10.4	5.8	191	32.8	3.3	3.3	30	390,000
Copper	6020	6.8	5.1	6.8	3.7	177	27.7	2.1	2.0	28	9,800
Nickel	6020	12.5	16.2	21.8	14.5	184	32.7	3.1	3.5	46	20,000
Zinc	6020	27.3	23.7	27.6	17.4	185	32.5	9.4	6.5	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA23-4	WA23-5	WA23-6	WA23-7	WA24-0	WA24-1	WA 24-2	WA24-3	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97	Clean-up	Contact
	Depth	2-2.5 ft	2.5-3 ft	3-3.5ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	7.1	9.7	3.6	8.2	1,020	661	19.5	9.4	30	390,000
Copper	6020	5.3	8.6	5.7	5.9	554	459	14.1	5.8	28	9,800
Nickel	6020	10.5	16.0	10.7	14.0	674	527	23.0	17.2	46	20,000
Zinc	6020	22.5	34.8	16.5	22.6	548	437	27.7	22.0	80	86,000

LOCATION		WA24-4	WA24-5	WA24-6	WA24-7	WA25-0	WA25-1	WA25-2	WA25-3	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97	Clean-up	Contact
	Depth	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	9.5	9.2	7.6	8.6	291	11.4	10.7	9.8	30	390,000
Copper	6020	6.3	6.3	5.5	5.9	140	5.8	5.2	7.0	28	9,800
Nickel	6020	18.0	18.2	15.9	15.7	197	9.6	13.5	20.2	46	20,000
Zinc	6020	25.8	24.1	21.2	22.8	206	23.1	28.3	26.1	80	86,000

LOCATION		WA25-4	WA25-5	WA25-6	WA25-7	WA26-0	WA26-1	WA26-2	WA26-3	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97	Clean-up	Contact
	Depth	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	8.0	11.6	13.4	13.9	38.9	39.5	13.4	4.8	30	390,000
Copper	6020	5.6	7.6	13.0	7.4	17.9	21.7	7.9	2.9	28	9,800
Nickel	6020	16.5	21.2	25.2	22.9	28.2	31.0	12.0	4.7	46	20,000
Zinc	6020	24.6	29.3	34	29.5	103	75.3	38.8	14.0	80	86,000

(4)

LOCATION		WA26-4	WA26-5	WA26-6	WA26-7	WA27-0	WA28-0	WA28-1	WA28-2	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	11/15/96	01/23/97	01/23/97	Clean-up	Contact
	Depth	2-2.5 ft	2.5-3 ft	3-3.5ft	3.5-4 ft	0-0.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.6	7.1	13.7	6.7	25.2	20.4	385	24.5	30	390,000
Copper	6020	3.2	5.7	10.6	5.1	15.2	12.5	413	33.2	28	9,800
Nickel	6020	6.6	9.7	23.1	10.9	19.5	19.4	206	68.5	46	20,000
Zinc	6020	12.2	19.7	35.2	19.0	83.5	59.5	289	100	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 12
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA)

LOCATION		WA28-3	WA28-4	WA28-5	WA28-6	WA28-7	WA29-0	WA29-1	WA29-2	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5 -1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	<1.0	<1.0	<1.0	<1.0	<1.0	241	2.2	1.5	30	390,000
Copper	6020	<1.0	<1.0	<1.0	<1.0	<1.0	175	2.0	1.1	28	9,800
Nickel	6020	1.2	<0.50	<0.50	<0.50	<0.50	211	1.9	4.6	46	20,000
Zinc	6020	3.4	<1.0	<1.0	<1.0	<1.0	200	4.8	9.8	80	86,000

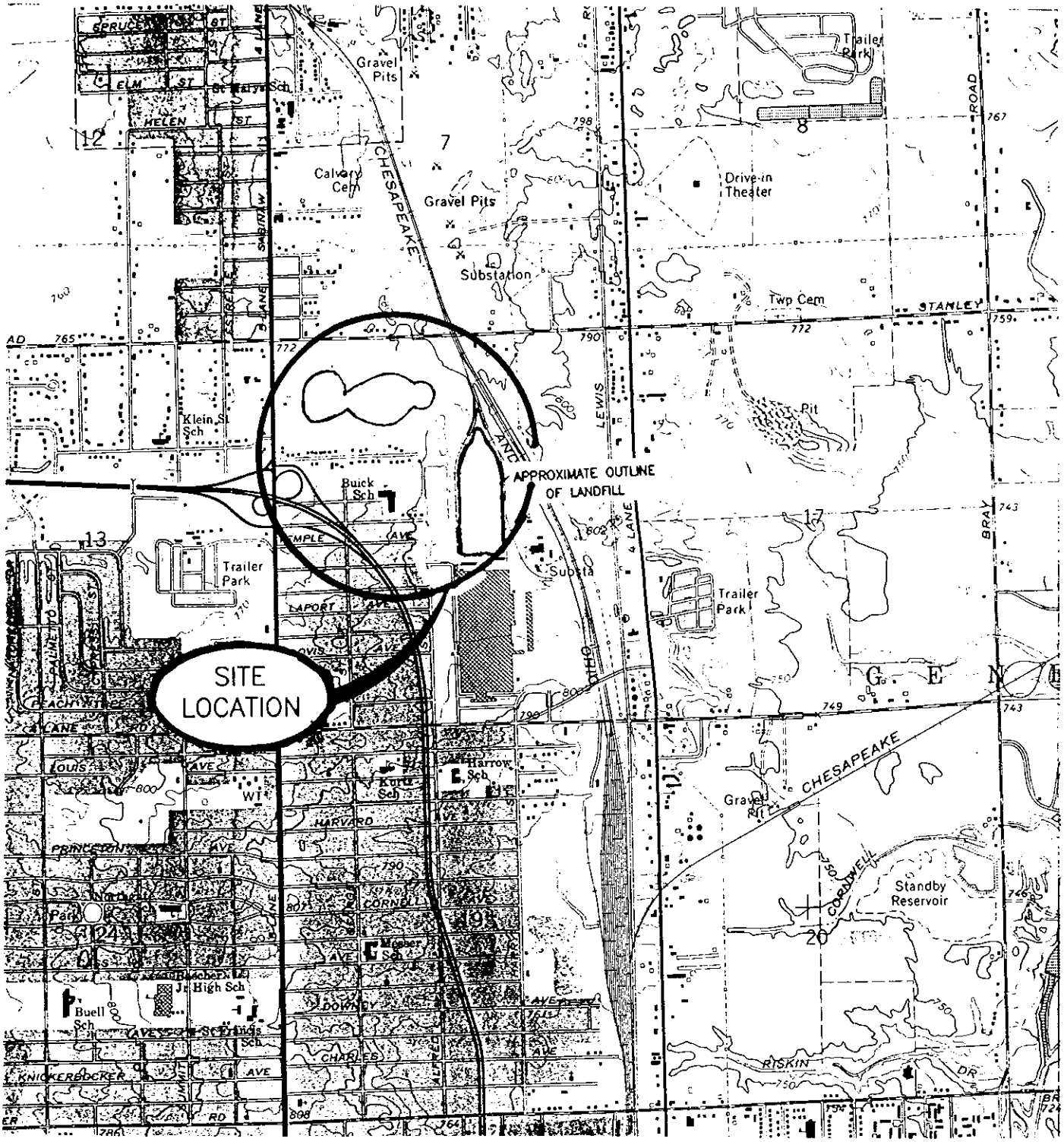
LOCATION		WA29-3	WA 29-4	WA29-5	WA29-6	WA29-7	WA30-0	WA30-1	WA30-2	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	<1.0	<1.0	<1.0	<1.0	<1.0	224	1.5	<1.0	30	390,000
Copper	6020	<1.0	<1.0	<1.0	<1.0	<1.0	80.5	<1.0	<1.0	28	9,800
Nickel	6020	1.2	0.8	<0.5	<0.5	<0.5	98.6	1.5	0.6	46	20,000
Zinc	6020	2.0	2.6	<1.0	<1.0	<1.0	199	2.9	1.1	80	86,000

LOCATION		WA30-3	WA30-4	WA30-5	WA30-6	WA30-7	WA31-0	WA31-1	WA31-2	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	<1.0	<1.0	<1.0	<1.0	<1.0	150	<1.0	<1.0	30	390,000
Copper	6020	<1.0	<1.0	<1.0	<1.0	<1.0	95.7	<1.0	<1.0	28	9,800
Nickel	6020	<0.5	<0.5	<0.5	<0.5	<0.5	76.2	<0.5	<0.5	46	20,000
Zinc	6020	<1.0	<1.0	<1.0	1.2	<1.0	177	2.3	<1.0	80	86,000

LOCATION		WA31-3	WA31-4	WA31-5	WA31-6	WA31-7	Background	Direct
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	Clean-up	Contact
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	Level	Values
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	9.4	7.5	10.6	10.4	11.4	30	390,000
Copper	6020	5.0	5.0	6.4	5.5	5.5	28	9,800
Nickel	6020	19.8	17.4	21.5	23.4	23.7	46	20,000
Zinc	6020	25.8	65.8	25.0	23.1	20.9	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

FIGURE 1



MICHIGAN

QUADRANGLE LOCATION

FLINT NORTH, MICH.

N4300—W8337.5/7.5

1969

PHOTOREVISED 1975

FILE NO. 4144/21487

REALM
COLDWATER ROAD FACILITY
FLINT, MICHIGAN

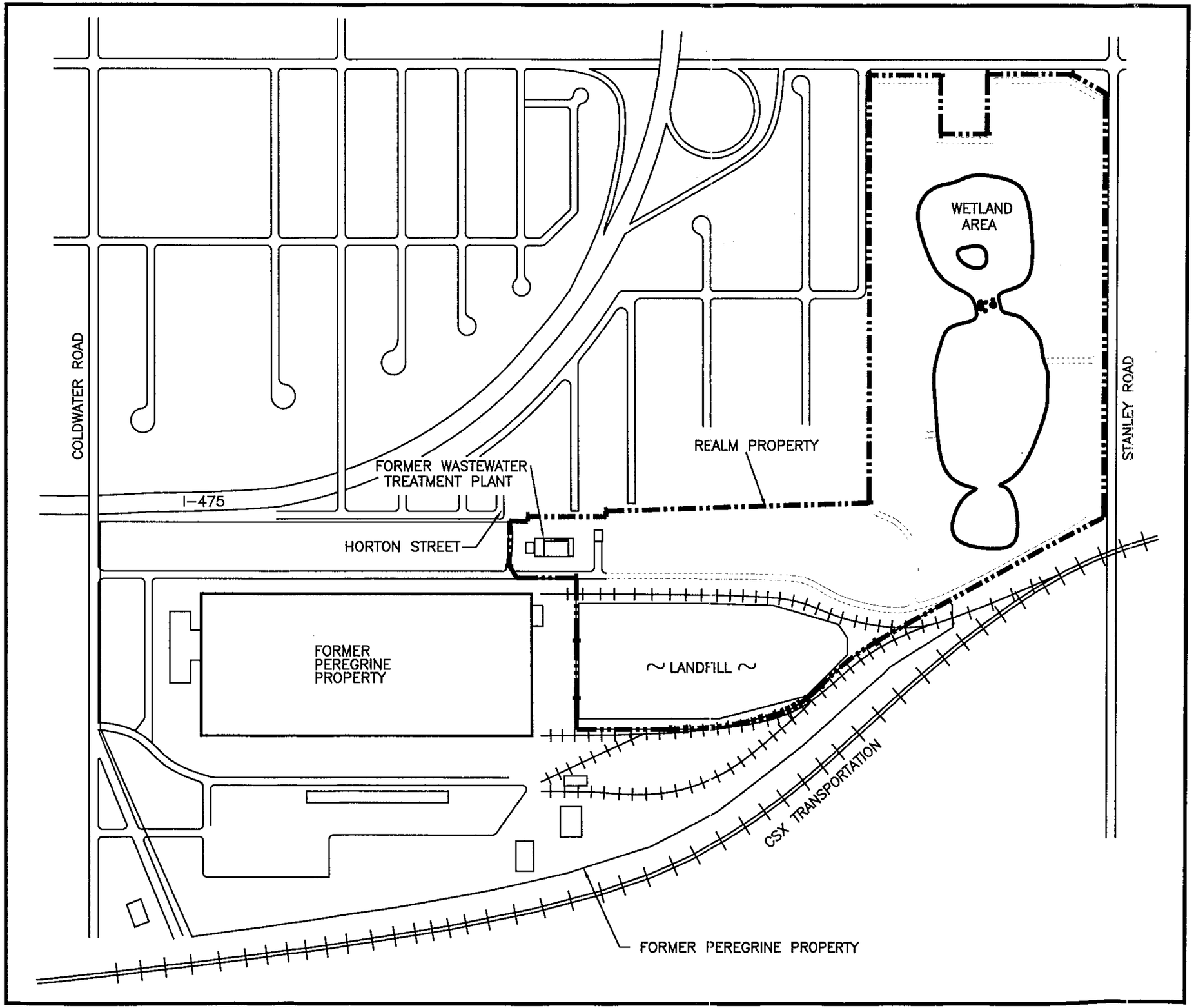
SITE LOCATION MAP

0 1000 2000 3000 4000

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2



LEGEND

APPROXIMATE REALM PROPERTY LINE/ FENCE

APPROXIMATE LOCATION OF RAILROAD TRACKS

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

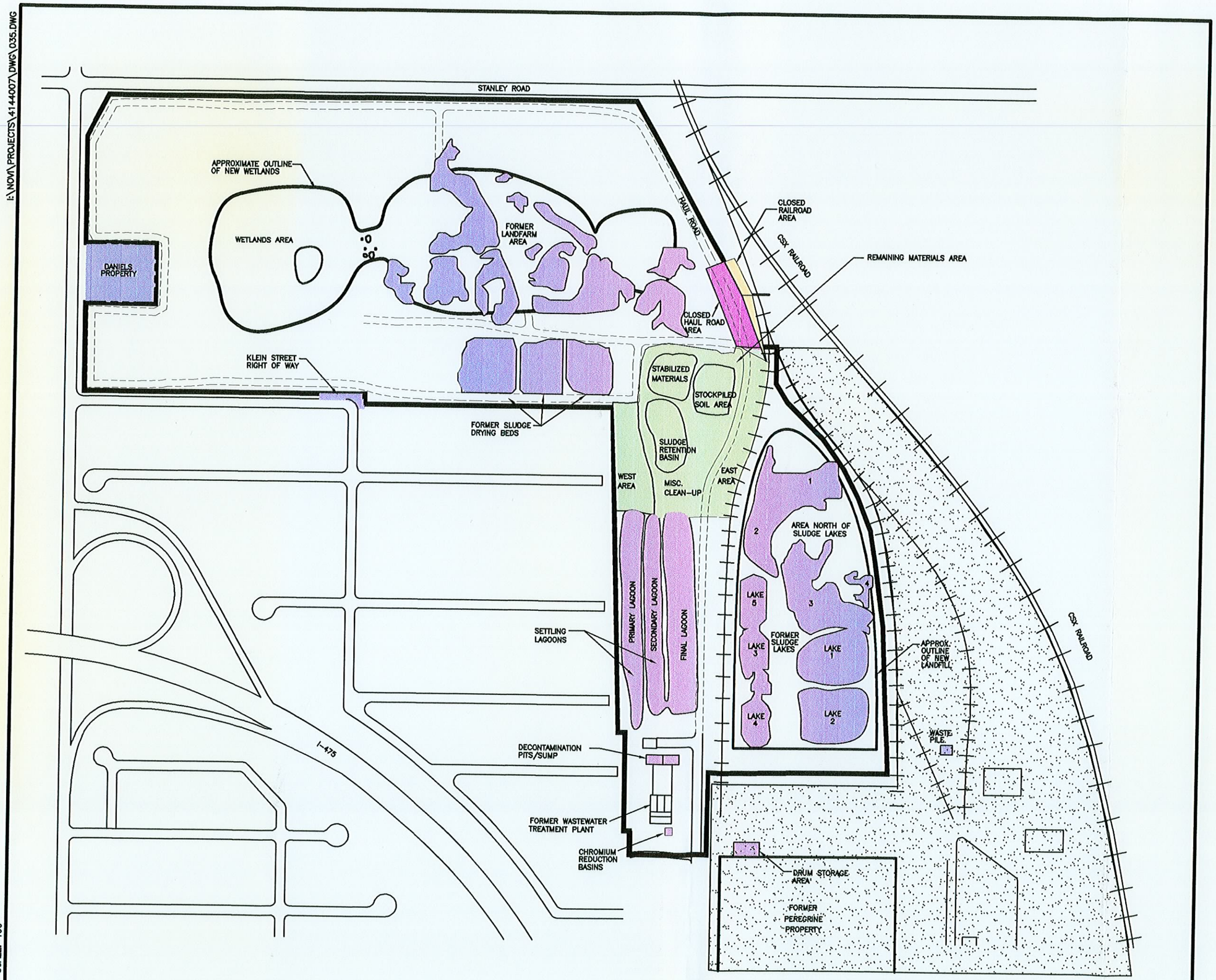
SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-007-REALM-036

O'BRIEN & GERE ENGINEERS, INC.



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PLOT SCALE: 400

FIGURE 3

LEGEND

- REALM PROPERTY BOUNDARY
- FORMER PEREGRINE PROPERTY
- APPROXIMATE LOCATION OF RAILROAD TRACKS
- REMAINING MATERIALS ARE

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

SITE LAYOUT PLAN

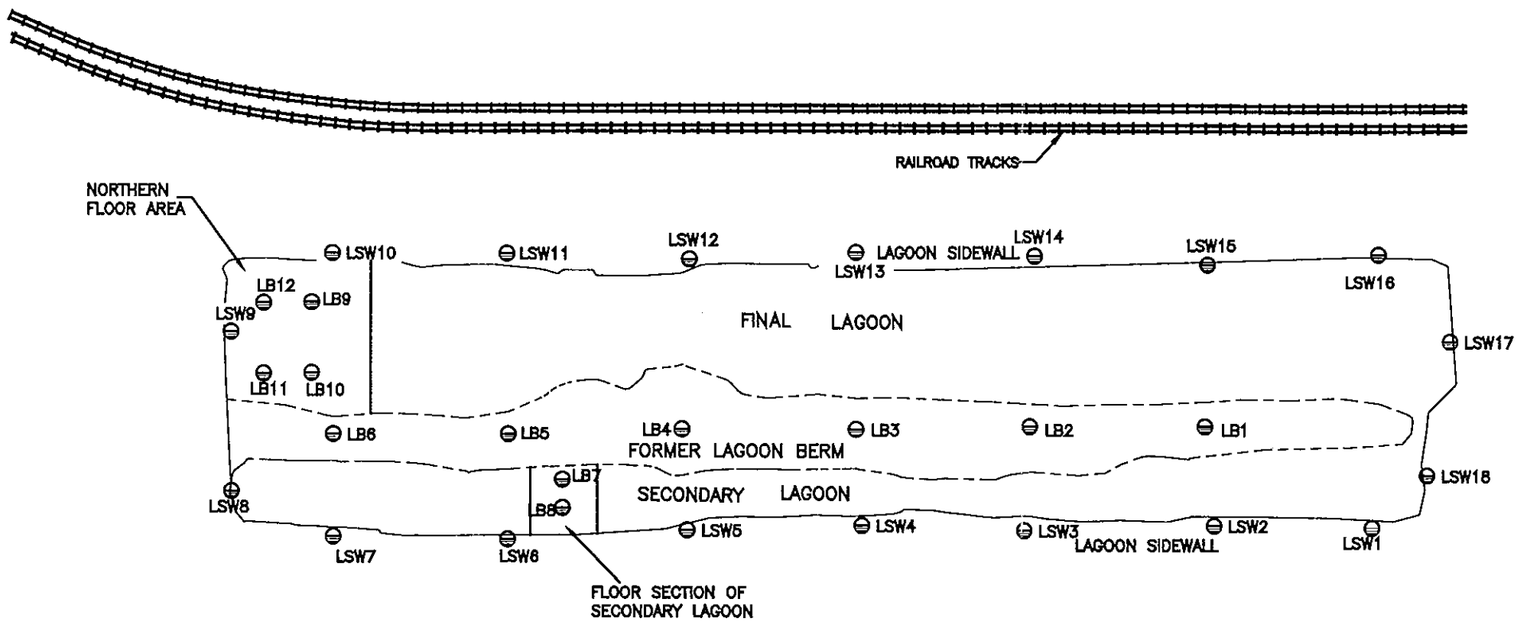
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APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.035

O'BRIEN & GERE ENGINEERS, INC.

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PLOT SCALE: 100

FIGURE 4

LEGEND

LSW15 ⊖ CLOSURE SAMPLE LOCATIONS

REALM
COLDWATER ROAD
FACILITY
FLINT, MICHIGAN

CLOSURE SAMPLE LOCATIONS – LAGOON AREA

100 0 100

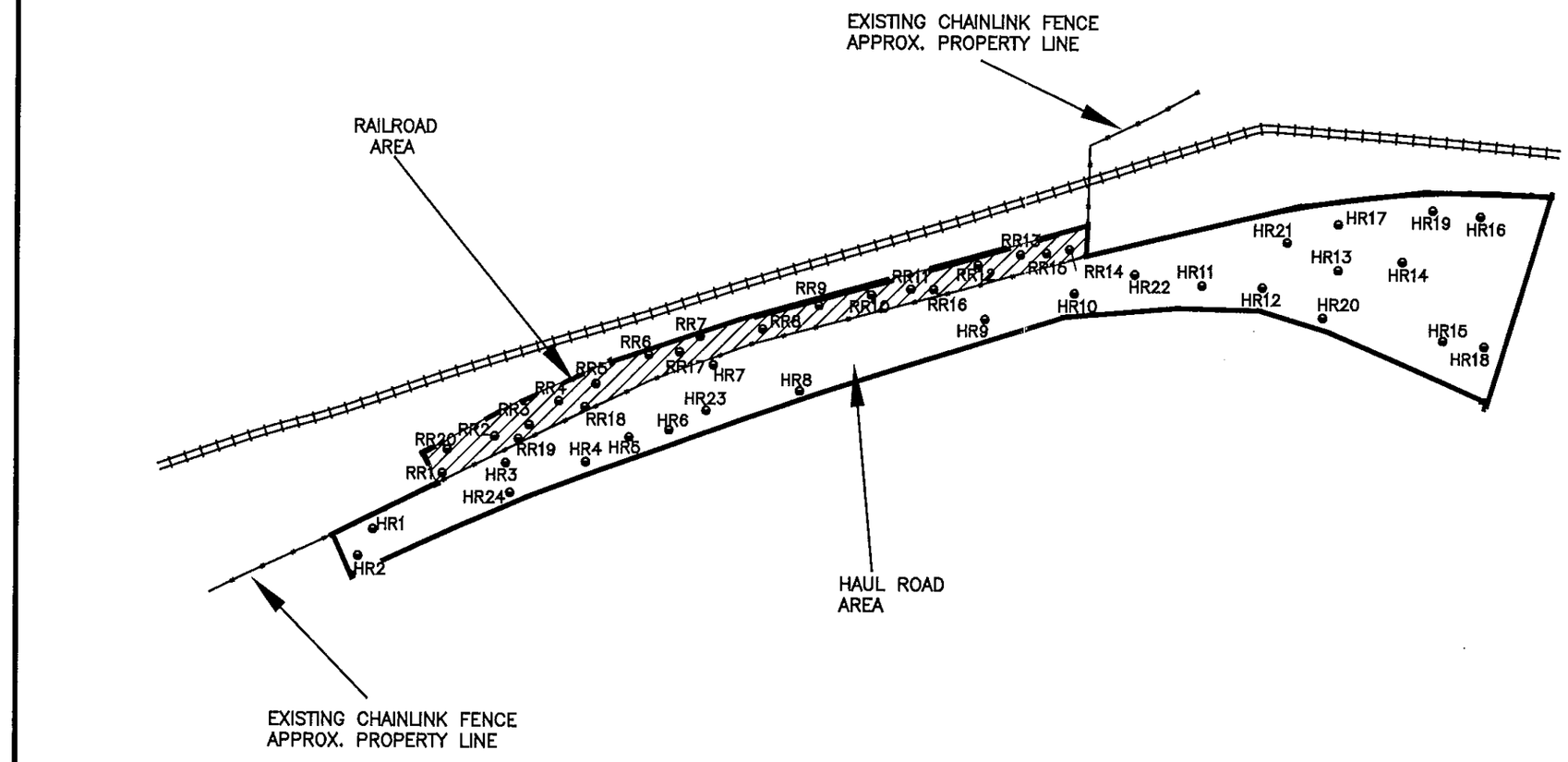
APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.105G

O'BRIEN & GERE ENGINEERS, INC.

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FIGURE 5



LEGEND

HR15 ● CLOSURE SAMPLE LOCATION

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

CLOSURE SAMPLE LOCATIONS – HAUL ROAD AND RAILROAD AREA

80 0 80

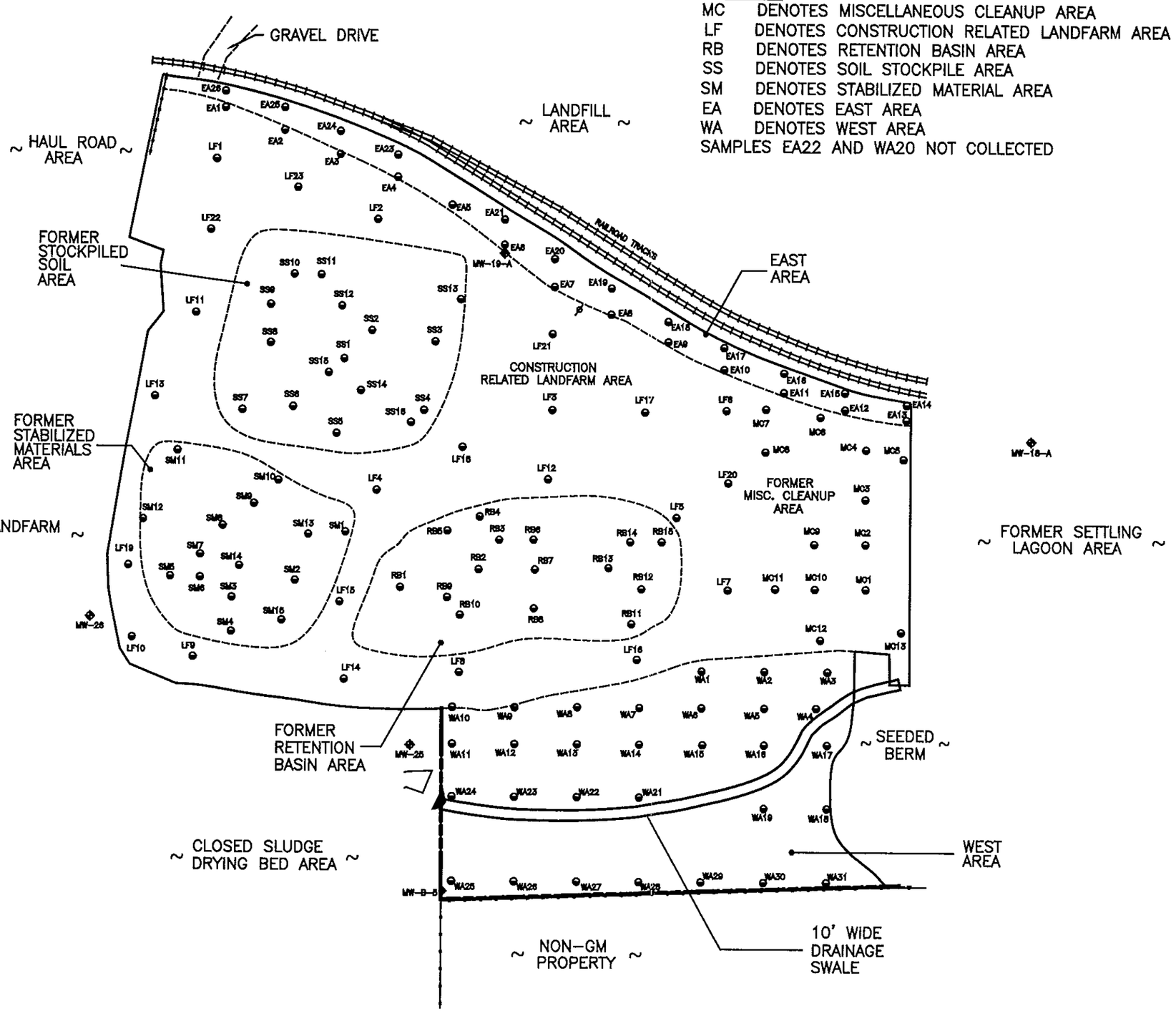
APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.038

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 6

NOTES:
MC DENOTES MISCELLANEOUS CLEANUP AREA
LF DENOTES CONSTRUCTION RELATED LANDFARM AREA
RB DENOTES RETENTION BASIN AREA
SS DENOTES SOIL STOCKPILE AREA
SM DENOTES STABILIZED MATERIAL AREA
EA DENOTES EAST AREA
WA DENOTES WEST AREA
SAMPLES EA22 AND WA20 NOT COLLECTED



LEGEND

- MC5 CLOSURE SAMPLE LOCATION
- MONITORING WELL
- POWER POLE
- CHAIN LINK FENCE
- LIMIT OF FORMER EXCAVAT

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

CLOSURE SAMPLE LOCATIONS– RMA

100 0 100

APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.024

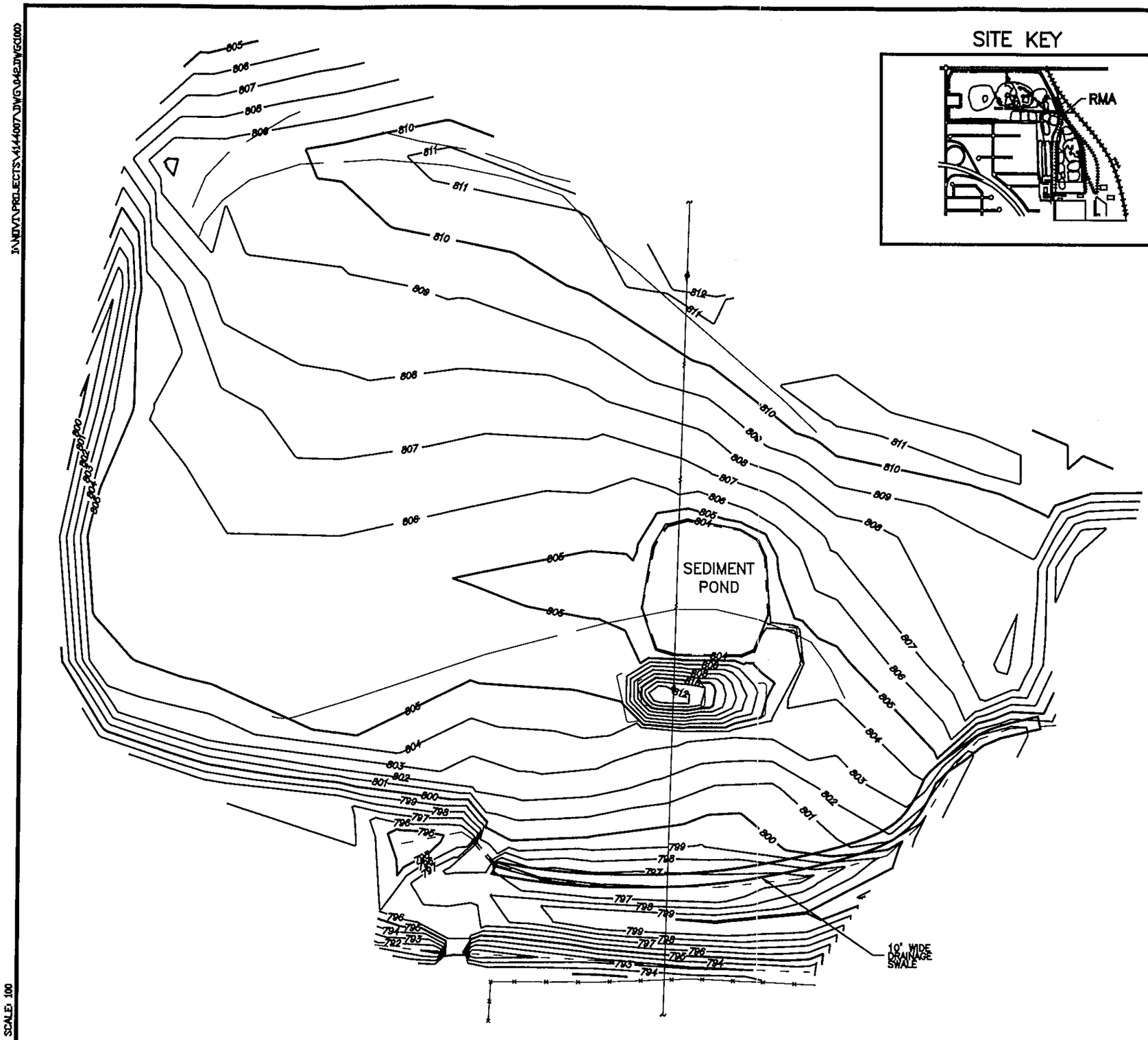
O'BRIEN & GERE ENGINEERS, INC.

I:\MDV\PROJECTS\4144007\DWG\025D.DWG

PLOT SCALE: 100

FIGURE 7

SITE KEY



LEGEND

- TELEPHONE POLE
- OVERHEAD POWERLINE

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

FINAL SITE GRADE RMA

80 0 80

APPROXIMATE SCALE IN FEET

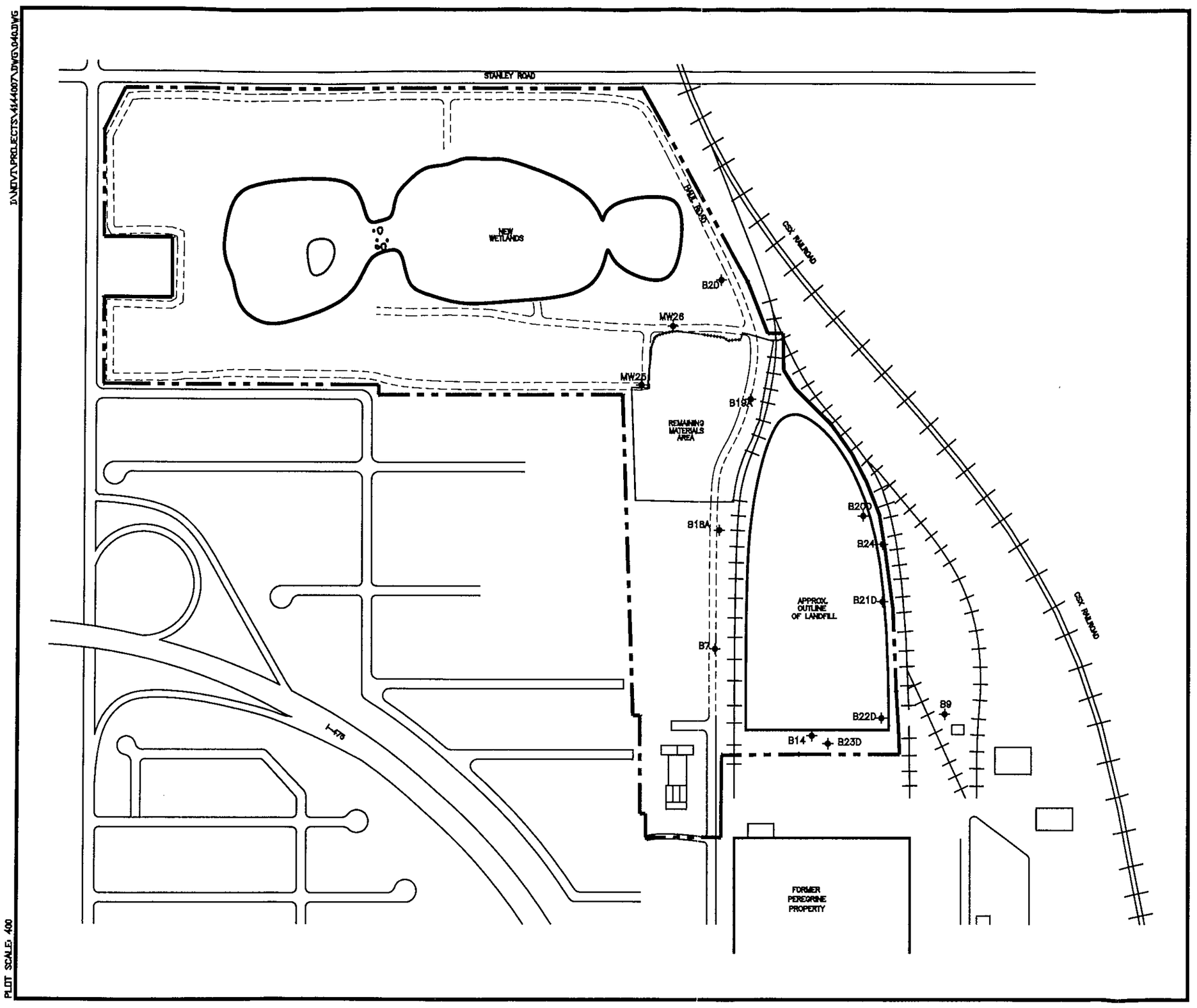
FILE NO. 4144.007.043

O'BRIEN & GERE ENGINEERS INC.

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PLOT SCALE: 100

FIGURE 8



LEGEND

B14 — MONITORING WELL LOCATION

REALM COLDWATER–FACILITY PROPERTY LINE

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

MONITORING WELL LOCATION PLAN

400 0 400

APPROXIMATE SCALE IN FEET

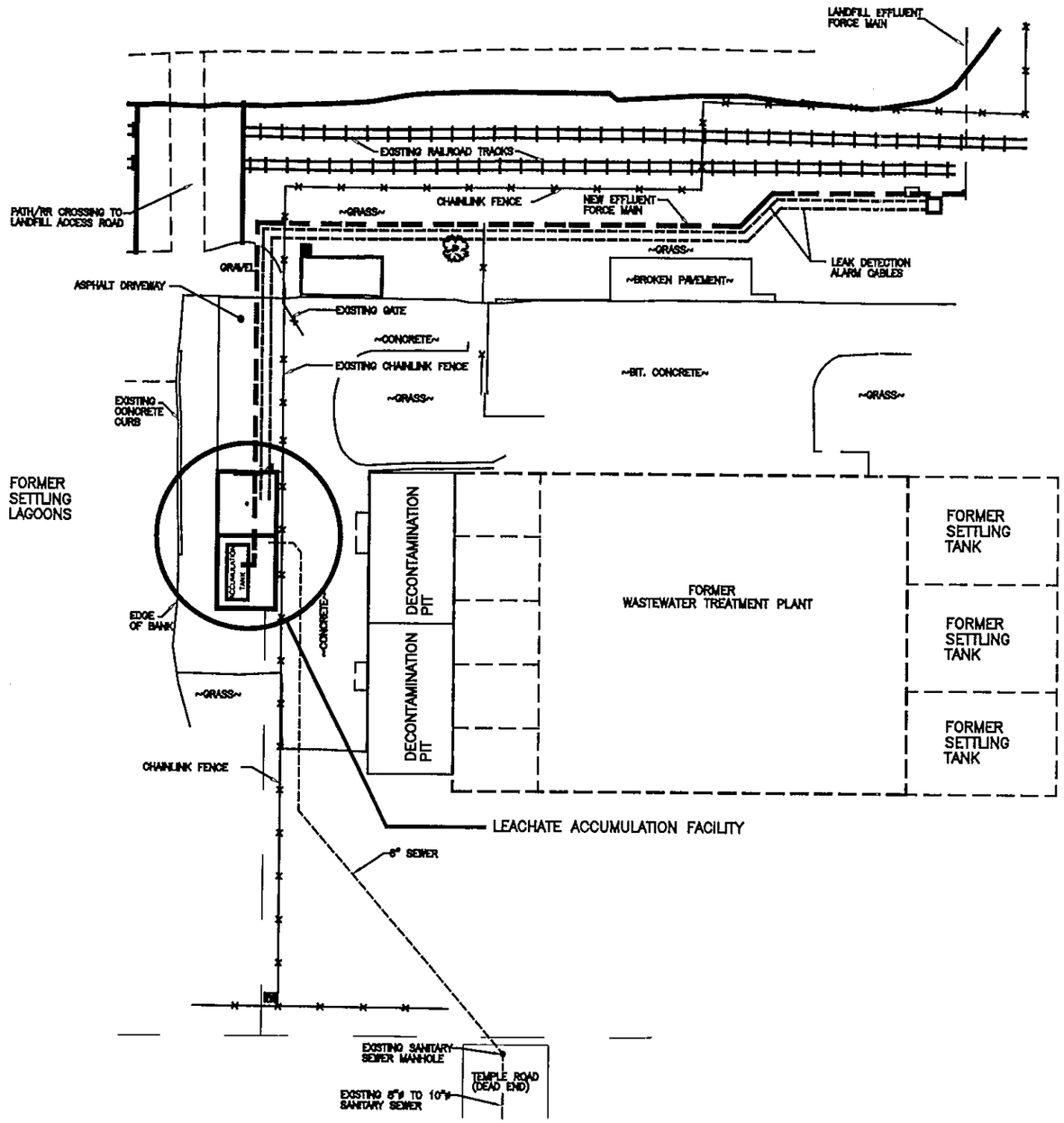
FILE NO. 4144.007.040

O'BRIEN & GERE ENGINEERS, INC.

PLOT SCALE: 400

D:\NEVT\PROJECTS\4144007\DWG\040.DWG

I:\NE\VTV\PROJECTS\4144007\DWG\044.DWG 04-JUN-2004



SITE KEY

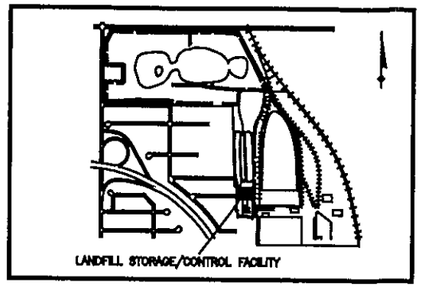


FIGURE 9

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

LANDFILL LEACHATE ACCUMULATION SYSTEM

60 0 60

APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.044

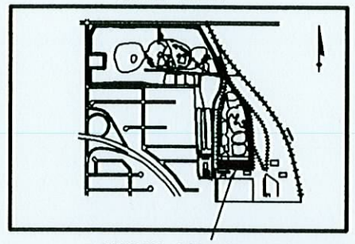
O'BRIEN & GERE ENGINEERS, INC.

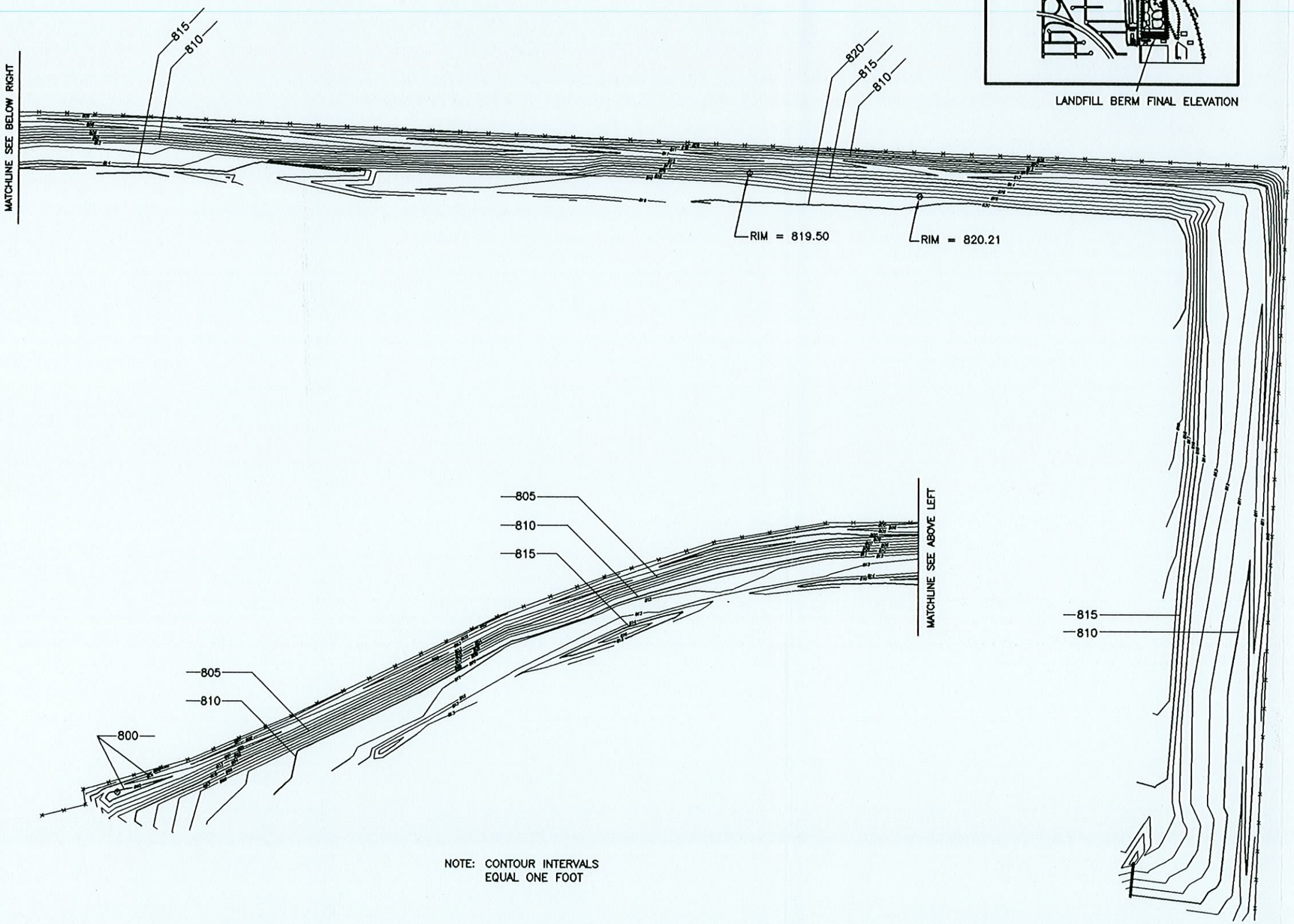
PLOT SCALE: 60

I:\NOVI\PROJECTS\4144007\DWG\042.DWG

FIGURE 10

SITE KEY





NOTE: CONTOUR INTERVALS EQUAL ONE FOOT

LEGEND

812 CONTOUR LINE

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

LANDFILL BERM FINAL ELEVATION

100 0 100

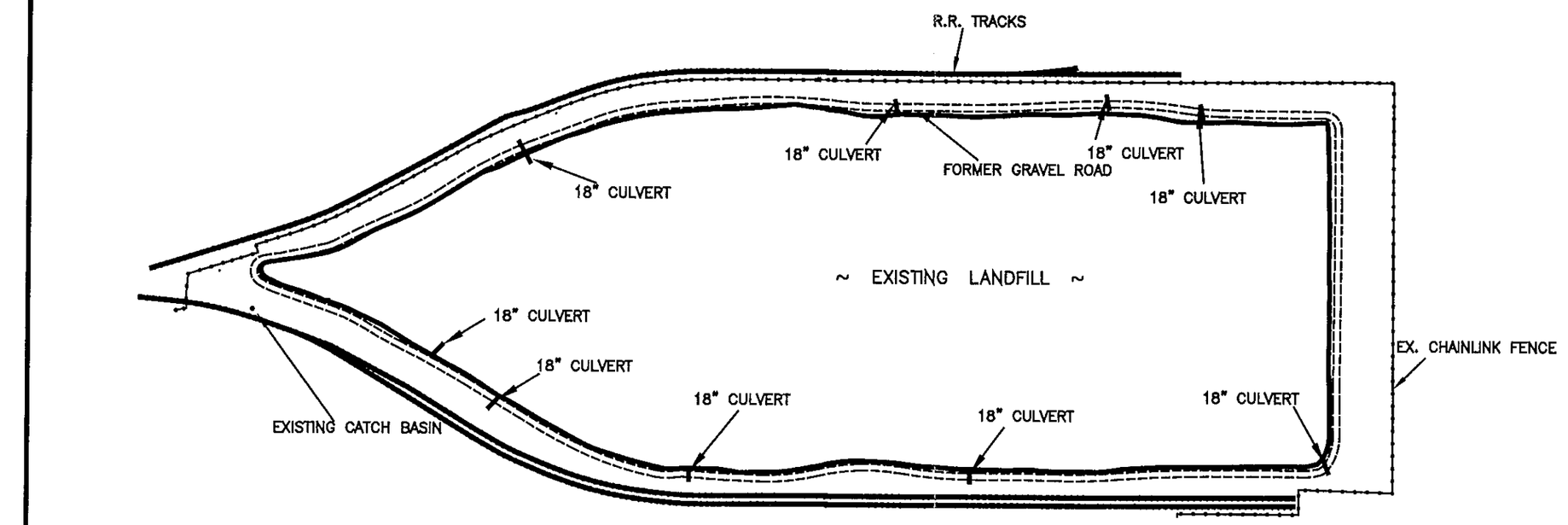
APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.042

O'BRIEN & GERE ENGINEERS, INC.

PLOT SCALE: 50

FIGURE 11



REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

CULVERT LOCATIONS

200 0 200

APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.041

O'BRIEN & GERE ENGINEERS, INC.

D:\NEW\PROJECTS\4144007\DWG\041.DWG

PLOT SCALE: 200

APPENDIX A

Closure Activities Summary Table and Figure

REALM Coldwater Road Facility - Summary of Closure Activities

Unit	Type	Weston Oversight (1990 to 1994)	OBG Oversight (1996 - Present)
1. Settling Lagoons (Primary, Secondary, & Final)	RCRA	Closed Primary Lagoon - See Part II Secondary & Final Lagoon Data also in Part II	Closed Secondary and Final Lagoons See Part I
2. Sludge Drying Beds	RCRA	Closed - See Part II	No Work
3. Drum Storage Area	RCRA	Closed - See Weston May 1999 Closure Report *(pending GM review)*	No Work
4. Waste Pile Pad	SWMU	Closed - See Weston May 1999 Closure Report *(pending GM review)*	No Work
5. Landfarm	SWMU	Closed all but haul road area - See Part II	Closed haul road area - See Part I
6. Sludge Retention Basin	SWMU	No work	Closed in-place within RMA - See Part I
7. Sludge Lakes	SWMU	Closed- See Part II	No Work
8. Area No. of Sludge Lakes	SWMU	Closed - See Part II	No Work
9. Decontamination Pits/Sump	SWMU	Closed - See October 1998, Weston Closure Report - Closure Approved	No Closure Work - Investigation pending
10. Chromium Reduction Basins	CAA	Closed (one basin wall to be disposed) See October 1998, Weston Closure Report	No Closure Work - Investigation pending

REALM Coldwater Road Facility - Summary of Closure Activities

Unit	Type	Weston Oversight (1990 to 1994)	OBG Oversight (1996 - Present)
11. Klein Street Right-of-way	CAA	Closed - See Part II	No Work
12. Daniel's Property	CAA	Closed - See Part II	No Work
13. Wetlands Area	CAA	Closed - See Part II	No Work
14. RMA	Delisted	No Work	Closed - See Part I

Part I - O'Brien & Gere Final Closure Certification Documentation Package, May 1999
Part II - Weston Final Closure Certification Documentation Package, May 1999
RCRA - Resource Conservation and Recovery Act
SWMU - Solid Waste Management Unit
CAA - Other Corrective Action Area
Delisted - Unit identified after delisting petition approved
RMA - Remaining Materials Area
Weston October 1998 Report: Final Closure Certification Documentation Package - Decontamination pits/Sump and Chromium Reduction Basins

APPENDIX B

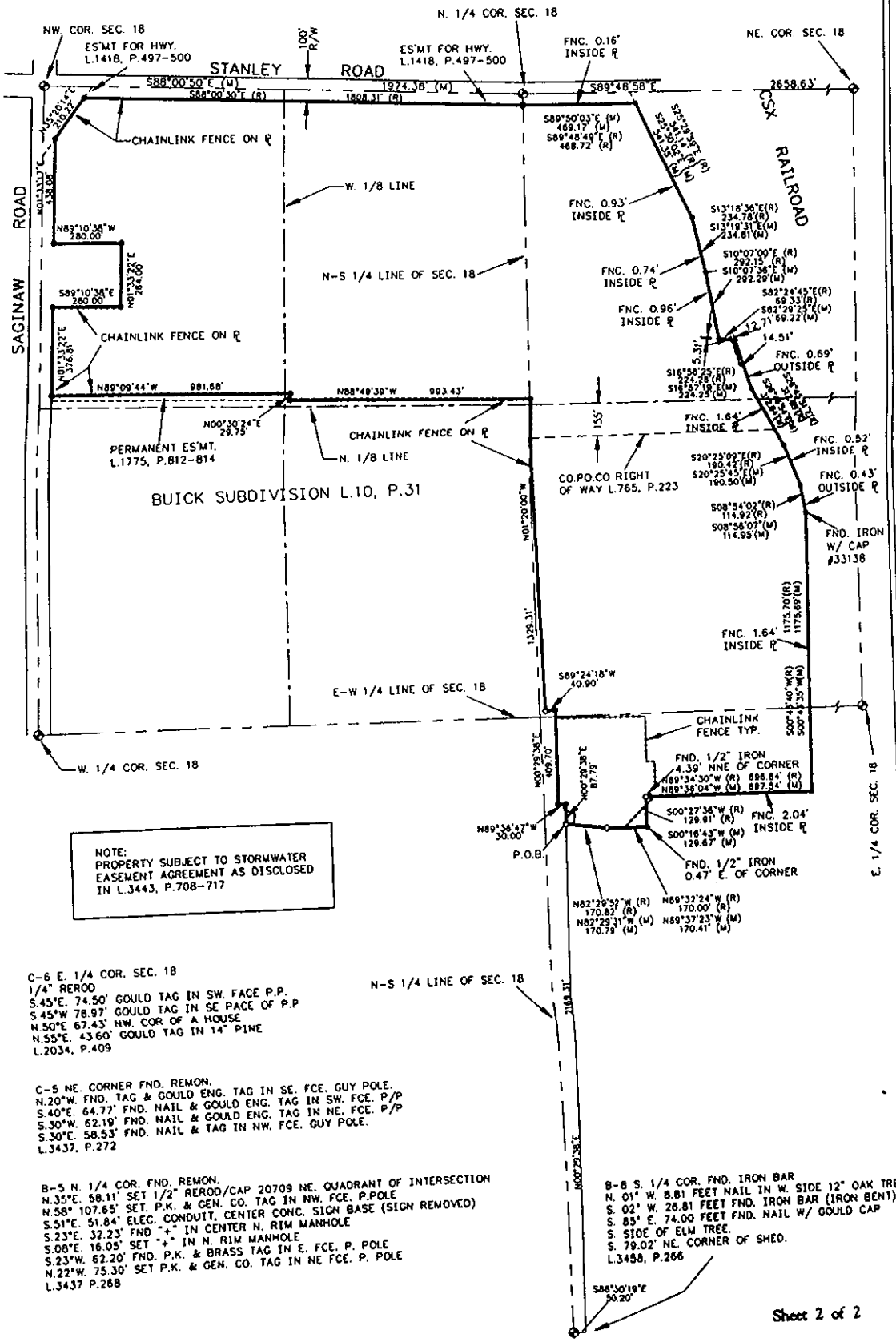
REALM Coldwater Road Facility
Property Boundary Survey

CERTIFICATE OF SURVEY

Being a part of
Section 18, T.8N., R.7E.
Genesee Township, Genesee County, Michigan

Certify to:
General Motors Corporation
a Delaware Corporation

Scale: 1" = 500'



NOTE:
PROPERTY SUBJECT TO STORMWATER EASEMENT AGREEMENT AS DISCLOSED IN L.3443, P.708-717

C-6 E. 1/4 COR. SEC. 18
1/4" REROD
S.45°E. 74.50' GOULD TAG IN SW. FACE P.P.
S.45°W 78.97' GOULD TAG IN SE PACE OF P.P
N.50°E 67.43' NW. COR OF A HOUSE
N.55°E. 43.60' GOULD TAG IN 14" PINE
L.2034, P.409

C-5 NE. CORNER FND. REMON.
N.20°W. FND. TAG & GOULD ENG. TAG IN SE. FCE. GUY POLE.
S.40°E. 64.77' FND. NAIL & GOULD ENG. TAG IN NE. FCE. P/P
S.30°W. 62.19' FND. NAIL & GOULD ENG. TAG IN NW. FCE. GUY POLE.
L.3437, P.272

B-5 N. 1/4 COR. FND. REMON.
N.35°E. 58.11' SET 1/2" REROD/CAP 20709 NE. QUADRANT OF INTERSECTION
N.58° 107.65' SET. P.K. & GEN. CO. TAG IN NW. FCE. P.POLE
S.51°E. 51.84' ELEC. CONDUIT, CENTER CONC. SIGN BASE (SIGN REMOVED)
S.23°E. 32.23' FND "+" IN CENTER N. RIM MANHOLE
S.08°E. 16.05' SET "+" IN N. RIM MANHOLE
S.23°W. 62.20' FND. P.K. & BRASS TAG IN E. FCE. P. POLE
N.22°W. 75.30' SET P.K. & GEN. CO. TAG IN NE FCE. P. POLE
L.3437 P.268

B-6 S. 1/4 COR. FND. IRON BAR
N. 01° W. 8.81 FEET NAIL IN W. SIDE 12" OAK TREE
S. 02° W. 26.81 FEET FND. IRON BAR (IRON BENT)
S. 85° E. 74.00 FEET FND. NAIL W/ GOULD CAP
S. SIDE OF ELM TREE.
S. 79.02' NE. CORNER OF SHED.
L.3458, P.266

CERTIFICATE OF SURVEY

Being a part of
Section 18, T.8N., R.7E.
Genesee Township, Genesee County, Michigan

Certify to:
General Motors Corporation
a Delaware Corporation

Situated in the Township of Genesee, Genesee County, Michigan, described as:

Being all that real property situated in Section 18, Town 8 North, Range 7 East, Genesee Township, Genesee County, State of Michigan and described as follows:

Commencing at the South 1/4 corner of said Section 18 and thence running South 88°30'19" East 50.20 feet along the South line of the Southeast quarter of said Section 18; thence North 00°29'38" East 2169.31 feet to the Point of Beginning; thence North 00°29'38" East, 87.79 feet; thence North 89°36'47" West, 30.00 feet; thence North 00°29'38" East along the vacated centerline of Horton Street (formerly Alfred Street) a distance of 409.70 feet; thence South 89°24'18" West, 40.90 feet; thence North 01°20'14" West along the East line of Buick Subdivision as recorded in plat book 10, page 1 a distance of 1329.30 feet; thence North 88°49'39" West, 993.43 feet; thence North 00°30'24" East, 29.75 feet; thence North 89°09'44" West, 981.68 feet to the East right of way line of Saginaw Highway; thence North 01°33'22" East along the East right of way line of said Saginaw Highway, 376.81 feet; thence South 89°10'38" East, 280.00 feet; thence North 01°33'22" East, 264.00 feet; thence North 89°10'38" West, 280.00 feet; thence along said East right of way line of Saginaw Highway North 01°33'17" East, 438.08 feet; thence North 35°20'14" East, 210.22 feet; thence South 88°00'30" East along the South line of Stanley Road, 1808.31 feet; thence continuing along the South line of said Stanley Road South 89°48'49" East, 468.72 feet to the West right of way line of the CSX Railroad; thence South 25°29'59" East along said West right of way line, 541.14 feet; thence South 13°18'36" East, 234.78 feet; thence South 10°07'00" East, 292.15 feet; thence South 82°24'45" East, 69.33 feet; thence South 16°56'25" East, 224.26 feet; thence South 26°45'51" East, 312.89 feet; thence South 20°25'09" East, 190.42 feet; thence South 08°54'02" East, 114.92 feet; thence South 00°43'40" West, 1175.70 feet; thence North 89°34'30" West, 696.84 feet; thence South 00°27'36" West, 129.91 feet; thence North 89°32'24" West, 170.00 feet; thence North 82°29'52" West, 170.82 feet to the Point of Beginning.
Containing 118.5 acres more or less.
Subject to easements, restrictions, reservations, rights of way, leases and agreements of record if any.

I hereby certify that I have located and mapped the land hereon platted and/or described, on the date noted hereon, that I have complied with the requirements of Act 132, P.A. of 1970 and that the error of closure of the unadjusted field observation is within the limits established for the profession.
There are encroachments as shown.

Signed Eugene L. Goss
Eugene L. Goss P.S.
Michigan No. 16040

LEGEND

Scale 1" = 500'
All dimensions are in feet and decimals thereof.
○ 1/2" x 18" steel bar set.
● Indicates corner monuments found unless noted
—— Indicates fence line

W.E. Indicates waters edge
OH Indicates overhead utilities
M Measured
R Recorded
C Computed
Section Corner

Project No. 971226
Field book no.
Field work by: MEG
Dated: 2-10-98

Drawn by: DJD
Calculated by: DJD
Checked by: ELG
Sheet 1 of 2

Bartow & King Engineers
2500 E. Midland Road, Bay City, Michigan 48706
Tel. (517) 684-5850
Fax. (517) 684-8404

STATE OF MICHIGAN
EUGENE L. GOSS
LAND SURVEYOR
16040
REGISTERED LAND SURVEYOR

APPENDIX C

MDEQ notification of Regulated Waste Activity formand EPA Hazardous Waste Permit Application Part A

General Motors Corporation
Worldwide Facilities Group
Environmental & Regulatory Support
Remediation Team

May 3, 2000

Ms. Kimberly Tyson
Michigan Department of Environmental Quality
Waste Management Division
P.O. Box 30241
Lansing, MI 48909-7741

Re: REALM Coldwater Road facility MDEQ *Notification of Regulated Waste Activity* form and USEPA *Part A Application Amendment* form.

Dear Ms. Tyson,

Attached are the completed Michigan Department of Environmental Quality *Notification of Regulated Waste Activity* form (EQP5150) and U.S. Environmental Protection Agency *Hazardous Waste Permit Application Part A* (form 8700-23) for the Remediation and Liability Management Company, Inc. (REALM) Coldwater Road Landfill site located in Flint, Michigan. These forms were completed to document the change of ownership of the landfill from General Motors Corporation to REALM, a wholly owned subsidiary of General Motors Corporation, and identifies the landfill and landfill leachate accumulation tank as the remaining hazardous waste units at the REALM site.

Please call me at (810) 236-0300 if you have any questions.

Sincerely,

Robert S. Metcalf, P.E.
Project Manager
General Motors Corporation

cc: Mr. Vince Dziechciarz- REALM, Detroit, MI
Ms. Marilyn Dedyne- REALM, Detroit, MI
Mr. Scott L. Cormier, P.E.- O'Brien & Gere Engineers, Inc., Novi, MI
Mr. Anthony J. Finch, CPG- O'Brien & Gere Engineers, Inc., Novi, MI

NAO Flint Operations Office
902 East Hamilton Avenue • Mail Code 485-185-020 • Flint, MI 48550-8502 • FAX (810) 236-7391

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE MANAGEMENT DIVISION

NOTIFICATION OF REGULATED WASTE ACTIVITY

Required under authority of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Failure to submit this information may result in civil or criminal penalties.

DEQ

MAIL THE COMPLETED FORM TO:

WASTE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30241
LANSING MI 48909-7741

MDEQ USE ONLY

I. Facility's EPA ID Number (see instructions on page 5) PRINT CLEARLY

A. First Notification: ☐ B. Subsequent Notification (Complete C): ☒

C. U.S. EPA Identification (ID) Number: MID005356860

II. Name of Facility (see instructions on page 5) PRINT CLEARLY

Includes company and specific site name

Coldwater Road Landfill
Remediation and Liability Management Company, Inc.

III. Location of Facility (see instructions on pages 5 & 6) PRINT CLEARLY

Street Address: 6220 Horton Street
City or Town: Flint State: MI
County Name: Genessee Zip Code: 48559

IV. Facility Mailing Address (see instructions on page 6) PRINT CLEARLY

Street or P. O. Box: 902 East Hamilton Ave. Mail Code: 485-185-020
City or Town: Flint
State: MI Zip Code: 48550

V. Facility Contact (see instructions on page 6) PRINT CLEARLY

Person to be contacted regarding waste activities
Name (Last): Metcalf Name (First): Robert
Job Title: Project Manager Phone: (810) 236-0300

VI. Facility Contact Person's Address (see instructions on page 6) PRINT CLEARLY

Same as Location address: ☐ Same as Mailing address: ☒
DO NOT complete the rest of the information in VI. if same address as location or mailing.
Street, P.O. Box, or Route No.:
City or Town: State: Zip Code:

VII. Ownership (see instructions on pages 6 & 7) PRINT CLEARLY

A. Name of Facility's Legal Owner: Remediation and Liability Management Company, Inc.
Name (Last): Name (First):
Street, P.O. Box, or Route No.: 485 West Milwaukee
City or Town: Detroit State: MI
ZIP Code: 48202 Phone: (313) 556-0801
B. Land Type: P C. Owner Type: P
D. Change of Ownership Indicator: Yes ☒ No ☐ If yes, date changed:
E. Property Owner: Same
Name (Last): Name (First):
Street, P.O. Box, or Route No.:
City or Town: State:
ZIP Code: Phone:

U.S. EPA Form 8700-12 is replaced by the Michigan Notification Form EQP5150 (rev. 03/98)

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

OMB No. 2050-0034, Expires 9-30-99

For EPA Regional Use Only		
Date Received Month Day Year		

EPA

United States Environmental Protection Agency
Washington, DC 20460

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Part A Submission

[X] B. Part A Amendment # 2

C. Installation's EPA ID Number	D. Secondary ID Number *(If applicable)*
MID005356860	

II. Name of Facility

COLDWATER ROAD LANDFILL

III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street

6220 HORTON STREET

Street *(Continued)*

City or Town	State	Zip Code
FLINT	MI	48559 –

County Code (If known)	County Name
	GENESSEE

B. Land Type (Enter code)	C. Geographic Location		D. Facility Existence Date
	LATITUDE (Degrees, minutes, & seconds)	LONGITUDE (Degrees, minutes & seconds)	Month Day Year
P	83° 41' 02.7"	43° 06' 00.0"	1953

IV. Facility Mailing Address

Street or P.O. Box

902 E. HAMILTON AVE. MC: 485-185-0200

City or Town	State	Zip Code
FLINT	MI	48550 – 8502

V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

Name *(Last)*	*(First)*
METCALF	ROBERT
Job Title	**Phone Number** *(Area Code and Number)*
PROJECT MANAGER	810 – 236 – 0300

VI. Facility Contact Address *(See Instructions)*

A. Contact Address Location	Mailing	Other	B. Street or P.O. Box
	X		902 E. HAMILTON AVE

City or Town	State	Zip Code
FLINT	MI	48550 – 8502

EPA I.D. Number *(Enter from page 1)*

M	I	D	0	0	5	3	5	6	8	6	0

Secondary ID Number *(Enter from page 1)*

XI. Nature of Business *(Provide a brief description)*

Site is a hazardous waste (F006) landfill. No production/manufacturing is performed at the site, therefore no F006 wastes are generated. Landfill Leachate (F039) is collected and stored in a tank in the storage facility and discharged under permit.

XII. Process Codes and Design Capacities

A. PROCESS CODE - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item XIII.*

B. PROCESS DESIGN CAPACITY - *For each code entered in column A, enter the capacity of the process.*

1. **AMOUNT** - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.*
2. **UNIT OF MEASURE** - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. PROCESS TOTAL NUMBER OF UNITS - *Enter the total number of units used with the corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet or Hectare-meter
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment	Gallons or Liters
D99	Other Storage	Any Unit of Measure Listed Below
	Storage:	
S01	Container (Barrel, Drum, Etc.)	Gallons or Liters
S02	Tank	Gallons or Liters
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons or Liters
S05	Drip Pad	Gallons or Liters
S06	Containment Building	Cubic Yards or Cubic Meters
S99	Other Disposal	Any Unit of Measure Listed Below
	Treatment:	
T01	Tank	Gallons Per Day or Liters Per Day
T02	Surface Impoundment	Gallons Per Day or Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; or Btu's Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T80	Boiler	Gallons or Liters
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, Or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T88	Titanium Dioxide Chloride Process Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR §260.10	
T94	Containment Building	Cubic Yards or Cubic Meters
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; or Kilograms Per Hour
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
X04	Geologic Repository	Cubic Yards or Cubic Meters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V

UNIT OF MEASURE	UNIT OF MEASURE CODE
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R

UNIT OF MEASURE	UNIT OF MEASURE CODE
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's Per Hour	I

EPA I.D. Number *(Enter from page 1)*: M I D 0 0 5 3 5 6 8 6 0

Secondary ID Number *(Enter from page 1)*:

XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of Item XIV-D(1).*
3. *Enter in the space provided on page 7, Item XIV-E, the line number and the additional code(s).*

2. PROCESS DESCRIPTION: *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA HAZARD WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS (1) PROCESS CODES (Enter)	D. PROCESS (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X 1	K 0 5 4	900	P	T 0 3 D 8 0	
X 2	D 0 0 2	400	P	T 0 3 D 8 0	
X 3	D 0 0 1	100	P	T 0 3 D 8 0	
X 4	D 0 0 2				Included With Above

EPA I.D. Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
M I D 0 0 5 3 5 6 8 6 0	

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements. See attached figures 1, 2, and 3.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (See instructions for more detail). See attached figures 2 and 3.

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

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 belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature	William J. McFarland	Date Signed 4-18-00
Name and Official Title (Type or print)	William J. McFarland, President	
Owner Signature		Date Signed
Name and Official Title (Type or print)		
Operator Signature	William J. McFarland	Date Signed 4-18-00
Name and Official Title (Type or print)	William J. McFarland, President	
Operator Signature		Date Signed
Name and Official Title (Type or print)		

XIX. Comments

See Attachment 2

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

*U.S. Government Printing Office: 1997 — 516-920/83546

Attachment 1

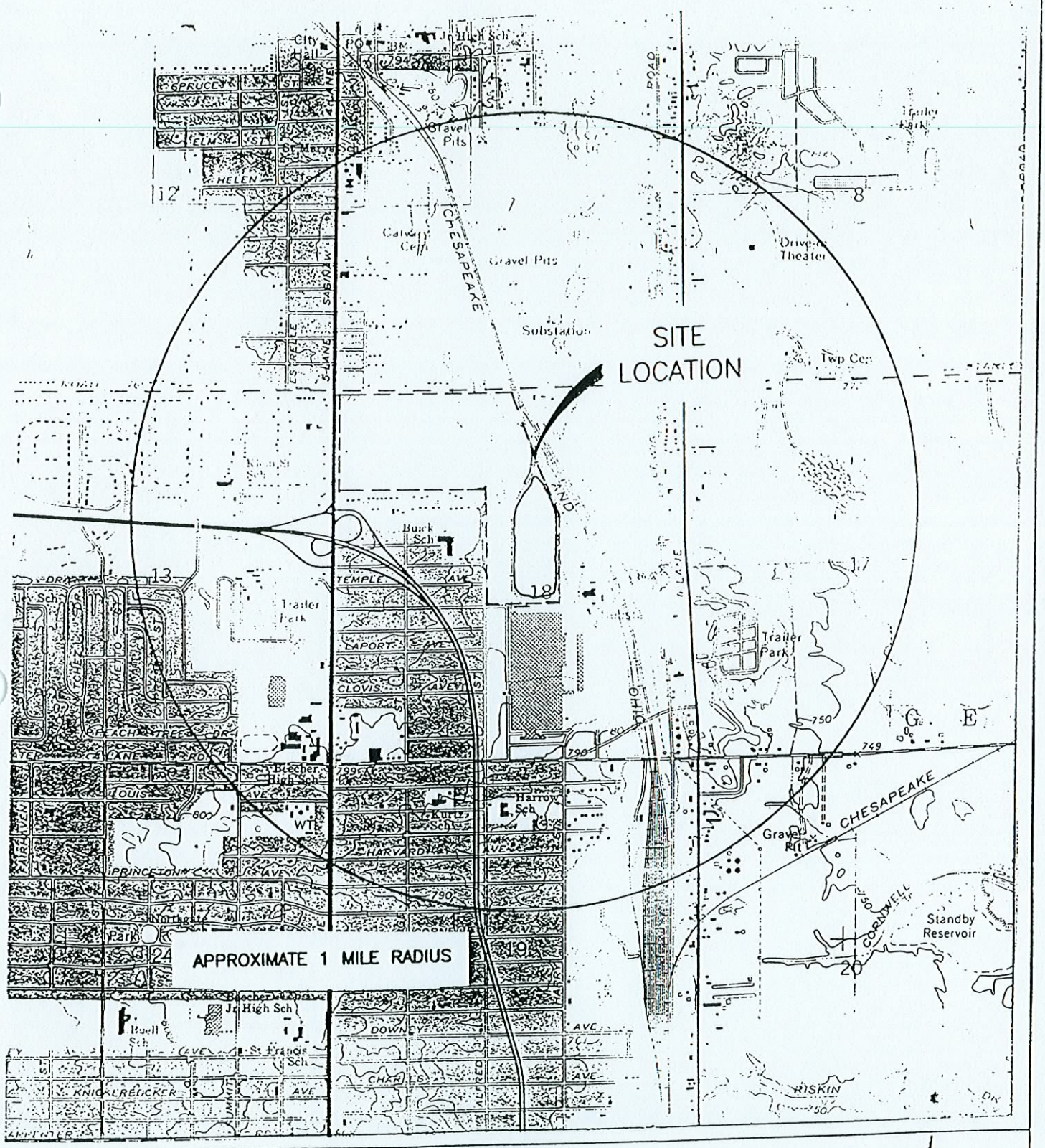
From page 2 of 7.

VII. Name of Operator: Remediation and Liability Management Company, Inc. (REALM)

VIII.
A. Name of Facility's Legal Owner: Remediation and Liability Management Company, Inc. (REALM)

Attachment 2

The original EPA Hazardous Waste Permit Application Part A was filed in 1980 and was amended in 1984 for hazardous wastes generated (chrome plating operations-F006) at the General Motors manufacturing facility. This permit covered the entire site at the time it was submitted. In 1987 the plant terminated activities which generated these hazardous wastes. The wastes were stabilized and placed in an engineered onsite landfill. When the manufacturing portion of the property was sold in 1996, a new Part A Application was obtained by the new owner for the manufacturing portion of the property (MIR 000020743) and the landfill and former wastewater treatment plant remained under GM ownership (MID005356860). This application documents the change of ownership of the landfill and wastewater treatment plant from GM to Remediation and Liability Management Company, Inc. (REALM), a wholly owned subsidiary of GM, and identifies the landfill and landfill leachate storage tank as the remaining hazardous wastes storage units at the REALM site.



REALM
COLDWATER ROAD LANDFILL
FLINT, MICHIGAN

SITE LOCATION MAP

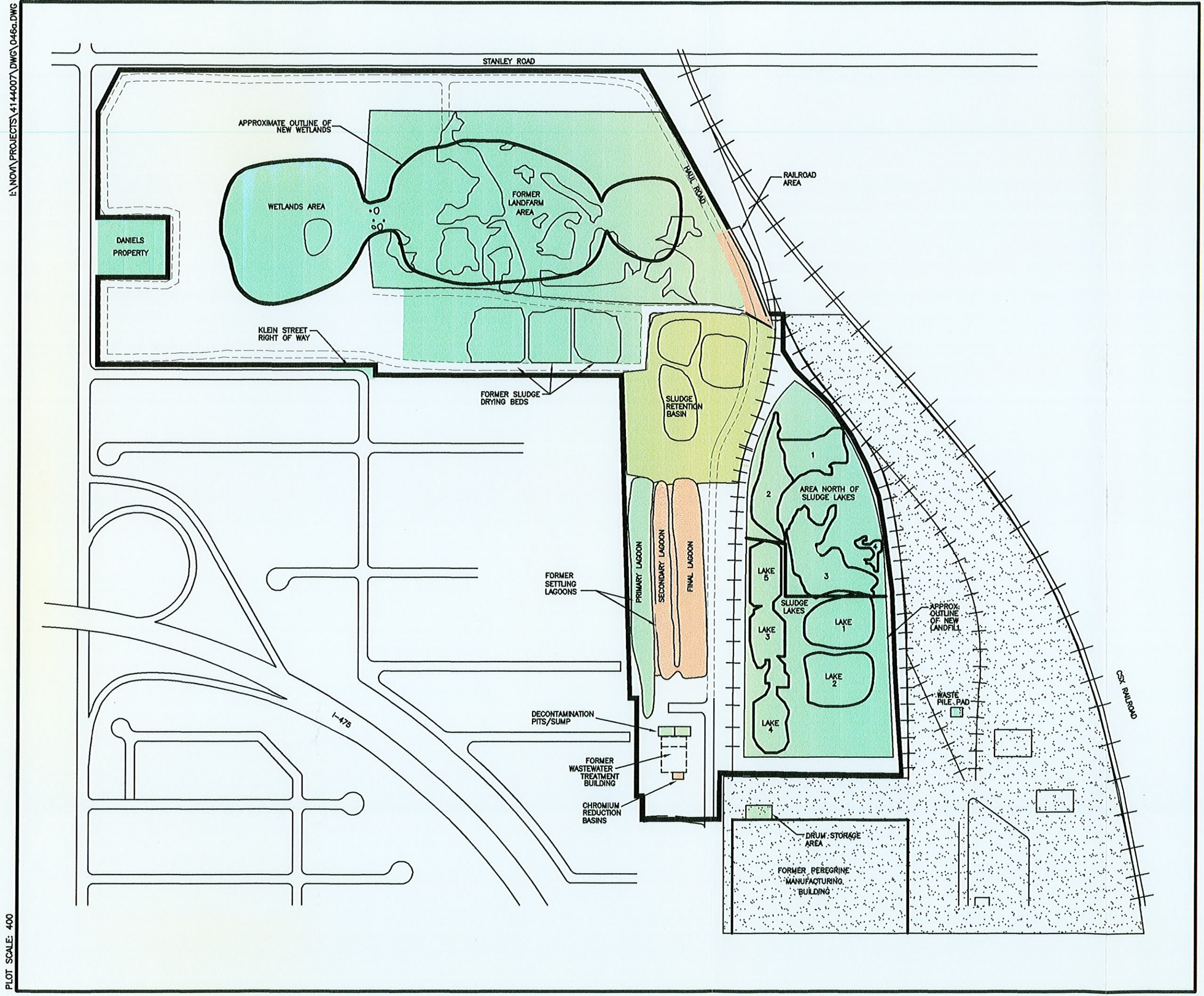
FLINT NORTH, MICH.

PHOTOREVISED 1975

1000 2000 3000 4000

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.



LEGEND

- AREA CLOSED BETWEEN 1990 AND 1999. OVERSIGHT BY WESTON AND O'BRIEN & GERE
- AREA CLOSED BETWEEN 1994 AND 1999. OVERSIGHT PROVIDED BY O'BRIEN & GERE
- AREA CLOSED BETWEEN 1990 AND 1994. OVERSIGHT PROVIDED BY WESTON
- APPROXIMATE REALM PROPERTY BOUNDARY
- FORMER PEREGRINE PROPERTY
- APPROXIMATE LOCATION OF RAILROAD TRACKS

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

UNIT CLOSURE SUMMARY

400 0 400

APPROXIMATE SCALE IN FEET

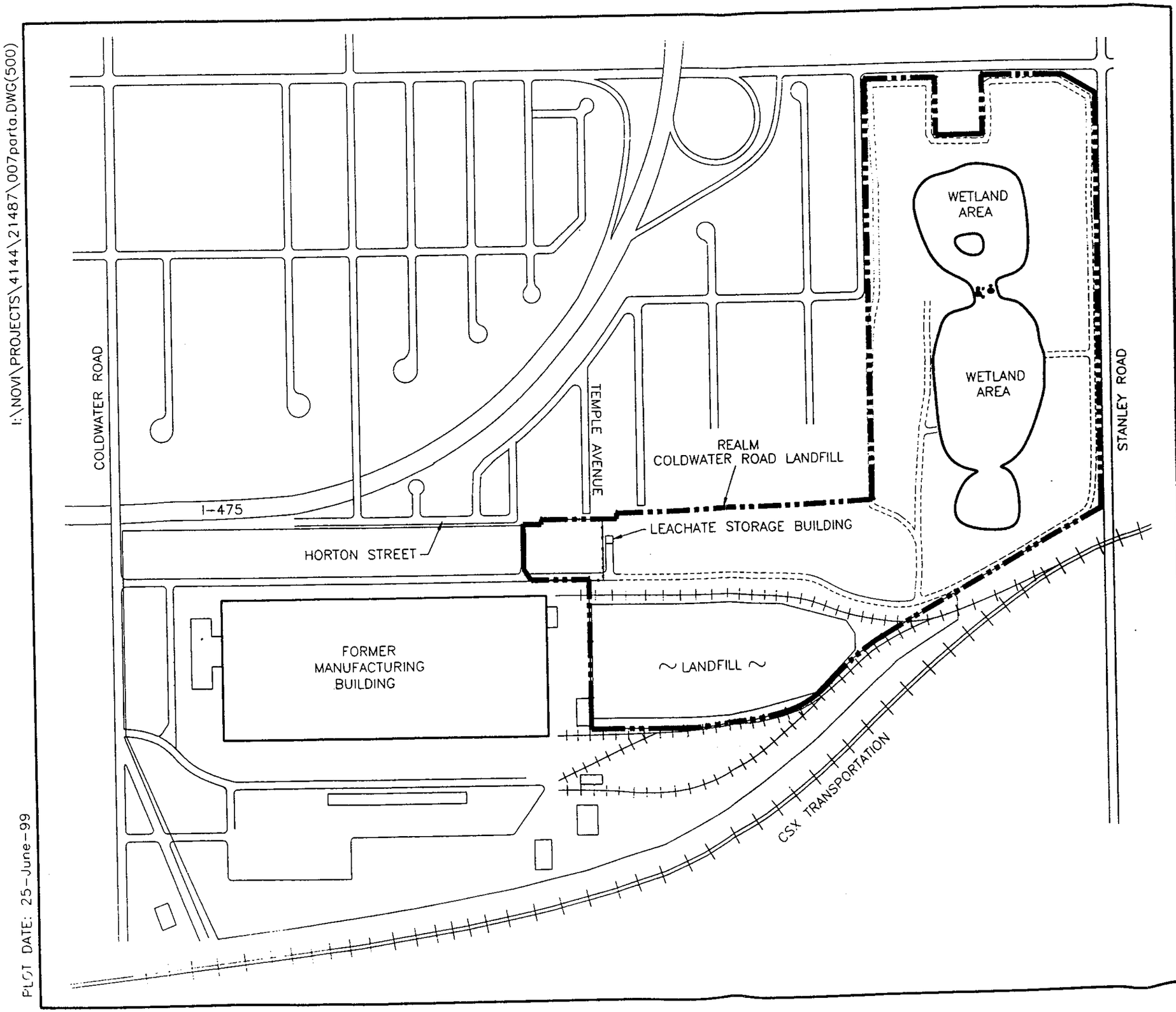
FILE NO. 4144.007.046A

O'BRIEN & GERE ENGINEERS, INC.

PLOT SCALE: 400

I:\NOV\PROJECTS\4144007\DWG\046a.DWG

FIGURE 2



LEGEND

- GM/REALM PROPERTY BOUNDARY
- APPROXIMATE LOCATION OF RAILROAD TRACKS
- APPROXIMATE OUTLINE OF GRAVEL ROAD

REALM COLDWATER ROAD LANDFILL FLINT, MICHIGAN

SITE PLAN

500 0 500

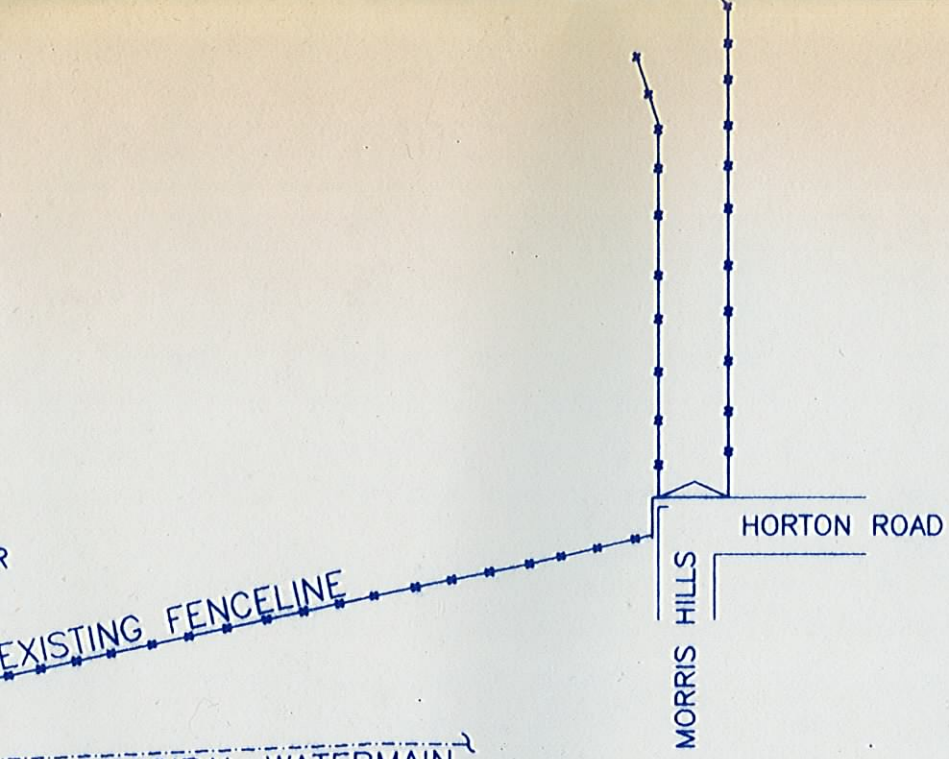
APPROXIMATE SCALE IN FEET

FILE NO.4144.21487.007PARTA

O'BRIEN & GERE ENGINEERS, INC

I:\NOVI\PROJECTS\4144\21487\007parta.DWG(500)

PLOT DATE: 25-June-99



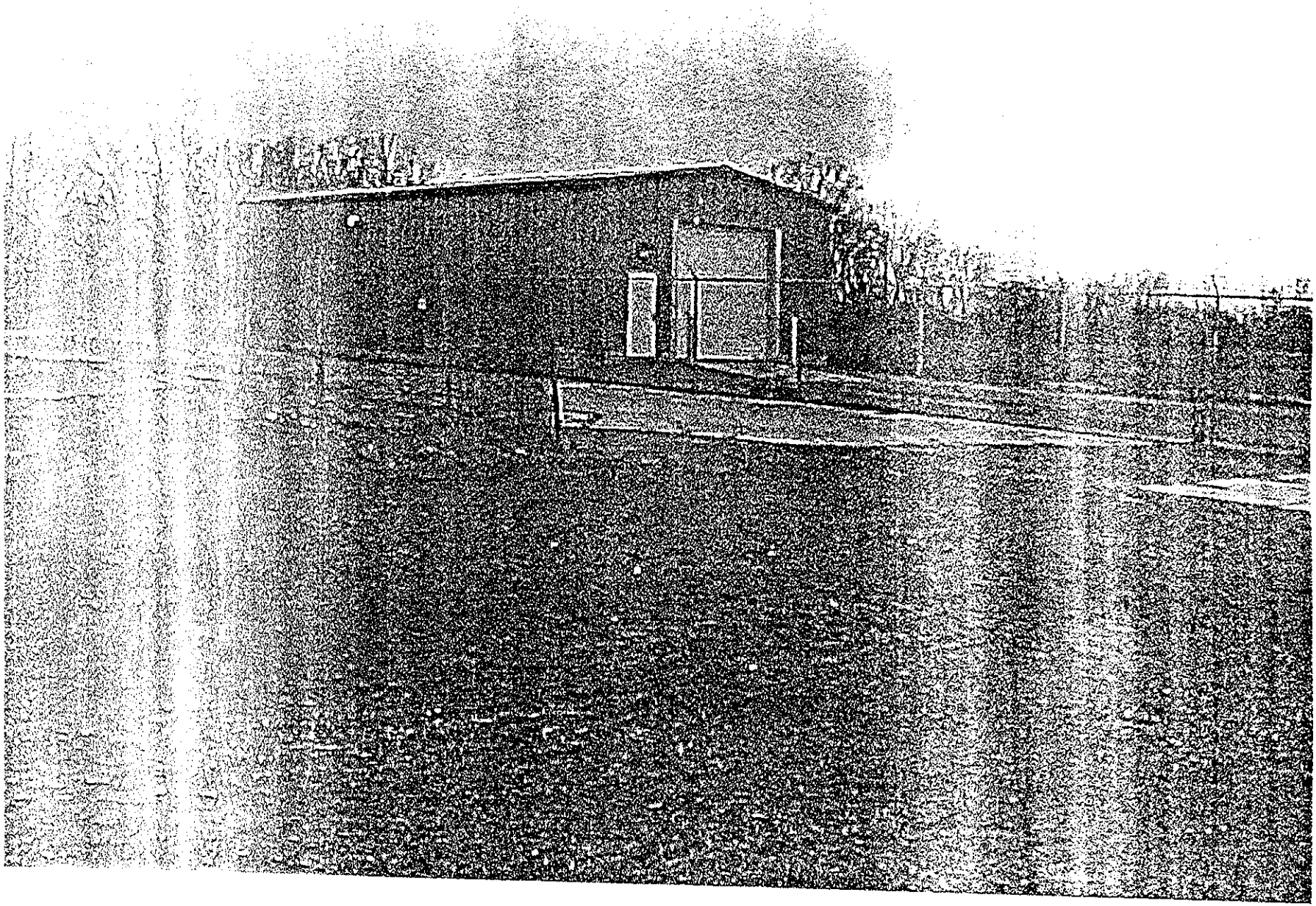
STING 8" TO 10"
ITARY SEWER

UENT STORAGE/CONTROL FACILITY

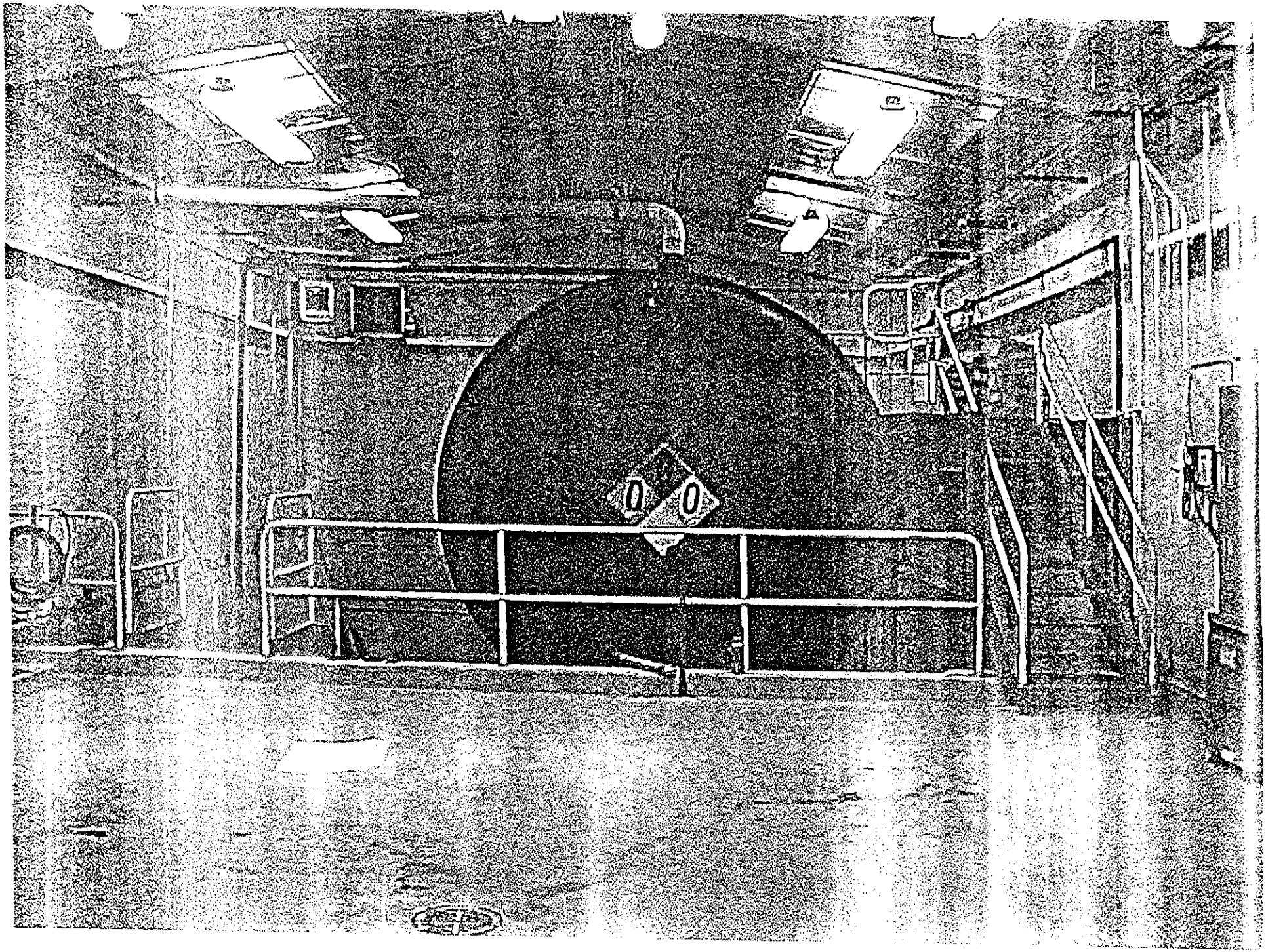
FILE NO.
4144.007LSBLDG

DATE
3-13-2000

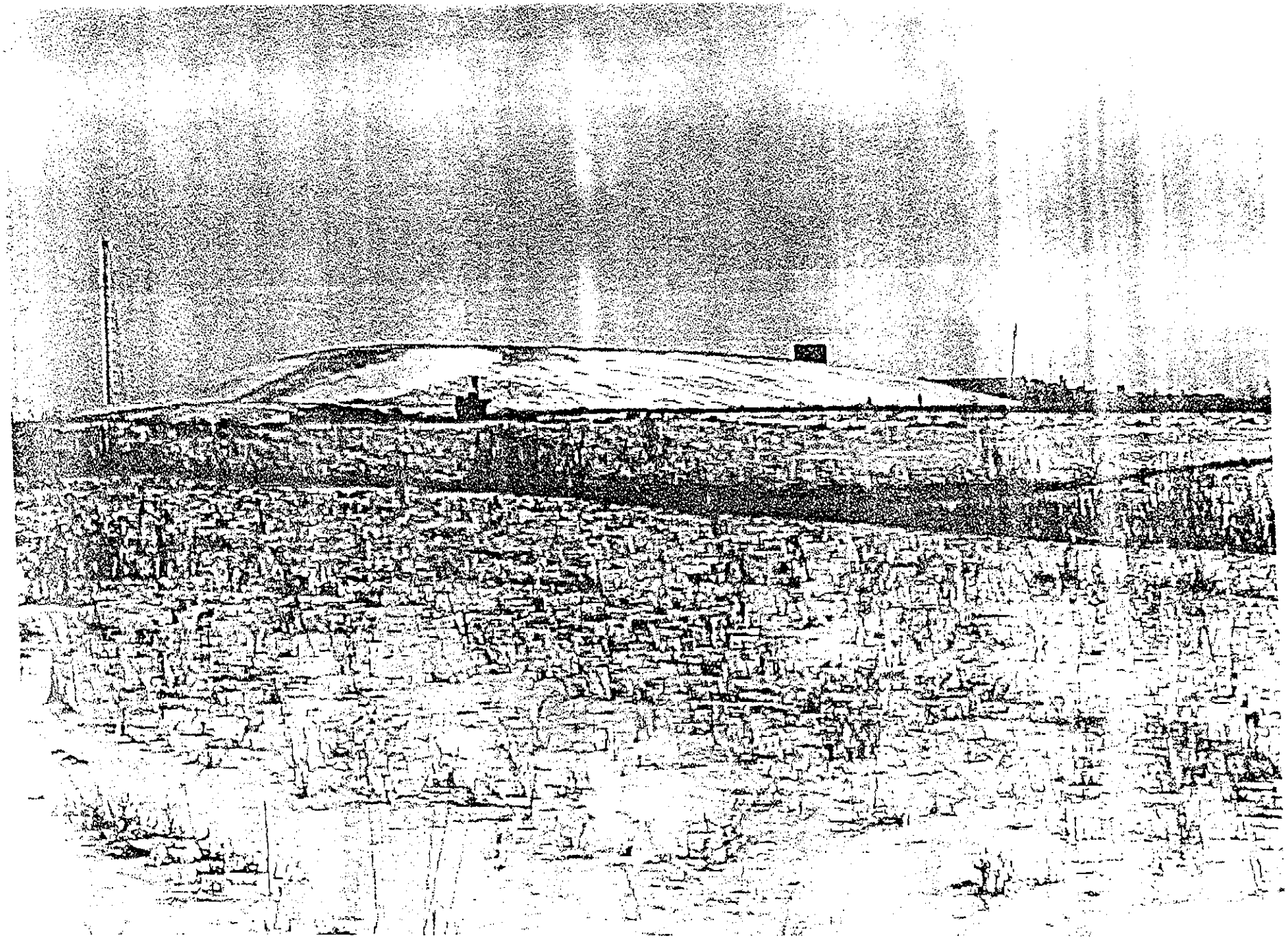
3



LEACHATE STORAGE/CONTROL FACILITY



LANDFILL LEACHATE STORAGE TANK



LANDFILL - FACING SOUTHEAST

APPENDIX D

Regulatory Approval Letters

NATURAL RESOURCES COMMISSION
JERRY G. BARTNIK
H. J. CHARTERS
IV DEVUYST
J. EBELE
JAMES P. HILL
DAVID HOLLI
JOEY M. SPANO

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T MASON BUILDING, PO BOX 30028, LANSING MI 48909-7528

ROLAND HARMES, Director

REPLY TO:
WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

March 15, 1995

Mr. Steve L. Chapman
Environmental Engineer
General Motors Corporation
6600 East 12 Mile Road
Warren, Michigan 48092-5905
Mail Slot: W-55

Dear Mr. Chapman:

SUBJECT: Post-Closure Plan Approval For Landfill
General Motors Corporation (GMC)
DELPHI Interior & Lighting Systems
Flint Coldwater Road
MID 005 356 860

The Michigan Department of Natural Resources (MDNR) Waste Management Division (WMD), has completed its review of the post-closure plan for the landfill submitted August 31, 1994. Based on this review, and the fact that no significant comments were received during the public comment period, the MDNR hereby approves the post-closure plan for the hazardous waste landfill at the facility, subject to the enclosed modifications. The rationale for each modification is also provided.

In accordance with Paragraph 32.A of the Corrective Action Consent Order (CACO) (WMD Order No. 64-05-92) and 40 CFR 265.118(f), the modified post-closure plan is the approved post-closure plan. Pursuant to Paragraph 32.A of the CACO, the approved post-closure plan and its modifications shall be deemed incorporated into and an enforceable part of the CACO.

Pursuant to 40 CFR 265.117(a), GMC shall implement the approved post-closure plan. Failure to implement the approved post-closure plan may subject the company to stipulated penalties pursuant to Section XVI of the CACO.

If GMC wishes to amend the approved post-closure plan in any way, the amended post-closure plan must be approved by the MDNR in writing. Formal procedures and substantive criteria for amending post-closure plans are established in 40 CFR 265.118(d). The regulations require that an amendment to an approved post-closure plan be requested in writing and be proposed:

- Sixty days prior to a proposed change in facility design or operation; and/or

- Within 60 days after an unexpected event that has affected the post-closure plan.

All post-closure plan amendments must be approved by the MDNR prior to implementation by GMC.

Approval of the post-closure plan does not release GMC from any corrective action responsibilities it may have under Michigan's Hazardous Waste Management Act, 1979 PA 64 as amended, or the federal Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act of 1976.

Also enclosed is a copy of a form entitled, "Restrictive Covenants Running with the Land." This form must be filled out, signed and returned to be signed by the Director of the MDNR within 60 days following the submittal of the draft certification package for final closure at the facility.

If you have any questions or comments, please contact Ms. Angela L. Hahn at WMD, MDNR, P.O. Box 30241, Lansing, Michigan 48909, or at telephone number 517-373-7738.

Sincerely,

Jim Sygo, Chief
Waste Management Division
517-373-9523

Enclosure
cc/enc: Mr. William Ayre, Genesee Township Supervisor
Ms. Lorraine Kosik, U.S. EPA
Ms. JoAnn Merrick, MDNR
Ms. Elizabeth Browne/Mr. William Yocum, MDNR-Shiawassee
Mr. Steve Buda, MDNR
Mr. Dave Slayton/Ms. Jan Sealock, MDNR
Ms. Angela Hahn, MDNR
HWP/C&E File

Modifications For Post-Closure Plan Approval
GMC-DELPHI Coldwater Road
Flint, Michigan
MID 005 356 860

1. SECTION 4.0: The leak detection system must be dewatered every two weeks for the first six months after approval of the plan. This schedule may be modified with the approval of the Waste Management Division (WMD) as conditions warrant. Six months after the date of approval of the plan, a schedule for dewatering must be submitted to the WMD for approval.

   The purpose of this modification is to remove consolidation water from the leak detection system as rapidly as possible. The system must be dewatered in order to install the liquid sensor probes, and to better enable it to operate as a detection device.

2. SECTION 5.1.1: The location of proposed perched zone well B-19A, as shown on Figure 5-2, must be moved toward the southwest along the landfill edge approximately halfway between the proposed location and proposed well B-18A (see attached map).

   Groundwater flow direction in the perched zone is toward the west. Moving the location of B-19A toward the southwest will place the well downgradient of the landfill instead of lateral to it.

3. SECTION 5.2, Table 5-2: The analytical method for iron and manganese must be dissolved analysis, not total analysis.

   The other metals analyzed will be for the dissolved fraction, not total. To be consistent with proposed and historic groundwater analyses, dissolved metals should be tested.

4. SECTION 5.2, Table 5-2: The detection limit for cyanide must be changed to 0.005 mg/l.

   The recommended detection limit in the WMD Operational Memo Gen-8, Revision 1 is 0.005 mg/l. These detection limits are recommended for use in detection monitoring programs.

5. SECTION 7: Statistical evaluation of the leak detection system using the Shewhart-Cumulative Sum control chart method shall be performed within 60 days following each quarterly monitoring event. If a statistically significant increase is detected, the company shall arrange for the resampling, immediately notify the WMD, and provide written notification within seven days.

Statistical testing must be done within 60 days of sampling to assure that potential exceedances are identified as soon as possible. Sixty days is a commonly used time frame for performing statistical analyses.

6. SECTION 7: Analysis of the leak detection system must now include volatile organics on an annual basis. In addition, 1,1,1 trichloroethane must be analyzed quarterly in the leak detection system. The next scheduled sampling for the leak detection system must include the volatile organics listed in Table 1 of the Landfill Leak Detection System Chemical Monitoring Plan (Appendix A of the Post Closure Plan) if it was not done during the December scheduled sampling.

   Leachate sampling conducted in September, 1994, detected the presence of 1,1,1 trichloroethane in leachate from cells A, B, and E of the landfill. Therefore, this parameter must be added to the leak detection system monitoring due to its mobility and presence.

7. SECTION 7: The detection limit for chromium listed in Appendix A, Table 1, must be changed to 20 ug/l.

   The recommended detection limit in the WMD Operational Memo Gen-8, Revision 1 is 0.020 mg/l. These detection limits are recommended for use in detection monitoring programs.

8. Within 60 days following the submittal of the draft certification package for final closure, the restrictive covenant form, must be filled out, signed, and submitted for signature of the Michigan Department of Natural Resources (MDNR) Director. The MDNR will record this signed document with the local registrar of deeds.

   This modification is necessary to comply with Paragraph 31.J of Corrective Action Consent Order No. 64-05-92, and the Hazardous Waste Management Act, 1979 PA 64, as amended.

Attachment

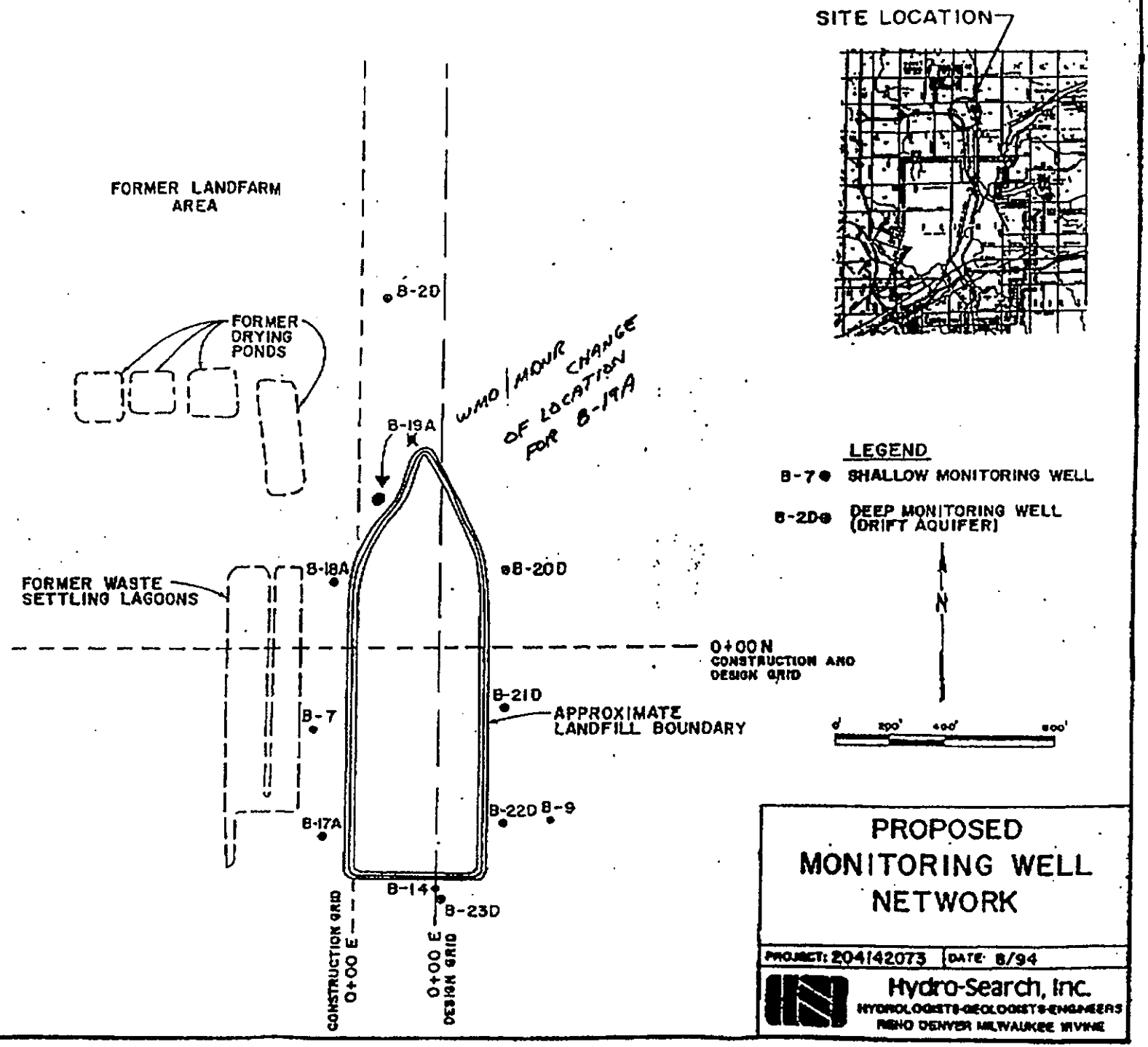


FIGURE 5-2

3 OF 3

RESTRICTIVE COVENANTS RUNNING WITH THE LAND

GMC, DELPHI Interior & Lighting Systems - Flint Coldwater Road, ("GMC-DELPHI"), a Delaware corporation, is located at 1245 East Coldwater Road, Flint, Michigan 48559.

GMC-DELPHI is the record owner of land located in Genesee Township, Genesee County, Michigan, described in Exhibit A attached ("the land").

GMC-DELPHI notified MDNR of their hazardous waste management activity pursuant to the Hazardous Waste Management Act, 1979 PA 64 MCLA 299.503 et seq, as amended ("Act 64") and obtained interim status to continue operation of their hazardous waste disposal/management facility located at the land, facility identification number MID 005 356 860. The interim status designation authorized disposal/management of hazardous waste at the disposal/management facility on the land pursuant to the requirements of Michigan law, including, but not limited to the requirements of closure, corrective action, post-closure care, and other obligations more fully set forth under Act 64 and the regulations promulgated thereunder, after March 30, 1995 known as the Natural Resources and Environmental Protection Act, 1994 PA 451; MCL 324.11101-11152 (N.R.E.P.A.).

The closure of the hazardous waste management units and the solid waste management units on the land were required pursuant to a Corrective Action Consent Order, WMD Order No. 64-05-92, effective October 29, 1992. Closure of these units included treatment of the hazardous wastes and containment of the treated

wastes in a Disposal Facility, a landfill constructed on the land, as described in the attached Exhibit A.

The land and Disposal Facility are herein referred to as the "Property." The following restrictive covenants are executed by GMC-DELPHI as the sole owner of the Property pursuant to Section 39 of N.R.E.P.A. to ensure the care, maintenance, monitoring and long-term integrity of the Property for the protection of the health, safety and welfare of the people of the State of Michigan and the natural resources and the environment of the State of Michigan:

1. The Property has been used to manage hazardous wastes.
2. The Property has been used as a landfill for hazardous waste disposal.
3. Use of the Property, including use of the land and/or the Disposal Facility, shall not disturb the final cover, liners, components of any containment system, or the function of the monitoring systems on or in the Property.
4. No one, including GMC-DELPHI, any purchaser of the record owner of the land or Disposal Facility, any purchaser of the land or Disposal Facility, or any of their agents, employees, heirs, successors, lessees, or assignees, shall engage in any development, including any filling, grading, excavating, building, drilling or mining on the Property following completion of the landfill closure without obtaining prior written authorization from the Director of the Department of Natural Resources.

5. The survey plat and records of the types, locations and quantities of hazardous wastes on or in the Property have been filed with the local zoning or land use authority as required by N.R.E.P.A. and its Rules.

6. Ownership of all or a portion of the land or Disposal Facility shall not be conveyed without the owner of the land or Disposal Facility sending written notice to the prospective purchaser(s) of the existence of these restrictive covenants. Such notice shall state:

   (1) that there are restrictive covenants on the Property;

   (2) that development on the Property is prohibited without prior written authorization from the Director of the Department of Natural Resources;

   (3) that the prospective purchaser(s) must comply with the restrictive covenants, N.R.E.P.A. and Rules promulgated under N.R.E.P.A.; and

   (4) that the prospective purchaser(s) cannot interfere with the containment or monitoring systems on or in the Property.

Such notice shall include a copy of these restrictive covenants and shall be sent to the prospective purchaser(s) by certified mail with a copy sent to the Director of the Department of Natural Resources.

These restrictions may be enforced in law or in equity in a court of competent jurisdiction. Such action(s) may be taken

against anyone, including any person, corporation, partnership, agent, successor, assignee, heir, employee or lessee, who violates or threatens to violate any of these restrictive covenants.

These restrictive covenants shall run with the land in perpetuity and shall be binding upon GMC-DELPHI, any purchaser of the record owner of the land or Disposal Facility, or any of their agents, employees, heirs, successors, lessees, or assignees.

Attachment

Signed in presence of:

[COMPANY NAME]

_____
(Witness Name)

By: _____

_____
(Witness Name)

Its: _____

STATE OF MICHIGAN }
} SS.
COUNTY OF _____ }

The foregoing instrument was acknowledged before me this _____ day of _____, 19___, by _____, of _____ corporation, on behalf of the corporation.

_____
Notary Public
_____ County, Michigan
My commission expires_____.

Signed in presence of:

STATE OF MICHIGAN

_____
(Witness Name)

By: _____
Roland Harmes

_____
(Witness Name)

Its: Director of the Department of Natural Resources for the State of Michigan

STATE OF MICHIGAN }
} SS.
COUNTY OF _____ }

The foregoing instrument was acknowledged before me this _____ day of _____, 19___, by _____, of _____ corporation, on behalf of the corporation.

_____
Notary Public
_____ County, Michigan
My commission expires_____.

EXHIBIT A

LEGAL DESCRIPTION OF HAZARDOUS WASTE CELLS

AT

_____

FILE: 4144.007AF2
CC: KSF

NATURAL RESOURCES COMMISSION
JERRY C. BARTNIK
LARRY DEVUYST
PAUL BIELE
JAMES HILL
DAVID HOLLI
JOEY M. SPANO
JORDAN B. TATTER

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

John Hannah Building, P.O. Box 30241, Lansing, MI 48909

ROLAND HARMES, Director

November 14, 1994

Mr. Steve L. Chapman
Environmental Engineer
General Motors Corporation
1245 East Coldwater Road
Flint, Michigan 48559

Dear Mr. Chapman:

SUBJECT: General Motors Corporation (GMC)
Inland Fisher Guide Division
Coldwater Road Facility; MID 005 356 860

The Michigan Department of Natural Resources (MDNR) Waste Management Division (WMD), has completed its review of the work plan GMC submitted to the WMD on August 31, 1994 to address the contaminated material that exceeded the landfill capacity. Based on this review, the MDNR hereby approves the work plan, subject to the enclosed modifications, "Modifications For Work Plan Approval." The rationale for each modification is also provided.

In accordance with Paragraph 32.A of the Corrective Action Consent Order (CACO) (WMD Order No. 64-05-92), the modified work plan is the approved work plan. Pursuant to Paragraph 32.A of the CACO, the approved work plan and its modifications shall be deemed incorporated into and an enforceable part of the CACO.

Failure to implement the approved work plan may subject the company to stipulated penalties pursuant to Section XVI of the CACO.

If you have any questions or comments, please contact Ms. Angela L. Hahn at Waste Management Division, Department of Natural Resources, P.O. Box 30241, Lansing, Michigan 48909, or at telephone number 517-373-7738.

Sincerely,

Jim Sygo, Chief
Waste Management Division
517-373-9523

Enclosure
cc: Mr. William Ayre, Genesee Township Supervisor
Ms. Elizabeth Browne/Mr. William Yocum, MDNR-Shiawassee
Ms. JoAnn Merrick, MDNR
Mr. Steve Buda, MDNR
Ms. De Montgomery, MDNR
Mr. Dave Slayton/Ms. Jan Sealock, MDNR
Ms. Angela Hahn, MDNR
HWP/C&E File

** TOTAL PAGE.04 **

Modifications for Work Plan Approval

GMC Inland Fisher Guide Division
1245 E. Coldwater Rd.
Flint, Michigan
November 14, 1994

MID 005 356 860

1. Within 14 days after GMC receives MDNR approval to delist any or all of the contaminated soil at the site, GMC must submit to the MDNR a draft work plan for the excavation and removal of all contaminated material at the site. This work plan should address dust control, air monitoring, the excavation, staging, and loading methods to be used on the material, soil clean-up verification, and site restoration.

   The purpose of this modification is to assure that the activities involved in removing the contaminated material have minimum impact upon human health and the environment.

2. Within 60 days of site restoration after removal of all contaminated material, GMC must submit a draft closure certification document.

   This is necessary for compliance with Paragraph 31.J of the CACO, and R 299.9613 of Michigan's Hazardous Waste Management Act, 1979 PA 64, as amended, and its administrative rules.

State of Michigan
Department of Environmental Quality
Redesignation Approval for
General Motors Corporation
Delphi Interior & Lighting Systems

According to the provisions of R 299.9211(1)(c) of Part 111 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), General Motors Corporation - Delphi Interior & Lighting Systems (GMC-DILS) is granted a redesignation approval (Approval) by the Director of the Department of Environmental Quality (Director) for contaminated soils which have been generated from remedial action activities at the GMC-DILS facility at 3248 East Coldwater Road, Flint, Michigan (Delisted Material). The Delisted Material, listed as a hazardous waste according to the provisions of R 299.9213 of Part 111 of Act 451 identified by the hazardous waste number F020, is now redesignated as a solid waste, as defined by Part 115 of Act 451. Because the Delisted Material does not contain concentrations of contaminants that must be managed at a licensed hazardous waste facility, the Director is hereby granting a redesignation pursuant to the following conditions:

1. The Approval is based on the information submitted by GMC-DILS in the Delisting Petition dated January 1995 and the additional information dated June 28, 1995, July 7, 1995, and October 16, 1995 (Delist Petition). The pertinent analytical data from the Delist Petition is hereby attached in Appendix A and made an enforceable part of this Approval. If information acquired by the Director shows that information in the Delist Petition is erroneous, inaccurate or otherwise unreliable, the Director may amend or revoke this Approval pursuant to R 299.9211(2) of Part 111 of Act 451.

2. The Approval applies only to 65,000 cubic yards of Delisted Material that is designated to be transported offsite for proper disposal.

3. The Delisted Material subject to this approval shall only be disposed at a Type II solid waste landfill licensed pursuant to Part 115 of Act 451 and in accordance with all applicable county solid waste planning requirements, or at an out-of-state facility in accordance with that state's applicable regulations. Other methods of disposal must be approved by the Director prior to offsite transportation.

4. This Approval does not apply to any material left in place at the GMC-DILS facility. Nothing in this Approval shall relieve any party from remediating any material left in place in accordance with requirements of applicable law.

5. Disposal, transportation or other management of the material shall not cause visible air emissions as defined by Part 55 (Air Pollution Control) of Act 451.

6. The Delisted Material, if transported by truck, shall leave the GMC-DILS facility by East Columbus Road.

7. This Approval does not apply to the Delisted Material if it is mixed with other wastes including any hazardous wastes, as defined by Part 111 of Act 451 or the Resource Conservation and Recovery Act of 1976, as amended (RCRA).

8. This Approval does not preclude GMC-DILS from disposing of the Delisted Material in accordance with Part 111 of Act 451 at a properly licensed hazardous waste treatment, storage, or disposal facility or at an out-of-state facility in accordance with RCRA and that state's applicable regulations.

9. GMC-DILS shall maintain copies of disposal records and all waste analysis records showing the disposal location and the amount of Delisted Material disposed for three years after the last shipment is disposed. These records must be available for inspection.

10. Violations of this Approval are subject to the enforcement provisions of Part 111 of Act 451 and RCRA and other applicable laws. Moreover, the Director may amend or revoke this Approval in accordance with the requirements of R 299.9211(2) of Part 111 of Act 451.

11. The Delisted Material shall be properly stored and contained after excavation while at the GMC-DILS facility awaiting transportation offsite.

12. If additional remedial activities produce more material than the 65,000 cubic yards identified in the Delist Petition, GMC-DILS may petition the Director to amend this Approval. The petition must include information necessary to justify the inclusion of the additional material.

13. Nothing in this Approval shall affect or limit the Department of Environmental Quality's ability to bring any claim, causes of actions or take administrative or judicial action allowed by law against any party.

The effective date of the Approval is the date signed by the Director below.

State of Michigan
Department of Environmental Quality

Russell J. Harding, Director

Date: 2/7/96

Soil Analytical Results
GM-ITG
Flint Cultivator Plant
Flint, Michigan

APPENDIX A
Page 1

Analytical Parameter	Analytical Method									

Analytical Parameter	Analytical Method									

Analytical Parameter	Analytical Method									

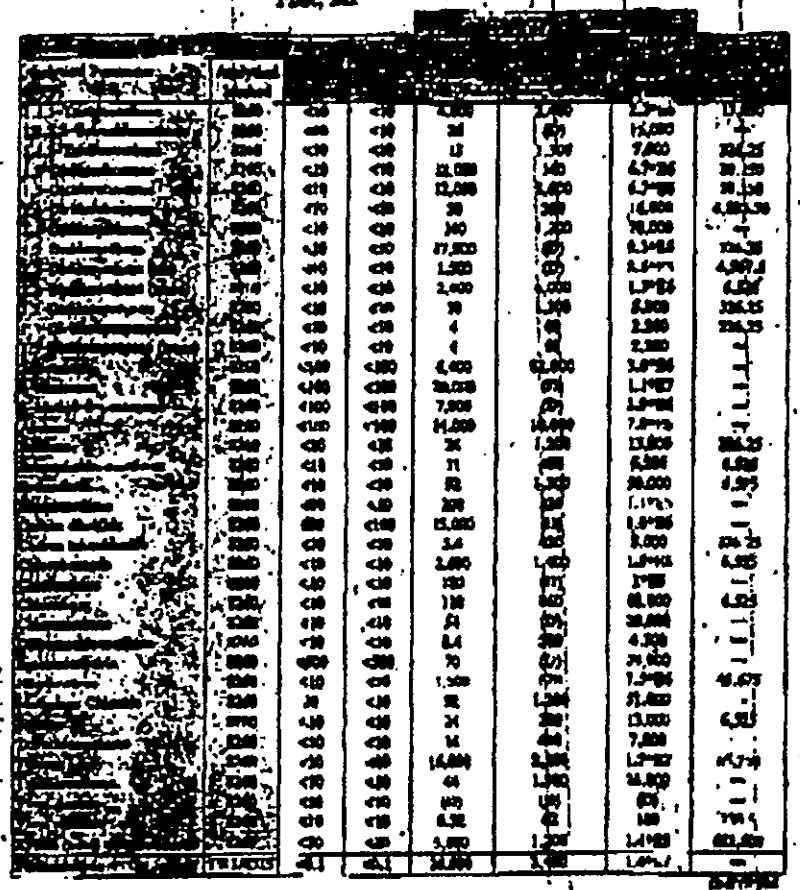
Notes:

1. Sample concentrations shown in parts per million (mg/kg).
2. Samples analyzed by Clayton Environmental Consultants, of Novi, Michigan.
3. Ignitability concentrations are shown in degrees Fahrenheit.
4. RCRA analytical threshold concentrations for characteristic of hazardous waste per 40 CFR 261.20 through 261.24
5. Samples collected on November 10 and 11, 1994.
6. Chemistry concentrations are shown in ppb.
7. "NA" denotes not applicable.

GM/CPTRS

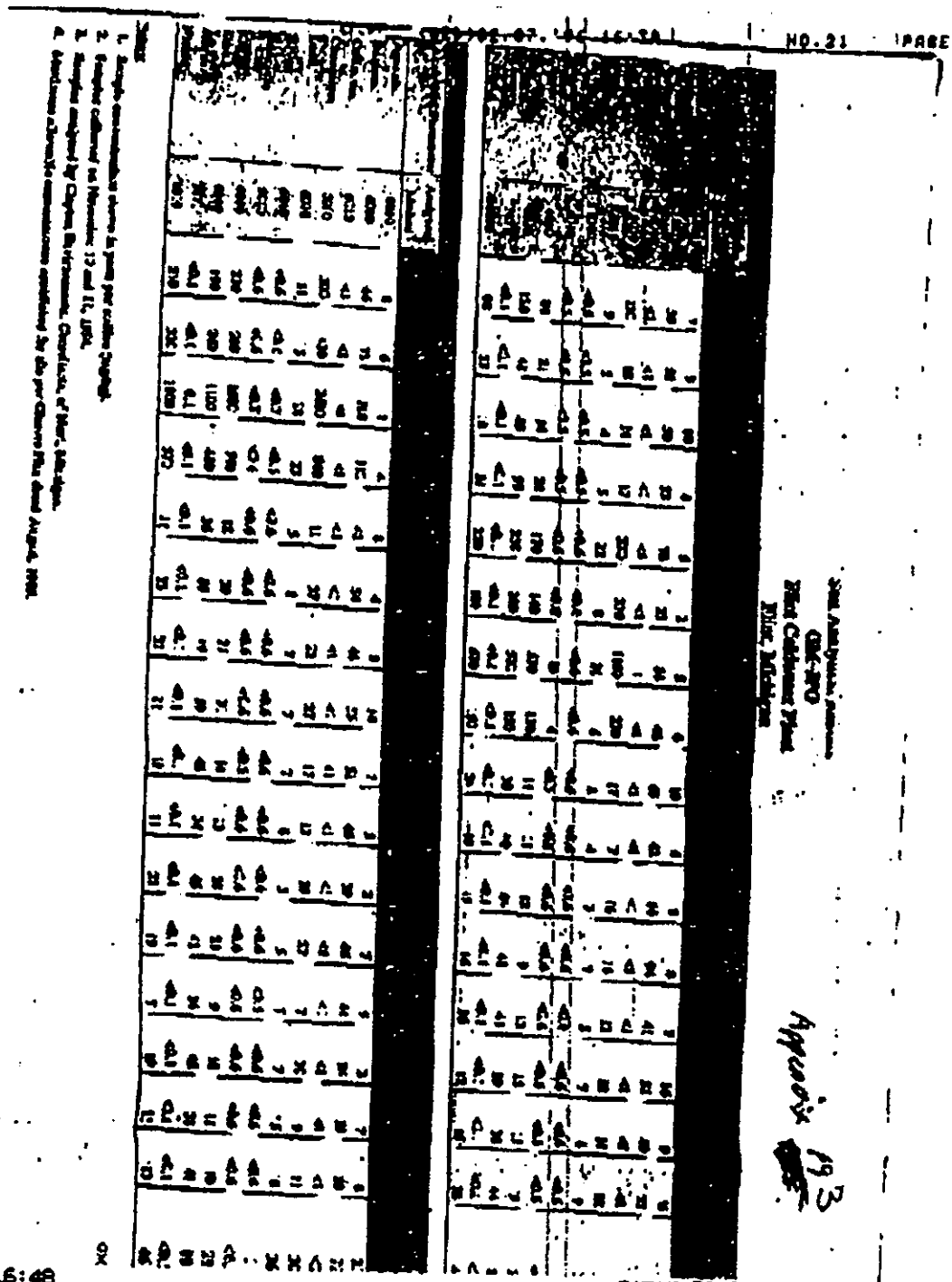
Soil Analytical Results
GM-IPG
Flint Coldwater Plant
Flint, MI

APPENDIX A
Page 2

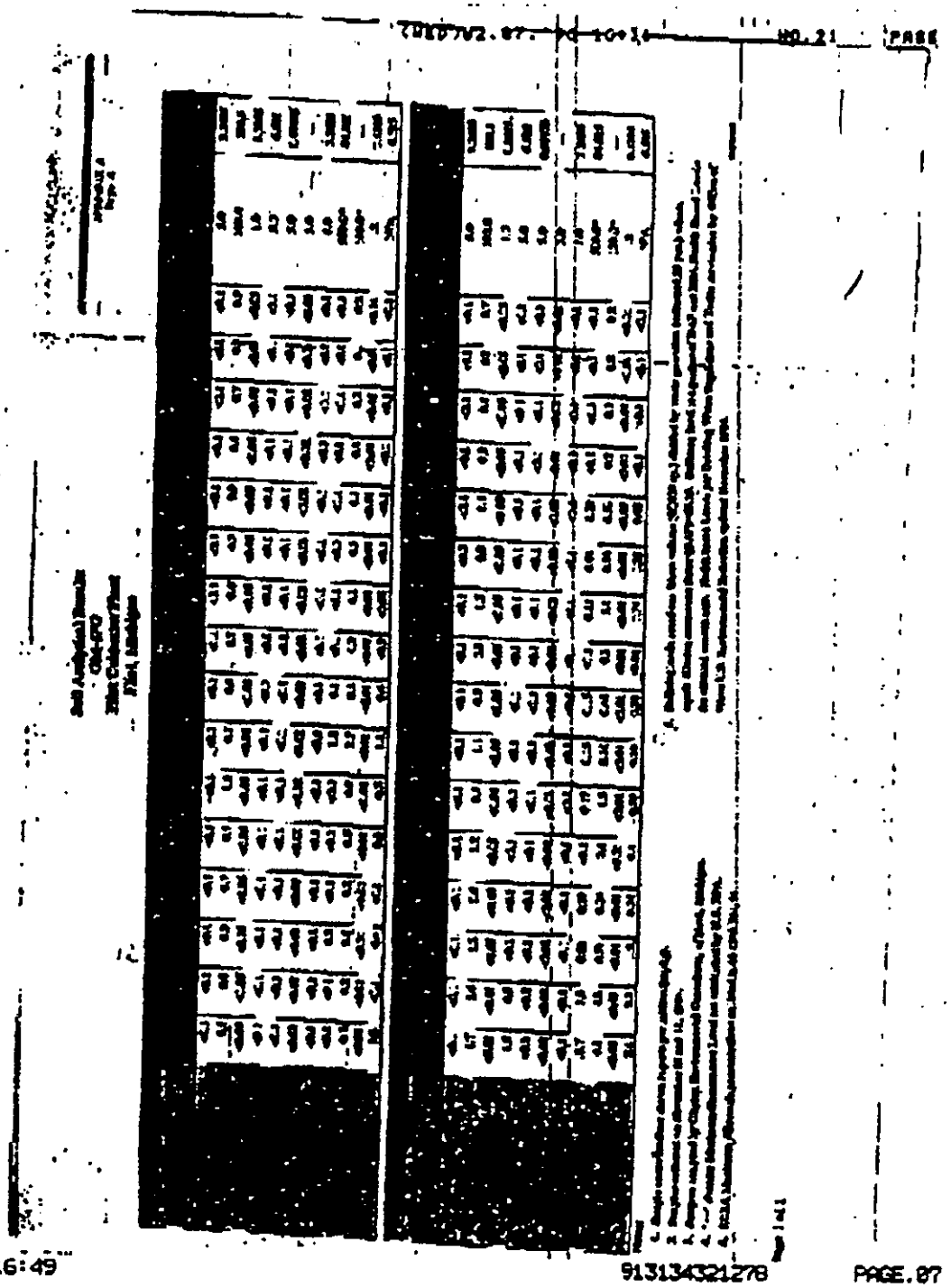


Notes:

1. Sample concentrations shown in parts per billion (ug/kg).
2. Samples collected on November 10 and 11, 1994.
3. Formaldehyde samples collected on November 30, 1994.
4. Samples analyzed by Clayton Environmental Consultants, of Novi, Michigan.
5. * - Action Maximum Contaminant Level not established by U.S. EPA.
6. MDNR Type B cleanup criteria as listed in MDNR (1990) Measurement Procedure 5, pursuant 1982 P.A. 307 Rules.
7. "ND" denotes chemical has not been observed or on toxicogenic database precluding the development of a CRF value.
8. Reference levels based on Water volume (85,000 cu.) divided by waste generation (estimated 30yrs) which equals dilution attenuation factor (DAF)=85.33. Reference level is a product of DAF and Safe Health Based Levels for chemical constituents. Health Based Levels per Standard Water Regulations and Health Advisories by Office of Water, U.S. Environmental Protection updated November 1994.



Appendix 19.3



GM Delphi
Flint Coldwater Road Plant
Flint, Michigan
Chromium TCLP Concentrations and UCL Results

APPENDIX A
Page 5

Location	Xi	Yi
GM1	1.8	0.59
GM2	0.8	-0.22
GM3	0.1	-2.30
GM4	0.1	-2.30
TCLP#2 13		
MBW6 dismo LF	1.33	0.28
Decon#1 BOB-LF	0.88	-0.13
MBW2 dismo BOB	0.6	-0.51
TCLP #202	0.46	-0.78
	0.32	-1.14

Mean	X	0.73		-1.08
Standard deviation	S_X	0.56		1.37
Standard error	SE(X)	0.19		
UCL	normal	1.08	log normal	2.92

GM4PBCSMDUCL

Notes:

1. Samples GM-1 through GM-4 collected on November 10 and 11, 1994.
2. Sample TCLP#2-13 collected on November 7, 1991, sample MBW2 dismo LF collected on August 6, 1991, sample Decon#1 BOB-LF collected on August 6, 1991, sample MBW2 dismo BOB collected on August 6, 1991, and sample TCLP #202 collected on August 30, 1991.
3. Xi = TCLP Chromium Results.
4. Yi = ln(Xi)

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

RUSSELL J. HARDING, Director

REPLY TO:
WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

February 16, 1996

Mr. Robert S. Metcalf, P.E.
Project Manager, Flint Projects
Remediation Team
General Motors Corporation
CLCD North
902 East Hamilton Avenue
Flint, Michigan 48550-8504

Dear Mr. Metcalf:

SUBJECT: General Motors Corporation (GMC)
Delphi Interior & Lighting Systems
Coldwater Road Facility; MID 005 356 860

The Michigan Department of Environmental Quality (MDEQ) Waste Management Division (WMD), has completed its review of the work plan GMC submitted to the WMD on February 15, 1996, to address the procedures for the excavation and removal of the delisted material at the site. This workplan was submitted in accordance with the workplan approved on November 14, 1994. Based on this review, the MDEQ hereby approves the work plan, subject to the enclosed modifications, "Modifications For Work Plan Approval." The rationale for each modification is also provided.

In accordance with Paragraph 32.A of the Corrective Action Consent Order (CACO) (WMD Order No. 64 05 92), the modified work plan is the approved work plan. Pursuant to Paragraph 32.A of the CACO, the approved work plan and its modifications shall be deemed incorporated into and an enforceable part of the CACO.

Failure to implement the approved work plan may subject the company to stipulated penalties pursuant to Section XVI of the CACO.

If you have any questions or comments, please contact Ms. Angela Hahn at Waste Management Division, Department of Environmental Quality, P.O. Box 30241, Lansing, Michigan 48909, or at telephone number 517-373-7738.

Sincerely,

Jim Sygo, Chief
Waste Management Division
517-373-9523

Enclosure
cc: Mr. William Ayre, Genesee Township Supervisor
Mr. Robert Teoh, MDEQ
Ms. Elizabeth Browne/Mr. William Yocum, MDEQ-Shiawassee
Ms. JoAnn Merrick, MDEQ
Mr. Steve Buda, MDEQ
Ms. De Montgomery, MDEQ
Mr. Dave Slayton/Ms. Jan Sealock, MDEQ
Ms. Angela Hahn, MDEQ
HWP/C&E File

Modifications for Work Plan Approval

GMC-Delphi Interior & Lighting Systems
1245 E. Coldwater Rd.
Flint, Michigan
February 16, 1996

MID 005 356 860

1. Section 7 of the workplan mentions the possibility that on-site activities will be postponed until December 1996 or January 1997. If the removal of the delisted material takes more than 180 days from the date GMC receives approval for delisting the material in Utah, GMC must request a modification to the workplan approved on November 14, 1994 and describe why this modification is necessary.

   This modification is necessary to comply with the workplan approved on November 14, 1994.

2. If trackout onto adjacent public road(s) by traffic from the excavation or removal activities at the site results in significant dust emissions, the adjacent public roads must be cleaned.

   This modification is necessary to prevent dust emissions from impacting the public.

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

4146.067 #2

Cc: SJA, AJF, TLW, WV, SLY, SEB

Ref. to SLC

RECEIVED

JUL 0 1 1998

O'BRIEN & GERE ENGINEERS, INC.
NOVI, MI 48375

June 26, 1998

Mr. Robert S. Metcalf, P.E.
General Motors Corporation
Worldwide Facilities Group
Mail Code 485-185-020
902 East Hamilton Avenue
Flint, Michigan 48550-8502

Dear Mr. Metcalf:

SUBJECT: Closure Plan Modification Approval for General Motors Corporation (GMC)- Coldwater Road Facility, Flint, Michigan; MID 005 356 860

The Department of Environmental Quality (DEQ), Waste Management Division (WMD), has completed its review of the closure plan modification requests for the subject facility submitted on April 23, 1997 and October 30, 1997, by O'Brien & Gere Engineers, Incorporated on behalf of GMC.

Based on this review and the fact that no significant comments were received during the public comment period, the DEQ hereby approves the closure plan modifications subject to the attached "Conditions for Closure Plan Modification Approval." The rationale for each modification is also provided. In accordance with Title 40 of the Code of Federal Regulations (CFR) §265.112(d)(4), which is adopted by reference in R 299.11003 of the administrative rules promulgated under Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the modified closure plan is the approved closure plan.

If GMC wishes to deviate from the approved closure plan in any way, the modifications must be approved by the DEQ in advance, in writing. Formal procedures and substantive criteria for amending closure plans are established in 40 CFR §265.112(c), which is adopted by reference in R 299.11003. The regulations stipulate that a modification to an approved closure plan be requested, in writing, and be proposed:

- Sixty days prior to a proposed change in facility design or operation;
- Within 60 days after an unexpected event that has affected the closure plan; and/or
- Within 30 days after an unexpected event during the closure period.

All closure plan amendments must be approved by the DEQ prior to implementation by GMC.

Closure of interim status units does not release the company from any plant-wide corrective action responsibilities it may have under the federal Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act of 1976.

If you have any questions, please contact Ms. Kimberly M. Tyson of the Hazardous Waste Program Section, Waste Management Division, at 517-373-2487, or you may contact me.

Sincerely,

Jim Sygo, Chief
Waste Management Division
517-373-9523

Enclosure

cc/enc: [redacted]
Mr. Steve Buda, DEQ
Ms. Elizabeth Browne/Mr. Bill Yocum, DEQ-Shiawassee
Ms. De Montgomery/Mr. Dave Slayton, DEQ
Ms. Kimberly M. Tyson, DEQ
HWP/C&E File

Michigan Department of Environmental Quality
Waste Management Division

CONDITIONS FOR CLOSURE PLAN MODIFICATION APPROVAL

General Motors Corporation - Coldwater Road Facility
Flint, Michigan
MID 005 356 860

June 26, 1998

The following conditions and the closure plan modification submittals dated April 23, 1997 and October 30, 1997, constitute the approved closure plan.

1. General Motors Corporation (GMC) shall place a notification on the deed of the facility that informs future landowners of conditions or considerations of soil restrictions or soil relocation. Such a notification is identified in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, as a "Notice of Approved Environmental Remediation." This notification is not a restrictive covenant, but it is a mechanism that identifies potential site restrictions. This mechanism shall be filed with the local zoning agency following the Department of Environmental Quality's approval of the mechanism. In addition, if GMC has a corporate site access plan to mark out buried utilities (to prevent damage by excavation, trenching, drilling, etc.), the Remaining Materials Area shall be included in that plan.

   This modification is necessary to foster consistent communications regarding the condition of the site.

2. Groundwater monitoring of the Remaining Materials Area shall be conducted for one year on a quarterly basis. At the end of one year, GMC must submit a report for Waste Management Division review and approval that includes a proposal to either continue or terminate the groundwater monitoring.

   This modification is necessary for protection of human health and the environment.

APPENDIX E

GM Letter Requesting Termination of Ground Water Monitoring

SLL

KFG-pds log-in, #7 4144.007 #2

CC: AJF, WVD, S.

General Motors Corporation
Worldwide Facilities Group
Environmental & Regulatory Support
Remediation Team

RE...

...1999

O'BRIEN & GERE ENGINEERS INC
...

July 28, 1999

Mr. David Slayton
Michigan Department of Environmental Quality
Waste Management Division
608 W. Allegan
P.O. Box 30241
Lansing, MI 48909

Subject: Request to Terminate Groundwater Monitoring in the Remaining Materials Area
MID 005 356 860

Dear Mr. Slayton:

General Motors Corporation (GMC), has completed groundwater monitoring of the Remaining Materials Area (RMA), as required by the Conditions For Closure Modification Approval, dated June 26, 1998. Three quarters of sampling for monitoring B-25 and four quarters of sampling for monitoring well B-26 were conducted by ATC Associates Inc. (ATC) with the results summarized in the Annual Report, Post Closure Groundwater Monitoring, dated February 19, 1999. A fourth sample for monitoring well B-25 was collected, along with groundwater elevation data for both monitoring wells B-25 and B-26 by O'Brien & Gere Engineers Inc. (O'Brien & Gere), and will be summarized in the Semi-Annual Report, Post Closure Groundwater to be submitted in July of 1999

Samples were collected between November 11, 1997, and November 5, 1998 by ATC, and on April 26, 1999 by O'Brien & Gere. Samples were sent to Fire and Environmental Consulting Laboratories, Inc. (FECL) for laboratory analysis. Analytical results for samples collected from the two monitoring wells (B-25 and B-26) in the RMA (point of compliance) were below the Site Specific GSI Type B Criteria, for the parameters listed in the Closure Plan Modification Request, Notice of Deficiency, dated September 23, 1997. Additionally O'Brien & Gere evaluated the groundwater elevations taken on April 26 (table of elevations attached) and generated a Shallow Groundwater Flow Potentiometric Map (attached) that indicates a Northwest flow direction similar to the groundwater flow direction contour map provided in the Closure Plan Modification request.

Based on the reported analytical results, and direction of apparent groundwater flow, GMC is requesting that sampling of the monitoring wells B-25 and B-26 be terminated as part of the ongoing corrective action, with the remaining post-closure detection monitoring continuing on a semi-annual basis in accordance with the approved closure plan. Monitoring wells B-25 and B-26 will be properly decommissioned after written receipt of your approval to terminate sampling activities. Additionally GMC will be decommissioning the following unused monitoring wells:

B1A, B1B, B1C, B1D, B1E, B2A, B2B, B2E, B2F, B2G, B4, B5, B6A, B8, B10, B10A, B11, B12, B15A, B16A and an additional deep well located in the RMA.

The procedure for decommissioning will be to overdrill, remove well materials and pressure grout through the augers those wells which are installed to a depth of less than or equal to 30 ft below grade (fbg). Wells installed to a depth greater than 30 fbg will have well materials pressure grouted in place. Both methods of decommissiong are acceptable per ASTM D 5299-92. A Monitor Well Location Plan is attached for your reference.

If there are any questions please contact me at (810)236-0300.

Sincerely,

Robert S. Metcalf, P.E.
Project Manager

cc: file
Mr. Scott L. Cormeir, P.E. - O'Brien & Gere Engineers

Groundwater Elevation Data
April 26,1999

Well I.D.	Top of Casing Elevation (ft)	Depth to Water (ft)	Static Water Elevation (ft)
B-7	815.24	27.35	787.89
B-9	809.17	4.58	804.59
B-14	811.62	6.58	805.04
B-18A	812.36	28.92	783.44
B-19A	813.81	dry	dry
B-24	817.31	27.51	789.80
B-25	803.10	18.23	784.87
B-26	807.13	dry	dry

APPENDIX F

Waste Manifest Summary Table

Rail Movement – Log Sheet, Special Projects

Generator:	Delphi Interior Lighting
Origin:	City: Flint State: MI
Destination:	City: East Carbon State: Utah
Loading Date:	

CTRN 44920
DRGW 16485
~~BN 4423~~
DRGW 406845

Page : of

Project Number:	
Project Start Date:	5-26-96
Project Complete:	Yes: No:
Cost per Ton:	
Min. Weight:	

Rail Car Number	Manifest Number	Equipment Type	Date Spotted	Date Released	Weights Gross	Tare	Net	Tons	For Accounting Use Only: Rail Co.	Inv Date	Inv. No.	Inv. Amt	Date Pd
CTRN 44865	00001		5-28	5-28	256700	65700	191000	95.5					
CTRN 44816	00002				245200	61800	183400	96.2					
DRGW 16776	00003				257800	61200	196600	98.3					
BN526938	00004				251000	62000	189000	94.5					
DRGW 16668	5				256500	61400	190600	95.3					
CTRN 44777	6				258300	65900	192400	96.2					
BN526941	7				252700	59900	192800	96.4					
DRGW 16909	8				256800	61800	195000	97.5					
CTRN 961	9				252100	59700	192400	96.2					
UP 39421	10				258700	64300	194400	97.2					
HMJX 87320	11				254500	61100	193400	96.7					
DRGW 41005	12				256000	61000	195000	97.5					
HMJX 87405	13				249700	59300	190400	95.2					
DRGW 40580	14				260200	64800	195400	97.7					
BN528002	15				256000	61400	194600	97.3					
CTRN 957	16				253600	60200	193400	96.7					
CTRN 44386	17				259000	65000	194000	97					
GCCX 90137	18				252700	60700	192000	96					
BN526760	19				250600	60300	190200	95.1					
BN526920	20				253700	60500	193200	96.6					
CTRN 1041	21				252300	60300	192000	96					
BN527252	22				252600	59600	193000	96.5					
DRGW 16818	23		2-29	2-29	254900	61500	193400	96.7					
BN527144	24				254400	60400	194000	97					
DRGW 16739	25				254700	61300	193400	96.7					
BN526640	26				252800	60400	192400	96.2					
CR489030	27				260200	67800	192400	96.2					
BN526506	29				261500	69700	191800	95.9					
CSXT 92384	30				252800	57300	195000	97.5					
CTRN 993	31				251200	59700	191400	95.7					
BN527192	32				255000	59800	195200	97.6					
BN528049	33				253900	60700	193200	96.6					
CTRN 1045	34				255400	60400	195000	97.5					

Rail Cars This Sheet:
Total Rail Cars to Date:

Tons This Sheet:
Total Tons to Date:

Rail Movement -- Log Sheet, Special Projects

Page : of

Generator:	Delphi Interior Lighting		
Origin:	City: Flint	State: MI.	
Destination:	City: East Carbon	State: Utah	
Loading Date:	29 Feb		

Project Number:	
Project Start Date:	2-26-96
Project Complete:	Yes: No:
Cost per Ton:	
Min. Weight:	

Rail Car Number	Manifest Number	Equipment Type	Date Spotted	Date Released	Weights Gross	Tare	Net	Tons	For Accounting Use Only Rail Co.	Inv Date	Inv No.	Lbs Amt	Date Pd
CTRN 44865	00001		2-28	2-28	266700	65700	191000	95.5					
CTRN 44816	00002				245900	61800	192400	96.2					
DRGW 16776	00003				257800	61200	196600	98.3					
BN526938	00004				251000	62000	189000	94.5					
DRGW 16668	5				256500	61400	190600	95.3					
CTRN 44777	6				258300	65900	192400	96.2					
BN526941	7				262700	59900	192800	96.4					
DRGW 16909	8				266800	61800	195000	97.5					
CTRN 961	9				253100	59700	193400	96.2					
UP 39421	10				258700	64300	194400	97.2					
HMJX 87320	11				254500	61100	193400	96.7					
DRGW 41005	12				256000	61000	195000	97.5					
HMJX 87405	13				249700	59300	190400	95.2					
DRGW 40580	14				260200	64800	195400	97.7					
BN528007	15				256000	61400	194600	97.3					
CTRN 957	16				253500	60300	193200	96.6					
CTRN 44386	17				259000	65000	194000	97					
GTCX 90127	18				252700	60700	192000	96					
BN526760	19				250600	60300	190200	95.1					
BN526920	20				253700	60500	193200	96.6					
CTRN 1641	21				252300	60300	192000	96					
BN527257	22				252600	59600	193000	96.5					
DRGW 16818	23		2-29			61500							
BN527144	24					60400							
DRGW 16739	25					61300							
BN526640	26												
	27												
	28												
	29												
	30												
	31												
	32												
	33												
	34												
Rail Cars This Sheet:							Tons This Sheet:						
Total Rail Cars to Date:							Total Tons to Date:						

...il Movement -- Log Sheet, Special Projects

Generator:	Delphi Interior Lighting		
Origin:	City: Flint	State: MI	
Destination:	City: East Carbon	State: Utah	
Loading Date:			

Page ... of

Project Number:	
Project Start Date:	2-26-96
Project Complete:	Yes: No:
Coal per Car:	
Min. Weight:	

Rail Car Number	Manifest Number	Equipment Type	Date Spotted	Date Released	Weights Gross	Tare	Net	Tons
CTRN 45066	35		2-29	2-29	257600	65200	192400	96.2
CTRN 722	36				196400	60000	196400	95.2
DRGW 40422	37				254700	61100	193601	96.8
DRGW 12743	38				253800	64200	189600	94.8
DRGW 12350	39				255300	61900	193400	96.7
DRGW 40645	40				267000	61600	195400	97.7
DRGW 40850	41				252500	61300	191200	95.6
DRGW 40709	42				256200	61600	194600	97.3
DRGW 40839	43				252800	61400	191400	95.7
DRGW 19891	44				256100	61900	194200	97.1
DRGW 495039	45				258300	64300	194000	97
CTRN 925	46				256400	60400	195000	97.6
BN 526549	47				253900	61100	192800	96.4
BN 529521	48				254200	60200	194000	97
BN 527415	49				251400	59800	191600	95.8
DRGW 40689	50				252700	62900	189800	94.9
DRGW 16555	51				253700	63100	190600	95.3
BN 451350	52				257800	65400	192700	96.4
DRGW 16917	53				260220	62200	195000	97.5
BN 527058	55				199000	60000	193000	96.5
BN 526447	56				253000	59800	193200	96.6
DRGW 19015	57				254700	61700	193000	96.5
DRGW 19137	58				256500	62300	194200	97.1
DRGW 19163	59				255000	63000	192000	96
DRGW 16485	60				256400	62000	194400	97.2
DRGW 40853	61				256800	62000	194800	97.4

Rail Movement — Log Sheet, Special Projects

15

Generator:	Delphi Interstate Lighting
Origin:	City: Flint State: MI
Destination:	City: East Carbon State: Utah
Loading Date:	

Project Number:
Project Start Date: 2-26-96
Project Complete: Yes: No:
Coal Test Run:
Min. Weight:

Rail Car Number	Manifest Number	Equipment Type	Rail Shipper	Date Released	Gross	Tare	Net	Tons	For Accounting Use Only
DRGW 19484	93		3-1			62,900		96.1	
16477	98		3-1			62,200		97.7	
CTRN 44988	99		3-1			65200		95.9	
BN 529501	100					59,700		96.1	
527295	101					59900		96	
DRGW 7008	102					55200		97.2	
40805	97					62400		97.9	
19788	94					61200		95.2	
BN 551066	63								
DRGW 16921	64					63,700		97.4	97
CSXT 803456	65					58200		96.5	
DRGW 19653	66					62300		97.7	
9222	67					59100		97.7	
SPSF 480185	68					55000		97.2	
DRGW 19729	69					61200		97.1	
19761	70					62000		98.0	
19460	71					63400		95.8	
CTRN 568	72					60100		97.8	
45000	73					66200		88.0	
DRGW 19662	74					61200		96.0	
16715	75					61900		98.3	
12814	95					64200		95.3	
16716	96					63200		96.4	
BN 527059	69					59900		97.7	
DRGW 12807	76					63100		95.4	
DRGW 16531	77					62200		97.1	
CTRN 45948	78					63200		98.6	
DRGW 19379	79					64,000		97.1	
PRAX 1537	80							98.3	
DRGW 19783	81					61600		95.3	
DRGW 16939	82					63600		96.3	
BN 526473	83					61800		96.3	
DRGW 16672	84					62400		96	
								96.6	

Total This Sheet:
Total This Project:

Movement — Log Sheet, Special Projects

Generator:	Delphi Interior Lighting		
Origin:	City: Flint	State: MI	
Destination:	City: East Carbon	State: Utah	
Loading Date:			

Page: of

Product Number:	
Product Start Date:	
Product Complete:	
Gross Wt. Limit:	
Min. Weight:	

Yes: No:

Rail Car Number	Manifest Number	Equipment Type	Empty Shipped	Empty Delivered	Gross	Tare	Net	Tons	Rail Co.	Est. Arrival Date	Est. Arrival Time	Unit Off Date	Unit Off Time
BN 522015	85		3-1-96	3-1-		60400		98.4					
GCBX 90128	86					62600		95.8					
BN 527423	87					60160		95					
527003	88					60100		95.6					
526242	89					59600		95.3					
CTN 1332	90					60700		97					
[illegible]	91					59400		97.7					
DRGW 12397	92					62800		96.6					

Rail Cars this Sheet:
Total Rail Cars to Date:

Total Tons:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Interior Lighting
ORIGIN: CITY: Flint STATE: MI
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthon
LOADING DATE: 3 17 96
WASTE STREAM:

P
PROJECT NUMB
PROJECT START
PROJECT COMP

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	IN
CTRN 44920	10103			3-9-96	3-7-96	258600	65800	192800	96.4		
CO 356447	00104					253000	68000	185000	92.5		
CSXT 705807	105					250700	68700	182000	91.		
CSXT 421837	106					249500	70100	179400	89.7		
CSXT 707913	107					251400	70400	181000	90.5		
481871	108					253400	70400	183000	91.5		
705005	109					247000	68200	180800	90.4		
703304	110					187280	68800	180400	90.2		
SXL 707258	111					251100	68500	182600	91.3		
700845	112					251300	68900	182400	91.2		
B/O 357376	113					251300	68900	182400	91.2		
SXT 701659	114					250300	68500	181800	90.9		
B/O 350301	115					253600	70600	183000	91.5		
SXT 704598	116					251300	67700	183600	91.8		

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
NOTES:

TONS THIS SHEET:
TOTAL TONS TO DATE: 1280.1
10,933.3 Tons.

RA_ MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Interior/Lighting System
ORIGIN: CITY: Flint STATE: MI
DESTINATION: CITY: East Carbon, Utah STATE:
PROJECT COORDINATOR/ DISPATCHER: Anthoney Richards
LOADING DATE: / /
WASTE STREAM:

PROJECT NUM
PROJECT STA
PROJECT CON

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FO RAIL CO.
CSXT 705525	00117			3-11-96		249400	67600	181800	90.9	
C/J 351404	00118					251200	70200	181000	90.5	
B/O 356600	119					248400	68400	180000	90	
CSXT 708359	120					253200	70600	182600	91.3	
SBD 481641	121					254900	70300	184600	92.3	
B/J 357171	122					247600	68000	179600	89.8	
CSXT 708576	123					253300	70300	183000	91.5	
B/J 350315	124					252800	70300	182000	91.	
DRGW 706567	125					255200	61200	194000	97	
13339	126					250700	58700	192000	96	
700800	127					254100	61100	193000	96.5	
900281	128					255100	61100	194000	97	
900923	129					253600	61200	192400	96.2	
900214	130					255200	61000	194200	97.1	
900770	131					253000	61400	191600	95.8	
CSX 9328	132					241200	47300	194006	97	

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
TONS THIS SHEET:
TOTAL TONS TO DATE:
NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

43/63

GENERATOR: Depleted Uranium Hexafluoride Conversion Project
ORIGIN: CITY: Fluor STATE: AZ
DESTINATION: CITY: E. Carbon STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PA
PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	FOR INV
GECX 9314	00133			3-11-96	3-11-96		46600	96.3			
DRGW 40151	00134						63400	96.7			
DRGW 7006	135						56700	96			
7105	136						57000	97			
7066	137						58600	95.6			
19511	138						61800	97.4			
19331	139						62200	96.5			
SFIX 959	140						58200	97.2			
1183	141						58100	97.9			
1215	142						58200	97.6			
874	143						58300	97.6			
DLRX 51611	144						60200	96.8			
51623	145						60100	98			
SFIX 897	146						58400	95.8			
DRGW 40332	147						62300				
7053	148						59700				

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
TONS THIS SHEET:
TOTAL TONS TO DATE:
NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

PA

GENERATOR: Delphi Interior Lighting Systems
ORIGIN: CITY: Flint STATE: MI
DESTINATION: CITY: E. Carbon STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: ANFinnie X Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR / RAIL CO.	INV
GECX 9314	00133			3-11-96	3-11-96		46600	96.3			
DRGW 40151	00134						63400	96.7			
DRGW 7006	135						56700	96			
7005	136						57000	97			
7006	137						58600	95.6			
19511	138						61800	97.4			
19331	139						62200	96.5			
GFIX 959	140						58200	97.2			
1183	141						58100	97.9			
1215	142						58200	97.6			
874	143						58300	97.6			
DLRX 51611	144						60200	96.8			
51623	145						60100	98			
GFIX 397	146						58400	95.8			
DRGW 41322	147				3-12-96		62300	97.4			
7053	148						59700	98.1			

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:

TONS THIS SHEET:
TOTAL TONS TO DATE: 1551.9

NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

PA

GENERATOR: Delphi Interior/Lighting System
ORIGIN: CITY: Flint STATE: MI
DESTINATION: CITY: E. Carbon STATE: UTAH
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	INV
SFIX 1280	00149			3-11-96	3-12-96		58900		98.1		
HJVX 140315	00150						59600		97		
SFIX 1116	151						58400		97.1		
1010	152						58100		95.4		
933	153						58300		98		
1199	154						58300		98.2		
1135	155						58200		98.5		
742	156						58600		97.9		
797	157						58400		97.7		
999	158						58200		97.3		
HJVX 140308	159						57900		96.7		
SFIX 740	160						58600		98.3		
DRGW 900354	161						61100		98		
SFIX 1313	162						58400		97		
HJVX 140280	163						59000		97.7		
140282	164						59300		98.3		

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:

TONS THIS SHEET:
TOTAL TONS TO DATE: 1561.3

NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Saginaw Steering
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUMBER:
PROJECT START:
PROJECT COMP:

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO. IN
SFIX 1252	00165			3-11-96	3-12-96			58800	98.3	
HJVX 140287	00166							59100	98.7	
SFIX 1297	00169							58300	98.6	
SFIX 1119	168							58200	98.8	
1038	169							58200	96.7	
834	170							58200	97	
1182	171							58300	98.3	
1255	172							58800	98.4	
896	173							58300	96.5	
830	174							58000	97	
819	175							58000	98.4	
779	176							58700	96	
HJVX/140222	177							58800	96.	
SFIX 873	178							58300	97.4	
626	179							58400	98.6	
DRGW 12176	180			3-11-96	3-12-96			61600	97.3	

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE: 146229
TONS THIS SHEET:
TOTAL TONS TO DATE: 1562

NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Interior Lighting
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUM
PROJECT STA
PROJECT CON

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	RAIL CO.
DRGW 16182	00181			3-12-96	3-12-96		62700		96.3	
DRGW 19172	00182						63300		97	
DRGW 12717	183						63300		97.5	
12375	184						62700		97	
SFIX 811	185						58400		98	
1051	186						58100		98	
685	187						58200		97.5	
DLRX 51641	188						60300		96.4	
SFIX 960	189						58100		98.1	
801	190						58200		98.2	
1239	191						58300		96	
715	192						58400		98	
1972	193						58500		96.9	
1145	194						58000		99	
1320	195						58100		97.7	
SFIX 641	196			3-12-96	3-12-96		58000		98	

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
TONS THIS SHEET:
TOTAL TONS TO DATE: 1559.6
NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Saginaw Plant 10
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER:
LOADING DATE: / /
WASTE STREAM:

PROJECT NUM
PROJECT STAR
PROJECT COM

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	WEIGHTS TARE	WEIGHTS NET	TONS	FOR RAIL CO.	IN
SFIX 1069	00197			3-12-96	3-15-96		58000		98		

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
TONS THIS SHEET:
TOTAL TONS TO DATE:
NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi interior lighting
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUM
PROJECT STAR
PROJECT COM

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	RAIL CO.
SFIX 1150	00198			3-13-96	3-13-96		57900		97.4	
1266	00 199						58400		97.1	
1134	00 200						58000		97.4	
658	201						58300		98.7	
1241	202						57800		97.1	
713	203						58200		98.7	
1197	204						58000		97.1	
1085	205						58000		97.8	
855	206						58200		95.2	
1097	207						57900		98.4	
1139	208						58300		98.7	
931	209						58200		98.3	
1125	210						58200		96.2	
630	211						58400		99.2	
1089	212						58300		96.7	
666	213			3-13-96	3-13-96		58500		97.7	

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
TONS THIS SHEET:
TOTAL TONS TO DATE: 1562.7
NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Mission Flying Hill
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NU
PROJECT ST
PROJECT CO

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	OWNER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	RAIL CO.
SFIX 1092	00214			3-13-96	3-13-96		58000		97.7	
SFIX 725	00215						58700		98.7	
HJUX 140220	216						59300		97.8	
140219	217						59600		98.3	
SFIX 1232	218						57700		98.4	
1144	219						58200		99.4	
1181	220						58000		97.2	
600	221						58400		96.8	
DLRX 51668	222						60100		98.2	
51666	223						60300		97.1	
51679	224						59600		98.4	
51626	225						59700		98.6	
51628	226						60200		98.5	
51698	227						57800		97.3	
51636	228						60300		96.3	
51661	229			3-13-96	3-13-96		60300		96.6	

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
NOTES:

TONS THIS SHEET:
TOTAL TONS TO DATE: 1565.7

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

GENERATOR: Delphi Mission Lighting
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

P/
PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	INV
SFIX 1189	00230						58200		98.3		
DIRX 51700	00231						60100		95.5		
DIRX 51612	232						60700		96.3		
SFIX 941	233						58100		98.7		
683	234						58300		97.2		
722	235						58300		97.2		
DGRW 16749	236						62800		96.9		
16766	237						62200		97.7		
SFIX 796	238						53400		97.5		
1034	239						58000		98.2		
DLRX 51637	240						60300		97.4		
DRGW 19165	241						61800		90.5		
40880	242						61300		96.5		
12233	243						61300		98.5		
CTRN 770	244						59900		95.3		
DRGW 40628	245						61500		95.3		

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:
TONS THIS SHEET:
TOTAL TONS TO DATE: 1548.3
NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

PA

GENERATOR: Delphi Interior / Lighting
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthoney Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	OWNER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	INV
SFIX 826	00246			3-13-96	3-13-96		58100		98		
952	00247						58300		98.3		
DLRX 51401	00248						60200		97.2		

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:

TONS THIS SHEET:
TOTAL TONS TO DATE: 293.5

NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

PA

GENERATOR: Delphi interior lighting
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER: Anthony Richardson
LOADING DATE: / /
WASTE STREAM:

PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	FOR INV
SFIX 265	00248			3-14-96	3-14-96		58700		98		
1177	249						58100		98.7		
HJUX 140310	251						59800		96.4		
140302	252						59400		98.5		
140301	253						59800		97.1		
140298	254						59500		98.4		
SFIX 1095	255						57900		97.2		
671	256						58400		98.9		
SFIX 1000	257						58400		97.7		
1175	258						58200		97.4		
595	259						58200		96.7		
1148	260						58200		98.6		
1009	261						58100		97.4		
1094	262						58100		99.3		
1226	263						58200		98.9		
SFIX 910	264			3-14-96	3-14-96		58300		99.3		

RAIL CARS THIS SHEET:
TOTAL RAIL CARS TO DATE:

TONS THIS SHEET:
TOTAL TONS TO DATE: 1568.8

NOTES:

RAIL MOVEMENT – LOG SHEET, REMEDIAL/ EVENT PROJECTS

PA

GENERATOR: Delphi Interior Lighting
ORIGIN: CITY: Flint STATE: MI.
DESTINATION: CITY: East Carbon City STATE: Utah
PROJECT COORDINATOR/ DISPATCHER:
LOADING DATE: / /
WASTE STREAM:

PROJECT NUMBE
PROJECT START
PROJECT COMPL

RAIL CAR NUMBER	MANIFEST #/ BOL #	EQUIPMENT TYPE	ORDER #	CARS SPOTTED	CARS RELEASED	WEIGHTS GROSS	TARE	NET	TONS	FOR RAIL CO.	INV
SPIX 632	002499			3/15/96	3/15/96		58300		96.9		
994	300						58500		98.5		
736	301						58400		97.6		
904	302						58200		99.3		
720	303						58300		96.9		
1080	304						57700		98.9		
607	305						58500		96.4		
842	306						58100		98.3		
901	307						58500		98.2		
1268	308						58600		98		
1027	309						58400		98.2		
1099	310						58600		96.8		
1102	311						58300		95.3		
1209	312						57900		98.9		
1311	313						58500		95.7		
1296	314			3-15-96	3-15-96		58400		98.8		

RAIL CARS THIS SHEET: 16
TOTAL RAIL CARS TO DATE:

TONS THIS SHEET:
TOTAL TONS TO DATE: 15629

NOTES:

APPENDIX G

Air Monitoring Logs

DATE: 2 /23/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.3	1
000155	X	93.0	2
000131	Faulty sensor being Returned		~~X~~
000149	X	93.1	4
000147	X	93.0	5
000174	X	93.1	6
000181	X	93.2	7
000100	X	93.1	~~X~~ 3

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	X	1
1677	X	X	2
1800	X	X	3
2005	X	X	4
2011	X	X	5

DATE: 2/26/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.1	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.3	5
000174	X	93.1	6
000181	X	93.2	7
000100	Returned to	Response Rental	8

RAM

SERIAL NO.	CALIBRATED	ZERO ~~ISOBUTYLENE 93.1~~	LOCATION ON MAP
1801	X	X	1
1677	X	X	2
1800	X	X	3
2005	X	X	4
2011	X	X	5

DATE: 2 /28/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.0	1
000155	X	93.5	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.2	5
000174	X	93.1	6
000181	X	93.1	7
000100	Being Replaced or Repaired		8

RAM

SERIAL NO.	CALIBRATED	ZERO ~~ISOBUTYLENE 93.1~~	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 2/21/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.1	2
000131	x	93.0	3
000149	x	93.1	4
000147	x	93.2	5
000174	x	93.1	6
000181	x	93.1	7
000100	N A	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	x	1
1677	x	x	2
1800	NO power Had to recharge 5 becomes 3		3
2005	x	x	4
2011	x	x	5

DATE: 3/1/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.1	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	NOT AVAILABLE		8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.1	4
2011	X	0.0	5

DATE: 3/2/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.0	1
000155	X	92.8	2
000131	X	93.1	3
000149	X	93.0	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	N/A	N/A	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ Zero	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/4/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-4-96

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.2	1
000155	x	93.1	2
000131	x	93.8	3
000149	x	93.1	4
000147	x	92.9	5
000174	x	93.1	6
000181	x	93.0	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 3 / 5 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-4-96

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.0	1
000155	x	93.1	2
000131	x	93.1	3
000149	x	93.1	4
000147	x	93.3	5
000174	x	93.1	6
000181	x	93.0	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 3 / 6 / 96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

SEE MAP 3-4-96
For locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.0	2
000131	X	93.3	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100			8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3 / 7 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.0	2
000131	x	93.1	3
000149	x	93.1	4
000147	x	93.0	5
000174	x	93.1	6
000181	x	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 3/8/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

* see map 3-4-96 for Air monitoring location.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.0	1
000155	x	93.1	2
000131	x	93.1	3
000149	x	93.1	4
000147	x	93.0	5
000174	x	93.9	6
000181	x	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 3/9/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

SEE map 3-4-96
FOR AIR monitoring
Location

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.0	1
000155	X	93.1	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.4	5
000174	X	93.1	6
000181	X	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3 /10 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map 3-4-96
FOR AIR monitoring location.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.0	1
000155	X	93.1	2
000131	X	93.2	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	~~~	~~~	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3 / 11 / 96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map Dated 3-7-96
for DV monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.1	2
000131	X	93.0	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.3	6
000181	X	93.0	7
000100	N/A	N/A	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/12/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

SEE map Dated 3-7-96 for AIR monitoring locations.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.4	1
000155	X	93.3	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.3	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/13/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

SEE map dated 3-7-96 for Air monitoring locations.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.3	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/14/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-7-96 for Air monitorms Locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.1	2
000131	X	93.0	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.0	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/15/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-7-96 for DR monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	✓	93.1	1
000155	✓	93.1	2
000131	✓	93.3	3
000149	✓	93.	4
000147	✓	93.1	5
000174	✓	93.0	6
000181	✓	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	✓	0.0	1
1677	✓	0.0	2
1800	✓	0.0	3
2005	✓	0.0	4
2011	✓	0.0	5

DATE: 3 /18 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-4-96 for DIR monitoring locations.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.0	1
000155	x	93.1	2
000131	x	93.1	3
000149	x	93.1	4
000147	x	93.0	5
000174	x	93.1	6
000181	x	93.1	7
000100	ND	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801		0.0	1
1677		0.0	2
1800		0.0	3
2005		0.0	4
2011		0.0	5

DATE: 3/19/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-4-96 for AIR monitorms locations.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.0	2
000131	X	93.1	3
000149	X	93.4	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801		0.0	1
1677		0.0	2
1800		0.0	3
2005		0.0	4
2011		0.0	5

DATE: 3/21/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-21-96 for AIR monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.1	2
000131	X	ERROR message	3
000149	X	ERROR message	4
000147	X	93.1	5
000174	X	ERROR message	6
000181	X	ERROR message	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3 /22/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-7-96 for AIR monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.0	2
000131	X	93.1	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3 /23/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map date 3-23-96 for Air monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	—	ERROR	1
000155	—	ERROR	2
000131	X	93.1	3
000149	X	93.1	4
000147	—	ERROR	5
000174	X	93.1	6
000181	X	93.1	7
000100	—	ERROR	8

RAM

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1 ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/26/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	NA	NA	1
000155	NA	NA	2
000131	NA	NA	3
000149	X	93.1	4
000147	NA	NA	5
000174	X	93.1	6
000181	X	93.1	7
000100	NA	NA	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/27/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map Dated 3-27-96 for Air monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	NA	NA	1
000155	NA	NA	2
000131	X	93.1	3
000149	X	93.0	4
000147	NA	NA	5
000174	X	93.1	6
000181	X	93.1	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/28/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-28-96 For Air monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	NA	NA	1
000155	NA	NA	2
000131	X	92.8	3
000149	X	93.1	4
000147	NA	NA	5
000174	X	93.1	6
000181	X	93.1	7
000100	X	93.0	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3 /29/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-28-96 for Air monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	N/A	N/A	1
000155	N/A	N/A	2
000131	X	93.1	3
000149	X	93.1	4
000147	N/A	N/A	5
000174	X	93.0	6
000181	X	93.1	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 4/1/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-7-96 For AIR monitoring location

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.1	2
000131	x	93.0	3
000149	x	93.1	4
000147	x	93.1	5
000174	x	93.0	6
000181	x	93.1	7
000100	x	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 4/2/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 3-7-96 for ALR monitorms locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.0	2
000131	x	93.1	3
000149	x	93.1	4
000147	x	93.0	5
000174	x	93.0	6
000181	x	93.1	7
000100	x	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 4 /3 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-7-96 for Air monitoring location.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.0	2
000131	x	93.1	3
000149	x	93.1	4
000147	x	93.1	5
000174	x	93.1	6
000181	x	93.1	7
000100	x	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 4/5/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 3-7-96 for Air monitoring Locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.0	2
000131	x	93.1	3
000149	x	93.0	4
000147	x	93.0	5
000174	x	93.1	6
000181	x	93.1	7
000100	x	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 4/9/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153			1
000155			2
000131	NO GAS		3
000149			4
000147			5
000174			6
000181			7
000100			8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 4/10/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153			1
000155			2
000131	NO	GAS	3
000149			4
000147			5
000174			6
000181			7
000100			8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	✓	0.0	1
1677	✓	0.0	2
1800	✓	0.0	3
2005	✓	0.0	4
2011	✓	0.0	5

DATE: 4 / 11 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

See map dated 4-11-96 for Air monitoring locations.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153			1
000155			2
000131			3
000149	NO	GAS	4
000147			5
000174			6
000181			7
000100			8

RAM

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 4 /12 /96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

Air monitoring locations on map dated 4-11-96

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153			1
000155			2
000131	NO	GAS	3
000149			4
000147			5
000174			6
000181			7
000100			8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ ZERO	LOCATION ON MAP
1801	✓	0.0	1
1677	✓	0.0	2
1800	✓	0.0	3
2005	✓	0.0	4
2011	✓	0.0	5

DATE: 4 /15/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.0	2
000131	X	93.1	3
000149	X	93.0	4
000147	X	93.0	5
000174	X	93.1	6
000181	X	93.1	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ 0	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 3/23/99

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1330	Southern wind cloudy 35°	0.0	.001
2			0.1	.003
3			0.0	.001
4			0.0	.000
5			0.0	.003
6			Faulty	N/A
7			Faulty	N/A
8			Faulty	N/A
1	1400		0.0	.004
2			0.0	.001
3			0.0	.001
4			0.0	.000
5			0.0	.003
6			FAULTY	N/A
7			FAULTY	N/A
8			FAULTY	N/A
1	1430	Started to Rain Lightly no Readings were taken continued to Rain. Removed equipment so it would not get damaged		
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 8/26/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M³
1	1000	wind NE cloudy 35°C	0.0	.010
2			0.0	.005
3			0.0	.003
4			0.0	.008
5			0.0	.010
6			0.1	NA
7			0.0	NA
8		~~Reading~~ see calibration log		NA
1	1030		0.0	.010
2			0.0	.001
3			0.0	.005
4			0.0	.008
5			0.0	.010
6			0.0	NA
7			0.0	NA
8		see calibration log		NA
1	1100		0.0	.010
2			0.0	.003
3			0.0	.005
4			0.0	.006
5			0.0	.007
6			0.0	NA
7			0.0	NA
8		see calibration log		NA
1	1130		0.0	.012
2			0.0	.008
3			0.0	.004
4			0.0	.004
5			0.0	.010
6			0.0	NA
7			0.1	NA
8		see calibration log		NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	NE WIND 35° cloudy	0.0	.021
2			0.0	.005
3			0.0	.008
4			0.0	.007
5			0.0	.018
6			0.1	NA
7			0.1	NA
8				NA
1	1330		0.0	.019
2			0.0	.003
3			0.0	.005
4			0.1	.006
5			0.0	.018
6			0.1	NA
7			0.0	NA
8				NA
1	1400		0.0	.014
2			0.0	.001
3			0.0	.008
4			0.0	.007
5			0.0	.013
6			0.0	NA
7			0.1	NA
8				NA
1	1430		0.0	.010
2			0.2	.004
3			0.0	.006
4			0.0	.004
5			0.1	.008
6			0.1	NA
7			0.0	NA
8				NA

DATE: 12/26/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1500	NE WIND cloudy 35°	0.0	.010
2	↓	↓	0.0	.005
3			0.1	.005
4			0.0	.009
5			0.0	.010
6			0.0	NA
7			0.0	NA
8	↓	↓	NA	NA
1	1530	NE WIND cloudy 35°	0.0	.009
2	↓	↓	0.0	.005
3			0.0	.006
4			0.1	.009
5			0.0	.010
6			0.0	NA
7			0.0	NA
8	↓	↓		NA
1	1600	NE WIND cloudy 35°	0.0	.006
2	↓	↓	0.0	.008
3			0.0	.007
4			0.0	.010
5			0.0	.010
6			0.0	NA
7			0.0	NA
8	↓	↓		NA
1	1630	NE WIND cloudy 35°	0.1	.010
2	↓	↓	0.0	.005
3			0.0	.007
4			0.1	.008
5			0.0	.010
6			0.0	NA
7	↓	↓	0.0	NA
8				NA

DATE: 8/30/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0930	North very windy 20°	0 0	.005
2	↓	↓	6.0	.009
3	↓	↓	0.0	.002
4	↓	↓	0.0	.006
5	↓	↓	0.0	.005
6	↓	↓	0.0	NA
7	↓	↓	0.0	NA
8		Being Replaced	NA	NA
1	1000	NORTH very windy 20°	0.0	.003
2	↓	↓	0 0	.000
3	↓	↓	0 1	.003
4	↓	↓	0.0	.010
5	↓	↓	0.0	.009
6	↓	↓	0.0	NA
7	↓	↓	0.0	NA
8		Being Replaced	NA	NA
1	1030	NORTH very windy 20°	0.0	.003
2	↓	↓	0.0	.001
3	↓	↓	0.0	.009
4	↓	↓	0.0	.011
5	↓	↓	0.0	.008
6	↓	↓	0.0	NA
7	↓	↓	0.0	NA
8		Being Replaced	NA	NA
1	1100	NORTH very windy 20°	0.0	.003
2	↓	↓	0.0	.006
3	↓	↓	0 0	.007
4	↓	↓	0.0	.010
5	↓	↓	0.0	.011
6	↓	↓	0.0	NA
7	↓	↓	0.0	NA
8		Being Replaced	NA	NA

DATE: 8/28/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1200	NORTH WIND 20°	0.0	.003
2			0.0	.007
3			0.0	.013
4			0.0	.018
5			0.0	.012
6			0.0	NA
7			0.0	NA
8		Being Replaced	NA	NA
1	1230	NORTH WIND 20°	0.0	.004
2			0.0	.007
3			0.0	.009
4			0.0	.015
5			0.1	.012
6			0.0	NA
7			0.0	NA
8		Being Replaced	NA	NA
1	~~1200~~ 1300	North wind 20°	0.0	.003
2			0.0	.005
3			0.0	.010
4			0.0	.020
5			0.0	.010
6			0.0	NA
7			0.0	NA
8			NA	NA
			~~NA~~	
1	1330	North wind 20°	0.0	.004
2			0.0	.005
3			0.0	.008
4			0.0	.014
5			0.0	.011
6			0.0	NA
7			0.0	NA
8		Being Replaced	NA	NA

DATE: 4/16/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 4-11-96 for Air monitoring locations

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.0	1
000155	x	93.1	2
000131	x	93.1	3
000149	x	93.0	4
000147	x	93.1	5
000174	x	93.1	6
000181	x	93.1	7
000100	x	93.1	8

RAM

SERIAL NO.	CALIBRATED	~~ISOBUTYLENE 93.1~~ 0	LOCATION ON MAP
1801	x	0.0	1
1677	x	0.0	2
1800	x	0.0	3
2005	x	0.0	4
2011	x	0.0	5

DATE: 4/17/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.0	1
000155	X	93.1	2
000131	X	93.1	3
000149	X	93.0	4
000147	X	93.0	5
000174	X	93.1	6
000181	X	93.0	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 4/18/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

see map dated 4-18-96 for Air monitoring locations.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	X	93.1	1
000155	X	93.1	2
000131	X	93.0	3
000149	X	93.1	4
000147	X	93.1	5
000174	X	93.1	6
000181	X	93.1	7
000100	X	93.1	8

RAM

SERIAL NO.	CALIBRATED	ZERO	LOCATION ON MAP
1801	X	0.0	1
1677	X	0.0	2
1800	X	0.0	3
2005	X	0.0	4
2011	X	0.0	5

DATE: 4/19/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153	x	93.1	1
000155	x	93.0	2
000131	x	93.0	3
000149	x	93.1	4
000147	x	93.1	5
000174	x	93.1	6
000181	x	93.1	7
000100	x	93.1	8

RAM

SERIAL NO.	CALIBRATED	ZERO	LOCATION ON MAP
1801	ok	0.0	1
1677	ok	0.0	2
1800	ok	0.0	3
2005	ok	0.0	4
2011	ok	0.0	5

DATE: 4/23/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

Equipment set-up in areas where construction work was done.

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153			~~1~~
000155			~~2~~
000131			~~3~~
000149			~~4~~
000147			~~5~~
000174	✓	93.1	~~6~~ 1
000181			~~7~~
000100	✓	93.1	~~8~~

RAM

SERIAL NO.	CALIBRATED	ZERO	LOCATION ON MAP
1801			~~1~~
1677	✓	0.0	~~2~~ 1
1800			~~3~~
2005			~~4~~
2011	✓	0.0	~~5~~ 2

DATE: 4 /24/96

DAILY PID AND RAM EQUIPMENT CALIBRATION LOG

POCKET PID

SERIAL NO.	CALIBRATED	ISOBUTYLENE 93.1	LOCATION ON MAP
000153			4
000155			2
000131			3
000149			4
000147			5
000174	✓	93.1	6 1
000181			7
000100	✓	93.1	8 2

RAM

SERIAL NO.	CALIBRATED	ZERO	LOCATION ON MAP
1801			4
1677	✓	0.0	2 1
1800			3
2005			4
2011	✓	0.0	5 2

DATE: 2/28/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1400	NORTH WIND windy 20°	0.0	.004
2			0.0	.008
3			0.0	.005
4			0.0	.017
5			0.0	.012
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1430	SAME as above	0.0	.004
2			0.0	.006
3			0.0	.003
4			0.0	.015
5			0.0	.010
6			0.0	NA
7			0.0	NA
8				NA
1	1500	SAME as above	0.0	.005
2			0.0	.008
3			0.0	.003
4			0.0	.016
5			0.1	.010
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1530	SAME as above	0.0	.002
2			0.0	.005
3			0.1	.004
4			0.1	.013
5			0.0	.009
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE: 8/23/23

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/V
1	1600	North WIND cloudy 20°	0.0	.004
2			0.0	.006
3			0.1	.003
4			0.0	.014
5			0.0	.009
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1630		0.0	.004
2			0.0	.003
3			0.0	.004
4			0.0	.015
5			0.0	.010
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1700		0.0	.003
2			0.0	.004
3			0.0	.005
4			0.0	.009
5			0.1	.007
6			0.0	NA
7			0.0	NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT PID/ppM	RESULT RAM/MG/M3
1	0930	Northwest wind 20°	0 0	.003
2			0 0	.002
3		NO.5 from SEE LOG BOOK Decimal's station NO.3	0.0	.010
4			0.0	.021
5			0 0	NA
6			0.0	NA
7			0 0	NA
8			NA	NA
1	1000	Northwest wind 20°	0.0	.003
2			0.0	.004
3			0.0	.009
4			0.0	.018
5			0.0	NA
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1030	Northwest WIND 20°	0.0	.002
2			0.0	.002
3			0.0	.011
4			0.0	.020
5			0.1	NA
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1100	Northwest WIND 20°	0.0	.004
2			0.0	.003
3			0.0	.007
4		see log Book	0.0	unit dead nine to Leaking Bat.
5			0.0	NA
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE: 2/XV 95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/
1	1130	Northwest WIND 20°	0.0	.004
2			0.0	.004
3			0.0	NA
4		SEE LOG BOOK	0.0	NA
5			0.0	.016
6			0.0	NA
7			0.0	ND
8	↓	↓	NA	ND
1	1200	Northwest WIND 20°	0.0	.004
2			0.0	.005
3			0.0	NA
4			0.0	NA
5			0.0	.016
6			0.0	NA
7			0.0	ND
8	↓	↓	NA	ND
1	1230	Northwest Wind 20°	0.0	.004
2			0.0	.005
3			0.0	ND
4			0.0	NA
5			0.0	.024
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1300	Northwest Wind 20°	0.0	.004
2			0.0	.004
3			0.1	NA
4			0.0	NA
5			0.1	.022
6			0.0	NA
7			0.0	NA
8	↓	↓	NA	NA

DATED 12/27/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1330	Northwest wind 20°	0.0	.006
2			0 0	.005
3			0.0	NA
4			0.1	NA
5			0.0	.018
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1400	Northwest wind 20°	0 0	.003
2			0.0	.005
3			0.1	NA
4			0.0	NA
5			0.1	.028
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1430	Northwest wind 20°	0.0	.008
2			0.0	.004
3			0.0	NA
4			0.0	NA
5			0.0	.025
6			0.0	NA
7			0.0	NA
8			NA	NA
				~~NA~~
1	1500	Northwest wind 20°	0.0	.006
2			0 0	.004
3			0.0	NA
4			0.0	NA
5			0.0	.023
6			0 0	NA
7			00	NA
8			NA	NA

DATE: 2/21/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT PID/ppM	RESULT RAM/MG/M3
1	1530	Northwest wind 20°	0.0	.006
2			0.0	.006
3			0.0	NA
4			0.0	NA
5			0.1	.021
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1600	Northwest wind 20°	0.0	.005
2			0.0	.009
3			0.1	NA
4			0.0	NA
5			0.0	.026
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1630	Northwest wind	0.0	.006
2			0.0	.008
3			0.0	NA
4			0.1	NA
5			0.1	.021
6			0.0	NA
7			0.0	NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1000	Northwest WIND sunny 30°	0.0	.008
2			0.0	.006
3			0.0	.003
4			0.0	.024
5			0.0	.028
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1030		0.0	.006
2			0.1	.006
3			0.0	.003
4			0.0	.026
5			0.0	.025
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1100		0.0	.006
2			0.0	.007
3			0.0	.004
4			0.0	.031
5			0.0	.024
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1130		0.0	.006
2			0.0	.004
3			0.0	.004
4			0.0	.007
5			0.0	.024
6			0.0	NA
7			0.0	NA
8			NA	NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1200	Northwest WIND sunny 30°	0.0	.010
2			0.0	.009
3			0.0	.004
4			0.0	.028
5			0.0	.026
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1230		0.0	.006
2			0.0	.007
3			0.0	.004
4			0.0	.028
5			0.0	.025
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1300		0.0	.008
2			0.0	.008
3			0.0	.003
4			0.0	.047
5			0.0	.030
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1330		0.0	.004
2			0.0	.009
3			0.0	.008
4			0.0	.031
5			0.0	.040
6			0.0	NA
7			0.0	NA
8			NA	NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1401	NW Wind Sunny 30°	0.0	.003
2			0.0	.005
3			0.0	.007
4			0.0	.027
5			0.0	.042
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1430		0.0	.0.04
2			0.0	.0.00
3			0.0	.009
4		* Could not cross track b/c		*
5		of train activity		.120
6				N/A
7				N/A
8			N/A	N/A
1	1500		0.0	0.004
2			0.0	.005
3			0.0	.004
4			0.0	.016
5			0.0	.021
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1530		0.0	.000
2			0.0	.002
3			0.0	.008
4			0.0	.009
5			0.0	.028
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1600	Partly Sunny 25°	0.0	.003
2			0.0	.002
3			0.0	.003
4			0.0	.006
5			0.0	.003
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1630			
2			No Readings were taken	
3				
4				
5				
6				N/A
7				N/A
8			N/A	N/A
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 5/2/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1330	Sunny 30°	0.0	.003
2		west wind	0.0	.001
3			0.0	.000
4			0.0	.000
5			0.0	.006
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1400		0.0	.001
2			0.0	.000
3			0.0	.000
4			0.0	.000
5			0.0	.004
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1430		0.0	.001
2			0.0	.000
3			0.0	.000
4			0.0	.000
5			0.0	.000
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1500		0.0	.004
2			0.0	.000
3			0.0	.000
4			0.0	.002
5			0.0	.002
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M³
1	1530	Sunny 25°	0.0	.003
2			0.0	.001
3			0.0	.006
4			0.0	.013
5			0.0	.001
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1600		0.0	.004
2			0.0	.003
3			0.0	.000
4			0.0	.003
5			0.0	.003
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1630		0.0	.003
2			0.0	.000
3			0.0	.011
4			0.0	.003
5			0.0	.006
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1				
2				
3				
4				
5				
6				
7				
8				

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1000	South wind Sunny 30°	0.0	.005
2			0.0	.001
3			0.0	.001
4			0.0	.002
5			0.0	.004
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1030	south wind sunny 30°	0.0	.003
2			0.0	.002
3			0.0	.001
4			0.0	.002
5			0.0	.004
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1100	south wind sunny 30°	0.0	.003
2			0.0	.001
3			0.1	.001
4			0.0	.003
5			0.1	.003
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1200	South wind Sunny 31°	0.1	.002
2			0.0	.003
3			0.1	.002
4			0.0	.003
5			0.0	.002
6			0.1	NA
7			0.0	NA
8			NA	NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M³
1	1300	South wind sunny 31°	0.0	.009
2			0.0	.004
3			0.0	.003
4			0.1	.005
5			0.0	.006
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1400	southwest wind sunny partly 31°	0.0	.014
2			0.1	.006
3			0.0	.002
4			0.0	.010
5			0.1	.012
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1500	South wind cloudy 32°	0.0	.010
2			0.1	.007
3			0.0	.004
4			0.0	
5			0.0	
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1600	South wind cloudy 30°	0.0	.014
2			0.1	.009
3			0.0	.004
4			0.0	.010
5			0.0	.011
6			0.0	NA
7			0.1	NA
8			NA	NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/V3
1	1030	cloudy 32° North Wind	0.0	.004
2	↓		0.0	.010
3			0.1	.003
4			0.0	.007
5			0.0	.008
6			0.1	NA
7			0.1	NA
8	↓	NA	NA	NA
1	1130	cloudy 32° North Wind	0.0	.015
2	↓		0.0	.012
3			0.0	.007
4			0.0	.007
5			0.0	.010
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1230	cloudy 32° North Wind	0.0	.015
2	↓		0.2	.010
3			0.0	.006
4			0.0	.021
5			0.0	.012
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1330	cloudy 32° North Wind	0.0	.010
2	↓		0.1	.015
3			0.0	.005
4			0.0	.007
5			0.0	.014
6			0.0	NA
7	↓		0.0	NA
8			NA	NA

DATE: 3/15/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1430	cloudy North wind 32°	0.0	.020
2			0.0	.015
3			0.2	.006
4			0.0	.015
5			0.1	.021
6			0.1	NA
7			0.0	NA
8	↓		NA	NA
1	1530	cloudy North wind 32°	0.0	.020
2			0.0	.010
3			0.0	.006
4			0.0	.018
5			0.0	.015
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1630	cloudy North wind 32°	0.0	.014
2			0.0	.013
3			0.2	.006
4			0.1	.007
5			0.1	.014
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 5/6/93

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT PID/ppM	RESULT RAM/MG/M3
1	1000	North NorthEast wind cloudy 25°	0.0	.018
2			0.0	.015
3			0.1	.006
4			0.0	.020
5			0.0	.010
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1100	North East wind Cloudy 25°	0 0	.015
2			0.1	.015
3			0.1	.004
4			0 0	.018
5			0.0	.010
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1200	North wind cloudy 25°	0.0	.010
2			0 0	.013
3			0.0	.006
4			0.1	.020
5			0.0	.013
6			0.1	NA
7			0.0	NA
8			NA	NA
1	1300	North wind cloudy 25°	0 0	.010
2			0.0	.018
3			0.0	.006
4			0.1	.017
5			0.1	.020
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE: 3/6/90

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1400	North Wind cloudy 25°	0.0	.020
2			0.1	.013
3			0.0	.006
4			0.0	.015
5			0.0	.014
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1500	North Wind cloudy 25°	0.0	.020
2			0.0	.015
3			0.0	.005
4			0.1	.012
5			0.0	.017
6			0.1	NA
7			0.1	NA
8			NA	NA
1	1600	North Wind cloudy 25°	0.0	.018
2			0.1	.010
3			0.0	.004
4			0.0	.011
5			0.0	.015
6			0.0	NA
7			0.0	NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 5/ 7/ 20

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG, u3
1	1000	Northwest wind 20°	0.0	.010
2	↓		0.0	.018
3			0.0	.006
4			0.0	.009
5			0.0	.010
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1100	North wind 20°	0.0	.028
2	↓	↓	0.0	.026
3			0.1	.008
4			0.0	.015
5			0.0	.021
6			0.0	NA
7			0.1	NA
8	↓	↓	NA	NA
1	1200	North wind 20°	0.0	.036
2	↓		0.1	.021
3			0.0	.006
4			0.1	.015
5			0.0	.026
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1300	North wind 20°	0.0	.030
2	↓		0.0	.022
3			0.1	.008
4			0.1	.021
5			0.0	.014
6			0.0	NA
7			0.0	NA
8	↓		NA	NA

DATE: 3 / 7 /96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M.
1	1400	Northwest 20°	0.0	.028
2	↓		0.0	.025
3			0.0	.006
4			0.1	.018
5			0.0	.021
6			0.1	NA
7			0.1	NA
8			NA	NA
1	1500	Northwest 20°	0.2	.020
2	↓		0.1	.026
3			0.0	.007
4			0.0	.030
5			0.1	.021
6			0.2	NA
7			0.0	NA
8			NA	NA
1	1600	North wind 20°	0.0	.020
2	↓		0.1	.028
3			0.0	.004
4			0.2	.028
5			0.0	.020
6			0.1	NA
7			0.0	NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/8/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	North wind 15°	0.0	.020
2			0.1	.025
3			0.0	.007
4			0.0	.018
5			0.0	.014
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1000	North wind 15°	0.1	.018
2			0.1	.023
3			0.0	.008
4			0.1	.020
5			0.0	.011
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1100	North wind 15°	0.0	.021
2			0.0	.028
3			0.0	.006
4			0.0	.020
5			0.0	.020
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1200		0.0	.032
2			0.0	.026
3			0.0	.004
4			0.1	.020
5			0.1	.020
6			0.0	NA
7			0.0	NA
8	↓		NA	NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/V
1	1300	Northwest wind 15°	0.0	.033
2	↓		0.3	.028
3			0.0	.007
4			0.0	.018
5			0.0	.013
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1400	North wind 20°	0.0	.030
2	↓		0.1	.023
3			0.0	.006
4			0.1	.022
5			0.1	.028
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1500		0.0	.035
2	↓		0.0	.019
3			0.0	.009
4			0.1	.028
5			0.0	.023
6			0.3	NA
7			0.1	NA
8	↓		NA	NA
1	1600		0.2	.031
2	↓		0.1	.028
3			0.0	.009
4			0.1	.021
5			0.0	.017
6			0.0	NA
7			0.1	NA
8	↓		NA	NA

DATE: 3/9/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	North Wind sunny 15°	0.0	.020
2			0.0	.018
3			0.1	.005
4			0.0	.028
5			0.0	.021
6			0.1	NA
7			0.0	NA
8	↓		NA	NA
1	1000	North Wind Sunny 18°	0.0	.018
2			0.1	.030
3			0.0	.007
4			0.3	.025
5			0.1	.026
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1100	North wind sunny 18°	0.0	.016
2			0.0	.024
3			0.0	.008
4			0.0	.018
5			0.0	.011
6			0.1	NA
7			0.0	NA
8			NA	NA
1	1200	North wind sunny 23°	0.0	.020
2			0.1	.020
3			0.0	.006
4			0.0	.028
5			0.0	.024
6			0.0	NA
7			0.0	NA
8			NA	NA

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/V?
1	1300	North wind sunny 25°	0.0	.018
2	↓		0.1	.022
3			0.1	.008
4			0.0	.020
5			0.0	.026
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1400	North wind sunny 25°	0.1	.020
2			0.1	.028
3			0.1	.006
4			0 0	.031
5			0 1	.024
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1500	North wind sunny 25°	0.0	.024
2			0.0	.023
3			0.1	.008
4			0.0	.026
5			0.1	.029
6			0.1	NA
7			0.1	NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/10/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	NoAh wind sunny 20°	0.0	.020
2	↓		0.0	.018
3			0.0	.008
4			0.0	.023
5			0.1	.028
6			0.0	NA
7			0.1	NA
8	↓		NA	NA
1	1000	Northwest wind sunny 25°	0.1	.020
2	↓		0.0	.015
3			00	.006
4			0.0	.028
5			0.1	.023
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1100	Northwest wind sunny 28°		
2				
3		~~No~~ No Readings were		
4		taken because of construction		
5		equipment Failure.		
6				NA
7				NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/11/88

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1000	southwest sunny 30°	0.0	.026
2			0.1	.021
3			0.0	.009
4			0.0	.041
5			0.0	.023
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1100	southwest sunny 30°	0.2	.029
2			0.1	.031
3			0.0	.010
4			0.0	.041
5			0.0	.028
6			0.1	NA
7			0.0	NA
8	↓		NA	NA
1	1200	southwest sunny 33°	0.2	.035
2			0.1	.040
3			0.0	.010
4			0.1	.031
5			0.0	.032
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1300	south sunny 35°	0.0	.038
2			0.1	.040
3			0.0	.009
4			0.0	.035
5			0.0	.030
6			0.0	NA
7			0.0	NA
8	↓		NA	NA

DATE: / /96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1400	South wind sunny 36°	0.1	.030
2			0.0	.028
3			0.0	.010
4			0.0	.041
5			0.1	.032
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1600	South wind sunny 36°	0.0	.038
2			0.1	.031
3			0.0	.010
4			0.2	.030
5			0.0	.028
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1600			
2				
3				
4				
5				
6				
7				NA
8				NA
			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/12/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0800	no wind sunny 23°	0.1	.028
2	↓	↓	0.1	.031
3			0.0	.011
4			0.0	.035
5			0.1	.031
6			0.0	NA
7			0.0	NA
8	↓	NA	NA	NA
1	0900	no wind sunny 38°	0.0	.025
2	↓	↓	0.0	.033
3			0.1	.010
4			0.0	.041
5			0.0	.028
6			0.0	NA
7			0.1	NA
8	↓		NA	NA
1	1000	no wind sunny 41°	0.1	.023
2	↓	↓	0.1	.038
3			0.0	.011
4			0.0	.046
5			0.0	.034
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
	could not take 1100 Readings (VSR samplers)			
1	1200		0.0	.038
2			0.0	.031
3			0.0	.012
4			0.0	.028
5			0.0	.036
6			0.1	NA
7			0.0	NA
8			NA	NA

DATE: 3/12/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/V3
1	1300	South Wind Sunny 45°	0.0	.032
2			0.0	.035
3			0.0	.009
4			0.0	.028
5			0.0	.032
6			0.0	NA
7			0.0	NA
8	↓	↓	NA	NA
1	1400	South Wind Sunny 45°	0.0	.035
2			0.0	.031
3			0.0	.012
4			0.0	.038
5			0.0	.032
6			0.1	NA
7			0.0	NA
8	↓		NA	NA
1	1500		0.0	.038
2			0.1	.030
3			0.1	.010
4			0.0	.041
5			0.0	.036
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1600		0.0	.041
2			0.0	.036
3			0.0	.013
4			0.0	.029
5			0.0	.033
6			0.0	NA
7			0.0	NA
8	↓		NA	NA

DATE: 3/13/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	Partly Sunny Southwest wind 38°	0.0	.031
2			0.1	.028
3			0.0	.010
4			0.0	.036
5			0.0	.041
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1000	south wind cloudy 38°	0.0	.032
2			0.0	.028
3			0.1	.010
4			0.0	.040
5			0.1	.038
6			0.1	NA
7			0.0	NA
8			NA	NA
1	1100	south wind cloudy 41°	0.0	.030
2			0.0	.032
3			0.0	.009
4			0.0	.041
5			0.1	.038
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1200	south wind sunny 47°	0.0	.028
2			0.1	.036
3			0.0	.010
4			0.0	.040
5			0.0	.032
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE: / /96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	South wind sunny 50°	0.0	.030
2			0.0	.032
3			0.0	.011
4			0.0	.041
5			0.0	.038
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1400	South wind sunny 51°	0.0	.036
2			0.0	.031
3			0.1	.006
4			0.0	.048
5			0.1	.041
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1500	South wind sunny 53°	0.0	.038
2			0.0	.030
3			0.1	.009
4			0.0	.046
5			0.1	.041
6			0.0	NA
7			0.1	NA
8			NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE. 3/14/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	South Wind Sunny 41°	0.1	.021
2			0.1	.042
3			0.0	.013
4			0.2	.032
5			0.1	.038
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1000	South Wind sunny 41°	0.0	.020
2			0.0	.046
3			0.0	.010
4			0.1	.039
5			0.0	.042
6			0.1	NA
7			0.0	NA
8			NA	NA
1	1100	South wind sunny 48°	0.0	.025
2			0.1	.042
3			0.0	.010
4			0.0	.041
5			0.0	.048
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1200	South wind sunny 54°	0.0	.023
2			0.1	.040
3			0.1	.010
4			0.1	.035
5			0.0	.040
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE 3/14/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	cloudy south wind 54°	0.0	.023
2			0.1	.029
3			0.0	.006
4			0.0	.038
5			0.0	.032
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1400	south wind cloudy 54°	0.0	.025
2			0.0	.032
3			0.0	.010
4			0.1	.041
5			0.0	.036
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1500	partly sunny south wind 54°	0.0	.023
2			0.1	.036
3			0.0	.009
4			0.0	.040
5			0.0	.032
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1600	cloudy south wind 50°	0.0	.027
2			0.0	.032
3			0.1	.010
4			0.1	.045
5			0.0	.038
6			0.0	NA
7			0.1	NA
8			NA	NA

DATE: 3/15/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	south wind cloudy 38°	0.0	.023
2			0.0	.028
3			0.1	.012
4			0.0	.036
5			0.0	.041
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1000	south wind cloudy 42°	0.0	.028
2			0.1	.023
3			0.0	.010
4			0.0	.038
5			0.0	.043
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1100	south wind cloudy 43°	0.0	.025
2			0.0	.028
3			0.0	.008
4			0.1	.034
5			0.0	.038
6			0.1	NA
7			0.0	NA
8			NA	NA
1	1200	Northwest wind clear 43°	0.1	.029
2			0.1	.023
3			0.0	.012
4			0.0	.036
5			0.0	.039
6			0.1	NA
7			0.0	NA
8			NA	NA

DATE: 3/15/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	South wind cloudy 43°	0.0	.028
2	↓		0.0	.031
3			0.0	.012
4			0.0	.040
5			0.0	.036
6			0.1	NA
7			0.0	NA
8	↓		NA	NA
1	1400	North wind cloudy 40°	0.0	.025
2	↓		0.0	.035
3			0.0	.010
4			0.0	.040
5			0.0	.036
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1500	North wind cloudy 38°	0.1	.029
2	↓		0.0	.031
3			0.0	.010
4			0.0	.037
5			0.1	.032
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/18/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M^3
1	0900	Northeast wind sunny 30°	0.0	.022
2	↓		0.0	.028
3			0.0	.010
4			0.0	.040
5			0.0	.021
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1000	Northeast wind sunny 40°	0.0	.026
2	↓		0.1	.030
3			0.0	.006
4			0.0	.037
5			0.0	.018
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1100	Northeast wind sunny 42°	0.1	.023
2	↓		0.0	.028
3			0.0	.009
4			0.0	.032
5			0.0	.022
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1200	Northeast wind sunny 44°	0.0	.026
2	↓		0.0	.030
3			0.1	.012
4			0.1	.036
5			0.0	.020
6			0.0	NA
7			0.0	NA
8	↓		NA	NA

DATE: 3/18/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	Northeast cloudy 38°	0.0	.022
2	↓		0.0	.028
3			0.0	.011
4			0.0	.033
5			0.1	.028
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1400	Northeast cloudy 38°	0.0	.024
2	↓		0.0	.028
3			0.0	.010
4			0.0	.033
5			0.0	.026
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1	1500		0.1	.021
2	↓		0.0	.032
3			0.0	.006
4			0.0	.036
5			0.0	.025
6			0.0	NA
7			0.0	NA
8	↓		NA	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE 3/19/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0800	North wind cloudy 35°	0.0	.022
2			0.0	.028
3			0.0	.010
4			0.0	.033
5			0.0	.037
6			0.0	NA
7			0.0	NA
8			NA	NA
1	0900		0.0	.028
2			0.1	.031
3			0.0	.006
4			0.0	.036
5			0.0	.041
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1000		0.0	.024
2			0.0	.028
3			0.0	.011
4			0.1	.037
5			0.0	.033
6			0.1	NA
7			0.0	NA
8			NA	NA
1	1100		0.0	.026
2			0.0	.024
3			0.0	.010
4			0.0	.034
5			0.0	.041
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE: 3/19/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1200	North wind cloudy 35°	0 0	.093
2	↓	↓	0 0	.028
3			0.0	.012
4			0.0	.034
5			0.0	.039
6			0 0	NA
7			0.0	NA
8	↓		NA	NA
1	1300		0.1	.026
2	↓		0.1	.024
3			0.0	.008
4			0.0	.036
5			0.0	.043
6			0.1	NA
7			0.0	NA
8	↓		NA	NA
1	1400		0.0	.028
2	↓		0 0	.023
3			0.0	.010
4			0.0	.034
5			0 1	.041
6			0.0	NA
7			0 0	NA
8	↓		NA	NA
1	1500		0.0	.025
2	↓		0 0	.028
3			0 0	.010
4			0 0	.032
5			0 0	.038
6			0.0	NA
7			0.0	NA
8	↓	↓	NA	NA

DATE: 3/21/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION / WEATHER	RESULT PID/ppM	RESULT RAM/MG/M_
1	0900	North Wind 27°	0.0	.030
2			0.0	.023
3		N/A	NA	.005
4		N/A	NA	.028
5			0.0	.032
6		N/A	NA	NA
7		N/A	NA	NA
8			0.0	NA
1	1000	North Wind 27°	0.0	.031
2			0.0	.028
3			NA	.013
4			NA	.030
5			0.0	.028
6			NA	NA
7			NA	NA
8			0.0	NA
1	1100	North Wind 25°	0.0	.036
2			0.0	.025
3			NA	.010
4			NA	.032
5			0.1	.026
6			NA	NA
7			NA	NA
8			0.0	NA
1	1200		0.0	.032
2			0.0	.028
3			NA	.010
4			NA	.036
5			0.0	.028
6			NA	NA
7			NA	NA
8			0.0	NA

DATE 3/21/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	North wind 25°	C.C	.023
2			C.C	.028
3			NA	.C1C
4			NA	.034
5			C.C	.C3C
6			NA	NA
7			NA	NA
8			C.C	NA
1	1400	North wind 24°	C.C	.028
2			C.C	.025
3			NA	.007
4			NA	.035
5			C.C	.036
6			NA	NA
7			NA	NA
8			C.1	NA
1	1500	North wind 25°	0.0	.025
2			0.0	.028
3			NA	.013
4			NA	.041
5			C.C	.034
6			NA	NA
7			NA	NA
8			C.C	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/22/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	NORTH WIND 28°	0.0	.028
2			0.0	.025
3			0.0	.013
4			0.0	.036
5			0.0	.032
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000	NORTH WIND 28°	0.1	.028
2			0.0	.030
3			0.0	.008
4			0.0	.038
5			0.0	.032
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1100	NORTH WIND 28°	0.0	.031
2			0.0	.028
3			0.0	.010
4			0.0	.035
5			0.0	.034
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1200		0.0	.030
2			0.0	.026
3			0.0	.006
4			0.1	.037
5			0.0	.035
6			0.0	NA
7			0.0	NA
8			0.0	NA

No Readings were taken in the Afternoon due to 4 PIDS have ERROR messages + soil samplins during the Afternoon

DATE 3/23/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1000	North wind Sunny 32°		
2	↓		NA	.030
3			NA	.028
4			0.0	.016
5			0.0	.035
6			NA	.028
7			0.0	NA
8			0.0	NA
			NA	NA
1	1100	North wind Sunny 36°		
2	↓		NA	.031
3			NA	.026
4			0.1	.018
5			0.0	.037
6			NA	.025
7			0.0	NA
8	↓		0.0	NA
			NA	NA
1	1200	North Wind Sunny 38°		
2	↓		NA	.038
3			NA	.027
4			0.0	.015
5			0.0	.040
6			NA	.023
7			0.0	NA
8	↓		0.0	NA
			NA	NA
1	1300	North wind Sunny 39°		
2	↓		NA	.032
3			NA	.026
4			0.0	.024
5			0.1	.036
6			NA	.027
7			0.0	NA
8	↓		0.0	NA
			NA	NA

DATE: 3/23/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1400	North wind Sunny 40°	NA	.030
2	↓		NA	.026
3			0.0	.032
4			0.0	.037
5			NA	.028
6			0.0	NA
7			0.0	NA
8			NA	NA
1			ND	
2			NA	
3				
4				
5			NA	
6				
7				
8			NA	
1			NA	
2			NA	
3				
4				
5			NA	
6				
7				
8			NA	
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 3/26/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	North wind cloudy 20°	NA	.030
2			NA	.036
3			NA	.032
4			0.0	.041
5			NA	.031
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1000		NA	.028
2			NA	.040
3			NA	.030
4			0.1	.035
5			NA	.030
6			0.0	NA
7			0.1	NA
8			NA	NA
1	1100		NA	.030
2			NA	.038
3			NA	.032
4			0.0	.034
5			NA	.026
6			0.0	NA
7			0.0	NA
8			NA	NA
1	1400		NA	.032
2			NA	.040
3			NA	.031
4			0.0	.036
5			NA	.028
6			0.0	NA
7			0.0	NA
8			NA	NA

DATE: 5/20/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT PID/ppM	RESULT RAM/MG/M
1	0830	Cold (25°) - No Wind - Cloudy	N/A	.034
2			N/A	.043
3			N/A	.028
4			0.0	.031
5			N/A	.031
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1200	Sunny + 30°	N/A	.038
2			N/A	.036
3			N/A	.029
4			0.0	.041
5			N/A	.031
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1300		N/A	.038
2			N/A	.035
3			N/A	.040
4			0.0	.033
5			N/A	.027
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1	1400		NA	.032
2			N/A	.042
3			N/A	.040
4			0.0	.036
5			N/A	.038
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A

DATE: 5/28/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION - WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1500		N/A	.040
2			N/A	.028
3			N/A	.035
4			0.0	.031
5			N/A	.041
6			0.0	N/A
7			0.0	N/A
8			N/A	N/A
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 9/1/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M
1	1000	North Wind sunny 30°	0.0	.023
2			0.0	.031
3			0.0	.010
4			0.0	.019
5			0.0	.028
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1100	North Wind sunny 30°	0.0	.020
2			0.0	.026
3			0.0	.005
4			0.0	.018
5			0.0	.021
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1200	North wind sunny 34°	0.0	.020
2			0.0	.023
3			0.0	.007
4			0.0	.020
5			0.0	.017
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1500	North wind sunny 38°	0.0	.020
2			0.0	.010
3			0.0	.011
4			0.0	.026
5			0.0	.020
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA

DATE: 4 / 1 /96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION, WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1600	North wind Sunny 40°	0.0	.026
2			0.0	.018
3			0.0	.006
4			0.0	.018
5			0.0	.020
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/2/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	800	very Little wind 34°	0.0	.020
2			0.0	.017
3			0.0	.009
4			0.0	.022
5			0.1	.019
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	900	very Little wind 36°	0.0	.020
2			0.0	.022
3			0.0	.010
4			0.0	.028
5			0.0	.017
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000			
2				
3				
4				
5				
6				NA
7				NA
8				NA
1	1100			
2				
3				
4				
5				
6				NA
7				NA
8				NA

DATE: 4/3/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	Northeast wind cloudy 30°	0.0	.020
2			0.0	.024
3			0.0	.008
4			0.0	.021
5			0.0	.020
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000	North wind cloudy 30°	0.0	.018
2			0.0	.021
3			0.0	.006
4			0.0	.020
5			0.0	.023
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1500	North east sunny 46°	0.0	.021
2			0.0	.017
3			0.0	.009
4			0.0	.026
5			0.0	.023
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				NA
7				NA
8				NA

DATE: 4/5/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	North East wind sunny 30°	0.0	.020
2	↓		0.0	.018
3			0.0	.006
4			0.0	.032
5			0.0	.021
6			0.1	NA
7			0.0	NA
8			0.0	NA
1	1000	North wind sunny 34°	0.0	.023
2	↓		0.1	.015
3			0.0	.008
4			0.0	.035
5			0.0	.031
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/9/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	North Wind cloudy 32°	0.0	.026
2	↓		0.0	.021
3			0.1	.012
4			0.0	.028
5			0.0	.024
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000	North Wind cloudy 32°	0.0	.024
2	↓		0.0	.018
3			0.0	.010
4			0.0	.031
5			0.0	.026
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1100	North Wind cloudy 32°	0.0	.024
2	↓		0.0	.020
3			0.0	.009
4			0.0	.030
5			0.0	.024
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/10/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	very little wind 32°	0.0	.020
2			0.0	.018
3			0.0	.011
4			0.0	.023
5			0.0	.021
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000	very little wind 32°	0.0	.021
2			0.0	.020
3			0.0	.007
4			0.0	.028
5			0.0	.023
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1200	north east wind 38°	0.0	.020
2			0.0	.026
3			0.0	.010
4			0.0	.023
5			0.0	.021
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/11/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	South East Wind 37°	0.0	.020
2			0.0	.018
3			0.0	.010
4			0.0	.031
5			0.0	.028
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1100		0.0	.018
2			0.0	.015
3			0.0	.006
4			0.0	.026
5			0.0	.021
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/12/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1000	North East Cloudy 37°	0.0	.016
2			0.0	.024
3			0.0	.010
4			0.0	.023
5			0.0	.032
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1100	NORTH EAST cloudy 37°	0.0	.018
2			0.0	.020
3			0.0	.006
4			0.0	.020
5			0.0	.028
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1200		0.0	.022
2			0.0	.018
3			0.0	.007
4			0.0	.028
5			0.0	.020
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/15/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	Cloudy (Partly) 40°F	0.0	.022
2	↓		0.0	.013
3			0.0	.020
4			0.0	.002
5			0.0	.015
6			0.0	N/A
7			0.0	N/A
8	↓		0.0	N/A
1	1000		0.0	0.16
2	↓		0.0	0.02
3			0.0	0.20
4			0.0	.016
5			0.0	.010
6			0.0	N/A
7			0.0	N/A
8	↓		0.0	N/A
1	RAIN →	TOOK IN EQUIPMENT		
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/16/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1000	cloudy Northwest wind 39°	0.0	.018
2	↓		0.0	.020
3			0.0	.015
4			0.0	.020
5			0.0	.026
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1100	cloudy Northwest wind		
2	↓			
3				
4				
5				
6				NA
7				NA
8	↓			NA
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/17/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0900	SOUTHEAST WIND SUNNY 38°	0.0	.021
2			0.0	.018
3			0.0	.009
4			0.0	.025
5			0.0	.021
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000	Southeast wind sunny 40°	0.0	.018
2			0.0	.020
3			0.0	.010
4			0.0	.021
5			0.0	.026
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1200	south wind sunny 43°	0.0	.020
2			0.0	.026
3			0.0	.006
4			0.0	.018
5			0.0	.022
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/18/93

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0800	wind calm Sunny 39°	0.0	.018
2			0.0	.022
3			0.0	.008
4			0.0	.020
5			0.0	.017
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	0900	south wind Sunny 44°	0.0	.020
2			0.0	.018
3			0.0	.008
4			0.0	.020
5			0.0	.018
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1000	South wind sunny 48°	0.0	.022
2			0.0	.015
3			0.0	.028
4			0.0	.018
5			0.0	.021
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA
1	1100	South wind sunny 50°	0.0	.023
2			0.0	.018
3			0.0	.012
4			0.0	.021
5			0.0	.017
6			0.0	NA
7			0.0	NA
8	↓		0.0	NA

DATE: 4/18/93

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1300	South wind Sunny 58°	0.0	.024
2			0.0	.018
3			0.0	.010
4			00	.020
5			0.0	.024
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1400	south wind sunny 66°	0.0	.026
2			0.0	.021
3			0.0	.014
4			0.0	.021
5			0.0	.017
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/19/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	0800	Southeast Wind Sunny 56°	0.0	.023
2			0.0	.018
3			0.0	.011
4			0.0	.027
5			0.0	.013
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	0900	South east wind Sunny 60°	0.0	.018
2			0.0	.014
3			0.0	.006
4			0.0	.018
5			0.0	.011
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1000	Southeast Wind Sunny 64°	0.0	.018
2			0.0	.014
3			0.0	.004
4			0.0	.020
5			0.0	.016
6			0.0	NA
7			0.0	NA
8			0.0	NA
1	1100		0.0	.016
2			0.0	.018
3			0.0	.006
4			0.0	.017
5			0.0	.021
6			0.0	NA
7			0.0	NA
8			0.0	NA

DATE: 4/19/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	1400	South wind sunny 65°	0.0	.016
2	↓		0.0	.018
3			0.0	.010
4			0.0	.020
5			0.0	.026
6			0.0	NA
7			0.0	NA
8			0.0	NA
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				
1				
2				
3				
4				
5				
6				
7				
8				

DATE: 4/23/95

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	10:00 AM	Northeast Cloudy	0.0	.015
2	10:00 pm	" "	0.0	.018
3				
4				
5				
6				
7				
8				
1	12:00 pm	Northeast Cloudy	0.0	.021
2	12:00 pm		0.0	.020
3				
4				
5				
6				
7				
8				
1	2:00 pm	Northeast cloudy	0.00	.015
2	2:00 pm		0.00	.014
3				
4				
5				
6				
7				
8				
1	4:00 pm	Northeast cloudy	0.0	.017
2	4:00 pm		0.0	.018
3				
4				
5				
6				
7				
8				

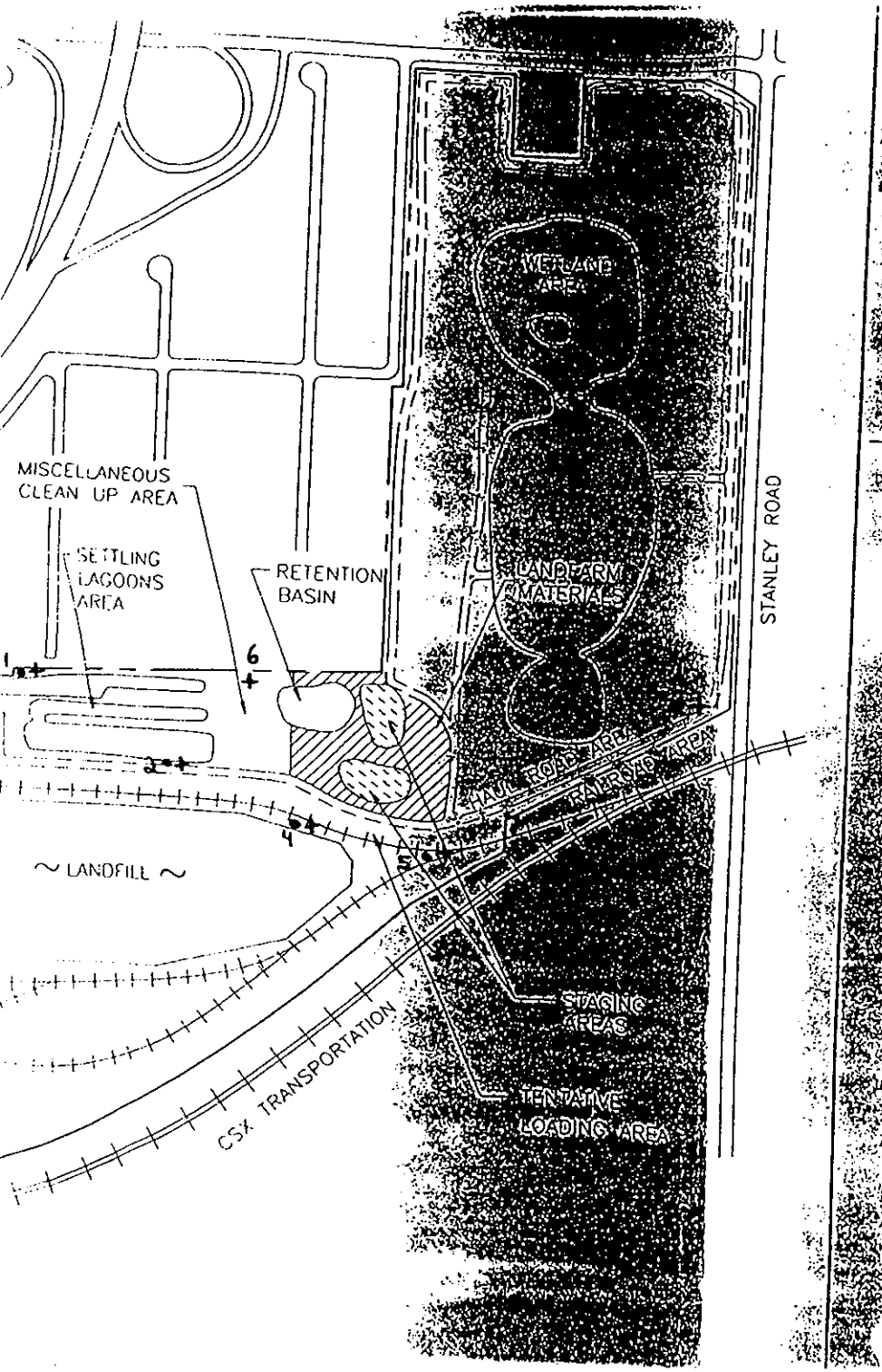
DATE: 4/24/96

HOURLY AIR MONITORING LOG

LOCATION	TIME	WIND DIRECTION WEATHER	RESULT	
			PID/ppM	RAM/MG/M3
1	12:00pm	West Sunny	0.0	.023
2	12:00pm		0.0	.018
3				
4				
5				
6				
7				
8				
1	2:00pm	West Sunny	0.0	.022
2	2:00pm		0.0	.013
3				
4				
5				
6				
7				
8				
1	4:00 pm	West Sunny	0.0	.026
2	4:00 pm		0.0	.016
3				
4				
5				
6				
7				
8				
1	5:00pm	West Sunny	0.0	.024
2	5:00pm		0.0	.012
3				
4				
5				
6				
7				
8				

FIGURE 2

4-11-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

+ PID's

• RAM's

+ Spill (moveable)

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

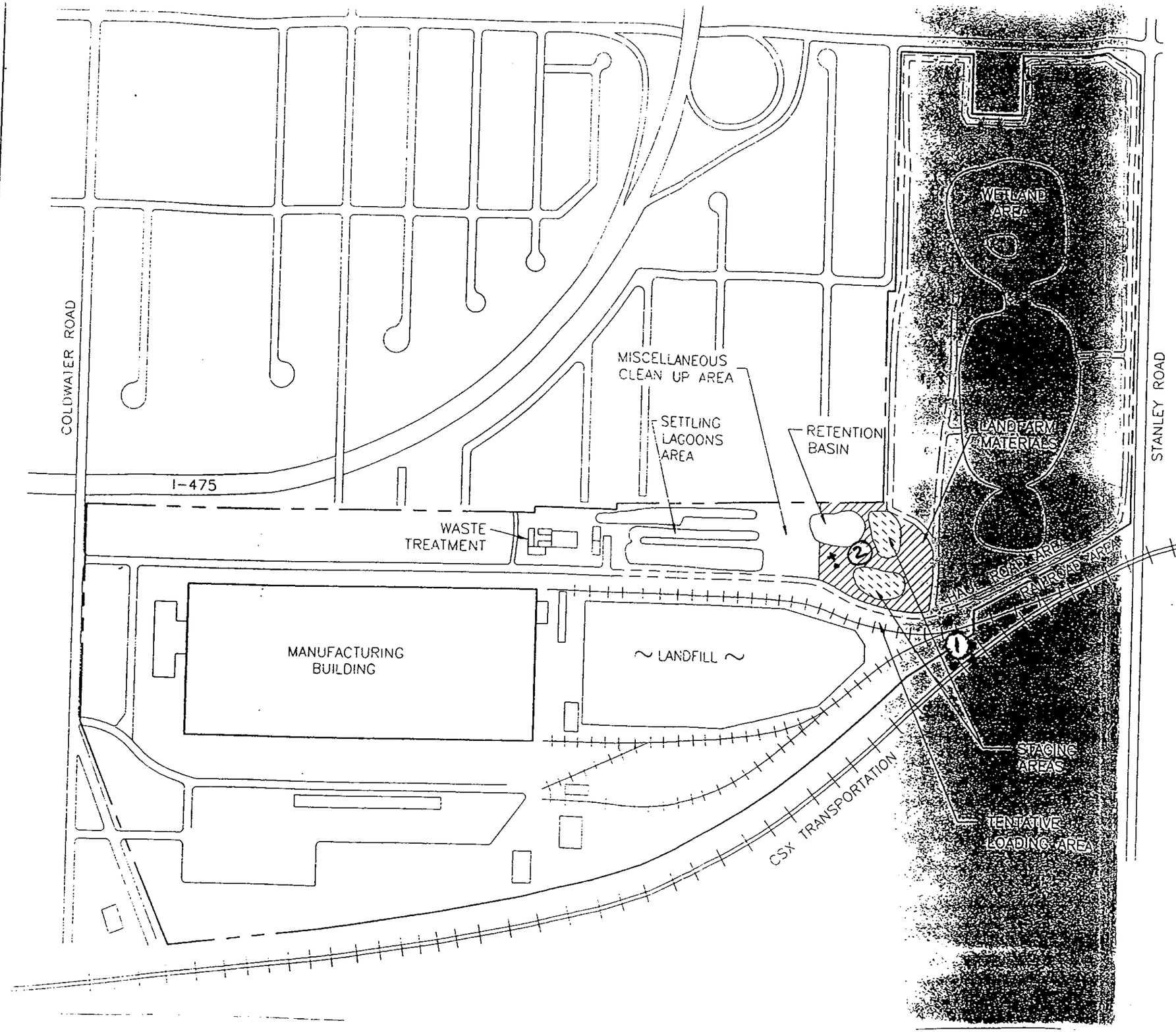
APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

OBRIEN&GERE

FIGURE 2

4/23/96
4/24/96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

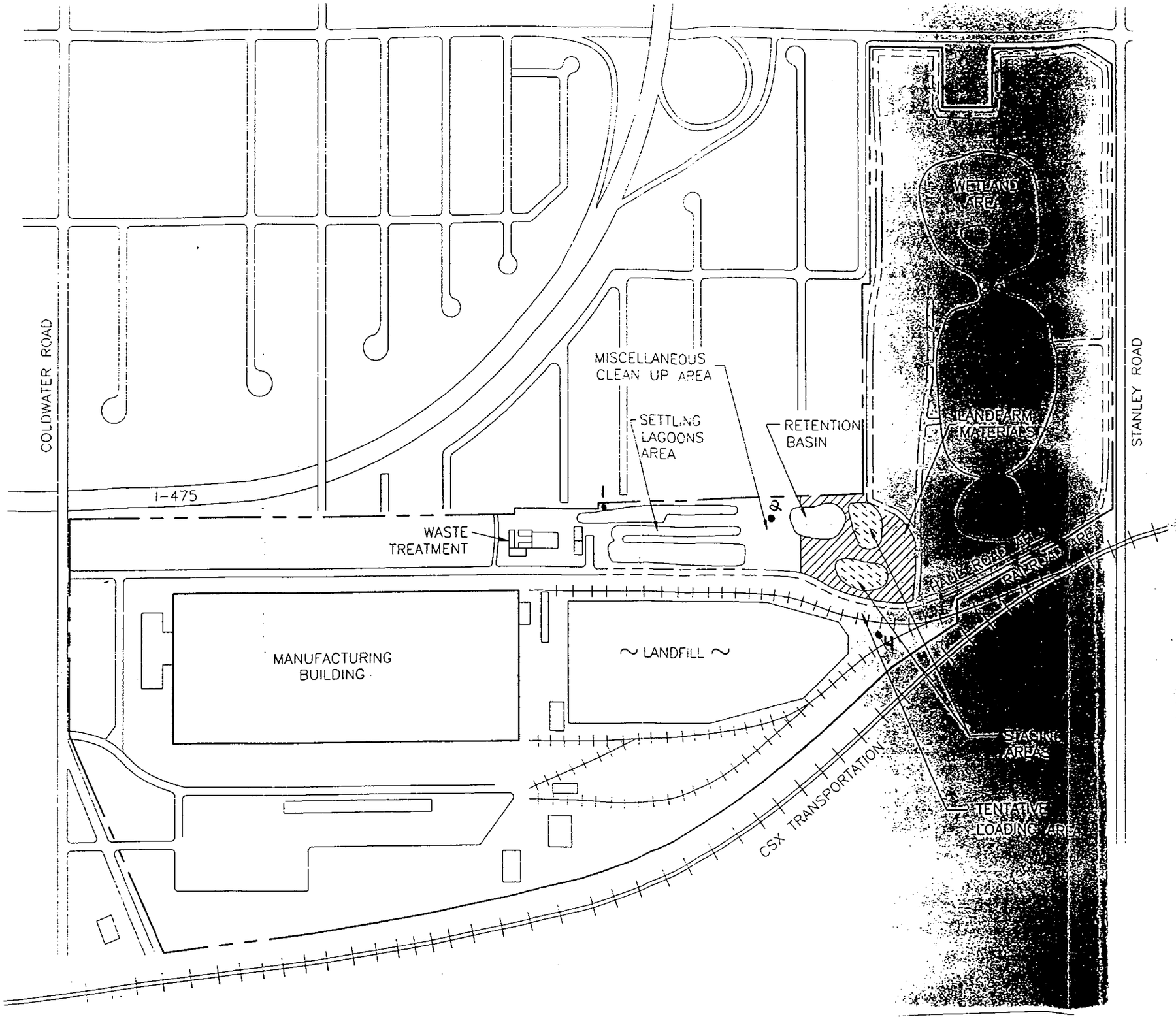
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

Stationary
move ground
work area

~~SITE PLAN~~

Dust monitor
locations

500 0 500

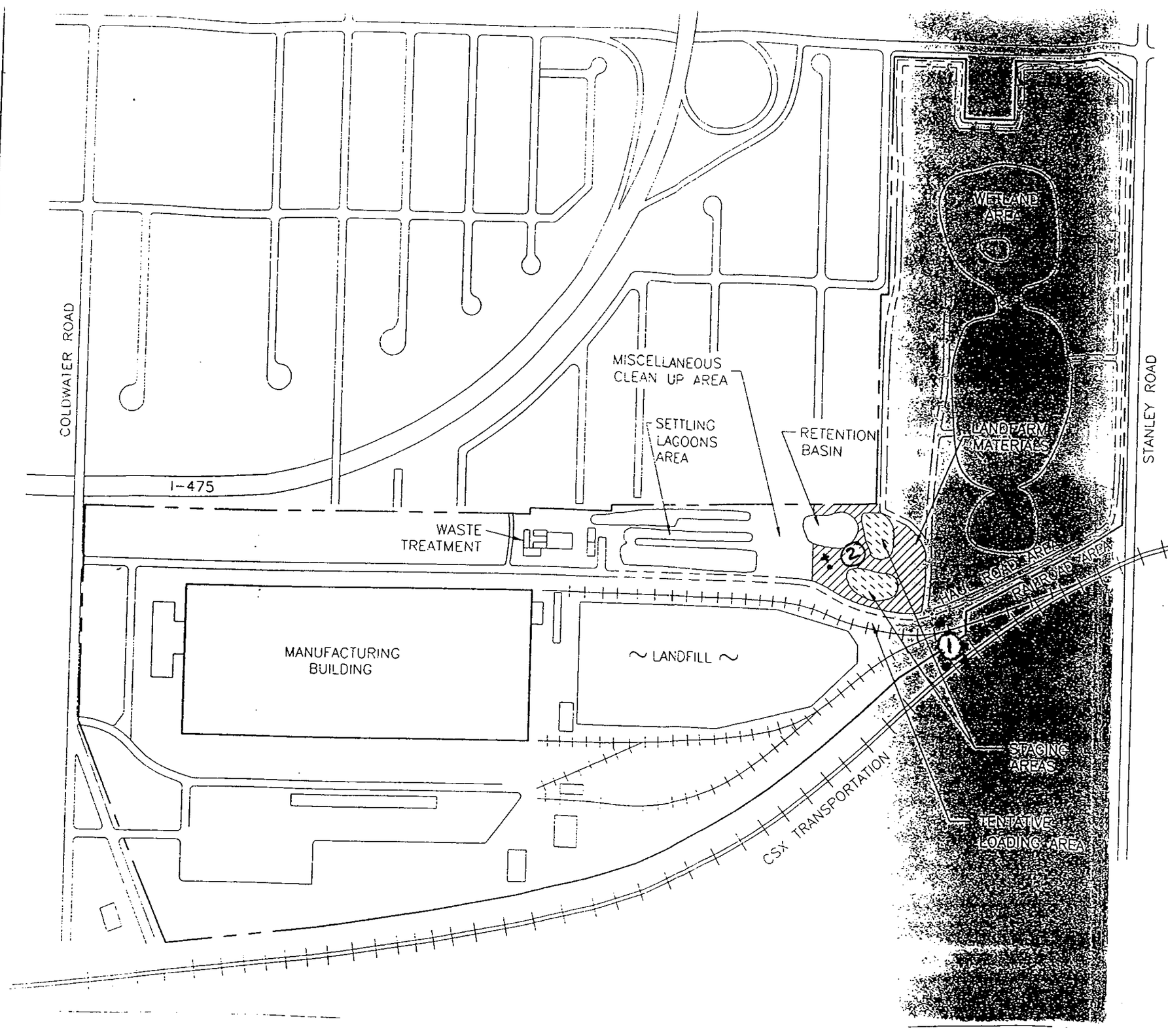
APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

OBRIEN & GERE ENGINEERS, INC.

FIGURE 2

4/23/96
4/24/96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

N

SITE PLAN

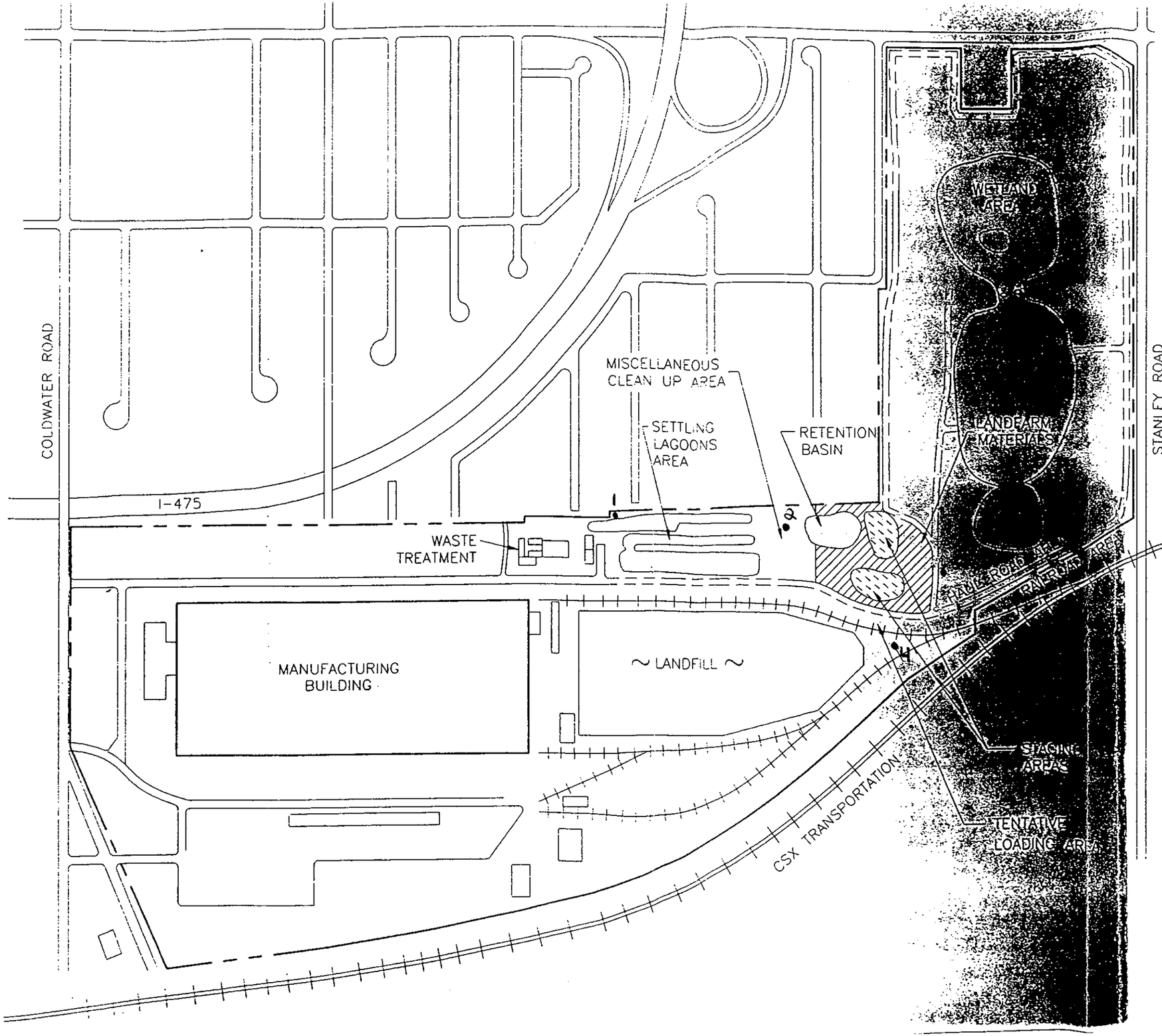
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATIC OF RAILROAD TRACKS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

3 stationary
move around
work area

~~SITE PLAN~~

dust monitor
locations

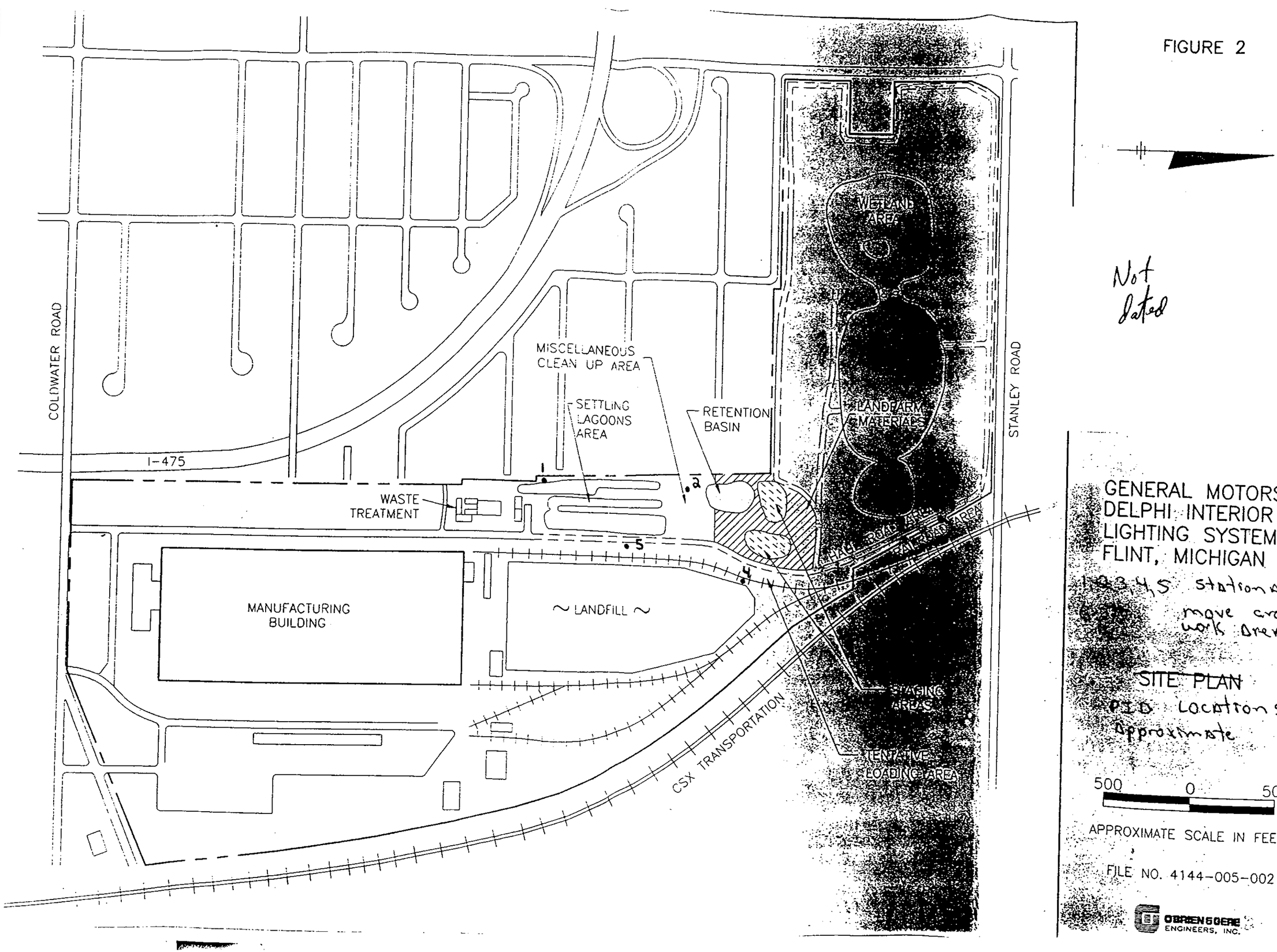
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2



Not dated

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

1234S stationary
move crowd
work area

SITE PLAN
PID Locations
Approximate

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

CSX TRANSPORTATION

STANLEY ROAD

WETLAND AREA

LANDFARM MATERIALS

RAILROAD AREA

STAGING AREAS

TENTATIVE LOADING AREA

1

2

4

5

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS DELPHI INTERIOR & LIGHTING SYSTEMS FLINT, MICHIGAN

1, 2, 3 Stationary monitor around work area

~~SITE PLAN~~

Dust monitor locations

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

No train loading.

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WETLAND AREA

LANDFARM MATERIALS

STANLEY ROAD

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

CSX TRANSPORTATION

TENTATIVE LOADING AREA

1, 2, 3, 4, 5 Stations. Move around landfill area

~~SITE PLAN~~

Approximate P.I.D Locations

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

500 0 500

APPROXIMATE SCALE IN FEET

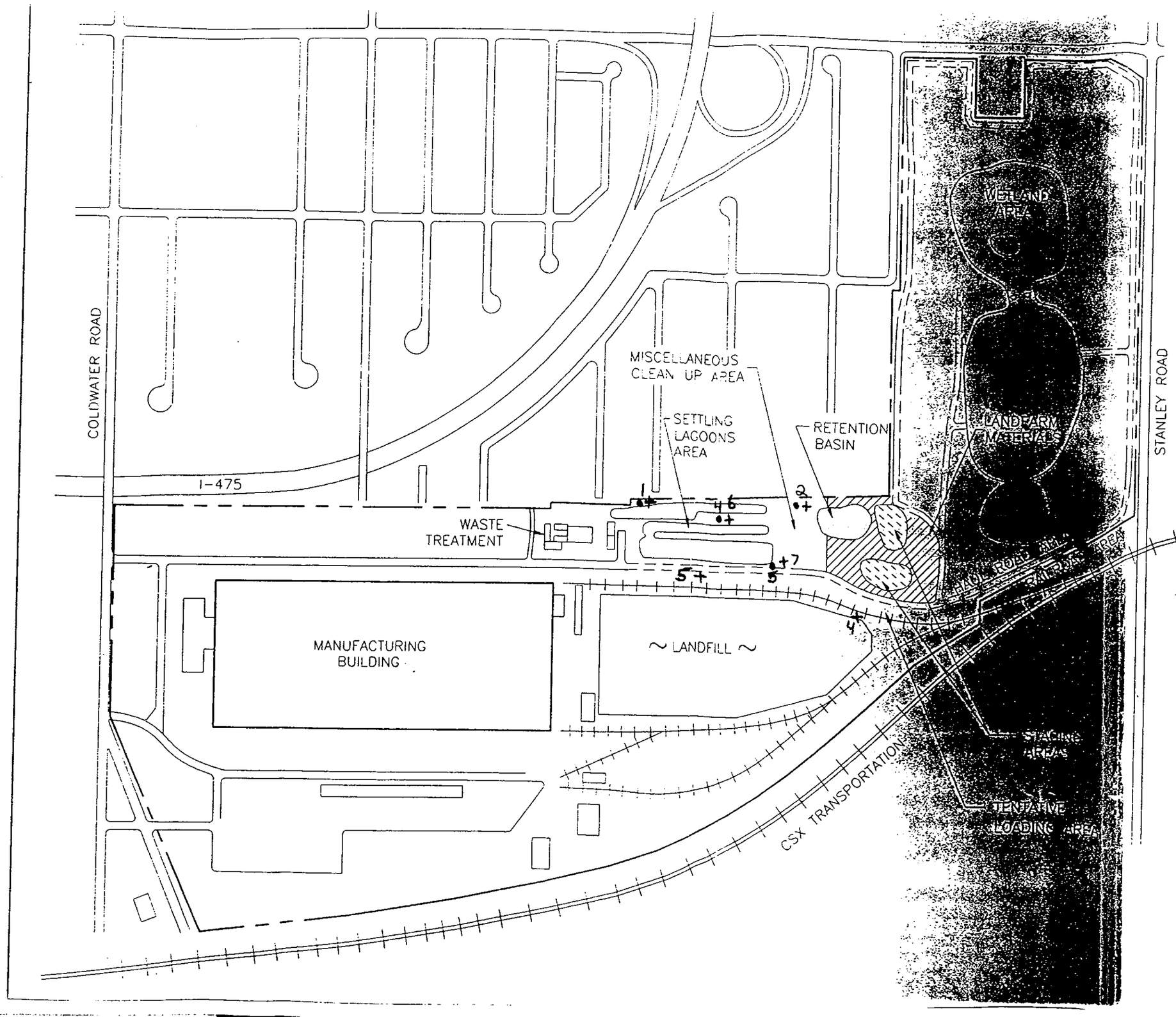
GENERAL MOTORS DELPHI INTERIOR & LIGHTING SYSTEMS FLINT, MICHIGAN

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

3-4-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

1, 2, 3 RDMS (stat.
4, 5 RDMS (mont

1, 2, 3, 4, 5 (stationary) PI

6, 7, 8 (movable) PI

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

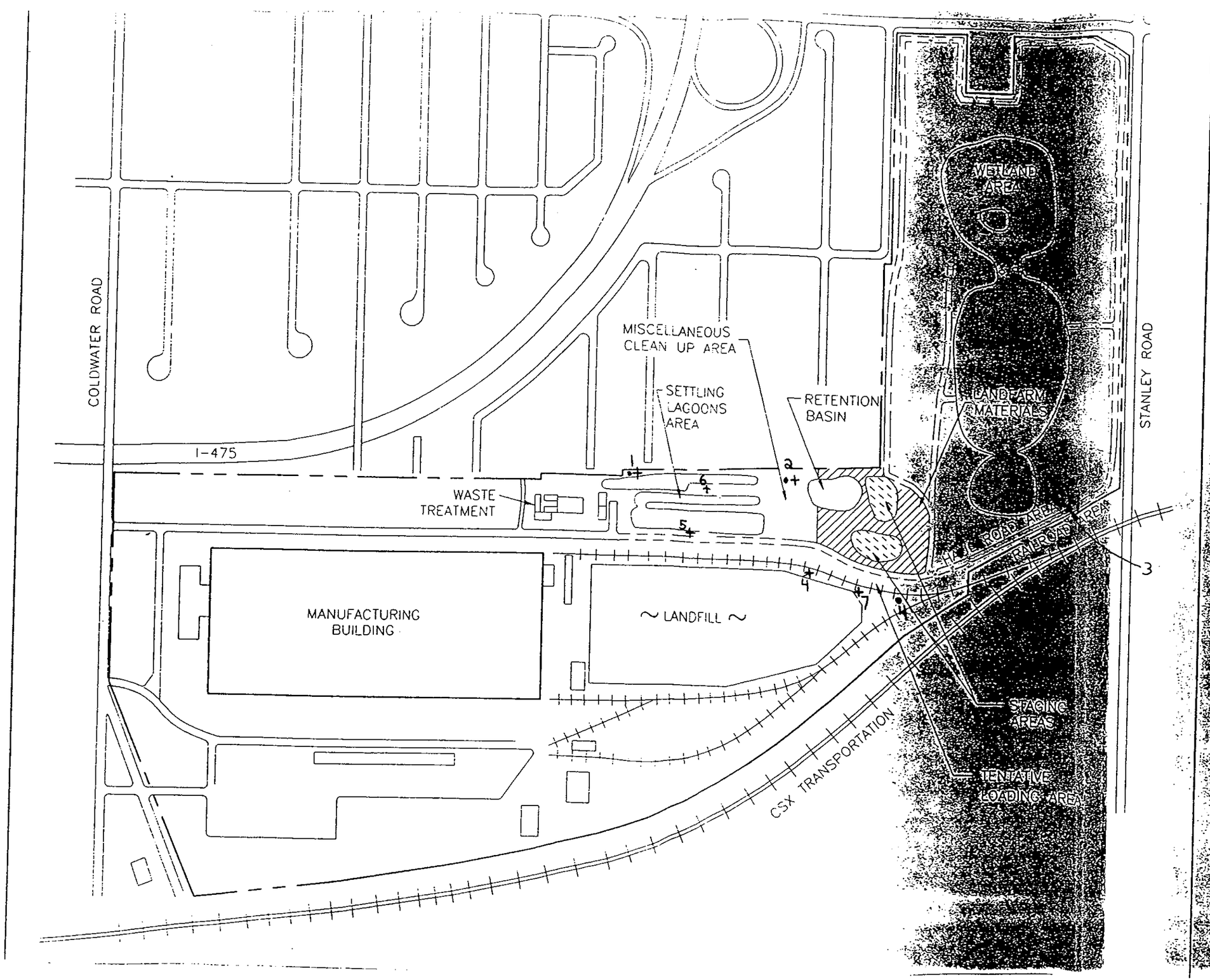
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

3-7-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

• 1, 2, 3, 4, 5 (RAMS)

+ 1, 2, 3, 4, 5, 6, 7 (PID)

8 p.i.d packet (Roomms)

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

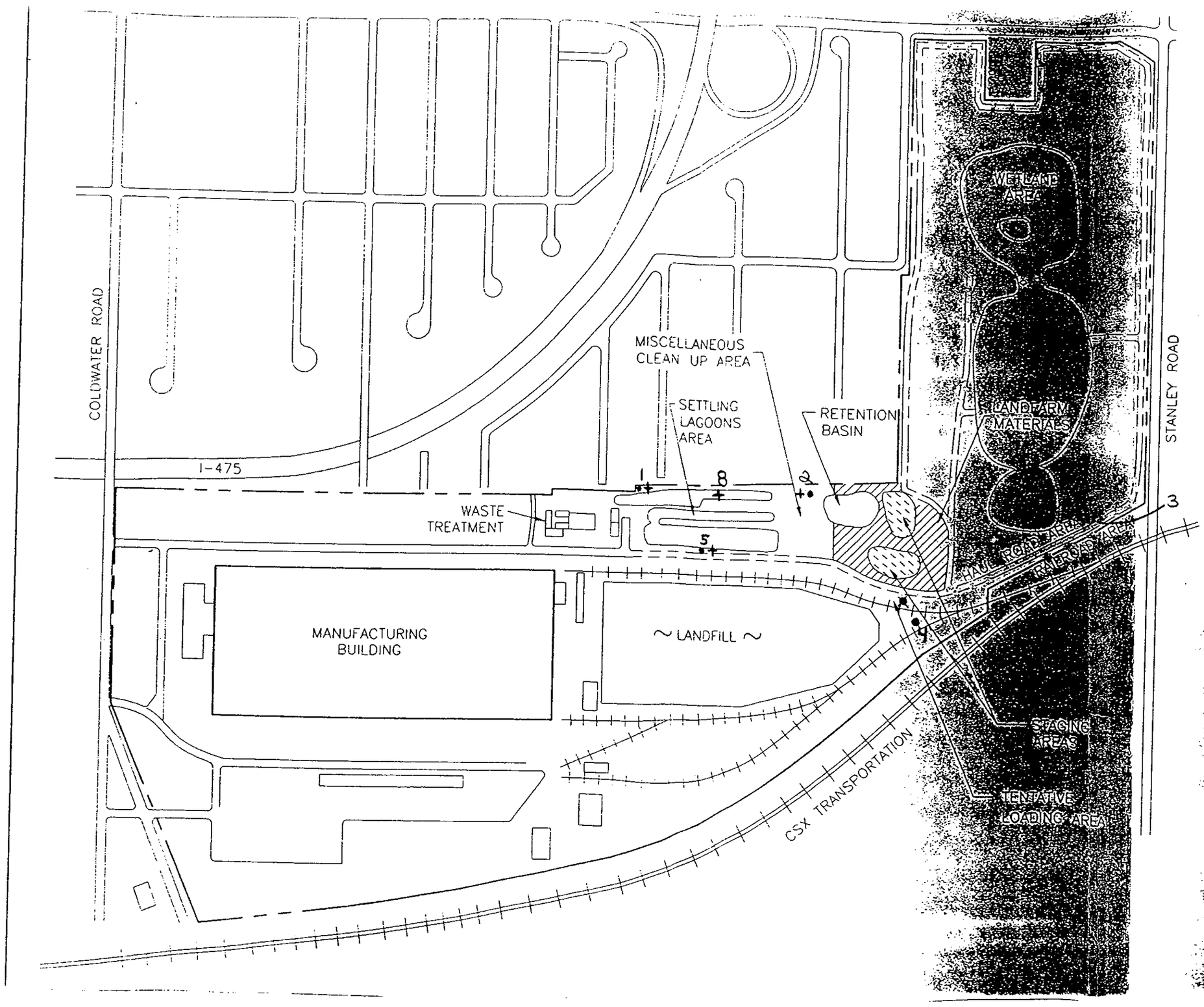
SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.



3-21-96

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

+ PIDS

• RAMS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

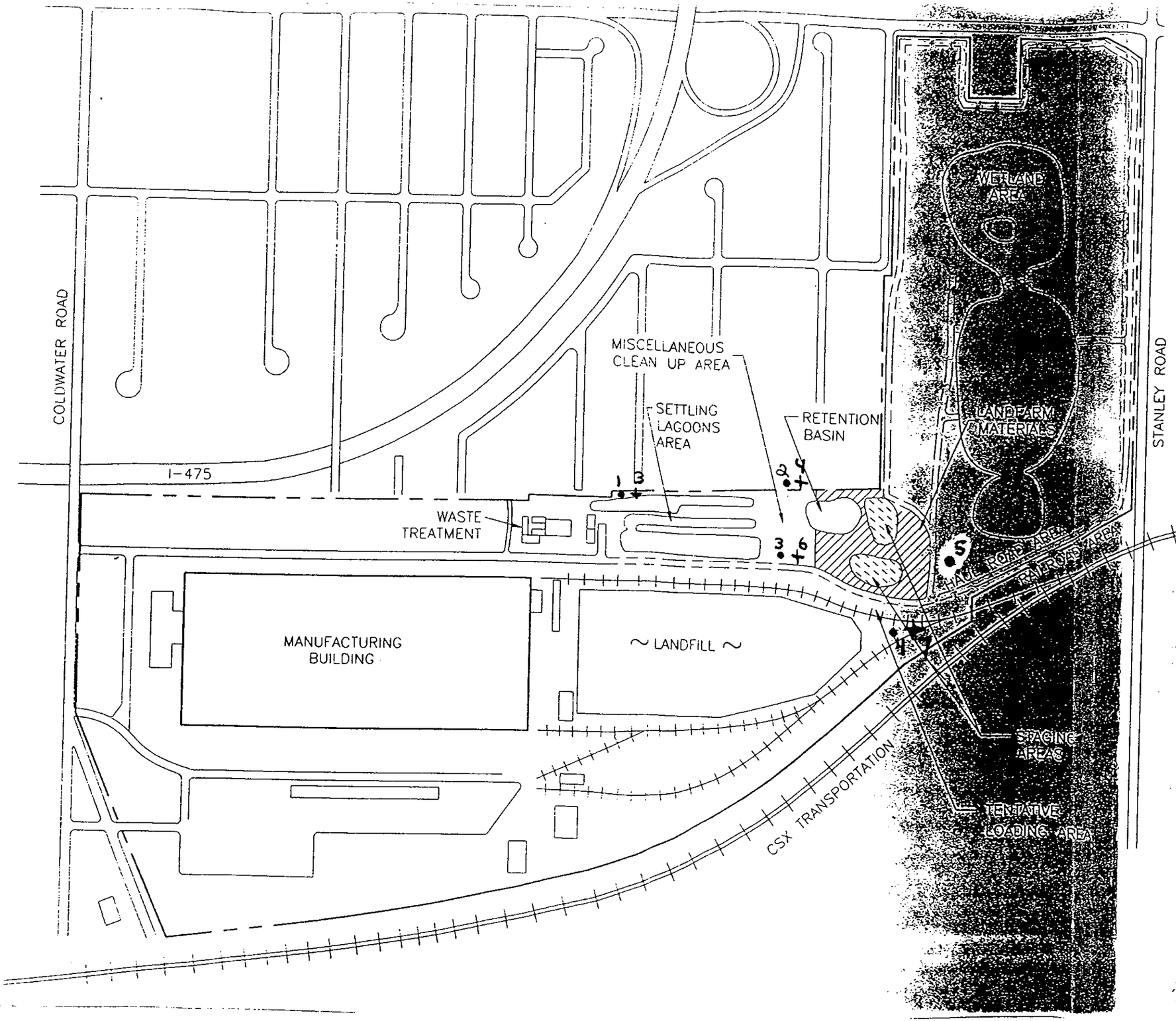
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

3-23-96



LEGEND

PROPERTY BOUNDAR

APPROXIMATE LOCAT OF RAILROAD TRACK

• RDMS

+ PIDS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

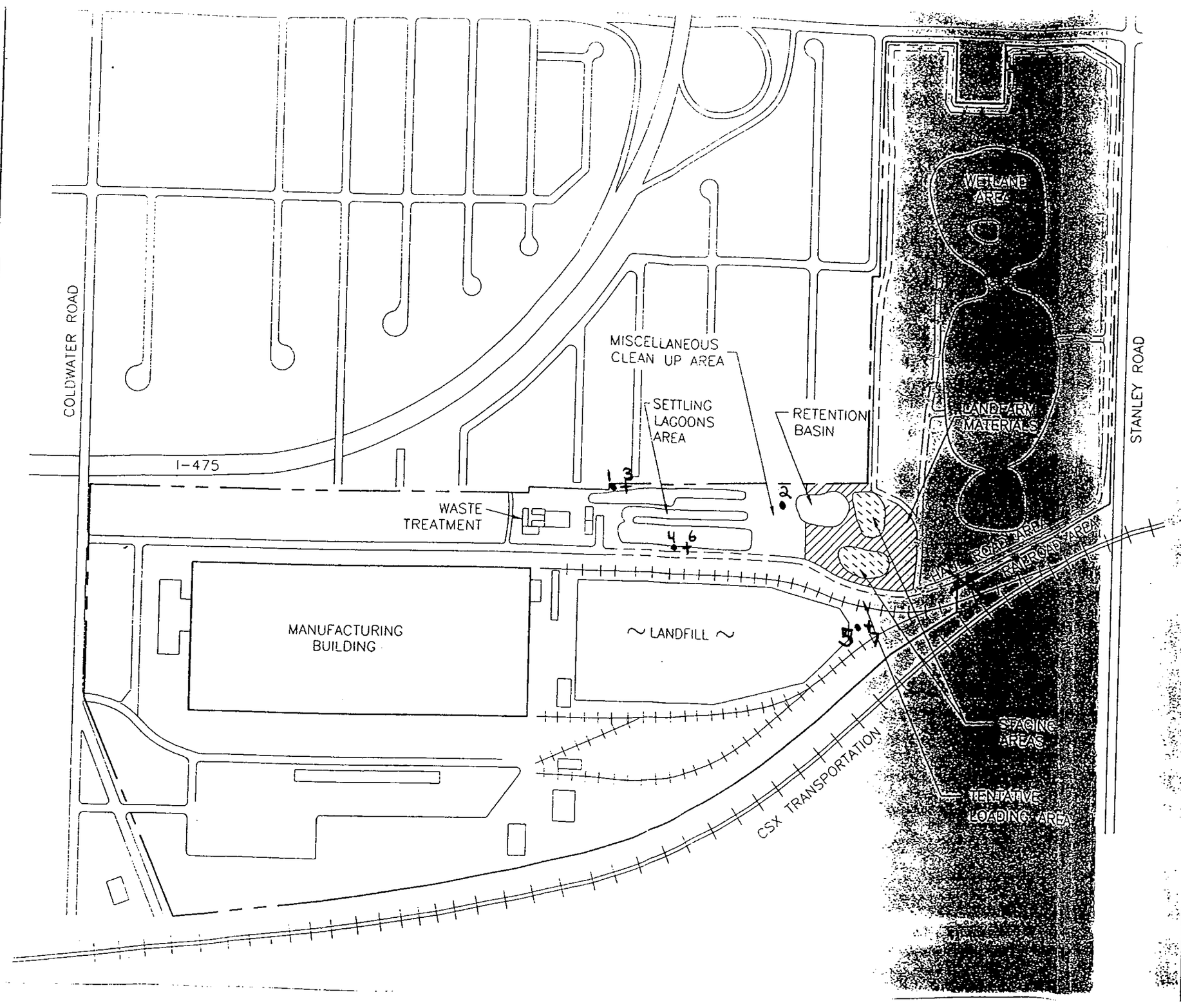
SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.



3-26-96

LEGEND

PROPERTY BOUNDAR

APPROXIMATE LOCAT OF RAILROAD TRACK

• RAM'S

+ PID'S

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

3-27-96

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

WETLAND AREA

LANDFARM MATERIALS

STANLEY ROAD

T&E ROAD AREA

RAILROAD AREA

STAGING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

1 3
2 6
3 4
4 7
5 8

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

• RDMS

+ PIDS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

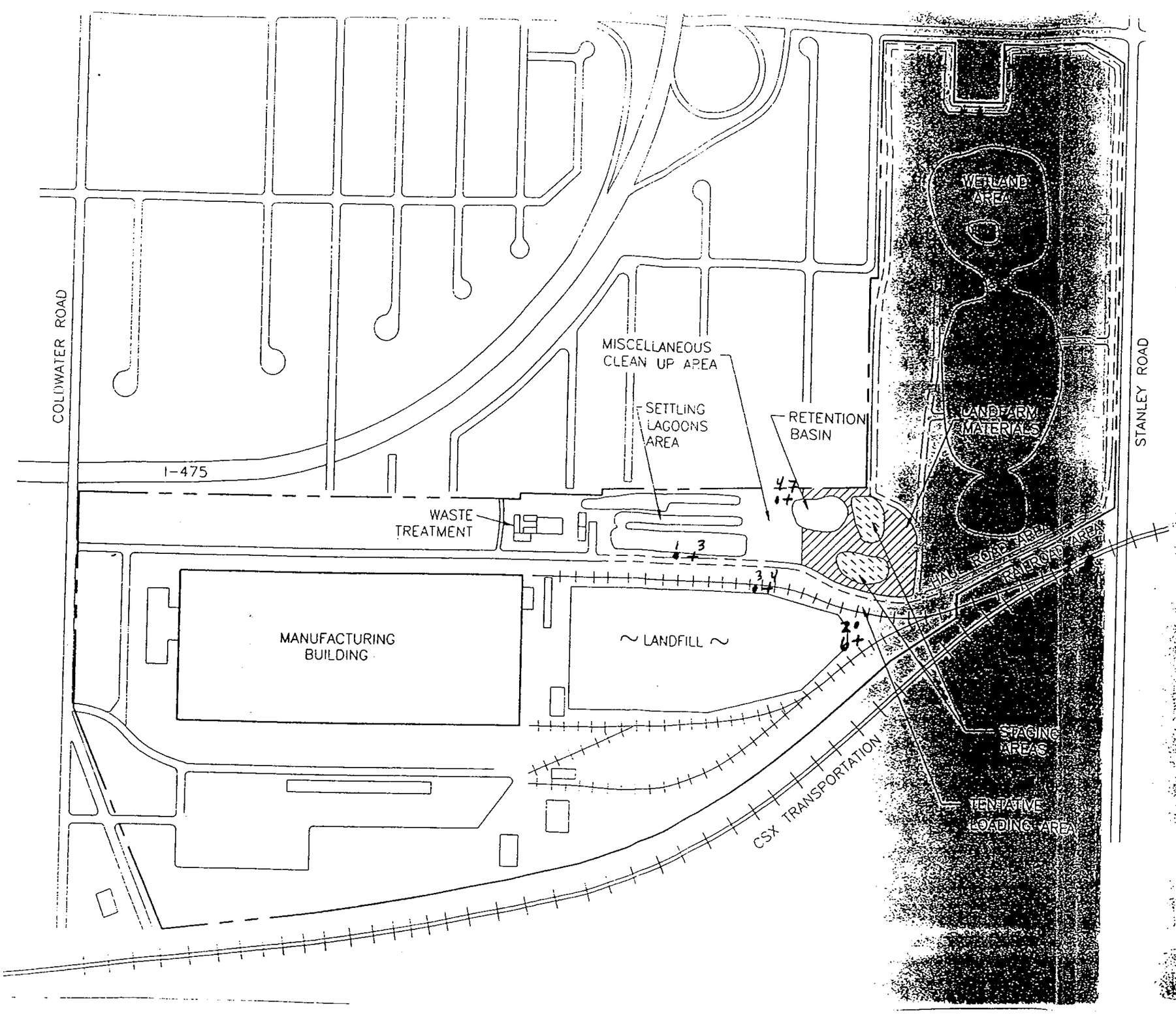
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

3-28-96



LEGEND

PROPERTY BOUNDAR

APPROXIMATE LOCAT OF RAILROAD TRACK

• Rams

+ PIDS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

4-11-96

COLLWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

WETLAND AREA

LANDFARM MATERIALS

STANLEY ROAD

OLD RAILROAD AREA

STAGING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

1 2 3 4 5 6

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

+ PID's

• RAM's

+ 8 pid (moveable)

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

4/23/96
4/24/96

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WETLAND AREA

LANDFARM MATERIALS

STANLEY ROAD

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

STAGING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

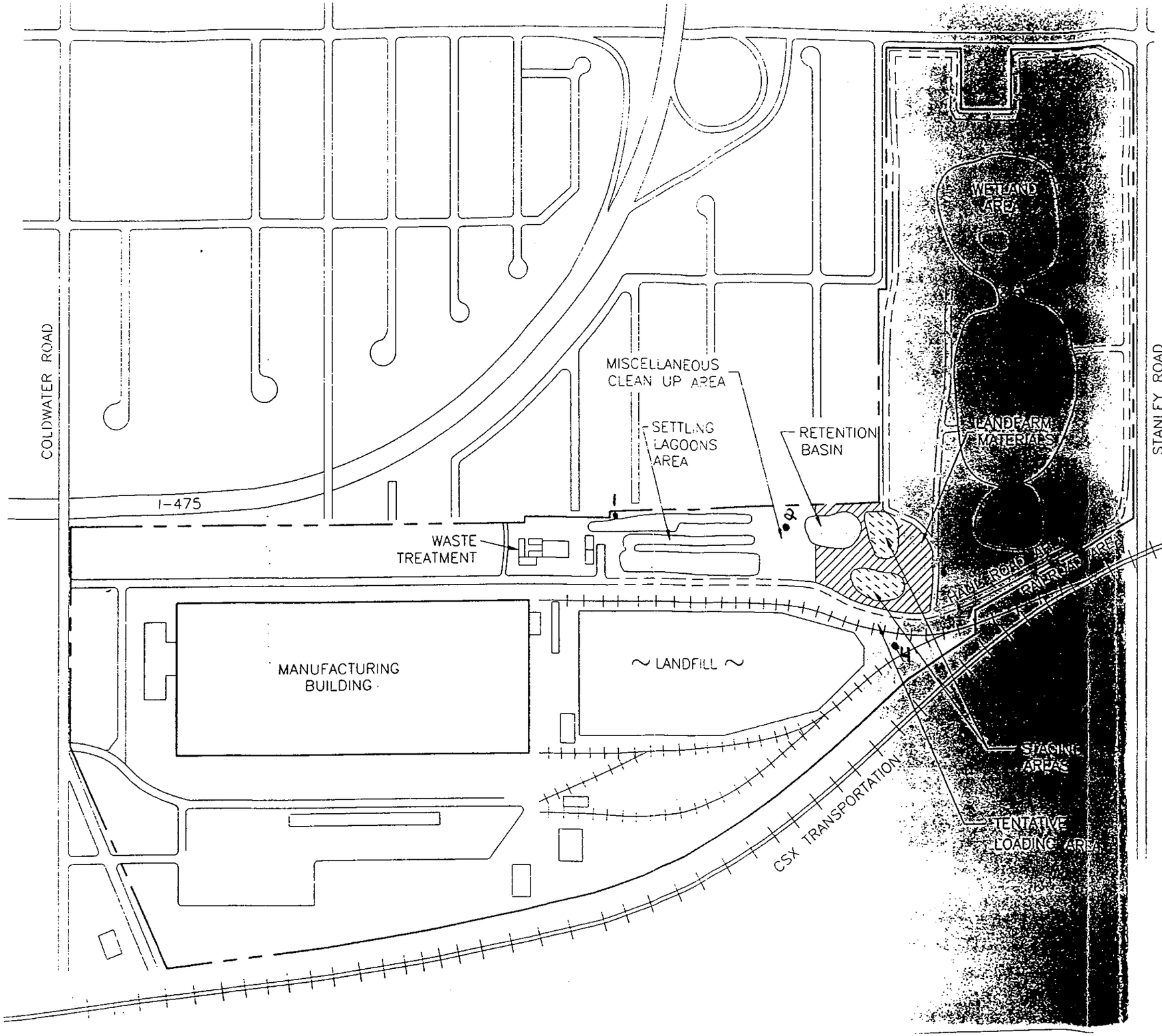
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

OBRIEN & GERE ENGINEERS, INC.

FIGURE 2



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

B-3 Stationary
move ground work area

~~SITE PLAN~~

Dust monitor locations

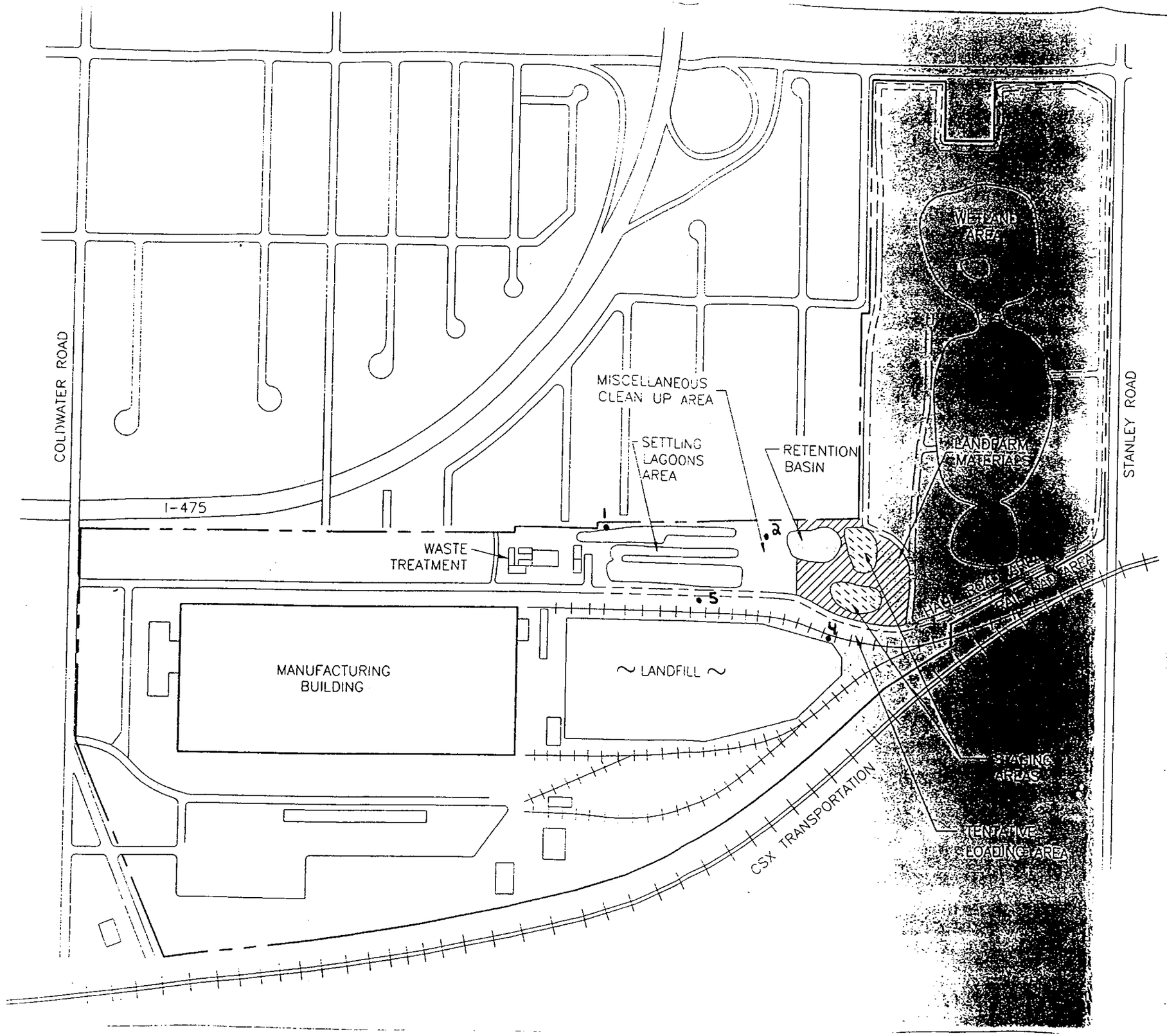
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2



Not dated

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

1234,5 stationary
move around work area

SITE PLAN
PID Locations
Approximate

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

STANLEY ROAD

WETLAND AREA

LANDFARM MATERIALS

STAGING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

GENERAL MOTORS DELPHI INTERIOR & LIGHTING SYSTEMS FLINT, MICHIGAN

1, 2, 3 Stationary

4, 5 move around work area

~~SITE PLAN~~

Dust Monitor Locations

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

No train loading.

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WETLAND AREA

LANDFARM MATERIALS

STANLEY ROAD

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

RAILROAD AREA

LOADING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

1, 2, 3, 4, 5 Stations

Move around work area

~~SITE PLAN~~

Approximate P.I.D locations

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

500 0 500

APPROXIMATE SCALE IN FEET

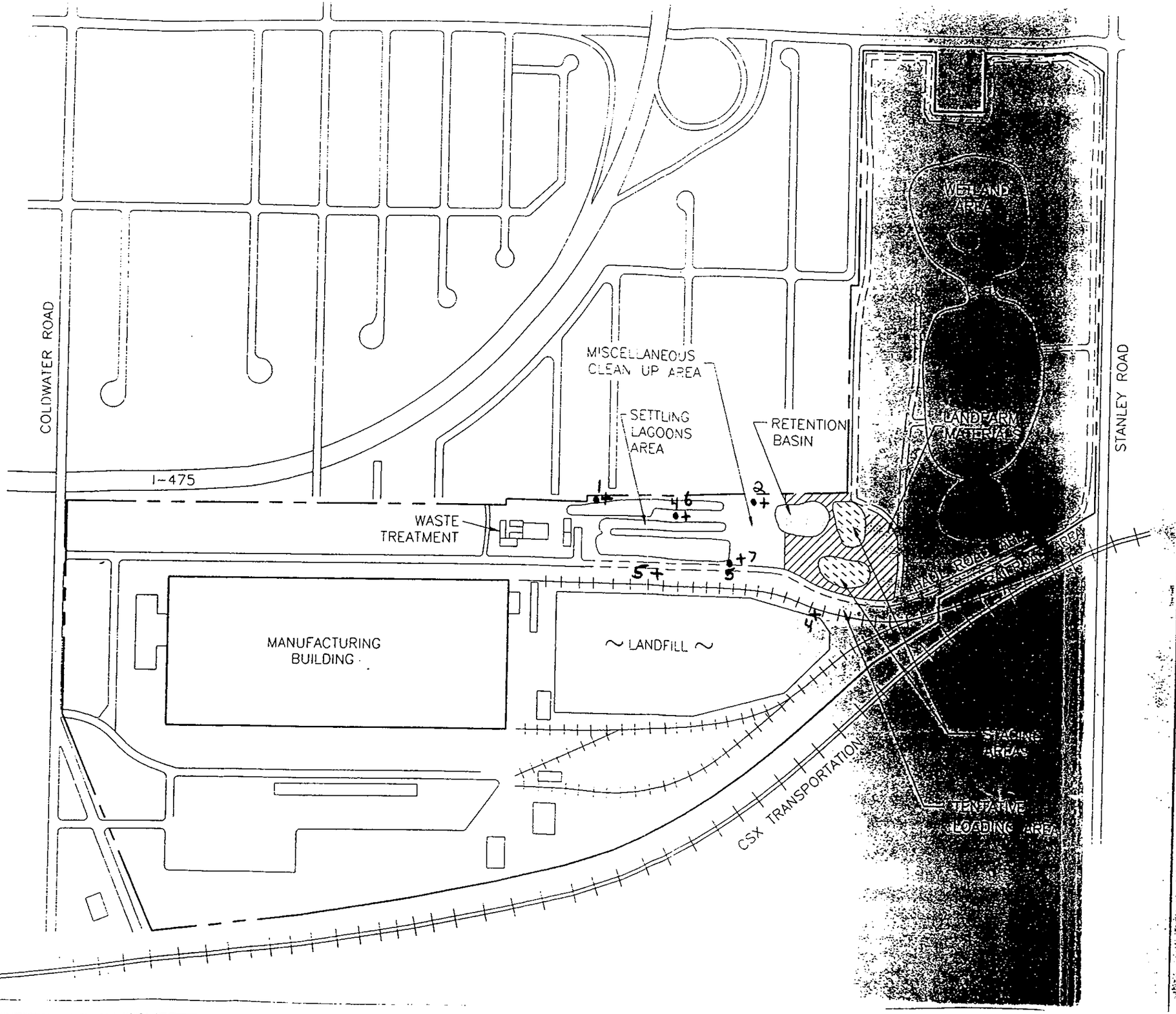
GENERAL MOTORS DELPHI INTERIOR & LIGHTING SYSTEMS FLINT, MICHIGAN

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

3-4-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

1, 2, 3 RDMS (stat.
4, 5 RDMS (mobi

+ 1, 2, 3, 4, 5 (stationary) PI

6, 7 (movable) PI

GENERAL MOTORS DELPHI INTERIOR & LIGHTING SYSTEMS FLINT, MICHIGAN

SITE PLAN

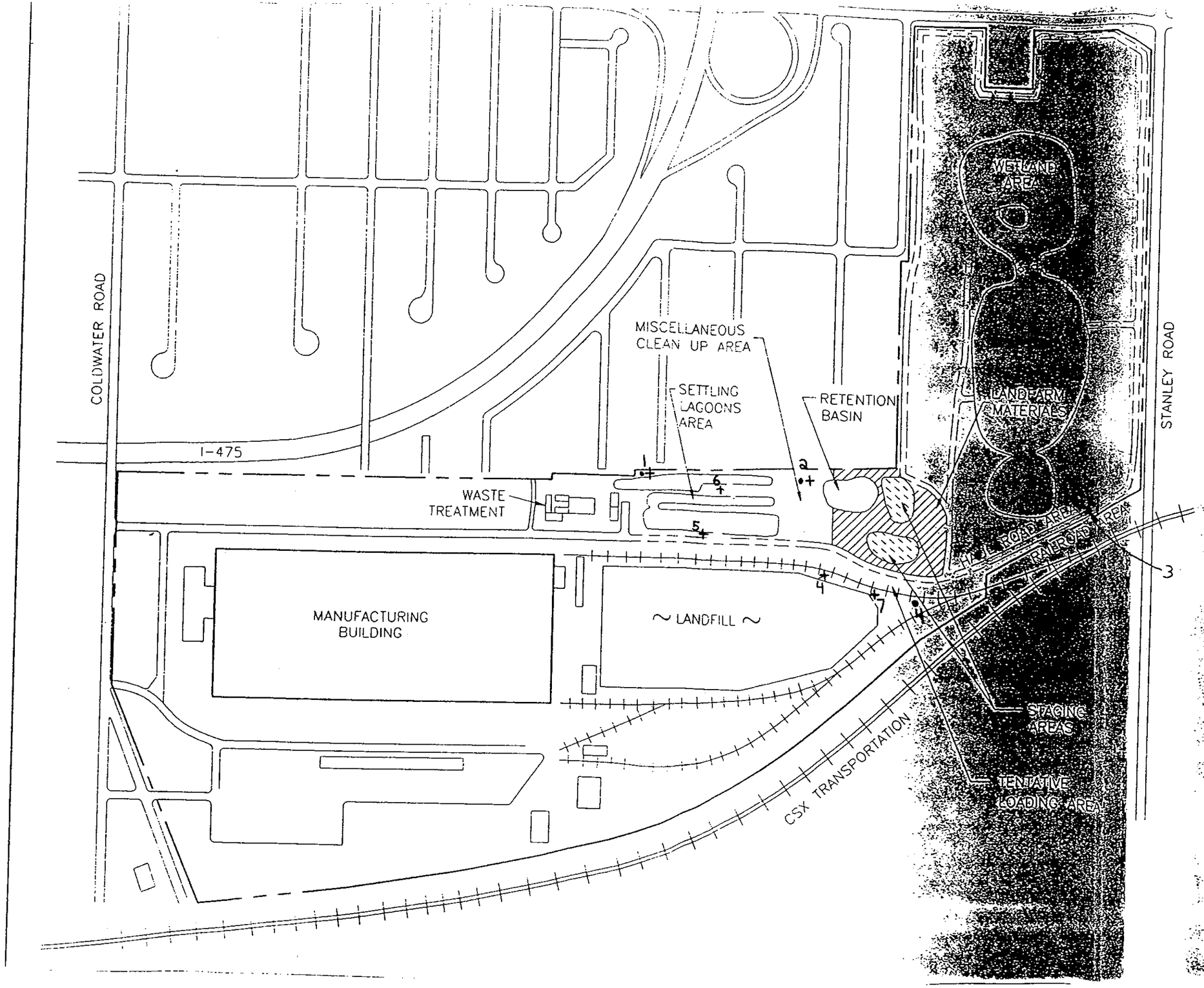
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APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

3-7-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

• 1, 2, 3, 4, 5 (RAMS)

+ 1, 2, 3, 4, 5, 6, 7 (PID)

8 pid packet (Roomms)

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

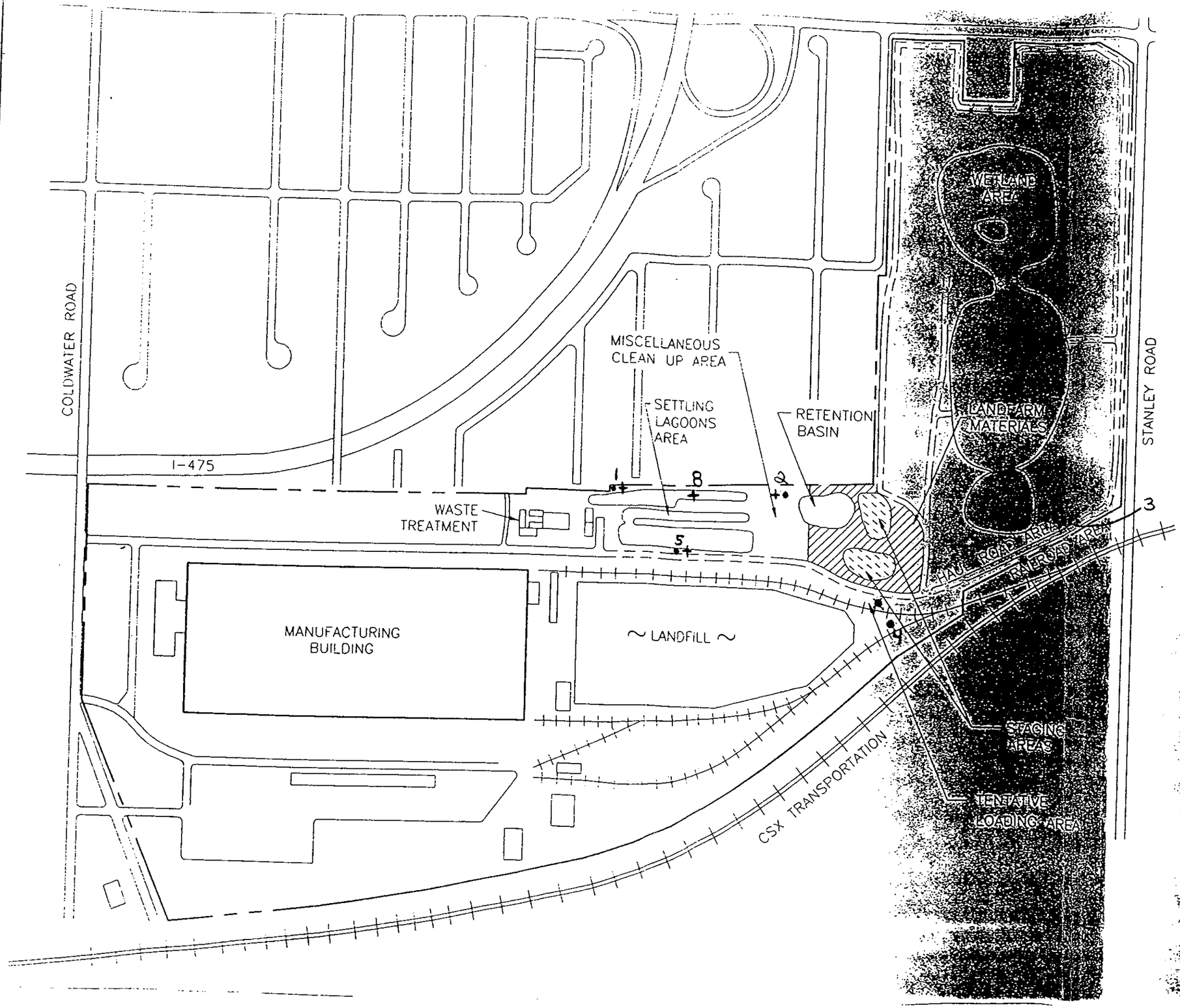
SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.



3-21-96

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

+ PIDS

• RAMS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

3-23-96

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

WETLAND AREA

LANDFARM MATERIALS

STANLEY ROAD

STAGING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

LEGEND

PROPERTY BOUNDAR

APPROXIMATE LOCAT OF RAILROAD TRACK

• RDMS

+ PIDS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

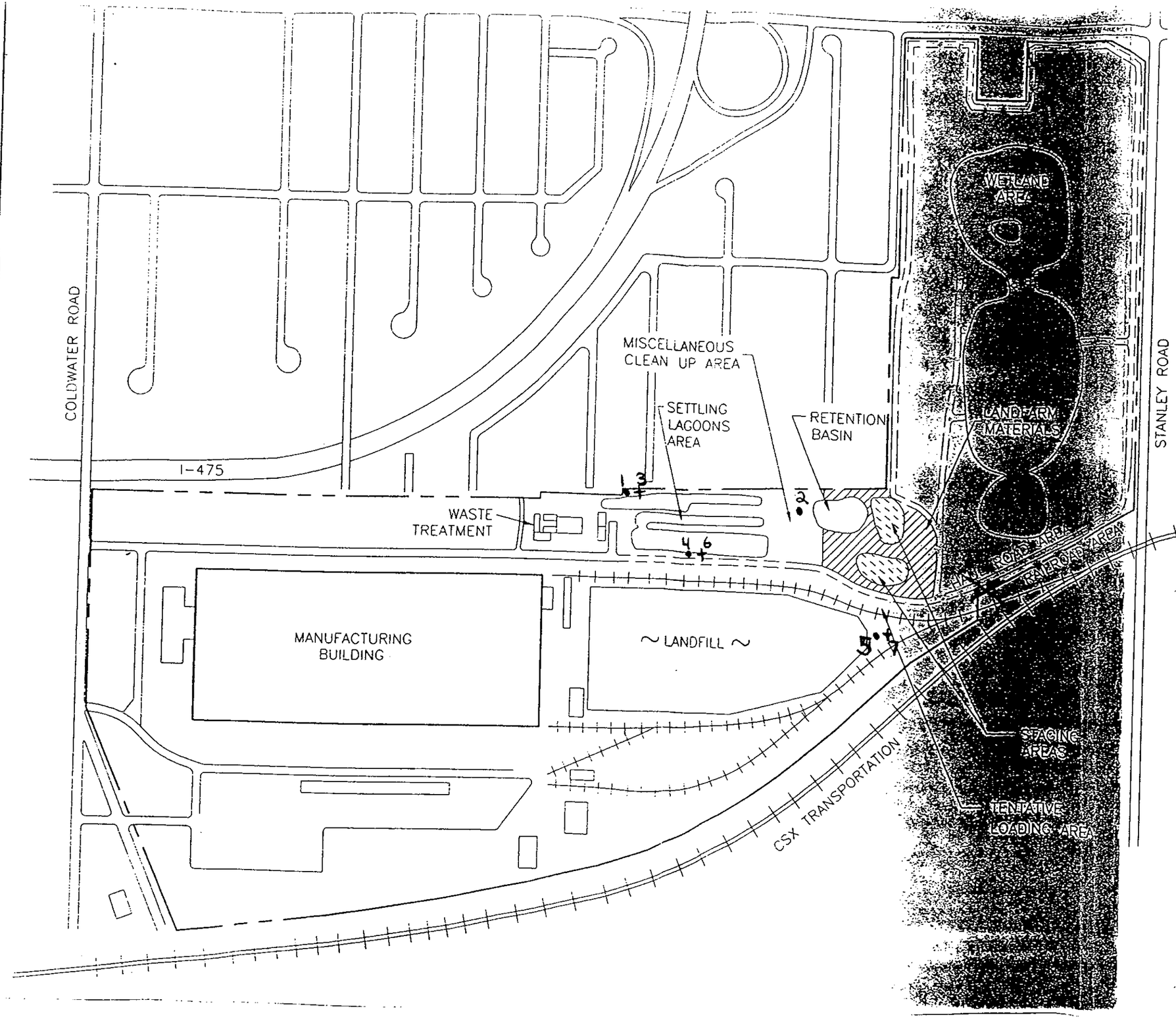
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APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

OBRIEN & GERE ENGINEERS, INC.

3-26-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

• RAM'S

+ PID'S

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

3-27-96

COLDWATER ROAD

I-475

MISCELLANEOUS CLEAN UP AREA

SETTLING LAGOONS AREA

RETENTION BASIN

WASTE TREATMENT

MANUFACTURING BUILDING

~ LANDFILL ~

WETLAND AREA

LAND FARM MATERIALS

STANLEY ROAD

TAU ROAD AREA

RAILROAD AREA

STAGING AREAS

TENTATIVE LOADING AREA

CSX TRANSPORTATION

1 3 + +

2 6 + +

3 4 + +

7 + 4

8 + 5

LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

• RDMs

+ PIDS

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

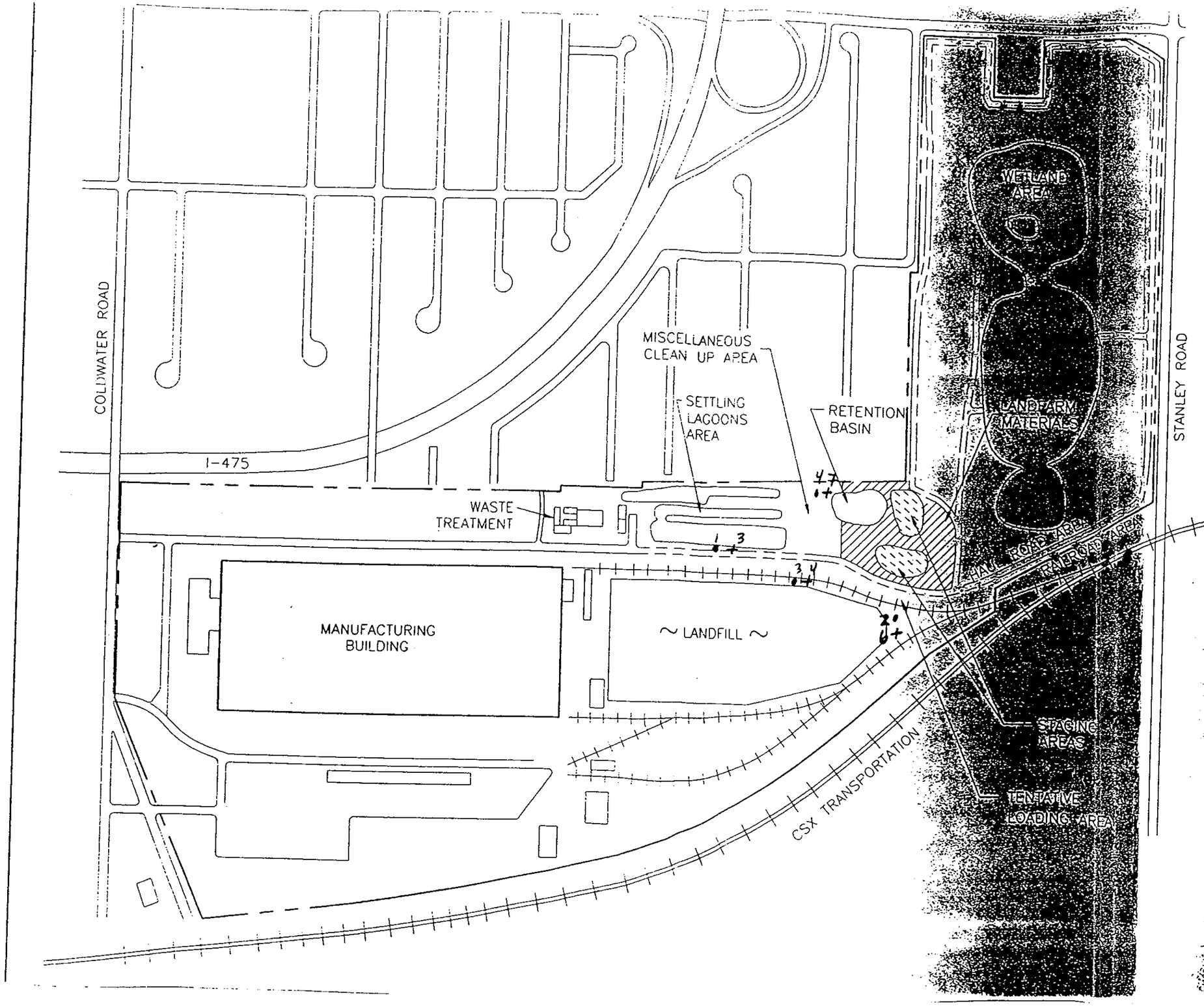
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APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

3-28-96



LEGEND

PROPERTY BOUNDAR

APPROXIMATE LOCAT OF RAILROAD TRACK

• Rams

+ PIDS

GENERAL MOTORS
DELPHI INTERIOR &
LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

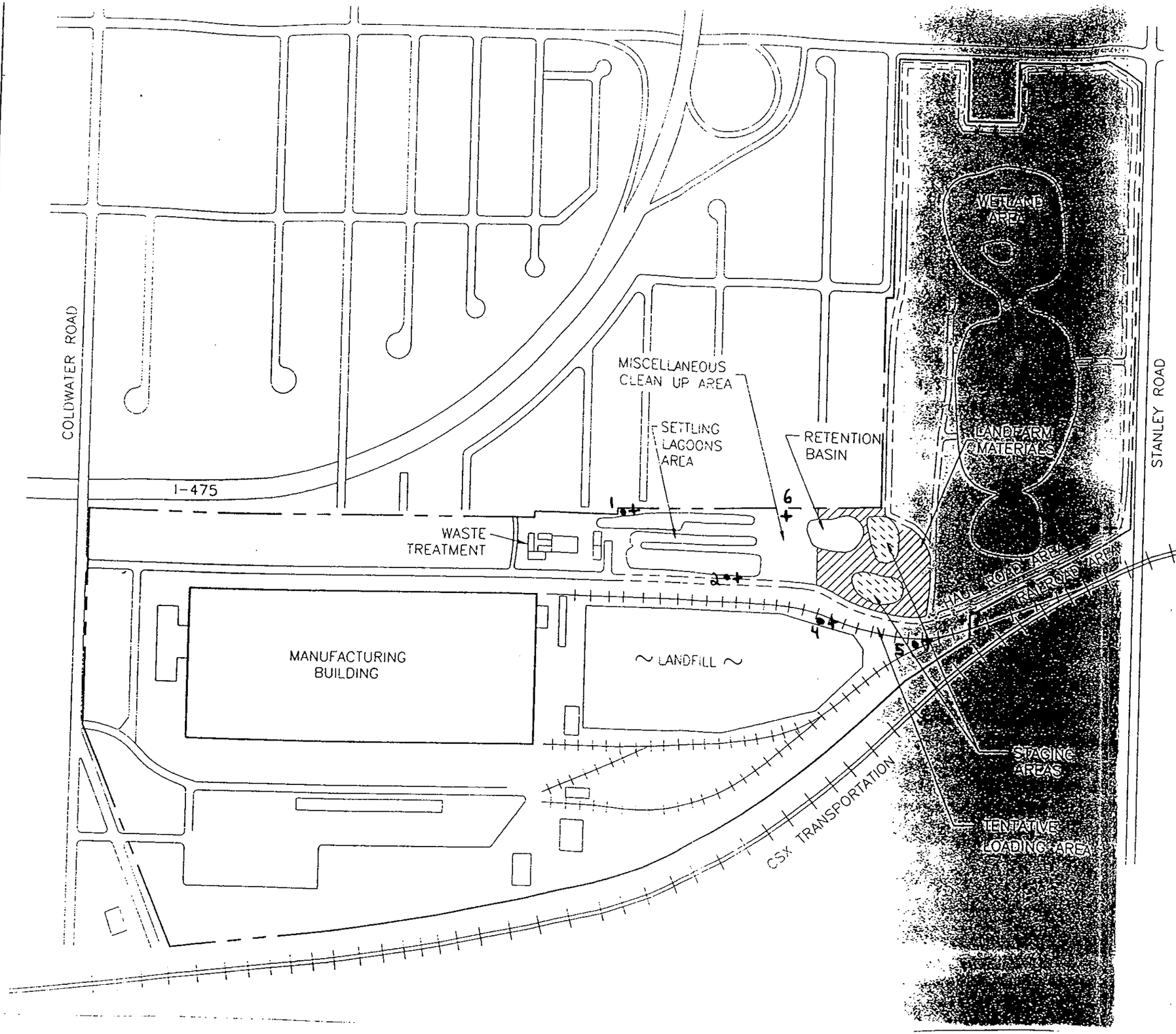
APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

4-11-96



LEGEND

PROPERTY BOUNDARY

APPROXIMATE LOCATION OF RAILROAD TRACKS

+ PID's

• RAM's

+ 3 pid (moveable)

GENERAL MOTORS
DELPHI INTERIOR & LIGHTING SYSTEMS
FLINT, MICHIGAN

SITE PLAN

500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-005-002

OBRIEN & GERE ENGINEERS, INC.

APPENDIX H

Closure Sample Analytical Data Sheets - Lagoon Area

Fi.e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File 4144.007 #4

February 09, 1996

Attention: Mr. Tony Finch

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA31118-AA31121

Project: 4144.007 GM Delphi Coldwater Rd. Flint
Samples collected by: AJF/SLY
Date/Time Submitted: 02/08/96 14:30
PO #: Verbal

FECL #: AA31118
Tag: LSW-4
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31119
Tag: LSW-9
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31120
Tag: LSW-13
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 09, 1996

FECL #: AA31121
Tag: LSW-17
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 09, 1996

FECL #: AA31118
Tag: LSW-4
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.4	%	1	160.3	J V	02/08/96
Metals						
Chromium	9.3	mg/kg	1.0	6020	P R	02/08/96
Copper	9.7	mg/kg	1.0	6020	P R	02/08/96
Nickel	24.2	mg/kg	0.50	6020	P R	02/08/96
Zinc	32.1	mg/kg	1.0	6020	P R	02/08/96

FECL #: AA31119
Tag: LSW-9
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.0	%	1	160.3	J V	02/08/96
Metals						
Chromium	210	mg/kg	1.0	6020	P R	02/08/96
Copper	111	mg/kg	1.0	6020	P R	02/08/96
Nickel	231	mg/kg	0.50	6020	P R	02/08/96
Zinc	178	mg/kg	1.0	6020	P R	02/08/96

FECL #: AA31120
Tag: LSW-13
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.2	%	1	160.3	J V	02/08/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 09, 1996

FECL #: AA31120 (Continued)
Tag: LSW-13
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	179	mg/kg	1.0	6020	P R	02/08/96
Copper	102	mg/kg	1.0	6020	P R	02/08/96
Nickel	170	mg/kg	0.50	6020	P R	02/08/96
Zinc	148	mg/kg	1.0	6020	P R	02/08/96

FECL #: AA31121
Tag: LSW-17
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.5	%	1	160.3	J V	02/08/96
Metals						
Chromium	8.4	mg/kg	1.0	6020	P R	02/08/96
Copper	12.4	mg/kg	1.0	6020	P R	02/08/96
Nickel	44.2	mg/kg	0.50	6020	P R	02/08/96
Zinc	45.5	mg/kg	1.0	6020	P R	02/08/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak
Laboratory Director

Fi. e & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

February 12, 1996

Attention: Mr. Tony Finch

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA31206-AA31219

Project: 4144.007 GM Delphi Coldwater Rd. Flint
Samples collected by: AJF/SLY
Date/Time Submitted: 02/08/96 14:30
PO #: Verbal

FECL #: AA31206
Tag: LSW-1
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31207
Tag: LSW-2
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31208
Tag: LSW-3
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31209
Tag: LSW-5
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31210
Tag: LSW-6
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31211
Tag: LSW-7
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31212
Tag: LSW-8
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31213
Tag: LSW-10
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31214
Tag: LSW-11
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31215
Tag: LSW-12
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31216
Tag: LSW-14
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31217
Tag: LSW-15
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31218
Tag: LSW-16
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA31219
Tag: LSW-18
Date/Time Collected: 02/08/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31206
Tag: LSW-1
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.8	%	1	160.3	I M	02/09/96
Metals						
Chromium	39.5	mg/kg	1.0	6020	P R	02/12/96
Copper	23.8	mg/kg	1.0	6020	P R	02/12/96
Nickel	87.5	mg/kg	0.50	6020	P R	02/12/96
Zinc	98.1	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31207
Tag: LSW-2
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	I M	02/09/96
Metals						
Chromium	4.8	mg/kg	1.0	6020	P R	02/12/96
Copper	6.1	mg/kg	1.0	6020	P R	02/12/96
Nickel	4.8	mg/kg	0.50	6020	P R	02/12/96
Zinc	13.7	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31208
Tag: LSW-3
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.0	%	1	160.3	I M	02/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31208 (Continued)
Tag: LSW-3
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	129	mg/kg	1.0	6020	P R	02/12/96
Copper	118	mg/kg	1.0	6020	P R	02/12/96
Nickel	85.3	mg/kg	0.50	6020	P R	02/12/96
Zinc	118	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31209
Tag: LSW-5
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.7	%	1	160.3	I M	02/09/96
Metals						
Chromium	6.4	mg/kg	1.0	6020	P R	02/12/96
Copper	8.3	mg/kg	1.0	6020	P R	02/12/96
Nickel	20.6	mg/kg	0.50	6020	P R	02/12/96
Zinc	25.7	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31210
Tag: LSW-6
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.9	%	1	160.3	I M	02/09/96
Metals						
Chromium	924	mg/kg	1.0	6020	P R	02/12/96
Copper	512	mg/kg	1.0	6020	P R	02/12/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31210 (Continued)
Tag: LSW-6
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	559	mg/kg	0.50	6020	P R	02 12/96
Zinc	435	mg/kg	1.0	6020	P R	02 12/96

FECL #: AA31211
Tag: LSW-7
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	71.8	%	1	160.3	I M	02 09
Metals						
Chromium	399	mg/kg	1.0	6020	P R	02 12/96
Copper	159	mg/kg	1.0	6020	P R	02 12/96
Nickel	232	mg/kg	0.50	6020	P R	02 12/96
Zinc	322	mg/kg	1.0	6020	P R	02 12/96

FECL #: AA31212
Tag: LSW-8
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.3	%	1	160.3	I M	02 09/96
Metals						
Chromium	170	mg/kg	1.0	6020	P R	02 12/96
Copper	86.8	mg/kg	1.0	6020	P R	02 12/96
Nickel	108	mg/kg	0.50	6020	P R	02 12/96
Zinc	141	mg/kg	1.0	6020	P R	02 12/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31213
Tag: LSW-10
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.0	%	1	160.3	I M	02/09/96
Metals						
Chromium	189	mg/kg	1.0	6020	P R	02/12/96
Copper	75.5	mg/kg	1.0	6020	P R	02/12/96
Nickel	118	mg/kg	0.50	6020	P R	02/12/96
Zinc	106	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31214
Tag: LSW-11
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.0	%	1	160.3	I M	02/09/96
Metals						
Chromium	325	mg/kg	1.0	6020	P R	02/12/96
Copper	126	mg/kg	1.0	6020	P R	02/12/96
Nickel	207	mg/kg	0.50	6020	P R	02/12/96
Zinc	215	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31215
Tag: LSW-12
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.8	%	1	160.3	I M	02/09/96

FECL #: AA31215 (Continued)
Tag: LSW-12
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	5.3	mg/kg	1.0	6020	P R	02/12/96
Copper	8.8	mg/kg	1.0	6020	P R	02/12/96
Nickel	23.8	mg/kg	0.50	6020	P R	02/12/96
Zinc	23.8	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31216
Tag: LSW-14
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.9	%	1	160.3	I M	02/09/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	02/12/96
Copper	7.2	mg/kg	1.0	6020	P R	02/12/96
Nickel	21.3	mg/kg	0.50	6020	P R	02/12/96
Zinc	28.0	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31217
Tag: LSW-15
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.0	%	1	160.3	I M	02/09/96
Metals						
Chromium	5.4	mg/kg	1.0	6020	P R	02/12/96
Copper	8.1	mg/kg	1.0	6020	P R	02/12/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

FECL #: AA31217 (Continued)
Tag: LSW-15
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	20.0	mg/kg	0.50	6020	P R	02/12/96
Zinc	30.0	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31218
Tag: LSW-16
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.5	%	1	160.3	I M	02/09/96
Metals						
Chromium	34.2	mg/kg	1.0	6020	P R	02/12/96
Copper	28.4	mg/kg	1.0	6020	P R	02/12/96
Nickel	45.7	mg/kg	0.50	6020	P R	02/12/96
Zinc	56.3	mg/kg	1.0	6020	P R	02/12/96

FECL #: AA31219
Tag: LSW-18
Date/Time Collected: 02/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.7	%	1	160.3	I M	02/09/96
Metals						
Chromium	7.5	mg/kg	1.0	6020	P R	02/12/96
Copper	11.1	mg/kg	1.0	6020	P R	02/12/96
Nickel	19.1	mg/kg	0.50	6020	P R	02/12/96
Zinc	26.4	mg/kg	1.0	6020	P R	02/12/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
February 12, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak
Laboratory Director

O'BRIEN & GERE
ENGINEERS, INC.

Job No. 444.007
Sheet 1 of 2

Office: _____
Address: _____
Phone: _____

CHAIN OF CUSTODY

CLIENT:
LOCATION:

COLLECTED BY: AJF/SLY
(Signature)

Item	SAMPLE DESCRIPTION (FECL #)	Depth	Date	Time	Pres[1] (Y, N)	Matrix[2]	Type[3]	No. of Containers	ANALYSIS REQUESTED
1	LSW-11 (CV) 31204		2/6/96		N	SOIL	G	1	HOLD
2	LSW-12 31205		"		"	"	"	"	↓
3	LSW-13 31120								Cr, Cu, Ni, Zn 24 TAT
4	LSW-14 31206								HOLD
5	LSW-15 31207								↓
6	LSW-16 31208								↓
7	LSW-17 21121								Cr, Cu, Ni, Zn 24 TAT
8	LSW-18 31209		↓		↓	↓	↓	↓	HOLD
9	LSW SW-M		2/6/96		N	SOIL	G	1	↓
10									

[1] Pres = preservation (HCl, HNO_3, etc.)
[2] Matrix = water, wastewater, air, sludge, sediment, etc.
[3] Type = grab, composite

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time
Relinquished by: O'Brien & Gere / of:	2/7/96	13:40	Received by: Roseanne Hon / of: FECL	2/8/96	2:30
Relinquished by: Mary Mushlin / of: FECL	2/8/96	13:40	Received by: / of:		
Relinquished by: / of:			Received by: / of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:			Courier Name: *Attach delivery/courier receipt to Chain of Custody		
Relinquished by: / of:			Received by: / of:		

djb/wpC

December 13, 1994

O'BRIEN & GERE
ENGINEERS, INC.

Job No. 4144.007
Sheet 1 of _

Office: _____
Address: 39500 ORCHARD HILL PLACE NOVI, MI
Phone: (810) 347-4350

CHAIN OF CUSTODY

CLIENT: GM DELPHI
LOCATION: COLDWATER Rd. FLINT

COLLECTED BY: AJF / SLY
(Signature) O'BRIEN + GERE ENGINEERS

Item	SAMPLE DESCRIPTION (FECL #)	Depth	Date	Time	Pres[1] (Y, N)	Matrix[2]	Type[3]	No. of Containers	ANALYSIS REQUESTED
1	LSW-1 31206		2/6/96		N	soil	G	1	HOLD
2	LSW-2 31207		↓		↓	↓	↓	↓	↓
3	LSW-3 31208								↓
4	LSW-4 31118								Cu, Cr, Ni, Zn 24 TAT
5	LSW-5 31209								HOLD
6	LSW-6 31210								↓
7	LSW-7 31211								↓
8	LSW-8 31212								↓
9	LSW-9 31119								Cu, Cr, Ni, Zn 24 TAT
10	LSW-10 31213		↓		↓	↓	↓	↓	HOLD

RUN 4 SAMPLES AND HOLD OTHER 15 BASED ON RESULTS OF 4 SAMPLES ANALYZED.

[1] Pres = preservation (HCl, HNO_3, etc.)
[2] Matrix = water, wastewater, air, sludge, sediment, etc.
[3] Type = grab, composite

		Date	Time			Date	Time
Relinquished by:	[illegible]			Received by:	Roseanne Hone		
of:	O'BRIEN & GERE	2/6/96	13:40	of:	FEC	2/8/96	2:30
Relinquished by:	Maya Mahab			Received by:			
of:	FECLabs	02/08/96	9:40	of:			
Relinquished by:				Received by:			
of:				of:			
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:				Courier Name:			
of:				*Attach delivery/courier receipt to Chain of Custody			
Relinquished by:				Received by:			
of:				of:			

djb/wpC

December 13, 1994

FECL
Fi_e & Environme_tal Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 13, 1996

File: 4144.007 #4

cc. JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

1 1996

Analytical Laboratory Report

FECL #(s): AA32026-AA32032

Project: 4144-007-820 General Motors Corp.
Samples collected by: S. YOUNG
Date/Time Submitted: 03/12/96 18:00
PO #: Verbal

FECL #: AA32026
Tag: LB9
Date/Time Collected: 03/12/96 11:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32027
Tag: LB10
Date/Time Collected: 03/12/96 11:05
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32028
Tag: LB11
Date/Time Collected: 03/12/96 11:10
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 13, 1996

FECL #: AA32029
Tag: LB12
Date/Time Collected: 03/12/96 11:15
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32030
Tag: LSW9A
Date/Time Collected: 03/12/96 11:35
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32031
Tag: LB7
Date/Time Collected: 03/12/96 15:40
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32032
Tag: LB8
Date/Time Collected: 03/12/96 15:50
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 13, 1996

FECL #: AA32026
Tag: LB9
Date/Time Collected: 03/12/96 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	89.9	%	1	160.3	CQV	03/13/9(
Metals						
Chromium	95.0	mg/kg	1.0	6020	P R	03/13/96
Copper	41.3	mg/kg	1.0	6020	P R	03/13/96
Nickel	62.7	mg/kg	0.50	6020	P R	03/13/96
Zinc	76.8	mg/kg	1.0	6020	P R	03/13/96

FECL #: AA32027
Tag: LB10
Date/Time Collected: 03/12/96 11:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.3	%	1	160.3	CQV	03/13/96
Metals						
Chromium	6.0	mg/kg	1.0	6020	P R	03/13/96
Copper	4.6	mg/kg	1.0	6020	P R	03/13/96
Nickel	13.6	mg/kg	0.50	6020	P R	03/13/96
Zinc	19.0	mg/kg	1.0	6020	P R	03/13/96

FECL #: AA32028
Tag: LB11
Date/Time Collected: 03/12/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.4	%	1	160.3	CQV	03/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 13, 1996

FECL #: AA32028 (Continued)
Tag: LB11
Date/Time Collected: 03/12/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	5.7	mg/kg	1.0	6020	P R	03/13/96
Copper	7.4	mg/kg	1.0	6020	P R	03/13/96
Nickel	15.9	mg/kg	0.50	6020	P R	03/13/96
Zinc	16.9	mg/kg	1.0	6020	P R	03/13/96

FECL #: AA32029
Tag: LB12
Date/Time Collected: 03/12/96 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	03/13/96
Metals						
Chromium	216	mg/kg	1.0	6020	P R	03/13/96
Copper	85.8	mg/kg	1.0	6020	P R	03/13/96
Nickel	135	mg/kg	0.50	6020	P R	03/13/96
Zinc	159	mg/kg	1.0	6020	P R	03/13/96

FECL #: AA32030
Tag: LSW9A
Date/Time Collected: 03/12/96 11:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.4	%	1	160.3	CQV	03/13/96
Metals						
Chromium	28.1	mg/kg	1.0	6020	P R	03/13/96
Copper	15.5	mg/kg	1.0	6020	P R	03/13/

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 13, 1996

FECL #: AA32030 (Continued)
Tag: LSW9A
Date/Time Collected: 03/12/96 11:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	21.6	mg/kg	0.50	6020	P R	03/13/96
Zinc	38.0	mg/kg	1.0	6020	P R	03/13/96

FECL #: AA32031
Tag: LB7
Date/Time Collected: 03/12/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	CQV	03/13/96
Metals						
Chromium	1.8	mg/kg	1.0	6020	P R	03/13/96
Copper	3.0	mg/kg	1.0	6020	P R	03/13/96
Nickel	1.60	mg/kg	0.50	6020	P R	03/13/96
Zinc	6.2	mg/kg	1.0	6020	P R	03/13/96

FECL #: AA32032
Tag: LB8
Date/Time Collected: 03/12/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.4	%	1	160.3	CQV	03/13/96
Metals						
Chromium	6.4	mg/kg	1.0	6020	P R	03/13/96
Copper	7.8	mg/kg	1.0	6020	P R	03/13/96
Nickel	17.2	mg/kg	0.50	6020	P R	03/13/96
Zinc	22.6	mg/kg	1.0	6020	P R	03/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 13, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak f. B.

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill place Drive #300
CITY: NOVI | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144-007-820 | PHONE NO.: 810 347-4350 | FAX NO.: 810 347-4357

REPORT TO

NAME: JEFF RALSON
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: NOVI | STATE: MI | ZIP CODE: 48375
PHONE NO.: 810 347-4350 | FAX NO.: 810 347-4357

PROJECT NO.:
CLIENT: General Motors Corp.
SAMPLER (SIGNATURE):
SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION: O'Brien & Gere Engineers

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40z Glass Jar

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = HN, C = H_2S, D = NaOH, E = HCL, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
2026	3-12-96	1100	LB9	1	X Total metals Cr, Cu, Ni, Zn
2027		1105	LB10	1	X
2028		1110	LB11	1	X
2029		1115	LB12	1	X
2030		1135	LSW9A	1	X
2031		1540	LB7	1	X
2032		1550	LB8	1	X

24 HR Turn Around Time
please Fax Jeff Ralson Results A.S.A.P at (810) 347-4357

RELINQUISHED BY: SIGNATURE		DATE 3-12-96	TIME 1630
RECEIVED BY: SIGNATURE		DATE 3-12-96	TIME 16:30
RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED BY: SIGNATURE		DATE	TIME

RELINQUISHED BY: SIGNATURE		DATE 3/12/96	TIME 17:00
RECEIVED AT FECL BY: SIGNATURE		DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fi e & Environme tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 15, 1996

File: 4144.007 # 4
cc. JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32118-AA32119

Project: 4144.007-810
Samples collected by: S. YOUNG
Date/Time Submitted: 03/15/96 09:00
PO #: Verbal

FECL #: AA32118
ag: LB-1
Date/Time Collected: 03/14/96 13:20
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32119
Tag: LB-2
Date/Time Collected: 03/14/96 16:20
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 15, 1996

FECL #: AA32118
Tag: LB-1
Date/Time Collected: 03/14/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	E B	03/15/96
Metals						
Chromium	13.4	mg/kg	1.0	6020	P R	03/14/96
Copper	10.8	mg/kg	1.0	6020	P R	03/14/96
Nickel	20.3	mg/kg	0.50	6020	P R	03/14/96
Zinc	30.2	mg/kg	1.0	6020	P R	03/14/96

FECL #: AA32119
Tag: LB-2
Date/Time Collected: 03/14/96 16:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.5	%	1	160.3	E B	03/15/96
Metals						
Chromium	8.0	mg/kg	1.0	6020	P R	03/14/96
Copper	5.3	mg/kg	1.0	6020	P R	03/14/96
Nickel	5.9	mg/kg	0.50	6020	P R	03/14/96
Zinc	20.5	mg/kg	1.0	6020	P R	03/14/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 15, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak V.B.

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr. Ste 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144-007-810 | PHONE NO.: 810 347-4350 | FAX NO.: 810 347-4357

REPORT TO

NAME: JEFF Ralson
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.: | CLIENT:
SAMPLER (SIGNATURE): Steve Young | SAMPLER - PLEASE PRINT NAME: STEVE Young
AFFILIATION: O'Brien & Gere Engineers

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40Z GLASS

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = H, C = H_2SO_4, D = NaOH, E = HCL, F = _____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
2113	3-14-96	1330	LB1	1	X Total metals CR, Cu, Ni, Zn
2114	3-14-96	1620	LB2	1	X Total metals CR, Cu, Ni, Zn

24 HR T.A.T
Please FAX Results to Jeff Ralson at (810) 347-4357

RELINQUISHED BY: SIGNATURE: Steve Young	DATE: 3-14-96	TIME: 1700	
RECEIVED BY: SIGNATURE: Fredrick Beckstrom	DATE: 3-14-96	TIME: 18.00	
RELINQUISHED BY: SIGNATURE:	DATE:	TIME:	
RECEIVED BY: SIGNATURE:	DATE:	TIME:	

RELINQUISHED BY: SIGNATURE:	DATE:	TIME:	
RECEIVED AT FECL BY: SIGNATURE:	DATE:	TIME:	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL _____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fuel & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 15, 1996

File: 4144.007 #4
cc. JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32157

Project: 4144.007-810
Samples collected by: S. YOUNG
Date/Time Submitted: 03/15/96 17:00
PO #: Verbal

FECL #: AA32157
Tag: LB-3
Date/Time Collected: 03/15/96 15:30
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 15, 1996

FECL #: AA32157
Tag: LB-3
Date/Time Collected: 03/15/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	P R	03/15/96
Metals						
Chromium	4.7	mg/kg	1.0	6020	P R	03/15/96
Copper	6.3	mg/kg	1.0	6020	P R	03/15/96
Nickel	4.5	mg/kg	0.50	6020	P R	03/15/96
Zinc	17.6	mg/kg	1.0	6020	P R	03/15/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'BRIEN & GERE ENGINEERS
ADDRESS: 3950 Orchard Hill Place Drive #300
CITY: NOVI | STATE: MI | ZIP CODE: 48375
P.O. NO.: 1184-007-210 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347-4357

PROJECT NO.:
CLIENT: General Motors
SAMPLER (SIGNATURE): [signature]
SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION:

REPORT TO

NAME: JEFF Rolson
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PRESERVATIVE CODE
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40z GLASS JAR

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F - _____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
157	3-15-96	1530	LB3	1	X

ANALYSES: Total metals Cu, Cr, Ni, Zn

34 HR T.A.T.

PLEASE FAX JEFF Rolson the results A.S.A.P at

(810) 347-4357

RELINQUISHED BY: SIGNATURE [signature]	DATE 3-15-96	TIME 1615	
RECEIVED BY: SIGNATURE [signature]	DATE 3-15-96	TIME 1615	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED AT FECL BY: SIGNATURE	DATE	TIME	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL _____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 19, 1996

File: 4144.007
cc. JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32220-AA32223

Project: 4144.007-810 General Motors Company
Samples collected by: S. YOUNG
Date/Time Submitted: 03/18/96 17:41
PO #: Verbal

FECL #: AA32220
Tag: LB4
Date/Time Collected: 03/18/96 14:10
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32221
Tag: LB5
Date/Time Collected: 03/18/96 14:20
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32222
Tag: LB6
Date/Time Collected: 03/18/96 16:30
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 19, 1996

FECL #: AA32223
Tag: EB1
Date/Time Collected: 03/18/96 16:00
Matrix: Equipment Blank
Container(s): 1-125 mL Plastic
Preservation: HNO3

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 19, 1996

FECL #: AA32220
Tag: LB4
Date/Time Collected: 03/18/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.4	%	1	160.3	CV	03/19/96
Metals						
Chromium	1.7	mg/kg	1.0	6020	P R	03/19/96
Copper	2.6	mg/kg	1.0	6020	P R	03/19/96
Nickel	1.4	mg/kg	0.50	6020	P R	03/19/96
Zinc	5.8	mg/kg	1.0	6020	P R	03/19/96

FECL #: AA32221
Tag: LB5
Date/Time Collected: 03/18/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	CV	03/19/96
Metals						
Chromium	7.4	mg/kg	1.0	6020	P R	03/19/96
Copper	4.9	mg/kg	1.0	6020	P R	03/19/96
Nickel	18.4	mg/kg	0.50	6020	P R	03/19/96
Zinc	20.7	mg/kg	1.0	6020	P R	03/19/96

FECL #: AA32222
Tag: LB6
Date/Time Collected: 03/18/96 16:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	CV	03/19/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 19, 1996

FECL #: AA32222 (Continued)
Tag: LB6
Date/Time Collected: 03/18/96 16:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	7.5	mg/kg	1.0	6020	P R	03/19/96
Copper	3.9	mg/kg	1.0	6020	P R	03/19/96
Nickel	19.2	mg/kg	0.50	6020	P R	03/19/96
Zinc	18.5	mg/kg	1.0	6020	P R	03/19/96

FECL #: AA32223
Tag: EB1
Date/Time Collected: 03/18/96 16:00
Matrix: Equipment Blank

Analysis	Results	Units	MDL	Method	Analyst	Date
Metals						
Copper	Not detected	mg/L	0.005	200.8	P R	03/19/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr. Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive Suite 300
CITY: NOVI | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144-007-810 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347-4357

REPORT TO

NAME: JEFF Rolson
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.:
CLIENT: General motors Co.
SAMPLER (SIGNATURE):
SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION: O'Brien & GERE Engineers

PRESERVATIVE CODE
REFRIGERATE (Y/N): A: N, B: N
BOTTLE TYPE: A: 40z glass jar, B: 40z plastic com

SAMPLE TYPE
GW ☐ WW ☐ SW ☐ SOIL ☒
SLUDGE ☐ OTHER Equip Blank (water)

CODE: A = NONE, B = HN, C = H_2S, D = NaOH, E = HCL, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
[illegible]90	3-18-96	1410	LB4	1	Total metals CR, Cu, Ni, Zn
[illegible]92	3-18-96	1400	EB1	1	Cu
[illegible]91	3-18-96	1430	LB5	1	Total metals CR, Cu, Ni, Zn
[illegible]12	3-18-96	1630	LB6	1	Total metals CR, Cu, Ni, Zn

24 HR T.A.T
please Fax Jeff Rolson the results A.S.A.P at (810) 347-4357

RELINQUISHED BY: SIGNATURE: [signature]	DATE: 3-18-96	TIME: 1700	
RECEIVED BY: SIGNATURE: [signature]	DATE: 3/18/96	TIME: 1700	
RELINQUISHED BY: SIGNATURE: [signature]	DATE: 3/18/96	TIME: [illegible]	
RECEIVED BY: SIGNATURE:	DATE	TIME	

RELINQUISHED BY: SIGNATURE:	DATE	TIME	
RECEIVED AT FECL BY: SIGNATURE: [signature]	DATE: 3/19/96	TIME: 0900	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fi e & Environme tal
Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 20, 1996

File: 4144.007 #4
cc. JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32285-AA32288

Project: 4144.007 General Motors
Samples collected by: S. YOUNG
Date/Time Submitted: 03/19/96 17:00
PO #: Verbal

FECL #: AA32285
Tag: LSW16A
Date/Time Collected: 03/19/96 13:50
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32286
Tag: LSW13A
Date/Time Collected: 03/19/96 16:20
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32287
Tag: Dup 1
Date/Time Collected: 03/19/96
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 20, 1996

FECL #: AA32288
Tag: LSW 1A
Date/Time Collected: 03/19/96 14:00
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 20, 1996

FECL #: AA32285
Tag: LSW16A
Date/Time Collected: 03/19/96 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.0	%	1	160.3	CV	03/20/96
Metals						
Chromium	13.5	mg/kg	1.0	6020	P R	03/19/96
Copper	11.1	mg/kg	1.0	6020	P R	03/19/96
Nickel	23.3	mg/kg	0.50	6020	P R	03/19/96
Zinc	32.8	mg/kg	1.0	6020	P R	03/19/96

FECL #: AA32286
Tag: LSW13A
Date/Time Collected: 03/19/96 16:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	CV	03/20/96
Metals						
Chromium	26.2	mg/kg	1.0	6020	P R	03/19/96
Copper	13.9	mg/kg	1.0	6020	P R	03/19/96
Nickel	28.5	mg/kg	0.50	6020	P R	03/19/96
Zinc	41.4	mg/kg	1.0	6020	P R	03/19/96

FECL #: AA32287
Tag: Dup 1
Date/Time Collected: 03/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	CV	03/20/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 20, 1996

FECL #: AA32287 (Continued)
Tag: Dup 1
Date/Time Collected: 03/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	14.7	mg/kg	1.0	6020	P R	03/19/96
Copper	11.8	mg/kg	1.0	6020	P R	03/19/96
Nickel	28.3	mg/kg	0.50	6020	P R	03/19/96
Zinc	38.0	mg/kg	1.0	6020	P R	03/19/96

FECL #: AA32288
Tag: LSW 1A
Date/Time Collected: 03/19/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	77.9	%	1	160.3	CV	03/20/96
Metals						
Chromium	7.4	mg/kg	1.0	6020	P R	03/19/96
Copper	4.2	mg/kg	1.0	6020	P R	03/19/96
Nickel	10.2	mg/kg	0.50	6020	P R	03/19/96
Zinc	22.2	mg/kg	1.0	6020	P R	03/19/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien + Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive suite #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144-007-810 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347-4357

REPORT TO

NAME: JEFF Ralson
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.:
CLIENT: General motors
SAMPLER (SIGNATURE):
SAMPLER - PLEASE PRINT NAME: Steve Young
AFFILIATION:

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 40z GLASS JARS

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F = _____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	A	N	ANALYSES
32285	3-19-96	1350	LSW16A	1	X		Total metals CR, Cu, Ni, Zn
32286	"	1620	LSW13A	1	X		" " " " " "
			~~LSW14A~~	~~1~~	~~X~~		
			~~LSW14DA~~	~~1~~	~~X~~		
32287		—	DUP1	1	X		
32288		1400	LSW1A	1	X		

24 HR T.A.T

Please Fax Results to Jeff Rolson O.S.H.A.P at (810) 347-4357

RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED BY: SIGNATURE	DATE	TIME
RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED BY: SIGNATURE	DATE	TIME

RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED AT FECL BY: SIGNATURE	DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL _____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fi. e & Environme.tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 22, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

File 4144.007 #4
cc: JSR

Analytical Laboratory Report

FECL #(s): AA32433-AA32437

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 03/21/96 17:00
PO #: Verbal

FECL #: AA32433
ag: LSW11A
Date/Time Collected: 03/21/96 11:10
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32434
Tag: LSW10A
Date/Time Collected: 03/21/96 11:15
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32435
Tag: LB9A
Date/Time Collected: 03/21/96 11:25
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32436
Tag: LB12A
Date/Time Collected: 03/21/96 11:20
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32437
Tag: LSW3A
Date/Time Collected: 03/21/96 11:40
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32433
Tag: LSW11A
Date/Time Collected: 03/21/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.3	%	1	160.3	CQV	03/22/96
Metals						
Chromium	5.2	mg/kg	1.0	6020	P R	03/22/96
Copper	5.9	mg/kg	1.0	6020	P R	03/22/96
Nickel	15.3	mg/kg	0.50	6020	P R	03/22/96
Zinc	18.1	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32434
Tag: LSW10A
Date/Time Collected: 03/21/96 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	03/22/96
Metals						
Chromium	35.0	mg/kg	1.0	6020	P R	03/22/96
Copper	31.5	mg/kg	1.0	6020	P R	03/22/96
Nickel	41.5	mg/kg	0.50	6020	P R	03/22/96
Zinc	42.3	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32435
Tag: LB9A
Date/Time Collected: 03/21/96 11:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.4	%	1	160.3	CQV	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32435 (Continued)
Tag: LB9A
Date/Time Collected: 03/21/96 11:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	2.9	mg/kg	1.0	6020	P R	03/22/96
Copper	5.2	mg/kg	1.0	6020	P R	03/22/96
Nickel	5.6	mg/kg	0.50	6020	P R	03/22/96
Zinc	14.9	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32436
Tag: LB12A
Date/Time Collected: 03/21/96 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date '
Inorganics						
Total Solids	79.0	%	1	160.3	CQV	03/22/96
Metals						
Chromium	2.7	mg/kg	1.0	6020	P R	03/22/96
Copper	4.6	mg/kg	1.0	6020	P R	03/22/96
Nickel	3.3	mg/kg	0.50	6020	P R	03/22/96
Zinc	8.9	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32437
Tag: LSW3A
Date/Time Collected: 03/21/96 11:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	CQV	03/22/96
Metals						
Chromium	5.4	mg/kg	1.0	6020	P R	03/22/96
Copper	5.6	mg/kg	1.0	6020	P R	03/22'

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32437 (Continued)
Tag: LSW3A
Date/Time Collected: 03/21/96 11:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	7.0	mg/kg	0.50	6020	P R	03/22/96
Zinc	24.4	mg/kg	1.0	6020	P R	03/22/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'BRIEN + GERE ENGINEERS
ADDRESS: 39500 ORCHARD HILL place drive #300
CITY: NOVI | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144-007-810 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347-4357

REPORT TO

NAME: JEFF RALSON
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.:
CLIENT: General Motors Corp
SAMPLER (SIGNATURE): Steve Young
SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION: O'Brien + Gere Engineers

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	PRESERVATIVE CODE: REFRIGERATE (Y/N)	BOTTLE TYPE: 4oz Glass JAR	ANALYSES
5241/33	3-21-96	1110	LSW11A	1	N	A	Total metals CR, Cu, Ni, Zn
5242/34		1115	LSW10A	1			
5243/35		1125	LB9A	1			
5244/36		1120	LB12A	1			
5245/37	↓	1140	LSW3A	1			

CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F = _____

24 HR T.A.T

Please Fax Jeff Ralson the Results A.S.A.P. at (810) 347-4357

RELINQUISHED BY: SIGNATURE	DATE	TIME
Steve Young	3-21-96	1700
RECEIVED BY: SIGNATURE: Daniel Chapman	3-21-96	17:00
RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED BY: SIGNATURE	DATE	TIME

RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED AT FECL BY: SIGNATURE	DATE	TIME

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
NOTES: TEMP. ON ARRIVAL _____

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32542
Tag: R12
Date/Time Collected: 03/26/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.4	%		160.3	CQV	03/27/96
Metals						
Chromium	3.6	mg/kg	1.0	6020	P R	03/26/96
Copper	2.8	mg/kg	1.0	6020	P R	03/26/96
Nickel	2.8	mg/kg	0.5	6020	P R	03/26/96
Zinc	8.4	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32543
Tag: Dup2
Date/Time Collected: 03/26/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	74.9	%	1	160.3	CQV	03/27/96
Metals						
Chromium	5.3	mg/kg	1.0	6020	P R	03/26/96
Copper	4.2	mg/kg	1.0	6020	P R	03/26/96
Nickel	10.3	mg/kg	0.5	6020	P R	03/26/96
Zinc	16.7	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32544
Tag: LSW8A
Date/Time Collected: 03/26/96 11:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.9	%	1	160.3	CQV	03/27/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32544 (Continued)
Tag: LSW8A
Date/Time Collected: 03/26/96 11:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	32.9	mg/kg	1.0	6020	P R	03/26/96
Copper	20.5	mg/kg	1.0	6020	P R	03/26/96
Nickel	34.9	mg/kg	0.50	6020	P R	03/26/96
Zinc	38.8	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32545
Tag: RR6
Date/Time Collected: 03/26/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	CQV	03/27/96
Metals						
Copper	5.9	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32546
Tag: RR7
Date/Time Collected: 03/26/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.2	%	1	160.3	CQV	03/27/96
Metals						
Copper	5.1	mg/kg	1.0	6020	P R	03/26/96

nalytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32472
Tag: LSW6A
Date/Time Collected: 03/22/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.7	%	1	160.3	CQV	03/22/96
Metals						
Chromium	5.5	mg/kg	1.0	6020	P R	03/22/96
Copper	4.3	mg/kg	1.0	6020	P R	03/22/96
Nickel	13.0	mg/kg	0.50	6020	P R	03/22/96
Zinc	12.3	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32473
Tag: LSW7A
Date/Time Collected: 03/22/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	03/22/96
Metals						
Chromium	669	mg/kg	1.0	6020	P R	03/22/96
Copper	274	mg/kg	1.0	6020	P R	03/22/96
Nickel	248	mg/kg	0.50	6020	P R	03/22/96
Zinc	497	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32474
Tag: RR5
Date/Time Collected: 03/22/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	71.7	%	1	160.3	CQV	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 26, 1996

FECL #: AA32526
Tag: LSW7B
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	CQV	03/26/96
Metals						
Chromium	53.5	mg/kg	1.0	6020	P R	03/26/96
Copper	27.9	mg/kg	1.0	6020	P R	03/26/96
Nickel	31.1	mg/kg	0.50	6020	P R	03/26/96
Zinc	52.5	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32527
Tag: HR1A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.1	%	1	160.3	CQV	03/26/96
Metals						
Chromium	4.2	mg/kg	1.0	6020	P R	03/26/96
Copper	7.3	mg/kg	1.0	6020	P R	03/26/96
Nickel	10.8	mg/kg	0.50	6020	P R	03/26/96
Zinc	14.3	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32528
Tag: HR3A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	CQV	03/26/96

FECL #: AA32528 (Continued)
Tag: HR3A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	78.8	mg/kg	1.0	6020	P R	03/26/96
Copper	87.5	mg/kg	1.0	6020	P R	03/26/96
Nickel	103	mg/kg	0.50	6020	P R	03/26/96
Zinc	90.5	mg/kg	1.0	6020		03/26/96

FECL #: AA32529
Tag: HR4A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	CQV	03/26/96
Metals						
Chromium	170	mg/kg	1.0	6020	P R	03/26/96
Copper	152	mg/kg	1.0	6020	P R	03/26/96
Nickel	196	mg/kg	0.50	6020	P R	03/26/96
Zinc	217	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32530
Tag: LSW10B
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	CQV	03/26/96
Metals						
Chromium	9.5	mg/kg	1.0	6020	P R	03/26/96
Copper	10.3	mg/kg	1.0	6020	P R	03/26/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 28, 1996

FECL #: AA32631
Tag: LSW7C
Date/Time Collected: 03/27/96 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.2	%	1	160.3	CQV	03/28/96
Metals						
Chromium	64.7	mg/kg	1.0	6020	P R	03/27/96

FECL #: AA32632
Tag: HR5-1
Date/Time Collected: 03/27/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.6	%	1	160.3	CQV	03/28/96
Metals						
Chromium	34.5	mg/kg	1.0	6020	P R	03/27/96
Copper	27.1	mg/kg	1.0	6020	P R	03/27/96
Nickel	43.7	mg/kg	0.50	6020	P R	03/27/96
Zinc	66.1	mg/kg	1.0	6020	P R	03/27/96

FECL #: AA32633
Tag: HR6-1
Date/Time Collected: 03/27/96 14:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	CQV	03/28/96
Metals						
Chromium	30.7	mg/kg	1.0	6020	P R	03/27/96
Copper	28.9	mg/kg	1.0	6020	P R	03/27/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32707
Tag: LSW7D-1
Date/Time Collected: 03/29/96 14:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	03/29/96
Metals						
Chromium	11.4	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32708
Tag: LSW8B-1
Date/Time Collected: 03/29/96 14:46
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	7.9	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32709
Tag: HR3B-1
Date/Time Collected: 03/29/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.9	%	1	160.3	CQV	03/29/96
Metals						
Chromium	13.6	mg/kg	1.0	6020	P R	03/29/96
Copper	16.2	mg/kg	1.0	6020	P R	03/29/96
Nickel	29.6	mg/kg	0.50	6020	P R	03/29/96
Zinc	31.4	mg/kg	1.0	6020	P R	03/29/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 03, 1996

FECL #: AA32778
Tag: LSW7D
Date/Time Collected: 04/02/96 16:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/03/96
Metals						
Chromium	12.2	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32779
Tag: LSW8B
Date/Time Collected: 04/02/96 16:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.5	%	1	160.3	CQV	04/03/96
Metals						
Chromium	241	mg/kg	1.0	6020	P R	04/02/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi..e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SSR

April 05, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33012

Project: 4144.007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/05/96 15:33
PO #: Verbal

ECL #: AA33012
Tag: LSW8B2
Date/Time Collected: 03/29/96
Matrix:Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigertion

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA33012
Tag: LSW8B2
Date/Time Collected: 03/29/96
Matrix:Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/05/96
Metals						
Chromium	4.5	mg/kg	1.0	6020	P R	04/05/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

APPENDIX I

Closure Sample Analytical Data Sheets - Haul Road Area

Fi..e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

Supplemental report to report dated March 22, 1996
March 22, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

File 4144.007 #4
cc. JSR

Analytical Laboratory Report

FECL #(s): AA32428

Project: 4144.007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 03/21/96 17:00
PO #: Verbal

FECL #: AA32428
Tag: HR2
Date/Time Collected: 03/21/96 15:08
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Supplemental report to report dated March 22, 1996
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32428
Tag: HR2
Date/Time Collected: 03/21/96 15:08
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	CQV	03/22/96
Metals						
Chromium	15.4	mg/kg	1.0	6020	P R	03/22/96
Copper	13.9	mg/kg	1.0	6020	P R	03/22/96
Nickel	23.7	mg/kg	0.50	6020	P R	03/22/96
Zinc	27.7	mg/kg	1.0	6020	P R	03/22/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32425
Tag: RR1
Date/Time Collected: 03/21/96 15:24
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	03/22/96
Metals						
Chromium	3.0	mg/kg	1.0	6020	P R	03/22/96
Copper	2.3	mg/kg	1.0	6020	P R	03/22/96
Nickel	11.6	mg/kg	0.50	6020	P R	03/22/96
Zinc	12.4	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32426
Tag: HR1
Date/Time Collected: 03/21/96 15:16
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.6	%	1	160.3	CQV	03/22/96
Metals						
Chromium	220	mg/kg	1.0	6020	P R	03/22/96
Copper	278	mg/kg	1.0	6020	P R	03/22/96
Nickel	317	mg/kg	0.50	6020	P R	03/22/96
Zinc	411	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32427
Tag: RR2
Date/Time Collected: 03/21/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.1	%	1	160.3	CQV	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32474 (Continued)
Tag: HR5
Date/Time Collected: 03/22/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	03/22/96
Copper	4.4	mg/kg	1.0	6020	P R	03/22/96
Nickel	11.1	mg/kg	0.50	6020	P R	03/22/96
Zinc	8.8	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32475
Tag: HR3
Date/Time Collected: 03/22/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.1	%	1	160.3	CQV	03/22/96
Metals						
Chromium	70.5	mg/kg	1.0	6020	P R	03/22/96
Copper	63.5	mg/kg	1.0	6020	P R	03/22/96
Nickel	74.7	mg/kg	0.50	6020	P R	03/22/96
Zinc	69.5	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32476
Tag: HR4
Date/Time Collected: 03/22/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	CQV	03/22/96
Metals						
Chromium	116	mg/kg	1.0	6020	P R	03/22/96
Copper	149	mg/kg	1.0	6020	P R	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32476 (Continued)
Tag: HR4
Date/Time Collected: 03/22/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	166	mg/kg	0.50	6020	P R	03/22/96
Zinc	137	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32477
Tag: RR3
Date/Time Collected: 03/22/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.1	%	1	160.3	CQV	03/22/96
Metals						
Copper	3.4	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32478
Tag: RR4
Date/Time Collected: 03/22/96 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	76.5	%	1	160.3	CQV	03/22/96
Metals						
Copper	4.1	mg/kg	1.0	6020	P R	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 26, 1996

FECL #: AA32526
Tag: LSW7B
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	CQV	03/26/96
Metals						
Chromium	53.5	mg/kg	1.0	6020	P R	03/26/96
Copper	27.9	mg/kg	1.0	6020	P R	03/26/96
Nickel	31.1	mg/kg	0.50	6020	P R	03/26/96
Zinc	52.5	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32527
Tag: HR1A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.1	%	1	160.3	CQV	03/26/96
Metals						
Chromium	4.2	mg/kg	1.0	6020	P R	03/26/96
Copper	7.3	mg/kg	1.0	6020	P R	03/26/96
Nickel	10.8	mg/kg	0.50	6020	P R	03/26/96
Zinc	14.3	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32528
Tag: HR3A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	CQV	03/26/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 26, 1996

FECL #: AA32528 (Continued)
Tag: HR3A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	78.8	mg/kg	1.0	6020	P R	03/26/96
Copper	87.5	mg/kg	1.0	6020	P R	03/26/96
Nickel	103	mg/kg	0.50	6020	P R	03/26/96
Zinc	90.5	mg/kg	1.0	6020		03/26/96

FECL #: AA32529
Tag: HR4A
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	CQV	03/26/96
Metals						
Chromium	170	mg/kg	1.0	6020	P R	03/26/96
Copper	152	mg/kg	1.0	6020	P R	03/26/96
Nickel	196	mg/kg	0.50	6020	P R	03/26/96
Zinc	217	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32530
Tag: LSW10B
Date/Time Collected: 03/25/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	CQV	03/26/96
Metals						
Chromium	9.5	mg/kg	1.0	6020	P R	03/26/96
Copper	10.3	mg/kg	1.0	6020	P R	03/26/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 28, 1996

FECL #: AA32631
Tag: LSW7C
Date/Time Collected: 03/27/96 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.2	%	1	160.3	CQV	03/28/96
Metals						
Chromium	64.7	mg/kg	1.0	6020	P R	03/27/96

FECL #: AA32632
Tag: HR5-1
Date/Time Collected: 03/27/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.6	%	1	160.3	CQV	03/28/96
Metals						
Chromium	34.5	mg/kg	1.0	6020	P R	03/27/96
Copper	27.1	mg/kg	1.0	6020	P R	03/27/96
Nickel	43.7	mg/kg	0.50	6020	P R	03/27/96
Zinc	66.1	mg/kg	1.0	6020	P R	03/27/96

FECL #: AA32633
Tag: HR6-1
Date/Time Collected: 03/27/96 14:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	CQV	03/28/96
Metals						
Chromium	30.7	mg/kg	1.0	6020	P R	03/27/96
Copper	28.9	mg/kg	1.0	6020	P R	03/27/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 28, 1996

FECL #: AA32633 (Continued)
Tag: HR6-1
Date/Time Collected: 03/27/96 14:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	44.5	mg/kg	0.50	6020	P R	03/27/96
Zinc	81.5	mg/kg	1.0	6020	P R	03/27/96

FECL #: AA32634
Tag: HR7-1
Date/Time Collected: 03/27/96 14:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.9	%	1	160.3	CQV	03/28/96
Metals						
Chromium	32.5	mg/kg	1.0	6020	P R	03/27/96
Copper	26.1	mg/kg	1.0	6020	P R	03/27/96
Nickel	40.3	mg/kg	0.50	6020	P R	03/27/96
Zinc	47.9	mg/kg	1.0	6020	P R	03/27/96

FECL #: AA32635
Tag: HR8-1
Date/Time Collected: 03/27/96 14:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	03/28/96
Metals						
Chromium	65.1	mg/kg	1.0	6020	P R	03/27/96
Copper	37.1	mg/kg	1.0	6020	P R	03/27/96
Nickel	61.2	mg/kg	0.50	6020	P R	03/27/96
Zinc	64.4	mg/kg	1.0	6020	P R	03/27/96

Fi. e & Environme. tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 29, 1996

File: 4144.007 #4
cc: JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32669-AA32677

Project: 4144-007-810 GM
Samples collected by: P.L.
Date/Time Submitted: 03/28/96 16:40
PO #: Verbal

FECL #: AA32669
Tag: HR9-1
Date/Time Collected: 03/28/96 09:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32670
Tag: HR10-1
Date/Time Collected: 03/28/96 09:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32671
Tag: HR11-1
Date/Time Collected: 03/28/96 10:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32672
Tag: HR12-1
Date/Time Collected: 03/28/96 10:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32673
Tag: HR13-1
Date/Time Collected: 03/28/96 12:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32674
Tag: HR14-1
Date/Time Collected: 03/28/96 15:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32675
Tag: HR15-1
Date/Time Collected: 03/28/96 15:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32676
Tag: HR16-1
Date/Time Collected: 03/28/96 16:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32677
Tag: HR17-1
Date/Time Collected: 03/28/96 16:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32669
Tag: HR9-1
Date/Time Collected: 03/28/96 09:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	CQV	03/29/96
Metals						
Chromium	31.1	mg/kg	1.0	6020	P R	03/28/96
Copper	23.5	mg/kg	1.0	6020	P R	03/28/96
Nickel	80.3	mg/kg	0.50	6020	P R	03/28/96
Zinc	41.1	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32670
Tag: HR10-1
Date/Time Collected: 03/28/96 09:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	31.9	mg/kg	1.0	6020	P R	03/28/96
Copper	22.3	mg/kg	1.0	6020	P R	03/28/96
Nickel	40.9	mg/kg	0.50	6020	P R	03/28/96
Zinc	43.4	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32671
Tag: HR11-1
Date/Time Collected: 03/28/96 10:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	CQV	03/29/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32671 (Continued)
Tag: HR11-1
Date/Time Collected: 03/28/96 10:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	18.1	mg/kg	1.0	6020	P R	03/28/96
Copper	12.8	mg/kg	1.0	6020	P R	03/28/96
Nickel	25.2	mg/kg	0.50	6020	P R	03/28/96
Zinc	22.7	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32672
Tag: HR12-1
Date/Time Collected: 03/28/96 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	80.7	%	1	160.3	CQV	03/29/96
Metals						
Chromium	46.0	mg/kg	1.0	6020	P R	03/28/96
Copper	26.9	mg/kg	1.0	6020	P R	03/28/96
Nickel	43.1	mg/kg	0.50	6020	P R	03/28/96
Zinc	36.3	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32673
Tag: HR13-1
Date/Time Collected: 03/28/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	94.7	mg/kg	1.0	6020	P R	03/28/96
Copper	43.9	mg/kg	1.0	6020	P R	03/2[illegible]

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32673 (Continued)
Tag: HR13-1
Date/Time Collected: 03/28/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	69.2	mg/kg	0.50	6020	P R	03/28/96
Zinc	52.5	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32674
Tag: HR14-1
Date/Time Collected: 03/28/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
norganics						
Total Solids	89.9	%	1	160.3	CQV	03/29/96
Metals						
Chromium	177	mg/kg	1.0	6020	P R	03/28/96
Copper	91.9	mg/kg	1.0	6020	P R	03/28/96
Nickel	128	mg/kg	0.50	6020	P R	03/28/96
Zinc	125	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32675
Tag: HR15-1
Date/Time Collected: 03/28/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	03/29/96
Metals						
Chromium	2.8	mg/kg	1.0	6020	P R	03/28/96
Copper	4.3	mg/kg	1.0	6020	P R	03/28/96
Nickel	5.1	mg/kg	0.50	6020	P R	03/28/96
Zinc	13.7	mg/kg	1.0	6020	P R	03/28/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32676
Tag: HR16-1
Date/Time Collected: 03/28/96 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.9	%	1	160.3	CQV	03/29/96
Metals						
Chromium	208	mg/kg	1.0	6020	P R	03/28/96
Copper	119	mg/kg	1.0	6020	P R	03/28/96
Nickel	154	mg/kg	0.50	6020	P R	03/28/96
Zinc	149	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32677
Tag: HR17-1
Date/Time Collected: 03/28/96 16:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	1,540	mg/kg	1.0	6020	P R	03/29/96
Copper	780	mg/kg	1.0	6020	P R	03/29/96
Nickel	970	mg/kg	0.50	6020	P R	03/29/96
Zinc	660	mg/kg	1.0	6020	P R	03/29/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144.007.810 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347-4357

REPORT TO

NAME: Jeff Ralson
ADDRESS:
CITY: ← Same | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.: 4144.007.810 | CLIENT: General Motors
SAMPLER (SIGNATURE): Patrick J. Lowkes | SAMPLER - PLEASE PRINT NAME: Patrick J. Lowkes
AFFILIATION:

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 4 oz. Glass Jar
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____
CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F - ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
32669	3/28/96	0900	HR 9 - 1	1	X Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	0905	HR 9 - 2	1	X Hold Pending Notification from OBG
	3/28/96	0910	HR 9 - 3	1	X " " " "
	3/28/96	0915	HR 9 - 4	1	X " " " "
	3/28/96	0920	HR 9 - 5	1	X " " " "
	3/28/96	0925	HR 9 - 6	1	X " " " "
32670	3/28/96	0930	HR 10 - 1	1	X Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	0935	HR 10 - 2	1	X Hold Pending Notification from OBG
	3/28/96	0940	HR 10 - 3	1	X " " " "
	3/28/96	0945	HR 10 - 4	1	X " " " "
	3/28/96	0950	HR 10 - 5	1	X " " " "
	3/28/96	0955	HR 10 - 6	1	X " " " "
32671	3/28/96	1000	HR ~~10~~ FIL 11 - 1	1	X Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1005	HR 11 - 2	1	X Hold Pending Notification from OBG
	3/28/96	1040	HR 11 - 3	1	X " " " "

RELINQUISHED BY: SIGNATURE		DATE 3/28/96	TIME 1640	RELINQUISHED BY: SIGNATURE	DATE TIME
RECEIVED BY: SIGNATURE		DATE 3/28/96	TIME 16:40	RECEIVED AT FECL BY: SIGNATURE	DATE TIME
RELINQUISHED BY: SIGNATURE		DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐ INITIALS
RECEIVED BY: SIGNATURE		DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP ON ARRIVAL ____

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One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144.007.810 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347-4357

REPORT TO

NAME: JEFF RALSON
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.: 4144.007.810 | CLIENT: General Motors
SAMPLER (SIGNATURE): | SAMPLER - PLEASE PRINT NAME: Patrick T. Lawler
AFFILIATION:

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 4 OZ. GLASS | TEFL | NJ | A

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

CODE: A = NONE, B = HCl, C = H_2SO_4, D = NaOH, E = HCL, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
	3/28/96	1015	HR 11-4	1	Hold Pending Notification from OBG
	3/28/96	1020	HR 11-5	1	" " " "
	3/28/96	1025	HR 11-6	1	" " " "
32672	3/28/96	1030	HR 12-1	1	Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1035	HR 12-2	1	Hold Pending Notification from OBG
	3/28/96	1040	HR 12-3	1	" " " "
	3/28/96	1045	HR 12-4	1	" " " "
	3/28/96	1050	HR 12-5	1	" " " "
	3/28/96	1055	HR 12-6	1	" " " "
32673	3/28/96	1200	HR 13-1	1	Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1205	HR 13-2	1	Hold Pending Notification from OBG
	3/28/96	1210	HR 13-3	1	" " " "
	3/28/96	1215	HR 13-4	1	" " " "
	3/28/96	1220	HR 13-5	1	" " " "
	3/28/96	1225	HR 13-6	1	" " " "

RELINQUISHED BY: SIGNATURE	DATE 3-29-96	TIME 16:46	
RECEIVED BY: SIGNATURE	DATE 3.28.96	TIME 16:10	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED AT FECL BY: SIGNATURE	DATE	TIME	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

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Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144.007.510 | PHONE NO.: (510) 347-4350 | FAX NO.: (510) 347-4357

PROJECT NO.: 4144.007.510 | CLIENT: General Motors
SAMPLER (SIGNATURE): [signature] | SAMPLER - PLEASE PRINT NAME: Patrick J. Lowkes
AFFILIATION:

REPORT TO

NAME: Jeff Ralsen
ADDRESS:
CITY: ← Same | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 4 oz. Glass Jar

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = HCl, C = H_2SO_4, D = NaOH, E = HCl, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	A	ANALYSES
2674	3/28/96	1500	HR 14 - 1	1	X	Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1505	HR 14 - 2	1	X	Hold Pending Notification from OBG
	3/28/96	1510	HR 14 - 3	1	X	" " " "
	3/28/96	1515	HR 14 - 4	1	X	" " " "
	3/28/96	1520	HR 14 - 5	1	X	" " " "
	3/28/96	1525	HR 14 - 6	1	X	" " " "
2675	3/28/96	1530	HR 15 - 1	1	X	Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1535	HR 15 - 2	1	X	Hold Pending Notification from OBG
	3/28/96	1540	HR 15 - 3	1	X	" " " "
	3/28/96	1545	HR 15 - 4	1	X	" " " "
	3/28/96	1550	HR 15 - 5	1	X	" " " "
	3/28/96	1555	HR 15 - 6	1	X	" " " "
	3/28/96	1600	HR 16 - 1	1	X	" " " "
2676	3/28/96	1605	HR 16 - 2	1	X	Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1610	HR 16 - 3	1	X	Hold Pending Notification from OBG

RELINQUISHED BY: SIGNATURE [signature]	DATE 3-28-96	TIME 16:40	
RECEIVED BY: SIGNATURE [signature]	DATE 3-28-96	TIME 16:40	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED AT FECL BY: SIGNATURE	DATE	TIME	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

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Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien + Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144.007.810 | PHONE NO.: (810) 347-4350 | FAX NO.: (810) 347 4357

PROJECT NO.: 4144.007.810 | CLIENT: General Motors
SAMPLER (SIGNATURE): [signature] | SAMPLER - PLEASE PRINT NAME: Patrick J. Cowkes
AFFILIATION:

REPORT TO

NAME: JEFF RALSH
ADDRESS:
CITY: ← SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 4 oz. Glass Jar | VOA

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
	3/28/96	1615	HR 16-4	1	X Hold Pending Notification from OBG
	3/28/96	1620	HR 16-5	1	X " " " "
	3/28/96	1625	HR 16-6	1	X " " " "
32677	3/28/96	1630	HR 17-1	1	X Cu, Cr, Ni, Zn - 24 Hour TAT
	3/28/96	1635	HR 17-2	1	X Hold Pending Notification from OBG
	3/28/96	1635	HR 17-3	1	X " " " "
	3/28/96	1635	HR 17-4	1	X " " " "
	3/28/96	1635	HR 17-5	1	X " " " "
	3/28/96	1635	HR 17-6	1	X " " " "

RELINQUISHED BY: SIGNATURE [signature]	DATE 3-28-96	TIME 16:40	
RECEIVED BY: SIGNATURE [signature]	DATE 3-28-96	TIME 16:40	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED AT FECL BY: SIGNATURE	DATE	TIME	

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS | NOTES: TEMP. ON ARRIVAL ____
NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

Fi e & Environme tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SSR

March 29, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32699-AA32706

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 03/29/96 13:30
PO #: Verbal

FECL #: AA32699
Tag: HR8-3
Date/Time Collected: 03/27/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32700
Tag: HR10-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32701
Tag: HR12-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32702
Tag: HR9-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32703
Tag: HR13-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32704
Tag: HR14-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32705
Tag: HR16-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32706
Tag: HR17-2
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32699
Tag: HR8-3
Date/Time Collected: 03/27/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	CQV	03/29/96
Metals						
Chromium	59.8	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32700
Tag: HR10-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	CQV	03/29/96
Metals						
Chromium	29.3	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32701
Tag: HR12-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.3	%	1	160.3	CQV	03/29/96
Metals						
Chromium	206	mg/kg	1.0	6020	P R	03/29/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32702
Tag: HR9-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	03/29/96
Metals						
Chromium	54.7	mg/kg	1.0	6020	P R	03/29/96
Nickel	75.8	mg/kg	0.50	6020	P R	03/29/96

FECL #: AA32703
Tag: HR13-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.4	%	1	160.3	CQV	03/29/96
Metals						
Chromium	176	mg/kg	1.0	6020	P R	03/29/96
Copper	95.2	mg/kg	1.0	6020	P R	03/29/96
Nickel	137	mg/kg	0.50	6020	P R	03/29/96

FECL #: AA32704
Tag: HR14-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	03/29/96
Metals						
Chromium	161	mg/kg	1.0	6020	P R	03/29/96
Copper	52.9	mg/kg	1.0	6020	P R	03/2[illegible]

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32704 (Continued)
Tag: HR14-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	107	mg/kg	0.50	6020	P R	03/29/96
Zinc	98.5	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32705
Tag: HR16-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	46.0	mg/kg	1.0	6020	P R	03/29/96
Copper	27.9	mg/kg	1.0	6020	P R	03/29/96
Nickel	43.6	mg/kg	0.50	6020	P R	03/29/96
Zinc	43.6	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32706
Tag: HR17-2
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	969	mg/kg	1.0	6020	P R	03/29/96
Copper	571	mg/kg	1.0	6020	P R	03/29/96
Nickel	667	mg/kg	0.50	6020	P R	03/29/96
Zinc	538	mg/kg	1.0	6020	P R	03/29/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi..e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

March 29, 1996

File: 4144.007 #4
cc: JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32665-AA32668

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 03/28/96 16:26
PO #: Verbal

FECL #: AA32665
Tag: HR5-2
Date/Time Collected: 03/27/96 14:03
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32666
Tag: HR6-2
Date/Time Collected: 03/27/96 14:27
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32667
Tag: HR7-2
Date/Time Collected: 03/27/96 14:42
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32668
Tag: HR8-2
Date/Time Collected: 03/27/96 14:54
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32665
Tag: HR5-2
Date/Time Collected: 03/27/96 14:03
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.7	%	1	160.3	CQV	03/29/96
Metals						
Chromium	21.9	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32666
Tag: HR6-2
Date/Time Collected: 03/27/96 14:27
Matrix: Soil

\nalysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.3	%	1	160.3	CQV	03/29/96
Metals						
Chromium	21.5	mg/kg	1.0	6020	P R	03/28/96
Copper	19.6	mg/kg	1.0	6020	P R	03/28/96
Zinc	47.0	mg/kg	1.0	6020	P R	03/28/96

FECL #: AA32667
Tag: HR7-2
Date/Time Collected: 03/27/96 14:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	4.2	mg/kg	1.0	6020	P R	03/28/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32668
Tag: HR8-2
Date/Time Collected: 03/27/96 14:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.1	%	1	160.3	CQV	03/29/96
Metals						
Chromium	39.3	mg/kg	1.0	6020	P R	03/28/96
Copper	25.8	mg/kg	1.0	6020	P R	03/28/96
Nickel	39.4	mg/kg	0.50	6020	P R	03/28/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

Fire & Environmental nsulting Laboratories, Inc.
One East Complex 1461 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8067 FAX (317) 594-8406

1 of 2

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'BRIEN + GERE
ADDRESS: 39500 Orchard Hill Place Dr. #300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4144-007-810 | PHONE NO.: 810 347-4350 | FAX NO.: 810 347-4357

REPORT TO

NAME: JEFF KALSON
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | FAX NO:

PROJECT NO.:
CLIENT: General Motors
SAMPLER (SIGNATURE):
SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION: O'Brien & Gere Eng.

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER
CODE: A = I, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F =

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
	3-27-96	1030	LSW7C	1	CR
		1400	HRS-1	1	Total Metals CR, Cu, N, Zn
32665		1403	HRS-2	1	Hold pending Notification OBG
		1406	HRS-3	1	
		1410	HRS-4	1	
		1413	HRS-5	1	
		1420	HRS-6	1	
		1425	HR6-1	1	
32666		1427	HR6-2	1	Total Metals CR, Cu, N, Zn
		1429	HR6-3	1	Hold pending Notification OBG
		1431	~~HR6-4~~ HR6-4	1	
		1433	~~HR6-5~~ HR6-5	1	
		1435	~~HR6-6~~ HR6-6	1	

RELINQUISHED BY: SIGNATURE	DATE 3-27-96	TIME 3:30	
RECEIVED BY: SIGNATURE	DATE 3-27-96	TIME 3:30	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED AT FECL BY: SIGNATURE		DATE	TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP ON ARRIVAL
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

MAR-28-1996 17:27 FROM O'BRIEN & GERE MI. TO 15173326333 P.03

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dixie Cup

ADDRESS:

CITY: STATE: ZIP CODE:

P.O. NO.: PHONE NO.: FAX NO.:

REPORT TO

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PHONE NO.: FAX NO.:

PROJECT NO.: CLIENT:

SAMPLER (SIGNATURE): SAMPLER - PLEASE PRINT NAME:

AFFILIATION:

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE

SAMPLE TYPE
GW ☐ WW ☐ SW ☐ SOIL ☐
SLUDGE ☐ OTHER ____

CODE: A = N, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
	3-27-96	1440	HR7-1	1	Total Metals Cr, Cu, Ni, Zn
32667		1442	HR7-2	1	Hold pending Notification from CBG
		1444	HR7-3	1	
		1446	HR7-4	1	
		1448	HR7-5	1	
		1450	HR7-6	1	
		1452	HR8-1	1	Total Metals Cr, Cu, Ni, Zn
32668		1454	HR8-2	1	Hold pending Notification from CBG
		1456	HR8-3	1	
		1458	HR8-4	1	
		1500	HR8-5	1	
		1502	HR8-6	1	

RELINQUISHED BY: SIGNATURE	DATE	TIME	RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED BY: SIGNATURE	DATE 3-27-96	TIME 5:00	RECEIVED AT FECL BY SIGNATURE	DATE	TIME
RELINQUISHED BY: SIGNATURE	DATE	TIME			
RECEIVED BY: SIGNATURE	DATE	TIME			

FEDEX NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP ON ARRIVAL ____
NO	SEAL INTACT YES [ ] NO [ ]	INITIALS	

TOTAL P.04

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32707
Tag: LSW7D-1
Date/Time Collected: 03/29/96 14:3
Matrix: So

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.5	%	1	160.3	CQV	03/29/96
Metals						
Chromium	11.4	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32708
Tag: LSW8B-1
Date/Time Collected: 03/29/96 14:46
Matrix: Soi

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	03/29/96
Metals						
Chromium	7.9	mg/kg	1.0	6020	P R	03/29/96

FECL #: AA32709
Tag: HR3B-1
Date/Time Collected: 03/29/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	CQV	03/29/96
Metals						
Chromium	13.6	mg/kg	1.0	6020	P R	03/29/96
Copper	16.2	mg/kg	1.0	6020	P R	03/29/96
Nickel	29.6	mg/kg	0.50	6020	P R	03/29/96
Zinc	31.4	mg/kg	1.0	6020	P R	03/29/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 29, 1996

FECL #: AA32710
Tag: HR4B-1
Date/Time Collected: 03/29/96 15:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	03/29/96
Metals						
Chromium	236	mg/kg	1.0	6020	P R	03/29/96
Copper	272	mg/kg	1.0	6020	P R	03/29/96
Nickel	272	mg/kg	0.50	6020	P R	03/29/96
Zinc	289	mg/kg	1.0	6020	P R	03/29/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fuel & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SSK

April 02, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32722-AA32729

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/01/96 11:00
PO #: Verbal

FECL #: AA32722
Tag: HR8-4
Date/Time Collected: 03/27/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32723
Tag: HR12-3
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32724
Tag: HR16-3
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32725
Tag: HR9-3
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32726
Tag: HR13-3
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32727
Tag: HR4B-2
Date/Time Collected: 03/29/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32728
Tag: HR14-3
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32729
Tag: HR17-3
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32722
Tag: HR8-4
Date/Time Collected: 03/27/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.9	%	1	160.3	CQV	04/01/96
Metals						
Chromium	24.8	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32723
Tag: HR12-3
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	CQV	04/01/96
Metals						
Chromium	46.4	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32724
Tag: HR16-3
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	96.9	%	1	160.3	CQV	04/01/96
Metals						
Chromium	180	mg/kg	1.0	6020	P R	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32725
Tag: HR9-3
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/01/96
Metals						
Chromium	7.9	mg/kg	1.0	6020	P R	04/02/96
Nickel	15.0	mg/kg	0.50	6020	P R	04/02/96

FECL #: AA32726
Tag: HR13-3
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	CQV	04/01/96
Metals						
Chromium	262	mg/kg	1.0	6020	P R	04/02/96
Copper	120	mg/kg	1.0	6020	P R	04/02/96
Nickel	180	mg/kg	0.50	6020	P R	04/02/96

FECL #: AA32727
Tag: HR4B-2
Date/Time Collected: 03/29/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.1	%	1	160.3	CQV	04/01/96
Metals						
Chromium	26.3	mg/kg	1.0	6020	P R	04/02/96
Copper	27.8	mg/kg	1.0	6020	P R	04/02

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32727 (Continued)
Tag: HR4B-2
Date/Time Collected: 03/29/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	35.2	mg/kg	0.50	6020	P R	04/02/96
Zinc	44.6	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32728
Tag: HR14-3
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/01/96
Metals						
Chromium	148	mg/kg	1.0	6020	P R	04/02/96
Copper	79.6	mg/kg	1.0	6020	P R	04/02/96
Nickel	113	mg/kg	0.50	6020	P R	04/02/96
Zinc	101	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32729
Tag: HR17-3
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	95.1	%	1	160.3	CQV	04/01/96
Metals						
Chromium	70.2	mg/kg	1.0	6020	P R	04/02/96
Copper	40.8	mg/kg	1.0	6020	P R	04/02/96
Nickel	58.4	mg/kg	0.50	6020	P R	04/02/96
Zinc	53.3	mg/kg	1.0	6020	P R	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

Fi.e & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SR

April 05, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32986-AA32987

Project: 4144.007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/05/96 11:56
PO #: Verbal

FECL #: AA32986
Tag: HR16-5
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32987
Tag: HR17-5
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32986
Tag: HR16-5
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/05/96
Metals						
Chromium	19.8	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32987
Tag: HR17-5
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	94.7	%	1	160.3	CQV	04/05/96
Metals						
Chromium	65.2	mg/kg	1.0	6020	P R	04/05/96
Copper	34.0	mg/kg	1.0	6020	P R	04/05/96
Nickel	59.9	mg/kg	0.50	6020	P R	04/05/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi_e & Environme_tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SSR

April 09, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33134

Project: 4144.007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/08/96 08:00
PO #: Verbal

FECL #: AA33134
Tag: HR17-6
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 09, 1996

FECL #: AA33134
Tag: HR17-6
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.9	%	1	160.3	CQV	04/08/96
Metals						
Chromium	6.7	mg/kg	1.0	6020	P R	04/08/96
Copper	4.4	mg/kg	1.0	6020	P R	04/08/96
Nickel	12.6	mg/kg	0.50	6020	P R	04/08/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 04, 1996

File: 4144.007 #4
cc: JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32803-AA32807

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/03/96 15:15
PO #: Verbal

FECL #: AA32803
Tag: HR12-4
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32804
Tag: HR16-4
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32805
Tag: HR14-4
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32806
Tag: HR13-4
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32807
Tag: HR17-4
Date/Time Collected: 03/28/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32803
Tag: HR12-4
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/03/96
Metals						
Chromium	9.0	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32804
Tag: HR16-4
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	04/03/96
Metals						
Chromium	35.9	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32805
Tag: HR14-4
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/03/96
Metals						
Chromium	15.6	mg/kg	1.0	6020	P R	04/04/96
Copper	9.3	mg/kg	1.0	6020	P R	04/04/96
Nickel	22.4	mg/kg	0.50	6020	P R	04/04/96
Zinc	19.6	mg/kg	1.0	6020	P R	04/04/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32806
Tag: HR13-4
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	CQV	04/03/96
Metals						
Chromium	15.9	mg/kg	1.0	6020	P R	04/04/96
Copper	9.1	mg/kg	1.0	6020	P R	04/04/96
Nickel	22.3	mg/kg	0.50	6020	P R	04/04/96

FECL #: AA32807
Tag: HR17-4
Date/Time Collected: 03/28/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/03/96
Metals						
Chromium	109	mg/kg	1.0	6020	P R	04/04/96
Copper	58.6	mg/kg	1.0	6020	P R	04/04/96
Nickel	92.7	mg/kg	0.50	6020	P R	04/04/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fuller & Environmental
Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 29, 1996

Attention: Mr. Jeff Ralson

File: 4144.007 #4
cc: SSR

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33832-AA33838

Project: 4144-007-180 GM
Samples collected by: H. SCHLIENTZ
Date/Time Submitted: 04/26/96 15:30
PO #: Verbal

FECL #: AA33832
Tag: HR18
Date/Time Collected: 04/26/96 09:41
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33833
Tag: HR19
Date/Time Collected: 04/26/96 09:45
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33834
Tag: HR20
Date/Time Collected: 04/26/96 09:35
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 29, 1996

FECL #: AA33835
Tag: HR21
Date/Time Collected: 04/26/96 09:30
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33836
Tag: HR22
Date/Time Collected: 04/26/96 09:25
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33837
Tag: HR23
Date/Time Collected: 04/26/96 09:20
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33838
Tag: HR24
Date/Time Collected: 04/26/96 09:15
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 29, 1996

FECL #: AA33832
Tag: HR18
Date/Time Collected: 04/26/96 09:41
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	90.5	%	1	160.3	CQV	04/26/96
Metals						
Chromium	87.7	mg/kg	1.0	6020	E B	04/26/96
Copper	47.0	mg/kg	1.0	6020	E B	04/26/96
Nickel	63.8	mg/kg	0.50	6020	E B	04/26/96
Zinc	57.1	mg/kg	1.0	6020	E B	04/26/96

FECL #: AA33833
Tag: HR19
Date/Time Collected: 04/26/96 09:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	CQV	04/26/96
Metals						
Chromium	30.0	mg/kg	1.0	6020	E B	04/26/96
Copper	16.9	mg/kg	1.0	6020	E B	04/26/96
Nickel	22.7	mg/kg	0.50	6020	E B	04/26/96
Zinc	18.4	mg/kg	1.0	6020	E B	04/26/96

FECL #: AA33834
Tag: HR20
Date/Time Collected: 04/26/96 09:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.0	%	1	160.3	CQV	04/26/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 29, 1996

FECL #: AA33834 (Continued)
Tag: HR20
Date/Time Collected: 04/26/96 09:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Metals						
Chromium	3.5	mg/kg	1.0	6020	E B	04/26/9
Copper	3.5	mg/kg	1.0	6020	E B	04/26/9
Nickel	3.1	mg/kg	0.50	6020	E B	04/26/9
Zinc	9.4	mg/kg	1.0	6020	E B	04/26/9

FECL #: AA33835
Tag: HR21
Date/Time Collected: 04/26/96 09:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date I
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/26/9
Metals						
Chromium	85.9	mg/kg	1.0	6020	E B	04/26/9
Copper	51.0	mg/kg	1.0	6020	E B	04/26/9
Nickel	64.8	mg/kg	0.50	6020	E B	04/26/9
Zinc	76.0	mg/kg	1.0	6020	E B	04/26/9

FECL #: AA33836
Tag: HR22
Date/Time Collected: 04/26/96 09:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	89.0	%	1	160.3	CQV	04/26/9
Metals						
Chromium	5.2	mg/kg	1.0	6020	E B	04/26/9
Copper	4.6	mg/kg	1.0	6020	E B	04/26/

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 29, 1996

FECL #: AA33836 (Continued)
Tag: HR22
Date/Time Collected: 04/26/96 09:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	14.5	mg/kg	0.50	6020	E B	04/26/96
Zinc	19.0	mg/kg	1.0	6020	E B	04/26/96

FECL #: AA33837
Tag: HR23
Date/Time Collected: 04/26/96 09:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	04/26/96
Metals						
Chromium	16.1	mg/kg	1.0	6020	E B	04/26/96
Copper	13.3	mg/kg	1.0	6020	E B	04/26/96
Nickel	24.4	mg/kg	0.50	6020	E B	04/26/96
Zinc	35.2	mg/kg	1.0	6020	E B	04/26/96

FECL #: AA33838
Tag: HR24
Date/Time Collected: 04/26/96 09:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.7	%	1	160.3	CQV	04/26/96
Metals						
Chromium	14.3	mg/kg	1.0	6020	E B	04/26/96
Copper	16.9	mg/kg	1.0	6020	E B	04/26/96
Nickel	22.3	mg/kg	0.50	6020	E B	04/26/96
Zinc	88.0	mg/kg	1.0	6020	E B	04/26/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 29, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers, Inc.
ADDRESS: 39500 Orchard Hill Place Drive Suite 300
CITY: NOVI STATE: MI ZIP CODE: 48375
P.O. NO.: 4144.007.810 PHONE NO.: 810-347-4350 FAX NO.: 810-347-4357

REPORT TO

NAME: Jeff Ralson
ADDRESS: SAME
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.:

PROJECT NO.:
CLIENT: General Motors Corp.
SAMPLER (SIGNATURE):
SAMPLER - PLEASE PRINT NAME: Hubert Schlientz Jr.
AFFILIATION:

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40z Glass

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☐ SLUDGE ☐ OTHER

CODE: A = NONE, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F -

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
33832	4/26/96	9:41AM	HR 18	1	Total Metals Chromium, Copper Nickel & Zinc. 24 Hr. T.A.T. For All Samples.
33	4/26/96	9:45AM	HR 19	1	
34	4/26/96	9:35AM	HR 20	1	
35	4/26/96	9:30AM	HR 21	1	
36	4/26/96	9:25AM	HR 22	1	
37	4/26/96	9:20AM	HR 23	1	
38	4/26/96	9:15AM	HR 24	1	

		DATE	TIME
RELINQUISHED BY: SIGNATURE	Hubert Schlientz Jr.	4/26/96	2:00pm
RECEIVED BY: SIGNATURE	Josiah Mumbeam	4/26/96	2:00pm
RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED BY: SIGNATURE		DATE	TIME

		DATE	TIME
RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED AT FECL BY: SIGNATURE		DATE 4-26-96	TIME 3:30

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
NOTES: TEMP. ON ARRIVAL

APPENDIX J

Closure Sample Analytical Data Sheets - Railroad Area

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32425
Tag: RR1
Date/Time Collected: 03/21/96 15:24
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	03/22/96
Metals						
Chromium	3.0	mg/kg	1.0	6020	P R	03/22/96
Copper	2.3	mg/kg	1.0	6020	P R	03/22/96
Nickel	11.6	mg/kg	0.50	6020	P R	03/22/96
Zinc	12.4	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32426
Tag: RR1
Date/Time Collected: 03/21/96 15:16
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.6	%	1	160.3	CQV	03/22/96
Metals						
Chromium	220	mg/kg	1.0	6020	P R	03/22/96
Copper	278	mg/kg	1.0	6020	P R	03/22/96
Nickel	317	mg/kg	0.50	6020	P R	03/22/96
Zinc	41	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32427
Tag: RR2
Date/Time Collected: 03/21/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.1	%	1	160.3	CQV	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32472
Tag: LSW6A
Date/Time Collected: 03/22/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.7	%	1	160.3	CQV	03/22/96
Metals						
Chromium	5.5	mg/kg	1.0	6020	P R	03/22/96
Copper	4.3	mg/kg	1.0	6020	P R	03/22/96
Nickel	13.0	mg/kg	0.50	6020	P R	03/22/96
Zinc	12.3	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32473
Tag: LSW7A
Date/Time Collected: 03/22/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	03/22/96
Metals						
Chromium	669	mg/kg	1.0	6020	P R	03/22/96
Copper	274	mg/kg	1.0	6020	P R	03/22/96
Nickel	248	mg/kg	0.50	6020	P R	03/22/96
Zinc	497	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32474
Tag: RR5
Date/Time Collected: 03/22/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	71.7	%	1	160.3	CQV	03/22/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 22, 1996

FECL #: AA32474 (Continued)
Tag: RR5
Date/Time Collected: 03/22/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	03/22/96
Copper	4.4	mg/kg	1.0	6020	P R	03/22/96
Nickel	11.1	mg/kg	0.50	6020	P R	03/22/96
Zinc	8.8	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32475
Tag: HR3
Date/Time Collected: 03/22/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.1	%	1	160.3	CQV	03/22/96
Metals						
Chromium	70.5	mg/kg	1.0	6020	P R	03/22/96
Copper	63.5	mg/kg	1.0	6020	P R	03/22/96
Nickel	74.7	mg/kg	0.50	6020	P R	03/22/96
Zinc	69.5	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32476
Tag: HR4
Date/Time Collected: 03/22/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	CQV	03/22/96
Metals						
Chromium	116	mg/kg	1.0	6020	P R	03/22/96
Copper	149	mg/kg	1.0	6020	P R	03/22/96

Fi. e & Environme. tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

Supplemental report.
March 27, 1996

File: 4144.007 #4
cc: SSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32427, AA32477-AA32478

Project: 4144.007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 03/21/96 17:00
PO #: Verbal

FECL #: AA32427
Tag: RR2
Date/Time Collected: 03/21/96 15:30
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32477
Tag: RR3
Date/Time Collected: 03/22/96 15:00
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

FECL #: AA32478
Tag: RR4
Date/Time Collected: 03/22/96 14:45
Matrix: Soil
Container(s): 1-4 oz Jar
Preservation: None/Refrigeration

Fi_e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

Supplemental report to report dated 3-27-96.
March 27, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32545-AA32552

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 03/26/96 17:00
PO #: Verbal

FECL #: AA32545
Tag: RR6
Date/Time Collected: 03/26/96 13:05
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32546
Tag: RR7
Date/Time Collected: 03/26/96 13:10
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32547
Tag: RR8
Date/Time Collected: 03/26/96 13:15
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Supplemental report to report dated 3-27-96.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32548
Tag: RR9
Date/Time Collected: 03/26/96 13:20
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32549
Tag: RR10
Date/Time Collected: 03/26/96 13:25
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32550
Tag: RR11
Date/Time Collected: 03/26/96 13:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32551
Tag: RR13
Date/Time Collected: 03/26/96 13:40
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32552
Tag: RR14
Date/Time Collected: 03/26/96 13:45
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Supplemental report.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32427
Tag: RR2
Date/Time Collected: 03/21/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.1	%	1	160.3	CQV	03/22/96
Metals						
Chromium	5.5	mg/kg	1.0	6020	P R	03/22/96
Copper	4.9	mg/kg	1.0	6020	P R	03/22/96
Nickel	12.6	mg/kg	0.50	6020	P R	03/22/96
Zinc	17.5	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32477
Tag: RR3
Date/Time Collected: 03/22/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.1	%	1	160.3	CQV	03/22/96
Metals						
Chromium	2.9	mg/kg	1.0	6020	P R	03/22/96
Copper	3.4	mg/kg	1.0	6020	P R	03/22/96
Nickel	6.5	mg/kg	0.50	6020	P R	03/22/96
Zinc	10.4	mg/kg	1.0	6020	P R	03/22/96

FECL #: AA32478
Tag: RR4
Date/Time Collected: 03/22/96 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	75.5	%	1	160.3	CQV	03/22/96

Supplemental report.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32478 (Continued)
Tag: RR4
Date/Time Collected: 03/22/96 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3.1	mg/kg	1.0	6020	P R	03/22/96
Copper	4.1	mg/kg	1.0	6020	P R	03/22/96
Nickel	10.4	mg/kg	0.50	6020	P R	03/22/96
Zinc	10.4	mg/kg	1.0	6020	P R	03/22/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Supplemental report to report dated 3-27-96.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32545
Tag: RR6
Date/Time Collected: 03/26/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	CQV	03/27/96
Metals						
Chromium	6.9	mg/kg	1.0	6020	P R	03/26/96
Copper	5.9	mg/kg	1.0	6020	P R	03/26/96
Nickel	11.3	mg/kg	0.50	6020	P R	03/26/96
Zinc	21.8	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32546
Tag: RR7
Date/Time Collected: 03/26/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.2	%	1	160.3	CQV	03/27/96
Metals						
Chromium	6.4	mg/kg	1.0	6020	P R	03/26/96
Copper	5.1	mg/kg	1.0	6020	P R	03/26/96
Nickel	19.9	mg/kg	0.50	6020	P R	03/26/96
Zinc	20.6	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32547
Tag: RR8
Date/Time Collected: 03/26/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	03/27/96

Supplemental report to report dated 3-27-96.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32547 (Continued)
Tag: RR8
Date/Time Collected: 03/26/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.5	mg/kg	1.0	6020	P R	03/26/96
Copper	7.5	mg/kg	1.0	6020	P R	03/26/96
Nickel	16.4	mg/kg	0.50	6020	P R	03/26/96
Zinc	22.8	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32548
Tag: RR9
Date/Time Collected: 03/26/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	03/27/96
Metals						
Chromium	6.9	mg/kg	1.0	6020	P R	03/26/96
Copper	5.8	mg/kg	1.0	6020	P R	03/26/96
Nickel	11.9	mg/kg	0.50	6020	P R	03/26/96
Zinc	20.4	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32549
Tag: RR10
Date/Time Collected: 03/26/96 13:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	03/27/96
Metals						
Chromium	1.9	mg/kg	1.0	6020	P R	03/26/96
Copper	1.2	mg/kg	1.0	6020	P R	03/26

Supplemental report to report dated 3-27-96.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32549 (Continued)
Tag: RR10
Date/Time Collected: 03/26/96 13:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	2.0	mg/kg	0.50	6020	P R	03/26/96
Zinc	5.4	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32550
Tag: RR11
Date/Time Collected: 03/26/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.1	%	1	160.3	CQV	03/27/96
Metals						
Chromium	6.0	mg/kg	1.0	6020	P R	03/26/96
Copper	11.5	mg/kg	1.0	6020	P R	03/26/96
Nickel	5.4	mg/kg	0.50	6020	P R	03/26/96
Zinc	18.8	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32551
Tag: RR13
Date/Time Collected: 03/26/96 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	75.2	%	1	160.3	CQV	03/27/96
Metals						
Chromium	90.1	mg/kg	1.0	6020	P R	03/26/96
Copper	54.0	mg/kg	1.0	6020	P R	03/26/96
Nickel	71.2	mg/kg	0.50	6020	P R	03/26/96
Zinc	122	mg/kg	1.0	6020	P R	03/26/96

Supplemental report to report dated 3-27-96.
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32552
Tag: RR14
Date/Time Collected: 03/26/96 13:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.9	%	1	160.3	CQV	03/27/96
Metals						
Chromium	9.9	mg/kg	1.0	6020	P R	03/26/96
Copper	6.2	mg/kg	1.0	6020	P R	03/26/96
Nickel	19.6	mg/kg	0.50	6020	P R	03/26/96
Zinc	23.9	mg/kg	1.0	6020	P R	03/26/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
March 27, 1996

FECL #: AA32542
Tag: RR12
Date/Time Collected: 03/26/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.4	%	1	160.3	CQV	03/27/96
Metals						
Chromium	3.6	mg/kg	1.0	6020	P R	03/26/96
Copper	2.8	mg/kg	1.0	6020	P R	03/26/96
Nickel	2.8	mg/kg	0.50	6020	P R	03/26/96
Zinc	8.4	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32543
Tag: Dup2
Date/Time Collected: 03/26/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	74.9	%	1	160.3	CQV	03/27/96
Metals						
Chromium	5.3	mg/kg	1.0	6020	P R	03/26/96
Copper	4.2	mg/kg	1.0	6020	P R	03/26/96
Nickel	10.3	mg/kg	0.50	6020	P R	03/26/96
Zinc	16.7	mg/kg	1.0	6020	P R	03/26/96

FECL #: AA32544
Tag: LSW8A
Date/Time Collected: 03/26/96 11:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.9	%	1	160.3	CQV	03/27/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33281 (Continued)
Tag: RB3-1
Date/Time Collected: 04/11/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	04/12/96
Copper	[illegible]	mg/kg	1.0	6020	P R	04/12/96
Nickel	48.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	28.9	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33282
Tag: RR13A
Date/Time Collected: 04/11/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	15.4	mg/kg	1.0	6020	P R	04/12/96
Copper	12.4	mg/kg	1.0	6020	P R	04/12/96
Nickel	29.9	mg/kg	0.50	6020	P R	04/12/96
Zinc	45.5	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33283
Tag: RB6-1
Date/Time Collected: 04/11/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/11/96
Metals						
Chromium	34.5	mg/kg	1.0	6020	P R	04/12/96
Copper	30.7	mg/kg	1.0	6020	P R	04/12/96

Fi..e & Environme..tal
Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 26, 1996

File: 4144.007 #4
cc: SSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33812-AA33817

Project: 4144.007 GM Delphi Coldwater Rd. Flint
Samples collected by: H. SCHLIENTZ
Date/Time Submitted: 04/25/96 18:00
PO #: Verbal

FECL #: AA33812
Tag: RR15
Date/Time Collected: 04/25/96 11:29
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33813
Tag: RR16
Date/Time Collected: 04/25/96 11:36
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33814
Tag: RR17
Date/Time Collected: 04/25/96 11:41
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 26, 1996

FECL #: AA33815
Tag: RR18
Date/Time Collected: 04/25/96 11:45
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33816
Tag: RR19
Date/Time Collected: 04/25/96 11:51
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33817
Tag: RR20
Date/Time Collected: 04/25/96 11:57
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 26, 1996

FECL #: AA33812
Tag: RR15
Date/Time Collected: 04/25/96 11:29
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	04/25/96
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	04/25/96
Copper	4.5	mg/kg	1.0	6020	P R	04/25/96
Nickel	6.1	mg/kg	0.50	6020	P R	04/25/96
Zinc	8.8	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33813
Tag: RR16
Date/Time Collected: 04/25/96 11:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	CQV	04/25/96
Metals						
Chromium	17.8	mg/kg	1.0	6020	P R	04/25/96
Copper	12.9	mg/kg	1.0	6020	P R	04/25/96
Nickel	17.9	mg/kg	0.50	6020	P R	04/25/96
Zinc	160	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33814
Tag: RR17
Date/Time Collected: 04/25/96 11:41
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	04/25/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 26, 1996

FECL #: AA33814 (Continued)
Tag: RR17
Date/Time Collected: 04/25/96 11:41
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.1	mg/kg	1.0	6020	P R	04/25/96
Copper	5.9	mg/kg	1.0	6020	P R	04/25/96
Nickel	9.8	mg/kg	0.50	6020	P R	04/25/96
Zinc	37.0	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33815
Tag: RR18
Date/Time Collected: 04/25/96 11:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/25/96
Metals						
Chromium	5.2	mg/kg	1.0	6020	P R	04/25/96
Copper	5.1	mg/kg	1.0	6020	P R	04/25/96
Nickel	7.0	mg/kg	0.50	6020	P R	04/25/96
Zinc	52.1	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33816
Tag: RR19
Date/Time Collected: 04/25/96 11:51
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.9	%	1	160.3	CQV	04/25/96
Metals						
Chromium	1.1	mg/kg	1.0	6020	P R	04/25/96
Copper	5.0	mg/kg	1.0	6020	P R	04/25/

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 26, 1996

FECL #: AA33816 (Continued)
Tag: RR19
Date/Time Collected: 04/25/96 11:51
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	2.0	mg/kg	0.50	6020	P R	04/25/96
Zinc	9.0	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33817
Tag: RR20
Date/Time Collected: 04/25/96 11:57
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.4	%	1	160.3	CQV	04/25/96
Metals						
Chromium	2.3	mg/kg	1.0	6020	P R	04/25/96
Copper	2.9	mg/kg	1.0	6020	P R	04/25/96
Nickel	4.4	mg/kg	0.50	6020	P R	04/25/96
Zinc	6.3	mg/kg	1.0	6020	P R	04/25/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers, Inc.
ADDRESS: 39500 Orchard Hill Place Drive Suite 300
CITY: NOVI STATE: MI ZIP CODE: 48375
P.O. NO.: 4144.007.810 PHONE NO.: 810-347-4350 FAX NO.: 810-347-4357

REPORT TO

NAME: Jeff Ralson
ADDRESS:
CITY: Same STATE: ZIP CODE:
PHONE NO.: FAX NO.:

PROJECT NO.:
CLIENT: General Motors Corp.
SAMPLER (SIGNATURE):
SAMPLER - PLEASE PRINT NAME: Hubert Schlientz Jr.
AFFILIATION:

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: 4oz Glass

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☑ SLUDGE ☐ OTHER ☐

CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
33812	4/25/96	11:34AM	RR15	1	✓ Total Metals CR, Cu, Ni, Zn 24Hr
33813	4/25/96	11:36AM	RR16	1	✓ T.A.T. For All Samples
33814	4/25/96	11:41AM	RR17	1	✓ Please fax results to Jeff
33815	4/25/96	11:45AM	RR18	1	✓ Ralson ASAP @ 810-347-4357
33816	4/25/96	11:51AM	RR19	1	✓
33817	4/25/96	11:57AM	RR20	1	✓

RELINQUISHED BY: SIGNATURE: Hubert W. Schlientz Jr.	DATE: 4/25/96	TIME: 4:31pm	
RECEIVED BY: SIGNATURE: Darrell Leeper	DATE: 4/25/96	TIME: 4:31 PM	
RELINQUISHED BY: SIGNATURE:	DATE:	TIME:	
RECEIVED BY: SIGNATURE:	DATE:	TIME:	

RELINQUISHED BY: SIGNATURE: Brad Allerton	DATE: 4.25.96	TIME: 7:45	
RECEIVED AT FECL BY: SIGNATURE: Cindy Lin	DATE: 4-25-96	TIME: 18:10	
SEAL NO.:	SEAL INTACT YES ☐ NO ☐	INITIALS:	NOTES: TEMP. ON ARRIVAL ____ V
SEAL NO.:	SEAL INTACT YES ☐ NO ☐	INITIALS:	

APPENDIX K

Closure Sample Analytical Data Sheets - Miscellaneous Cleanup Area

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32737
Tag: MC2
Date/Time Collected: 04/01/96 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.5	%	1	160.3	CQV	04/02/96
Metals						
Chromium	1.9	mg/kg	1.0	6020	P R	04/02/96
Copper	2.2	mg/kg	1.0	6020	P R	04/02/96
Nickel	5.0	mg/kg	0.50	6020	P R	04/02/96
Zinc	6.0	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32738
Tag: MC8
Date/Time Collected: 04/01/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	04/02/96
Metals						
Chromium	128	mg/kg	1.0	6020	P R	04/02/96
Copper	68.1	mg/kg	1.0	6020	P R	04/02/96
Nickel	97.2	mg/kg	0.50	6020	P R	04/02/96
Zinc	90.1	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32739
Tag: MC12
Date/Time Collected: 04/01/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32739 (Continued)
Tag: MC12
Date/Time Collected: 04/01/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	117	mg/kg	1.0	6020	P R	04/02/96
Copper	70.2	mg/kg	1.0	6020	P R	04/02/96
Nickel	73.4	mg/kg	0.50	6020	P R	04/02/96
Zinc	94.0	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32740
Tag: Dup3
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	95.0	%	1	160.3	CQV	04/02/96
Metals						
Chromium	458	mg/kg	1.0	6020	P R	04/02/96
Copper	198	mg/kg	1.0	6020	P R	04/02/96
Nickel	278	mg/kg	0.50	6020	P R	04/02/96
Zinc	284	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32741
Tag: MC1
Date/Time Collected: 04/01/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/02/96
Metals						
Copper	239	mg/kg	1.0	6020	P R	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32742
Tag: MC3
Date/Time Collected: 04/01/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	04/02/96
Metals						
Copper	62.8	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32743
Tag: MC4
Date/Time Collected: 04/01/96 13:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	CQV	04/02/96
Metals						
Copper	127	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32744
Tag: MC5
Date/Time Collected: 04/01/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.1	%	1	160.3	CQV	04/02/96
Metals						
Copper	196	mg/kg	1.0	6020	P R	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32745
Tag: MC9
Date/Time Collected: 04/01/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/02/96
Metals						
Copper	5.5	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32746
Tag: MC10
Date/Time Collected: 04/01/96 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/02/96
Metals						
Copper	25.7	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32747
Tag: MC11
Date/Time Collected: 04/01/96 13:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	04/02/96
Metals						
Copper	176	mg/kg	1.0	6020	P R	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 02, 1996

FECL #: AA32748
Tag: MC13
Date/Time Collected: 04/01/96 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.4	%	1	160.3	CQV	04/02/96
Metals						
Copper	187	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32749
Tag: [illegible]B3
Date/Time Collected: 04/01/96 14:00
Matrix: Groundwater

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Copper	Not detected	mg/L	0.005	200.8	P R	04/02/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi.e & Environme.ital Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

4144.007 '96

April 04, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32808-AA32815

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/03/96 15:15
PO #: Verbal

FECL #: AA32808
Tag: MC1
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32809
Tag: MC3
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32810
Tag: MC4
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32811
Tag: MC5
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32812
Tag: MC9
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32813
Tag: MC10
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32814
Tag: MC11
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32815
Tag: MC13
Date/Time Collected: 04/01/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32808
Tag: MC1
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	C V	04/02/96
Metals						
Chromium	346	mg/kg	1.0	6020	P R	04/02/96
Nickel	154	mg/kg	0.50	6020	P R	04/02/96
Zinc	220	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32809
Tag: MC3
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	C V	04/02/96
Metals						
Chromium	117	mg/kg	1.0	6020	P R	04/02/96
Nickel	72.7	mg/kg	0.50	6020	P R	04/02/96
Zinc	80.4	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32810
Tag: MC4
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	C V	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32810 (Continued)
Tag: MC4
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	249	mg/kg	1.0	6020	P R	04/02/96
Nickel	176	mg/kg	0.50	6020	P R	04/02/96
Zinc	157	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32811
Tag: MC5
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.1	%	1	160.3	C V	04/02/96
Metals						
Chromium	362	mg/kg	1.0	6020	P R	04/02/96
Nickel	245	mg/kg	0.50	6020	P R	04/02/96
Zinc	231	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32812
Tag: MC9
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	C V	04/02/96
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	04/02/96
Nickel	13.5	mg/kg	0.50	6020	P R	04/02/96
Zinc	14.1	mg/kg	1.0	6020	P R	04/02/96

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FECL #: AA32813
Tag: MC10
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	C V	04/02/96
Metals						
Chromium	64.9	mg/kg	1.0	6020	P R	04/02/96
Nickel	33.4	mg/kg	0.50	6020	P R	04/02/96
Zinc	41.9	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32814
Tag: MC11
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	C V	04/02/96
Metals						
Chromium	315	mg/kg	1.0	6020	P R	04/02/96
Nickel	208	mg/kg	0.50	6020	P R	04/02/96
Zinc	196	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32815
Tag: MC13
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.4	%	1	160.3	C V	04/02/96

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FECL #: AA32815 (Continued)
Tag: MC13
Date/Time Collected: 04/01/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	345	mg/kg	1.0	6020	P R	04/02/96
Nickel	113	mg/kg	0.50	6020	P R	04/02/96
Zinc	181	mg/kg	1.0	6020	P R	04/02/96

Note: Methods may be modified for improved performance.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33123
Tag: LF9
Date/Time Collected: 04/05/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.4	%	1	160.3	CQV	04/05/96
Metals						
Chromium	168	mg/kg	1.0	6020	P R	04/05/96
Copper	184	mg/kg	1.0	6020	P R	04/05/96
Nickel	177	mg/kg	0.50	6020	P R	04/05/96
Zinc	224	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33124
Tag: DUP6
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	04/05/96
Metals						
Chromium	136	mg/kg	1.0	6020	P R	04/05/96
Copper	72.4	mg/kg	1.0	6020	P R	04/05/96
Nickel	71	mg/kg	0.50	6020	P R	04/05/96
Zinc	122	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33125
Tag: MC13A
Date/Time Collected: 04/05/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/05/96

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FECL #: AA33125 (Continued)
Tag: MC13A
Date/Time Collected: 04/05/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	128	mg/kg	1.0	6020	P R	04/05/96
Copper	63.0	mg/kg	1.0	6020	P R	04/05/96
Nickel	57.8	mg/kg	0.50	6020	P R	04/05/96
Zinc	78.0	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33126
Tag: LF3
Date/Time Collected: 04/05/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/05/96
Metals						
Copper	37.5	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33127
Tag: LF4
Date/Time Collected: 04/05/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.1	%	1	160.3	CQV	04/05/96
Metals						
Copper	1,010	mg/kg	1.0	6020	P R	04/05/96

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FECL #: AA33181 (Continued)
Tag: MC5A-1
Date/Time Collected: 04/09/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	65.9	mg/kg	1.0	6020	P R	04/10/96
Copper	34.2	mg/kg	1.0	6020	P R	04/10/96
Nickel	33.1	mg/kg	0.50	6020	P R	04/10/96
Zinc	49.0	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33182
Tag: MC3A-1
Date/Time Collected: 04/09/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	CQV	04/09/96
Metals						
Chromium	49.9	mg/kg	1.0	6020	P R	04/10/96
Copper	37.4	mg/kg	1.0	6020	P R	04/10/96
Nickel	46.2	mg/kg	0.50	6020	P R	04/10/96
Zinc	59.0	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33183
Tag: MC1A-1
Date/Time Collected: 04/09/96 14:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/09/96
Metals						
Chromium	4.5	mg/kg	1.0	6020	P R	04/10/96
Copper	4.9	mg/kg	1.0	6020	P R	04/10/96

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FECL #: AA33183 (Continued)
Tag: MC1A-1
Date/Time Collected: 04/09/96 14:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	5.8	mg/kg	0.50	6020	P R	04/10/96
Zinc	15.3	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33184
Tag: MC8A-1
Date/Time Collected: 04/09/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/09/9
Metals						
Chromium	162	mg/kg	1.0	6020	P R	04/10/96
Copper	91.2	mg/kg	1.0	6020	P R	04/10/96
Nickel	125	mg/kg	0.50	6020	P R	04/10/96
Zinc	128	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33185
Tag: LF6A-1
Date/Time Collected: 04/09/96 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/09/96
Metals						
Chromium	11	mg/kg	1.0	6020	P R	04/10/96
Copper	8.4	mg/kg	1.0	6020	P R	04/10/96
Nickel	94.7	mg/kg	0.50	6020	P R	04/10/96
Zinc	92.8	mg/kg	1.0	6020	P R	04/10/96

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FECL #: AA33206
Tag: MC12A
Date/Time Collected: 04/10/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/11/96
Metals						
Chromium	185	mg/kg	1.0	6020	P R	04/10/96
Copper	102	mg/kg	1.0	6020	P R	04/10/96
Nickel	118	mg/kg	0.50	6020	P R	04/10/96
Zinc	139	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33207
Tag: MC10A
Date/Time Collected: 04/10/96 14:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	04/11/96
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	04/10/96

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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33246
Tag: MC13A-1
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	270	mg/kg	1.0	6020	P R	04/12/96
Copper	130	mg/kg	1.0	6020	P R	04/12/96
Nickel	102	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33247
Tag: SM10-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	22.2	mg/kg	1.0	6020	P R	04/12/96
Copper	18.3	mg/kg	1.0	6020	P R	04/12/96
Nickel	22.2	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33248
Tag: MC3A
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	CQV	04/11/96

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FECL #: AA33248 (Continued)
Tag: MC3A
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	13.9	mg/kg	1.0	6020	P R	04/12/96
Copper	10.4	mg/kg	1.0	6020	P R	04/12/96
Nickel	19.4	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33249
Tag: MC5A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	8.7	mg/kg	1.0	6020	P R	04/12/96
Copper	5.8	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33250
Tag: SM8-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	CQV	04/11/96
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	04/12/96
Copper	45.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	33.2	mg/kg	0.50	6020	P R	04/12/96
Zinc	16.8	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33253 (Continued)
Tag: SM6-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	207	mg/kg	1.0	6020	P R	04/12/96
Copper	158	mg/kg	1.0	6020	P R	04/12/96
Nickel	187	mg/kg	0.50	6020	P R	04/12/96
Zinc	225	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33254
Tag: MC8A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/12/96
Copper	51.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	71.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	125	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33255
Tag: LF3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	155	mg/kg	1.0	6020	P R	04/12/96
Copper	81.2	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33179
Tag: MC11 A-1
Date/Time Collected: 04/09/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/09/96
Metals						
Chromium	14.7	mg/kg	1.0	6020	P R	04/10/96
Copper	10.9	mg/kg	1.0	6020	P R	04/10/96
Nickel	20.5	mg/kg	0.50	6020	P R	04/10/96
Zinc	24.8	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33180
Tag: MC4A-1
Date/Time Collected: 04/09/96 12:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.9	%	1	160.3	CQV	04/09/96
Metals						
Chromium	9.3	mg/kg	1.0	6020	P R	04/10/96
Copper	10.0	mg/kg	1.0	6020	P R	04/10/96
Nickel	17.6	mg/kg	0.50	6020	P R	04/10/96
Zinc	23.1	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33181
Tag: MC5A-1
Date/Time Collected: 04/09/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/09/96

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FECL #: AA33274 (Continued)
Tag: SS6
Date/Time Collected: 04/11/96 09:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	681	mg/kg	1.0	6020	P R	04/12/96
Copper	146	mg/kg	1.0	6020	P R	04/12/96
Nickel	238	mg/kg	0.50	6020	P R	04/12/96
Zinc	280	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33275
Tag: SS7
Date/Time Collected: 04/11/96 10:07
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	638	mg/kg	1.0	6020	P R	04/12/96
Copper	325	mg/kg	1.0	6020	P R	04/12/96
Nickel	445	mg/kg	0.50	6020	P R	04/12/96
Zinc	611	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33276
Tag: MC11A
Date/Time Collected: 04/11/96 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/11/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	04/12/96
Copper	5.4	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33276 (Continued)
Tag: MC11A
Date/Time Collected: 04/11/96 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	16.0	mg/kg	0.50	6020	P R	04/12/96
Zinc	21.8	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33277
Tag: MC4A
Date/Time Collected: 04/11/96 10:33
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	112	mg/kg	1.0	6020	P R	04/12/96
Copper	66.0	mg/kg	1.0	6020	P R	04/12/96
Nickel	84.2	mg/kg	0.50	6020	P R	04/12/96
Zinc	101	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33278
Tag: MC1A
Date/Time Collected: 04/11/96 10:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.5	%	1	160.3	CQV	04/11/96
Metals						
Chromium	407	mg/kg	1.0	6020	P R	04/12/96
Copper	268	mg/kg	1.0	6020	P R	04/12/96
Nickel	199	mg/kg	0.50	6020	P R	04/12/96
Zinc	290	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33264
Tag: MC12A-1
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	284	mg/kg	1.0	6020	P R	04/12/96
Copper	156	mg/kg	1.0	6020	P R	04/12/96
Nickel	162	mg/kg	0.50	6020	P R	04/12/96
Zinc	190	mg/kg	1.0	6020	P R	04/12/96

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Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

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FECL #: AA33334
Tag: SM3-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	CQV	04/12/96
Metals						
Chromium	1,420	mg/kg	1.0	6020	P R	04/12/96
Copper	482	mg/kg	1.0	6020	P R	04/12/96
Nickel	898	mg/kg	0.50	6020	P R	04/12/96
Zinc	530	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33335
Tag: SM6-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.0	%	1	160.3	CQV	04/12/96
Metals						
Chromium	143	mg/kg	1.0	6020	P R	04/12/96
Copper	249	mg/kg	1.0	6020	P R	04/12/96
Nickel	179	mg/kg	0.50	6020	P R	04/12/96
Zinc	170	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33336
Tag: MC8A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/12/96

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FECL #: AA33336 (Continued)
Tag: MC8A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	7.5	mg/kg	1.0	6020	P R	04/12/96
Copper	7.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	17.3	mg/kg	0.50	6020	P R	04/12/96
Zinc	21.3	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33337
Tag: LF3A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/12/96
Metals						
Chromium	1,260	mg/kg	1.0	6020	P R	04/12/96
Copper	455	mg/kg	1.0	6020	P R	04/12/96
Nickel	756	mg/kg	0.50	6020	P R	04/12/96
Zinc	948	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33338
Tag: LF4A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/12/96
Metals						
Chromium	1,130	mg/kg	1.0	6020	P R	04/12/96
Copper	518	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33351
Tag: MC13A-2
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.2	%	1	160.3	CQV	04/15/96
Metals						
Chromium	32.7	mg/kg	1.0	6020	P R	04/15/96
Copper	21.2	mg/kg	1.0	6020	P R	04/15/96
Nickel	16.9	mg/kg	0.50	6020	P R	04/15/96

FECL #: AA33352
Tag: MB6-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/15/96
Metals						
Chromium	119	mg/kg	1.0	6020	P R	04/15/96
Copper	86.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33353
Tag: MB3-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	04/15/96
Metals						
Nickel	12.5	mg/kg	0.50	6020	P R	04/15/96

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FECL #: AA33358 (Continued)
Tag: LF8-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	458	mg/kg	0.50	6020	P R	04/15/96
Zinc	602	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33359
Tag: MC12A-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/15/
Metals						
Chromium	40.0	mg/kg	1.0	6020	P R	04/15/96
Copper	24.8	mg/kg	1.0	6020	P R	04/15/96
Nickel	25.5	mg/kg	0.50	6020	P R	04/15/96
Zinc	53.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33360
Tag: SS4-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	99.9	%	1	160.3	CQV	04/15/96
Metals						
Chromium	2,620	mg/kg	1.0	6020	P R	04/15/96
Copper	711	mg/kg	1.0	6020	P R	04/15/96
Nickel	1,520	mg/kg	0.50	6020	P R	04/15/96
Zinc	1,670	mg/kg	1.0	6020	P R	04/15/96

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FECL #: AA33394
Tag: MC13A-3
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.6	%	1	160.3	CQV	04/16/96
Metals						
Chromium	16.1	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33395
Tag: MC12A-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/16/96
Metals						
Chromium	46.8	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33396
Tag: RB6-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/16/96
Metals						
Chromium	3.3	mg/kg	1.0	6020	P R	04/16/96
Copper	6.9	mg/kg	1.0	6020	P R	04/16/96

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FECL #: AA33465 (Continued)
Tag: LF12
Date/Time Collected: 04/17/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.3	mg/kg	1.0	6020	E B	04/17/96
Copper	5.9	mg/kg	1.0	6020	E B	04/17/96
Nickel	9.1	mg/kg	0.50	6020	E B	04/17/96
Zinc	17.3	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33466
Tag: MC7
Date/Time Collected: 04/17/96 15:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R...
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	217	mg/kg	1.0	6020	E B	04/17/96
Copper	88.4	mg/kg	1.0	6020	E B	04/17/96
Nickel	146	mg/kg	0.50	6020	E B	04/17/96
Zinc	114	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33467
Tag: MC6
Date/Time Collected: 04/17/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	167	mg/kg	1.0	6020	E B	04/17/96
Copper	85.9	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33467 (Continued)
Tag: MC6
Date/Time Collected: 04/17/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	121	mg/kg	0.50	6020	E B	04/17/96
Zinc	102	mg/kg	1.0	6020	E B	04/17/96

Note: Methods may be modified for improved performance.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33475
Tag: LF3A-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/17/96
Metals						
Chromium	65.7	mg/kg	1.0	6020	E B	04/17/96
Copper	42.8	mg/kg	1.0	6020	E B	04/17/96
Nickel	53.4	mg/kg	0.50	6020	E B	04/17/96

FECL #: AA33476
Tag: SS7-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	20.8	mg/kg	1.0	6020	E B	04/17/96
Copper	12.2	mg/kg	1.0	6020	E B	04/17/96
Nickel	21.9	mg/kg	0.50	6020	E B	04/17/96

FECL #: AA33477
Tag: MC12A-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/17/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33525 (Continued)
Tag: SM11-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	865	mg/kg	0.50	6020	E B	04/18/96
Zinc	692	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33526
Tag: MC7-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.0	%	1	160.3	CQV	04/18/96
Metals						
Chromium	22.3	mg/kg	1.0	6020	E B	04/18/96
Copper	16.0	mg/kg	1.0	6020	E B	04/18/96
Nickel	20.7	mg/kg	0.50	6020	E B	04/18/96
Zinc	30.1	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33527
Tag: MC6-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	104	mg/kg	1.0	6020	E B	04/18/96
Copper	43.2	mg/kg	1.0	6020	E B	04/18/96
Nickel	74.1	mg/kg	0.50	6020	E B	04/18/96
Zinc	56.9	mg/kg	1.0	6020	E B	04/18/96

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FECL #: AA33579
Tag: SS5-5
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/19/96
Metals						
Chromium	85.8	mg/kg	1.0	6020	E B	04/19/96
Copper	57.9	mg/kg	1.0	6020	E B	04/19/96
Nickel	79.1	mg/kg	0.50	6020	E B	04/19/96
Zinc	69.6	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33580
Tag: SS6-5
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	04/19/96
Metals						
Chromium	326	mg/kg	1.0	6020	E B	04/19/96
Copper	140	mg/kg	1.0	6020	E B	04/19/96
Nickel	200	mg/kg	0.50	6020	E B	04/19/96
Zinc	203	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33581
Tag: MC6-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/19/96

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FECL #: AA33581 (Continued)
Tag: MC6-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	5.2	mg/kg	1.0	6020	E B	04/19/96
Copper	3.7	mg/kg	1.0	6020	E B	04/19/96
Nickel	11.0	mg/kg	0.50	6020	E B	04/19/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Revised Report
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O'Brien & Gere Engineers, Inc.
April 22, 1996

FECL #: AA33246
Tag: MC13A-1
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	270	mg/kg	1.0	6020	P R	04/12/96
Copper	130	mg/kg	1.0	6020	P R	04/12/96
Nickel	102	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33247
Tag: SM10-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	22.2	mg/kg	1.0	6020	P R	04/12/96
Copper	18.3	mg/kg	1.0	6020	P R	04/12/96
Nickel	22.2	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33248
Tag: MC3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	CQV	04/11/96

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O'Brien & Gere Engineers, Inc.
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FECL #: AA33248 (Continued)
Tag: MC3A
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	13.9	mg/kg	1.0	6020	P R	04/12/96
Copper	10.4	mg/kg	1.0	6020	P R	04/12/96
Nickel	19.4	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33249
Tag: MC5A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	8.7	mg/kg	1.0	6020	P R	04/12/96
Copper	5.8	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33250
Tag: SM8-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	CQV	04/11/96
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	04/12/96
Copper	45.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	33.2	mg/kg	0.50	6020	P R	04/12/96
Zinc	16.8	mg/kg	1.0	6020	P R	04/12/96

Revised Report
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O'Brien & Gere Engineers, Inc.
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FECL #: AA33253 (Continued)
Tag: SM6-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	207	mg/kg	1.0	6020	P R	04/12/96
Copper	158	mg/kg	1.0	6020	P R	04/12/96
Nickel	187	mg/kg	0.50	6020	P R	04/12/96
Zinc	225	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33254
Tag: MC8A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/12/96
Copper	51.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	71.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	125	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33255
Tag: LF3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	155	mg/kg	1.0	6020	P R	04/12/96
Copper	81.2	mg/kg	1.0	6020	P R	04/12/96

APPENDIX L

Closure Sample Analytical Data Sheets - Retention Basin

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April 04, 1996

FECL #: AA32772
Tag: LF5
Date/Time Collected: 04/02/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	CQV	04/03/96
Metals						
Chromium	688	mg/L	0.01	200.8	PJR	04/02/96
Copper	379	mg/kg	1.0	6020	PJR	04/02/96
Nickel	489	mg/kg	0.50	6020	PJR	04/02/96
Zinc	383	mg/kg	1.0	6020	PJR	04/02/96

FECL #: AA32773
Tag: LF7
Date/Time Collected: 04/02/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/03/96
Metals						
Chromium	276	mg/kg	1.0	6020	PJR	04/02/96
Copper	141	mg/kg	1.0	6020	PJR	04/02/96
Nickel	184	mg/kg	0.50	6020	PJR	04/02/96
Zinc	161	mg/kg	1.0	6020	PJR	04/02/96

FECL #: AA32774
Tag: RB11
Date/Time Collected: 04/02/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/03/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32774 (Continued)
Tag: RB11
Date/Time Collected: 04/02/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	289	mg/kg	1.0	6020	P R	04/02/96
Copper	134	mg/kg	1.0	6020	P R	04/02/96
Nickel	174	mg/kg	0.50	6020	P R	04/02/96
Zinc	151	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32775
Tag: RB12
Date/Time Collected: 04/02/96 13:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/03/96
Metals						
Chromium	2.7	mg/kg	1.0	6020	P R	04/02/96
Copper	5.0	mg/kg	1.0	6020	P R	04/02/96
Nickel	8.6	mg/kg	0.50	6020	P R	04/02/96
Zinc	9.1	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32776
Tag: RB14
Date/Time Collected: 04/02/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/03/96
Metals						
Chromium	539	mg/kg	1.0	6020	P R	04/02/96
Copper	304	mg/kg	1.0	6020	P R	04/02/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32776 (Continued)
Tag: RB14
Date/Time Collected: 04/02/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	390	mg/kg	0.50	6020	P R	04/02/96
Zinc	305	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32777
Tag: RB15
Date/Time Collected: 04/02/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/03/96
Metals						
Chromium	9.2	mg/kg	1.0	6020	P R	04/02/96
Copper	4.3	mg/kg	1.0	6020	P R	04/02/96
Nickel	13.3	mg/kg	0.50	6020	P R	04/02/96
Zinc	11.3	mg/kg	1.0	6020	P R	04/02/96

Note: Methods may be modified for improved performance.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi.e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

Supplemental Report
April 05, 1996

File: 4144.007 #4

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32876-AA32878, AA32880-AA32883

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/03/96 17:00
PO #: Verbal

FECL #: AA32876
Tag: RB1
Date/Time Collected: 04/03/96 13:20
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32877
Tag: RB2
Date/Time Collected: 04/03/96 13:25
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32878
Tag: RB4
Date/Time Collected: 04/03/96 13:35
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Supplemental Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32880
Tag: RB6
Date/Time Collected: 04/03/96 13:45
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32881
Tag: RB7
Date/Time Collected: 04/03/96 13:55
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32882
Tag: RB8
Date/Time Collected: 04/03/96 14:05
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA32883
Tag: RB10
Date/Time Collected: 04/03/96 14:15
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Supplemental Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32876
Tag: RB1
Date/Time Collected: 04/03/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/04/96
Metals						
Chromium	6.3	mg/kg	1.0	6020	P R	04/04/96
Copper	4.2	mg/kg	1.0	6020	P R	04/04/96
Nickel	24.6	mg/kg	0.50	6020	P R	04/04/96
Zinc	18.6	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32877
Tag: RB2
Date/Time Collected: 04/03/96 13:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/04/96
Metals						
Chromium	4.1	mg/kg	1.0	6020	P R	04/04/96
Copper	8.4	mg/kg	1.0	6020	P R	04/04/96
Nickel	23.6	mg/kg	0.50	6020	P R	04/04/96
Zinc	16.9	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32878
Tag: RB4
Date/Time Collected: 04/03/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	04/04/96

Supplemental Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32878 (Continued)
Tag: RB4
Date/Time Collected: 04/03/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	239	mg/kg	1.0	6020	P R	04/04/96
Copper	126	mg/kg	1.0	6020	P R	04/04/96
Nickel	195	mg/kg	0.50	6020	P R	04/04/96
Zinc	150	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32880
Tag: RB6
Date/Time Collected: 04/03/96 13:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.5	%	1	160.3	CQV	04/04/96
Metals						
Chromium	107	mg/kg	1.0	6020	P R	04/04/96
Copper	59.8	mg/kg	1.0	6020	P R	04/04/96
Nickel	88.8	mg/kg	0.50	6020	P R	04/04/96
Zinc	80.9	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32881
Tag: RB7
Date/Time Collected: 04/03/96 13:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	CQV	04/04/96
Metals						
Chromium	186	mg/kg	1.0	6020	P R	04/04/96
Copper	106	mg/kg	1.0	6020	P R	04/04/96

Supplemental Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32881 (Continued)
Tag: RB7
Date/Time Collected: 04/03/96 13:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	156	mg/kg	0.50	6020	P R	04/04/96
Zinc	110	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32882
Tag: RB8
Date/Time Collected: 04/03/96 14:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/04/96
Metals						
Chromium	2.0	mg/kg	1.0	6020	P R	04/04/96
Copper	3.4	mg/kg	1.0	6020	P R	04/04/96
Nickel	22.4	mg/kg	0.50	6020	P R	04/04/96
Zinc	6.2	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32883
Tag: RB10
Date/Time Collected: 04/03/96 14:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	CQV	04/04/96
Metals						
Chromium	647	mg/kg	1.0	6020	P R	04/04/96
Copper	420	mg/kg	1.0	6020	P R	04/04/96
Nickel	494	mg/kg	0.50	6020	P R	04/04/96
Zinc	403	mg/kg	1.0	6020	P R	04/04/96

Supplemental Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

O'BRIEN & GERE ENGINEERS, INC.

SUBJECT

DATE 4/5/96

THIS NOTE SERVES AS INCIDENT REPORT FOR THE FOLLOWING SAMPLES:

FECL #	OBG SAMPLE ID	ANALYSIS REQUESTED	DATE COLLECTED
AA52876	RB1	TCL VOCs, TAL Metals, TSS	4/4/96
AA52877	RB2	"	"
AA52878	RB4	"	"
AA52880	RB6	"	"
AA52881	RB7	"	"
AA52882	RB8	"	"
AA52883	RB10	"	"

RCVD 4-5-96 11:45

Rosanne

WE HAD 7 24 HOUR TRIP BLANKS

(EACH DAY WE SAMPLED)

ICE RECEIVED

Analytical Laboratory Report
)'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32873
Tag: RB3
Date/Time Collected: 04/03/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.9	%	1	160.3	CQV	04/04/96
Metals						
Chromium	272	mg/kg	1.0	6020	P R	04/04/96
Copper	174	mg/kg	1.0	6020	P R	04/04/96
Nickel	229	mg/kg	0.50	6020	P R	04/04/96
Zinc	182	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32874
Tag: RB9
Date/Time Collected: 04/03/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.2	%	1	160.3	CQV	04/04/96
Metals						
Chromium	3.9	mg/kg	1.0	6020	P R	04/04/96
Copper	7.7	mg/kg	1.0	6020	P R	04/04/96
Nickel	63.6	mg/kg	0.50	6020	P R	04/04/96
Zinc	19.5	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32875
Tag: Dup4
Date/Time Collected: 04/03/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	CQV	04/04/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32875 (Continued)
Tag: Dup4
Date/Time Collected: 04/03/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	80.0	mg/kg	1.0	6020	P R	04/04/96
Copper	46.5	mg/kg	1.0	6020	P R	04/04/96
Nickel	70.0	mg/kg	0.50	6020	P R	04/04/96
Zinc	54.8	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32876
Tag: RB1
Date/Time Collected: 04/03/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/04/96
Metals						
Copper	4.2	mg/kg	1.0	6020	P R	04/04/96

FECL #: AA32877
Tag: RB2
Date/Time Collected: 04/03/96 13:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/04/96
Metals						
Copper	8.4	mg/kg	1.0	6020	P R	04/04/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33279
Tag: RB11-1
Date/Time Collected: 04/11/96 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	CQV	04/11/96
Metals						
Chromium	372	mg/kg	1.0	6020	P R	04/12/96
Copper	196	mg/kg	1.0	6020	P R	04/12/96
Nickel	283	mg/kg	0.50	6020	P R	04/12/96
Zinc	234	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33280
Tag: RB14-1
Date/Time Collected: 04/11/96 11:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.9	%	1	160.3	CQV	04/11/96
Metals						
Chromium	4.3	mg/kg	1.0	6020	P R	04/12/96
Copper	3.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	11.2	mg/kg	0.50	6020	P R	04/12/96
Zinc	16.0	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33281
Tag: RB3-1
Date/Time Collected: 04/11/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.9	%	1	160.3	CQV	04/11/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33281 (Continued)
Tag: RB3-1
Date/Time Collected: 04/11/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	04/12/96
Copper	9.2	mg/kg	1.0	6020	P R	04/12/96
Nickel	48.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	28.9	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33282
Tag: R13A
Date/Time Collected: 04/11/96 15:0
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	15.4	mg/kg	1.0	6020	P R	04/12/96
Copper	12.4	mg/kg	1.0	6020	P R	04/12/96
Nickel	29.9	mg/kg	0.50	6020	P R	04/12/96
Zinc	45.5	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33283
Tag: RB6-1
Date/Time Collected: 04/11/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/11/96
Metals						
Chromium	34.5	mg/kg	1.0	6020	P R	04/12/96
Copper	30.7	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33283 (Continued)
Tag: RB6-1
Date/Time Collected: 04/11/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	40.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	37.5	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33284
Tag: RB4-1
Date/Time Collected: 04/11/96 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	14.0	mg/kg	1.0	6020	P R	04/12/96
Copper	11.8	mg/kg	1.0	6020	P R	04/12/96
Nickel	25.0	mg/kg	0.50	6020	P R	04/12/96
Zinc	30.2	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33285
Tag: RB7-1
Date/Time Collected: 04/11/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/11/96
Metals						
Chromium	10.0	mg/kg	1.0	6020	P R	04/12/96
Copper	8.2	mg/kg	1.0	6020	P R	04/12/96
Nickel	22.6	mg/kg	0.50	6020	P R	04/12/96
Zinc	24.6	mg/kg	1.0	6020	P R	04/12/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33286
Tag: RB10-1
Date/Time Collected: 04/11/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	12.4	mg/kg	1.0	6020	P R	04/12/96
Copper	12.2	mg/kg	1.0	6020	P R	04/12/96
Nickel	20.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	29.1	mg/kg	1.0	6020	P R	04/12/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 12, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33287

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/11/96 18:00
PO #: Verbal

FECL #: AA33287
Tag: RB9-1
Date/Time Collected: 04/11/96 12:18
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33287
Tag: RB9-1
Date/Time Collected: 04/11/96 12:18
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.6	%	1	160.3	CQV	04/11/96
Metals						
Nickel	15.6	mg/kg	0.50	6020	P R	04/12/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak 3.15.

Violetta F. Murshak
Laboratory Director

Fire & Environment Consulting Laboratories, Inc.
One East Complex 1451 East Lansing ..., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6...
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien + Gere Engineers
ADDRESS: 39500 Orchard Hill place Drive #300
CITY: NOVI STATE: MI ZIP CODE: 48375
P.O. NO.: 4141-007-810 PHONE NO.: 810 347-4350 FAX NO.: 810 347-4357
PROJECT NAME: General motors
SAMPLER: [signature] OBG
PLEASE FAX RESULTS TO NAME: Steve Young

REPORT TO

NAME: JEFF Rolson
ADDRESS:
CITY: SAME ZIP CODE:
PHONE NO.: FAX NO.:

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER
BOTTLE TYPE: 4oz GLASS

Fax Jeff Rolson results @ 810 347-4357

LAB. NO.	DATE	TIME	SAMPLE I.D. (LOCATION/DESCRIPTION)	TOTAL NO. CONTAINERS
33272	4-11-96	0900	SS4	1
		0903	SS4-1	1
		0906	SS4-2	1
		0909	SS4-3	1
		0912	SS4-4	1
		0915	SS4-5	1
		0918	SS4-6	1
33273		0920	SS5	1
		0923	SS5-1	1
		0926	SS5-2	1
		0929	SS5-3	1
		0932	SS5-4	1
		0935	SS5-5	1
		0938	SS5-6	1

ANALYSES

Total metals - Cr, Cu, Ni, Zn - 24 HR T.A.T.
Hold Pending notification from OBG

Total metals - Cr, Cu, Ni, Zn - 24 HR T.A.T.
Hold Pending notification from OBG

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	4-11-96	1700	[signature]	4-11-96	6:00P
[signature]	4-11-96	1740			

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi STATE: MI ZIP CODE: 48375
P.O. NO: 4144-007-810 PHONE NO: 810 347-4350 FAX NO: 810 347-4357

REPORT TO

NAME: Jeff Ralson
ADDRESS:
CITY: SAME STATE: ZIP CODE:
PHONE NO: FAX NO:

PROJECT NO:
CLIENT: General Motors
SAMPLER (SIGNATURE): Steve Young
SAMPLER - PLEASE PRINT NAME: Steve Young
AFFILIATION: OBG

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40z Glass
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER
Fax Results to Jeff Ralson @ 810 347-4357
CODE: A = None, B = H, C = H_2SO_4, D = NaOH, E = HCL, F =

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO CONTAINERS	ANALYSES
33274	4-11-96	0945	SS6	1	X
		0948	SS6-1	1	X
		0951	SS6-2	1	X
		0954	SS6-3	1	X
		0957	SS6-4	1	X
		1000	SS6-5	1	X
		1003	SS6-6	1	X
					Total Metals Cr, Cu, Ni, Zn - 24HR T.A.T Hold pending notification from OBG
33275		1007	SS7	1	X
		1010	SS7-1	1	X
		1013	SS7-2	1	X
		1016	SS7-3	1	X
		1019	SS7-4	1	X
		1021	SS7-5	1	X
		1024	SS7-6	1	X
					Total Metals Cr, Cu, Ni, Zn - 24 HR T.A. Hold pending notification from OBG

RELINQUISHED BY SIGNATURE: Steve Young — DATE: 4-11-96 — TIME: 1700
RECEIVED BY SIGNATURE: Farah Mepsharr — DATE: 4-11-96 — TIME: 17:00
RELINQUISHED BY SIGNATURE: — DATE: — TIME:
RECEIVED BY SIGNATURE: — DATE: — TIME:

RELINQUISHED BY SIGNATURE: — DATE: — TIME:
RECEIVED AT FEC BY SIGNATURE: — DATE: 4/11/96 — TIME: 6:00p

SEAL NO: — SEAL INTACT: YES ☐ NO ☐ — INITIALS:
SEAL NO: — SEAL INTACT: YES ☐ NO ☐ — INITIALS:
NOTES TEMP ON ARRIVAL:

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One East Complex 1451 East Lansing ..., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

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CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive #300
CITY: Novi STATE: MI ZIP CODE: 48375
P.O. NO.: 4144-007-810 PHONE NO.: 810 347-4350 FAX NO.: 810 347-4357
PROJECT NO:
CLIENT: GENERAL MOTORS
SAMPLER (SIGNATURE): Steve Young
SAMPLER - PLEASE PRINT NAME: STEVE Young
AFFILIATION: O'Brien & Gere

REPORT TO

NAME: JEFF Rolson
ADDRESS:
CITY: SAMPLE STATE: ZIP CODE:
PHONE NO: FAX NO:

PRESERVATIVE CODE
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40z GLASS
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER
Fax Results to Jeff Rolson @ 810 347-4357
CODE: A = None B = HNO3 C = H2SO4 D = NaOH E = HCL F =

FEC LAB NO	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
33276	4-11-96	1030	MC11A	1	X Total metals - Cr, Cu, Ni, Zn - 24 HR T.A.T
33277		1033	MC4A	1	X " " " " " " " " " "
33278		1036	MC1A	1	X " " " " " " " " " "
33279		1120	RB11-1	1	X " " " " " " " " " "
		1123	RB11-2	1	X " " " " " " " " " "
		1126	RB11-3	1	X Hold pending notification from OBG
		1129	RB11-4	1	X
		1132	RB11-5	1	X
		1135	RB11-6	1	X
33280		1140	RB14-1	1	X Total metals Cr, Cu, Ni, Zn - 24HR TAT
		1143	RB14-2	1	X Hold pending notification from OBG
		1146	RB14-3	1	X
		1149	RB14-4	1	X
		1151	RB14-5	1	X
		1154	RB14-6	1	X

		DATE	TIME
RELINQUISHED BY SIGNATURE	Steve Young	4-11-96	1700
RECEIVED BY SIGNATURE	Sarah Kampshaea	4-11-96	17 00
RELINQUISHED BY SIGNATURE		DATE	TIME
RECEIVED BY SIGNATURE		DATE	TIME

		DATE	TIME
RELINQUISHED BY: SIGNATURE			
RECEIVED AT FEC LAB BY: SIGNATURE	Cwonelth	4-11-96	6:00p

SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS
NOTES TEMP ON ARRIVAL

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien + Gere Engineers
ADDRESS: 37500 Orchard Hill Place Drive #300
CITY: NOVI STATE: MI ZIP CODE: 48375
P.O. NO.: 4144-007-810 PHONE NO: 810 347-4350 FAX NO: 810 347-4357
PROJECT NO.: CLIENT: General motors
SAMPLER (SIGNATURE): [signature] SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION: OBG

REPORT TO

NAME: JEFF Rolson
ADDRESS: SAME
CITY: STATE: ZIP CODE:
PHONE NO: FAX NO:

PRESERVATIVE CODE
REFRIGERATE (Y/N): N
BOTTLE TYPE: 40z GLASS

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ☐

CODE: A = N T
B = h. J
C = H_2SO_4
D = NaOH
E = HCL
F =

FEC LAB. NO.	SAMPLE COLLECTION YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
33281	4-11-96	1200	RB3-1	1	X
		1203	RB3-2	1	X
		1206	RB3-3	1	X
		1209	RB3-4	1	X
		1212	RB3-5	1	X
		1215	RB3-6	1	X
33287		1218	RB9-1	1	X
		1221	RB9-2	1	X
		1224	RB9-3	1	X
		1227	RB9-4	1	X
		1230	RB9-5	1	X
		1233	RB9-6	1	X
33282		1500	RR13A	1	X

ANALYSES:
Total metals Cr, Cu, Ni, Zn - 24HR T.A.T
Hold pending notification from OBG
[redacted] Ni, [redacted] - 24 HR T.A.T
Hold pending notification from OBG
Total metals Cr, Cu, Ni, Zn - 24 T.A.T.
Fax Results to JEFF Rolson @ 810 347-4357

		DATE	TIME
RELINQUISHED BY SIGNATURE: [signature]		4-11-96	1700
RECEIVED BY SIGNATURE: Farah Shaikhan		4-11-96	1700
RELINQUISHED BY SIGNATURE:			
RECEIVED BY SIGNATURE:			
RELINQUISHED BY SIGNATURE:			
RECEIVED BY SIGNATURE: [signature]		4-11-96	6:00p

SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS: NOTES TEMP ON ARRIVAL:

Fire & Environmen Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-8911
Indianapolis (317) 577-9087 FAX (317) 594-9406

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CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien • Gere Engineers
ADDRESS: 39500 orchard Hill Place drive #300
CITY: NOVI STATE: MI ZIP CODE: 48375
P.O. NO.: 4144-007-810 TELEPHONE NO.: 810 347-4350 FAX NO.: 810 347-4357
PROJECT NAME: General Motors
SAMPLER (SIGNATURE): [signature] PROJECT MANAGER: STEVE YOUNG
AFFILIATION: OBG

REPORT TO

NAME: JEFF RAISON
ADDRESS: SAME
CITY: STATE: ZIP CODE:

PRESERVATIVE CODE: A
BLANK RATE (Y/N): N
BOTTLE TYPE: 40z. GLASS
SAMPLE TYPE: SOIL X
1 = H2SO4, 2 = NaOH, 3 = HCl

FOR LAB USE ONLY: LAB NO.	DATE	TIME	SAMPLE I.D. DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
33283	4-11-96	1330	RB6-1	1	X Total metals Cr, Cu, Ni, Zn - 24 HR T.A.T
		1333	RB6-2	1	X Hold pending Notification from OBG
		1336	RB6-3	1	X
		339	RB6-4	1	X
		1342	RB6-5	1	X
		345	RB6-6	1	X
33284		1350	RB4-1	1	X Total metals Cr, Cu, Ni, Zn - 24 HR TAT
		1353	RB4-2	1	X Hold pending notification from OB
		1356	RB4-3	1	X
		1359	RB4-4	1	X
		1402	RB4-5	1	X
		1405	RB4-6	1	X

Fax Results to Jeff Raison @ 810 347-4357 A.S.A.P

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	4-11-96	1700	[signature]	4-11-96	6:00
Sarah Williams	4-11-96	17:20			

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

Supplemental Report
April 15, 1996

File: 4144.007 #4
cc: SSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32879

Project: 4144-007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/03/96 17:00
PO #: Verbal

FECL #: AA32879
Tag: RB5
Date/Time Collected: 04/03/96 13:40
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Supplemental Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 15, 1996

FECL #: AA32879
Tag: RB5
Date/Time Collected: 04/03/96 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/04/96
Metals						
Chromium	9.7	mg/kg	1.0	6020	P R	04/04/96
Copper	16.2	mg/kg	1.0	6020	P R	04/04/96
Nickel	22.3	mg/kg	0.50	6020	P R	04/04/96
Zinc	26.7	mg/kg	1.0	6020	P R	04/04/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak E.B.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 16, 1996

FECL #: AA33351
Tag: MC13-2
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.2	%	1	160.3	CQV	04/15/96
Metals						
Chromium	32.7	mg/kg	1.0	6020	P R	04/15/96
Copper	21.2	mg/kg	1.0	6020	P R	04/15/96
Nickel	16.9	mg/kg	0.50	6020	P R	04/15/96

FECL #: AA33352
Tag: RB6-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/15/96
Metals						
Chromium	119	mg/kg	1.0	6020	P R	04/15/96
Copper	86.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33353
Tag: RB3-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	04/15/96
Metals						
Nickel	12.5	mg/kg	0.50	6020	P R	04/15/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 16, 1996

FECL #: AA33363 (Continued)
Tag: SS7-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	375	mg/kg	1.0	6020	P R	04/15/96
Copper	140	mg/kg	1.0	6020	P R	04/15/96
Nickel	233	mg/kg	0.50	6020	P R	04/15/96
Zinc	252	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33364
Tag: RB11-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.3	%	1	160.3	CQV	04/15/96
Metals						
Chromium	51.9	mg/kg	1.0	6020	P R	04/15/96
Copper	38.6	mg/kg	1.0	6020	P R	04/15/96
Nickel	57.9	mg/kg	0.50	6020	P R	04/15/96
Zinc	53.9	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33370
Tag: SM3-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/15/96
Metals						
Chromium	11.1	mg/kg	1.0	6020	P R	04/15/96
Copper	11.5	mg/kg	1.0	6020	P R	04/15/96



Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 17, 1996

FECL #: AA33394
Tag: MC13A-3
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.6	%	1	160.3	CQV	04/16/96
Metals						
Chromium	18.1	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33395
Tag: MC13A-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/16/96
Metals						
Chromium	46.8	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33396
Tag: RB6-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/16/96
Metals						
Chromium	3.3	mg/kg	1.0	6020	P R	04/16/96
Copper	6.9	mg/kg	1.0	6020	P R	04/16/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 17, 1996

FECL #: AA33397
Tag: RB11-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/16/96
Metals						
Chromium	4.1	mg/kg	1.0	6020	P R	04/16/96
Copper	7.0	mg/kg	1.0	6020	P R	04/16/96
Nickel	27.1	mg/kg	0.50	6020	P R	04/16/96

FECL #: AA33398
Tag: LF3A-5
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.7	%	1	160.3	CQV	04/16/96
Metals						
Chromium	516	mg/kg	1.0	6020	P R	04/16/96
Copper	277	mg/kg	1.0	6020	P R	04/16/96
Nickel	386	mg/kg	0.50	6020	P R	04/16/96

FECL #: AA33399
Tag: LF5-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.0	%	1	160.3	CQV	04/16/96

APPENDIX M

Closure Sample Analytical Data Sheets - Stockpiled Soil Area

nalytical Laboratory Report
J'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33272
Tag: SS4
Date/Time Collected: 04/11/96 09:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	503	mg/kg	1.0	6020	P R	04/12/96
Copper	267	mg/kg	1.0	6020	P R	04/12/96
Nickel	337	mg/kg	0.50	6020	P R	04/12/96
Zinc	740	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33273
Tag: SS5
Date/Time Collected: 04/11/96 09:20
atrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	CQV	04/11/96
Metals						
Chromium	639	mg/kg	1.0	6020	P R	04/12/96
Copper	238	mg/kg	1.0	6020	P R	04/12/96
Nickel	363	mg/kg	0.50	6020	P R	04/12/96
Zinc	585	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33274
Tag: SS6
Date/Time Collected: 04/11/96 09:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	CQV	04/11/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 12, 1996

FECL #: AA33274 (Continued)
Tag: SS6
Date/Time Collected: 04/11/96 09:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	381	mg/kg	1.0	6020	P R	04/12/96
Copper	146	mg/kg	1.0	6020	P R	04/12/96
Nickel	238	mg/kg	0.50	6020	P R	04/12/96
Zinc	280	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33275
Tag: SS7
Date/Time Collected: 04/11/96 10:07
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date P
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	638	mg/kg	1.0	6020	P R	04/12/96
Copper	325	mg/kg	1.0	6020	P R	04/12/96
Nickel	445	mg/kg	0.50	6020	P R	04/12/96
Zinc	611	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33276
Tag: SC11A
Date/Time Collected: 04/11/96 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/11/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	04/12/96
Copper	5.4	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33358 (Continued)
Tag: F8-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	458	mg/kg	0.50	6020	P R	04/15/96
Zinc	602	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33359
Tag: MC12A-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/15/96
Metals						
Chromium	40.0	mg/kg	1.0	6020	P R	04/15/96
Copper	24.8	mg/kg	1.0	6020	P R	04/15/96
Nickel	25.5	mg/kg	0.50	6020	P R	04/15/96
Zinc	53.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33360
Tag: SS4-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/15/96
Metals						
Chromium	2,620	mg/kg	1.0	6020	P R	04/15/96
Copper	711	mg/kg	1.0	6020	P R	04/15/96
Nickel	1,520	mg/kg	0.50	6020	P R	04/15/96
Zinc	1,670	mg/kg	1.0	6020	P R	04/15/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 16, 1996

FECL #: AA33361
Tag: SS5-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.8	%	1	160.3	CQV	04/15/96
Metals						
Chromium	940	mg/kg	1.0	6020	P R	04/15/96
Copper	422	mg/kg	1.0	6020	P R	04/15/96
Nickel	624	mg/kg	0.50	6020	P R	04/15/96
Zinc	836	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33362
Tag: SS6-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	CQV	04/15/96
Metals						
Chromium	442	mg/kg	1.0	6020	P R	04/15/96
Copper	206	mg/kg	1.0	6020	P R	04/15/96
Nickel	297	mg/kg	0.50	6020	P R	04/15/96
Zinc	349	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33363
Tag: SS7-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	95.0	%	1	160.3	CQV	04/15/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 16, 1996

FECL #: AA33363 (Continued)
Tag: SS7-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	375	mg/kg	1.0	6020	P R	04/15/96
Copper	140	mg/kg	1.0	6020	P R	04/15/96
Nickel	233	mg/kg	0.50	6020	P R	04/15/96
Zinc	252	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33364
Tag: RB11-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.3	%	1	160.3	CQV	04/15/96
Metals						
Chromium	51.9	mg/kg	1.0	6020	P R	04/15/96
Copper	38.6	mg/kg	1.0	6020	P R	04/15/96
Nickel	57.9	mg/kg	0.50	6020	P R	04/15/96
Zinc	53.9	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33370
Tag: SM3-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/15/96
Metals						
Chromium	11.1	mg/kg	1.0	6020	P R	04/15/96
Copper	11.5	mg/kg	1.0	6020	P R	04/15/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 17, 1996

FECL #: AA33399 (Continued)
Tag: LF5-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	338	mg/kg	1.0	6020	P R	04/16/96
Copper	197	mg/kg	1.0	6020	P R	04/16/96
Nickel	239	mg/kg	0.50	6020	P R	04/16/96
Zinc	227	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33400
Tag: LF8-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.6	%	1	160.3	CQV	04/16/96
Metals						
Chromium	1,180	mg/kg	1.0	6020	P R	04/16/96
Copper	518	mg/kg	1.0	6020	P R	04/16/96
Nickel	833	mg/kg	0.50	6020	P R	04/16/96
Zinc	1,010	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33401
Tag: SS4-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	04/16/96
Metals						
Chromium	2,740	mg/kg	1.0	6020	P R	04/16/96
Copper	846	mg/kg	1.0	6020	P R	04/16/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 17, 1996

FECL #: AA33401 (Continued)
Tag: SS4-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	1,540	mg/kg	0.50	6020	P R	04/16/96
Zinc	1,920	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33402
Tag: SS5-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.5	%	1	160.3	CQV	04/16/96
Metals						
Chromium	664	mg/kg	1.0	6020	P R	04/16/96
Copper	404	mg/kg	1.0	6020	P R	04/16/96
Nickel	485	mg/kg	0.50	6020	P R	04/16/96
Zinc	638	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33403
Tag: SS6-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	CQV	04/16/96
Metals						
Chromium	631	mg/kg	1.0	6020	P R	04/16/96
Copper	286	mg/kg	1.0	6020	P R	04/16/96
Nickel	413	mg/kg	0.50	6020	P R	04/16/96
Zinc	624	mg/kg	1.0	6020	P R	04/16/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 17, 1996

FECL #: AA33404
Tag: SS7-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	CQV	04/16/96
Metals						
Chromium	68.0	mg/kg	1.0	6020	P R	04/16/96
Copper	31.4	mg/kg	1.0	6020	P R	04/16/96
Nickel	50.4	mg/kg	0.50	6020	P R	04/16/96
Zinc	65.4	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33405
Tag: SM6-6
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	04/16/96
Metals						
Chromium	60.2	mg/kg	1.0	6020	P R	04/16/96
Copper	54.1	mg/kg	1.0	6020	P R	04/16/96
Nickel	69.3	mg/kg	0.50	6020	P R	04/16/96
Zinc	71.6	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33406
Tag: SLBAA5
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/16/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 18, 1996

FECL #: AA33468
Tag: LF5-5
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/17/96
Metals						
Chromium	33.2	mg/kg	1.0	6020	EB	04/17/96
Copper	17.6	mg/kg	1.0	6020	EB	04/17/96
Nickel	33.1	mg/kg	0.50	6020	EB	04/17/96
Zinc	30.0	mg/kg	1.0	6020	EB	04/17/96

FECL #: AA33469
Tag: LF8-5
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	464	mg/kg	1.0	6020	EB	04/17/96
Copper	306	mg/kg	1.0	6020	EB	04/17/96
Nickel	370	mg/kg	0.50	6020	EB	04/17/96
Zinc	421	mg/kg	1.0	6020	EB	04/17/96

FECL #: AA33470
Tag: SS4-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.1	%	1	160.3	CQV	04/17/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 18, 1996

FECL #: AA33470 (Continued)
Tag: SS4-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3,190	mg/kg	1.0	6020	E B	04/17/96
Copper	877	mg/kg	1.0	6020	E B	04/17/96
Nickel	1,800	mg/kg	0.50	6020	E B	04/17/96
Zinc	1,770	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33471
Tag: SS5-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date I
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	424	mg/kg	1.0	6020	E B	04/17/96
Copper	210	mg/kg	1.0	6020	E B	04/17/96
Nickel	308	mg/kg	0.50	6020	E B	04/17/96
Zinc	319	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33472
Tag: SS6-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	04/17/96
Metals						
Chromium	574	mg/kg	1.0	6020	E B	04/17/96
Copper	290	mg/kg	1.0	6020	E B	04/17/9

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FECL #: AA33472 (Continued)
Tag: SS6-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Metals (Continued)						
Nickel	426	mg/kg	0.50	6020	E B	04/17/96
Zinc	394	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33473
Tag: LF4A-6
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.[illegible]	%	1	160.3	CQV	04/17/96
Metals						
Chromium	[illegible]820	mg/kg	1.0	6020	E B	04/17/96
Copper	922	mg/kg	1.0	6020	E B	04/17/96
Nickel	1,200	mg/kg	0.50	6020	E B	04/17/96
Zinc	952	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33474
Tag: LF1B-5
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/17/96
Metals						
Chromium	543	mg/kg	1.0	6020	E B	04/17/96
Copper	380	mg/kg	1.0	6020	E B	04/17/96
Nickel	431	mg/kg	0.50	6020	E B	04/17/96
Zinc	353	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33475
Tag: LF3A-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/17/96
Metals						
Chromium	65.7	mg/kg	1.0	6020	E B	04/17/96
Copper	42.8	mg/kg	1.0	6020	E B	04/17/96
Nickel	53.4	mg/kg	0.50	6020	E B	04/17/96

FECL #: AA33476
Tag: SS7-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	20.8	mg/kg	1.0	6020	E B	04/17/96
Copper	12.2	mg/kg	1.0	6020	E B	04/17/96
Nickel	21.9	mg/kg	0.50	6020	E B	04/17/96

FECL #: AA33477
Tag: MC12A-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/17/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33528
Tag: LF8-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.0	%	1	160.3	CQV	04/18/96
Metals						
Chromium	976	mg/kg	1.0	6020	E B	04/18/96
Copper	523	mg/kg	1.0	6020	E B	04/18/96
Nickel	653	mg/kg	0.50	6020	E B	04/18/96
Zinc	730	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33529
Tag: SS4-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.5	%	1	160.3	CQV	04/18/96
Metals						
Chromium	3,270	mg/kg	1.0	6020	E B	04/18/96
Copper	868	mg/kg	1.0	6020	E B	04/18/96
Nickel	1,770	mg/kg	0.50	6020	E B	04/18/96
Zinc	1,620	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33530
Tag: SS5-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/18/96

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FECL #: AA33530 (Continued)
Tag: SS5-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	378	mg/kg	1.0	6020	E B	04/18/96
Copper	264	mg/kg	1.0	6020	E B	04/18/96
Nickel	380	mg/kg	0.50	6020	E B	04/18/96
Zinc	318	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33531
Tag: SS6-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	338	mg/kg	1.0	6020	E B	04/18/96
Copper	163	mg/kg	1.0	6020	E B	04/18/96
Nickel	205	mg/kg	0.50	6020	E B	04/18/96
Zinc	227	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33532
Tag: LE10-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/18/96
Metals						
Chromium	22.4	mg/kg	1.0	6020	E B	04/18/96
Copper	15.9	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33540 (Continued)
Tag: [illegible]2
Date/Time Collected: 0[illegible]18/96 12:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	17.6	mg/kg	1.0	6020	E B	04/18/96
Copper	13.2	mg/kg	1.0	6020	E B	04/18/96
Nickel	20.8	mg/kg	0.50	6020	E B	04/18/96
Zinc	27.5	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33541
Tag: SS1
Date/Time Collected: 04/18/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/18/96
Metals						
Chromium	184	mg/kg	1.0	6020	E B	04/18/96
Copper	86.5	mg/kg	1.0	6020	E B	04/18/96
Nickel	117	mg/kg	0.50	6020	E B	04/18/96
Zinc	136	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33542
Tag: SS2
Date/Time Collected: 04/18/96 16:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	04/18/96
Metals						
Chromium	232	mg/kg	1.0	6020	E B	04/18/96
Copper	114	mg/kg	1.0	6020	E B	04/18/96

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FECL #: AA33542 (Continued)
Tag: SS2
Date/Time Collected: 04/18/96 16:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	142	mg/kg	0.50	6020	E B	04/18/96
Zinc	148	mg/kg	1.0	6020	E B	04/18/96

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Violetta F. Murshak
Laboratory Director

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FECL #: AA33572
Tag: LF1-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	04/19/96
Metals						
Chromium	16.6	mg/kg	1.0	6020	E B	04/19/96
Copper	16.1	mg/kg	1.0	6020	E B	04/19/96
Nickel	23.1	mg/kg	0.50	6020	E B	04/19/96
Zinc	22.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33573
Tag: LF11-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/19/96
Metals						
Chromium	733	mg/kg	1.0	6020	E B	04/19/96
Copper	261	mg/kg	1.0	6020	E B	04/19/96
Nickel	564	mg/kg	0.50	6020	E B	04/19/96
Zinc	342	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33574
Tag: SS1-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/19/96

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FECL #: AA33574 (Continued)
Tag: SS1-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	12.8	mg/kg	1.0	6020	E B	04/19/96
Copper	14.7	mg/kg	1.0	6020	E B	04/19/96
Nickel	16.6	mg/kg	0.50	6020	E B	04/19/96
Zinc	21.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33575
Tag: SS2-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	04/19/96
Metals						
Chromium	104	mg/kg	1.0	6020	E B	04/19/96
Copper	57.0	mg/kg	1.0	6020	E B	04/19/96
Nickel	72.9	mg/kg	0.50	6020	E B	04/19/96
Zinc	68.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33576
Tag: SM12-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/19/96
Metals						
Chromium	31.5	mg/kg	1.0	6020	E B	04/19/96
Copper	34.6	mg/kg	1.0	6020	E B	04/19/96

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FECL #: AA33576 (Continued)
Tag: SM12-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	34.0	mg/kg	0.50	6020	E B	04/19/96
Zinc	69.1	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33577
Tag: SM11-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.9	%	1	160.3	CQV	04/19/96
Metals						
Chromium	716	mg/kg	1.0	6020	E B	04/19/96
Copper	423	mg/kg	1.0	6020	E B	04/19/96
Nickel	542	mg/kg	0.50	6020	E B	04/19/96
Zinc	575	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33578
Tag: SS4-5
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.1	%	1	160.3	CQV	04/19/96
Metals						
Chromium	3,700	mg/kg	1.0	6020	E B	04/19/96
Copper	1,170	mg/kg	1.0	6020	E B	04/19/96
Nickel	2,120	mg/kg	0.50	6020	E B	04/19/96
Zinc	2,270	mg/kg	1.0	6020	E B	04/19/96

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FECL #: AA33579
Tag: SS5-5
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/19/96
Metals						
Chromium	85.8	mg/kg	1.0	6020	E B	04/19/96
Copper	57.9	mg/kg	1.0	6020	E B	04/19/96
Nickel	79.1	mg/kg	0.50	6020	E B	04/19/96
Zinc	69.6	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33580
Tag: SS6-5
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	04/19/96
Metals						
Chromium	326	mg/kg	1.0	6020	E B	04/19/96
Copper	140	mg/kg	1.0	6020	E B	04/19/96
Nickel	200	mg/kg	0.50	6020	E B	04/19/96
Zinc	203	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33581
Tag: MC6-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.6	%	1	160.3	CQV	04/19/96

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FECL #: AA33611
Tag: SM6-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	CQV	04/22/96
Metals						
Chromium	6.0	mg/kg	1.0	6020	P R	04/23/96
Copper	4.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	8.4	mg/kg	0.50	6020	P R	04/23/96

FECL #: AA33612
Tag: SS2-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.3	%	1	160.3	CQV	04/22/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/23/96
Copper	44.4	mg/kg	1.0	6020	P R	04/23/96
Nickel	72.4	mg/kg	0.50	6020	P R	04/23/96

FECL #: AA33613
Tag: SS5-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	04/22/96

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FECL #: AA33613 (Continued)
Tag: SS5-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	10.9	mg/kg	1.0	6020	P R	04/23/96
Copper	7.6	mg/kg	1.0	6020	P R	04/23/96
Nickel	23.3	mg/kg	0.50	6020	P R	04/23/96

FECL #: AA33614
Tag: LF8-8
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	CQV	04/22/96
Metals						
Chromium	190	mg/kg	1.0	6020	P R	04/23/96
Copper	228	mg/kg	1.0	6020	P R	04/23/96
Nickel	183	mg/kg	0.50	6020	P R	04/23/96
Zinc	164	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33615
Tag: LF11-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.6	%	1	160.3	CQV	04/22/96
Metals						
Chromium	48.3	mg/kg	1.0	6020	P R	04/23/96
Copper	28.0	mg/kg	1.0	6020	P R	04/23/96
Nickel	46.7	mg/kg	0.50	6020	P R	04/23/96

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FECL #: AA33615 (Continued)
Tag: LF11-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Zinc	49.3	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33616
Tag: SM11-3
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.7	%	1	160.3	CQV	04/22/96
Metals						
Chromium	41.8	mg/kg	1.0	6020	P R	04/23/96
Copper	22.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	38.1	mg/kg	0.50	6020	P R	04/23/96
Zinc	46.4	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33617
Tag: SS4-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/22/96
Metals						
Chromium	35.9	mg/kg	1.0	6020	P R	04/23/96
Copper	12.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	31.7	mg/kg	0.50	6020	P R	04/23/96
Zinc	38.9	mg/kg	1.0	6020	P R	04/23/96

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FECL #: AA33618
Tag: SS6-6
Date/Time Collected: 04/11/96
`atrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/22/96
Metals						
Chromium	7.8	mg/kg	1.0	6020	P R	04/23/96
Copper	8.8	mg/kg	1.0	6020	P R	04/23/96
Nickel	17.0	mg/kg	0.50	6020	P R	04/23/96
Zinc	31.7	mg/kg	1.0	6020	P R	04/23/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak
Laboratory Director

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FECL #: AA33652
Tag: SS2-3
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/24/96
Metals						
Chromium	4,550	mg/kg	1.0	6020	P R	04/24/96
Copper	3,050	mg/kg	1.0	6020	P R	04/24/96
Nickel	2,970	mg/kg	0.50	6020	P R	04/24/96

FECL #: AA33653
Tag: LF8-9
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/24/96
Metals						
Chromium	22.1	mg/kg	1.0	6020	P R	04/24/96
Copper	25.0	mg/kg	1.0	6020	P R	04/24/96
Nickel	25.3	mg/kg	0.50	6020	P R	04/24/96
Zinc	49.3	mg/kg	1.0	6020	P R	04/24/96

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FECL #: AA33748
Tag: LF10-10
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/25/96
Metals						
Zinc	425	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33749
Tag: SS2-4
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.0	%	1	160.3		04/25/96
Metals						
Chromium	3,270	mg/kg	1.0	6020	P R	04/25/96
Copper	1,950	mg/kg	1.0	6020	P R	04/25/96
Nickel	2,210	mg/kg	0.50	6020	P R	04/25/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33940
Tag: LF10-1
Date/Time Collected: 04/29/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/29/96
Metals						
Zinc	423	mg/kg	1.0	6020	P R	04/29/96

FECL #: AA33941
Tag: SS2-5
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/29/96
Metals						
Chromium	444	mg/kg	1.0	6020	P R	04/29/96
Copper	284	mg/kg	1.0	6020	P R	04/29/96
Nickel	333	mg/kg	0.50	6020	P R	04/29/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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O'Brien & Gere Engineers, Inc.
May 01, 1996

FECL #: AA33
Tag: LF10-1
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.6	%	1	160.3	CQV	04/30/96
Metals						
Zinc	35.0	mg/kg	1.0	6020	P R	04/30/96

FECL #: AA33984
Tag: SS2-6
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date P
Inorganics						
Total Solids	93.4	%	1	160.3	CQV	04/30/96
Metals						
Chromium	5.2	mg/kg	1.0	6020	P R	04/30/96
Copper	3.6	mg/kg	1.0	6020	P R	04/30/96
Nickel	3.6	mg/kg	0.50	6020	P R	04/30/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak 5/6

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34415
Tag: SS14-0.5 ft.
Date/Time Collected: 05/09/96 13:41
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	CQV	05/09/96
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	05/09/96
Copper	3.4	mg/kg	1.0	6020	P R	05/09/96
Nickel	3.4	mg/kg	0.50	6020	P R	05/09/96
Zinc	7.7	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34416
Tag: SS15-5.0 ft.
Date/Time Collected: 05/09/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	CQV	05/09/96
Metals						
Chromium	31.8	mg/kg	1.0	6020	P R	05/09/96
Copper	17.3	mg/kg	1.0	6020	P R	05/09/96
Nickel	30.6	mg/kg	0.50	6020	P R	05/09/96
Zinc	35.5	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34417
Tag: LF1[illegible]-7.0 ft.
Date/Time Collected: 05/09/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.2	%	1	160.3	CQV	05/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34417 (Continued)
Tag: LF18-7.0 ft.
Date/Time Collected: 05/09/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	05/09/96
Copper	10.5	mg/kg	1.0	6020	P R	05/09/96
Nickel	5.3	mg/kg	0.50	6020	P R	05/09/96
Zinc	15.6	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34418
Tag: SS3-4.0 ft.
Date/Time Collected: 05/09/96 10:39
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	87.3	%	1	160.3	CQV	05/09/96
Metals						
Chromium	4.4	mg/kg	1.0	6020	P R	05/09/96
Copper	6.1	mg/kg	1.0	6020	P R	05/09/96
Nickel	6.5	mg/kg	0.50	6020	P R	05/09/96
Zinc	15.5	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34419
Tag: LF21-5.5 ft.
Date/Time Collected: 05/09/96 10:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	05/09/96
Metals						
Chromium	7.3	mg/kg	1.0	6020	P R	05/09/96
Copper	9.1	mg/kg	1.0	6020	P R	05/09/

FECL #: AA34419 (Continued)
Tag: LF21-5.5 ft.
Date/Time Collected: 05/09/96 10:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	15.9	mg/kg	0.50	6020	P R	05/09/96
Zinc	22.8	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34420
Tag: SS12-3.5 ft. Deep
Date/Time Collected: 05/09/96 10:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.8	%	1	160.3	CQV	05/09/96
Metals						
Chromium	11.4	mg/kg	1.0	6020	P R	05/09/96
Copper	10.2	mg/kg	1.0	6020	P R	05/09/96
Nickel	19.4	mg/kg	0.50	6020	P R	05/09/96
Zinc	27.0	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34421
Tag: LF17-3.0 ft.
Date/Time Collected: 05/09/96 09:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.7	%		160.3	CQV	05/09/96
Metals						
Chromium	3.4	mg/kg	1.0	6020	P R	05/09/96
Copper	5.5	mg/kg	1.0	6020	P R	05/09/96
Nickel	5.7	mg/kg	0.50	6020	P R	05/09/96
Zinc	11.9	mg/kg	1.0	6020	P R	05/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34422
Tag: LF20-4.5 ft.
Date/Time Collected: 05/09/96 08:13
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	05/09/96
Metals						
Chromium	1.8	mg/kg	1.0	6020	P R	05/09/96
Copper	3.9	mg/kg	1.0	6020	P R	05/09/96
Nickel	1.8	mg/kg	0.50	6020	P R	05/09/96
Zinc	6.4	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34423
Tag: SS13-2.5 ft.
Date/Time Collected: 05/09/96 11:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.4	%	1	160.3	CQV	05/09/96
Metals						
Chromium	6.5	mg/kg	1.0	6020	P R	05/09/96
Copper	5.7	mg/kg	1.0	6020	P R	05/09/96
Nickel	12.0	mg/kg	0.50	6020	P R	05/09/96
Zinc	12.5	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34424
Tag: SS4-7 ft.
Date/Time Collected: 05/09/96 13:24
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	CQV	05/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34424 (Continued)
Tag: SS4-7 ft.
Date/Time Collected: 05/09/96 13:24
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	10.8	mg/kg	1.0	6020	P R	05/09/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi.e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
CC: SSR

May 13, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA34465

Project: 4144.007-810 GM
Samples collected by: H. S.
Date/Time Submitted: 05/10/96 14:15
PO #: Verbal

FECL #: AA34465
Tag: SS15-5.5 ft
Date/Time Collected: 05/09/96 14:10
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 13, 1996

FECL #: AA34465
Tag: SS15-5.5 ft
Date/Time Collected: 05/09/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	05/10/96
Metals						
Chromium	5.7	mg/kg	1.0	6020	P R	05/10/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34514
Tag: SS8 4.0 ft
Date/Time Collected: 05/13/96 08:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.5	%	1	160.3	CQV	05/13/96
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	05/13/96
Copper	8.9	mg/kg	1.0	6020	P R	05/13/96
Nickel	6.99	mg/kg	0.50	6020	P R	05/13/96
Zinc	15.7	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34515
Tag: SS9 3.0 ft
Date/Time Collected: 05/13/96 08:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	CQV	05/13/96
Metals						
Chromium	5.4	mg/kg	1.0	6020	P R	05/13/96
Copper	4.2	mg/kg	1.0	6020	P R	05/13/96
Nickel	12.6	mg/kg	0.50	6020	P R	05/13/96
Zinc	15.3	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34516
Tag: SS10 3.5 ft
Date/Time Collected: 05/13/96 08:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	CQV	05/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34516 (Continued)
Tag: SS10 3.5 ft
Date/Time Collected: 05/13/96 08:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	2.3	mg/kg	1.0	6020	P R	05/13/96
Copper	6.7	mg/kg	1.0	6020	P R	05/13/96
Nickel	10.2	mg/kg	0.50	6020	P R	05/13/96
Zinc	12.2	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34517
Tag: SS11 4.0 ft
Date/Time Collected: 05/13/96 08:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	05/13/96
Copper	8.7	mg/kg	1.0	6020	P R	05/13/96
Nickel	15.4	mg/kg	0.50	6020	P R	05/13/96
Zinc	21.7	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34518
Tag: L[illegible]22 1.0 ft
Date/Time Collected: 05/13/96 10:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	05/13/96
Copper	7.3	mg/kg	1.0	6020	P R	05/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34525 (Continued)
Tag: LF19 3.0 ft
Date/Time Collected: 05/13/96 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	12.6	mg/kg	0.50	6020	P R	05/13/96
Zinc	19.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34526
Tag: SS16 1.5 ft
Date/Time Collected: 05/13/96 07:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	CQV	05/13/96
Metals						
Chromium	4.3	mg/kg	1.0	6020	P R	05/13/96
Copper	4.1	mg/kg	1.0	6020	P R	05/13/96
Nickel	10.6	mg/kg	0.50	6020	P R	05/13/96
Zinc	12.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34527
Tag: LF18 4.0 ft
Date/Time Collected: 05/13/96 07:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.6	%	1	160.3	CQV	05/13/96
Metals						
Chromium	2.7	mg/kg	1.0	6020	P R	05/13/96
Copper	5.6	mg/kg	1.0	6020	P R	05/13/96
Nickel	3.02	mg/kg	0.50	6020	P R	05/13/96
Zinc	9.7	mg/kg	1.0	6020	P R	05/13/96

APPENDIX N

Closure Sample Analytical Data Sheets - Stabilized Material Area

Fi.e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SJR

April 05, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32948-AA32960

Project: 4144.007 GM Delphi Coldwater Rd. Flint
Samples collected by: S. YOUNG
Date/Time Submitted: 04/04/96 18:45
PO #: Verbal

FECL #: AA32948
Tag: SM3
Date/Time Collected: 04/04/96 14:55
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32949
Tag: SM7
Date/Time Collected: 04/04/96 15:30
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32950
Tag: SM10
Date/Time Collected: 04/04/96 15:45
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32951
Tag: DUP
Date/Time Collected: 04/04/96
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32952
Tag: SM1
Date/Time Collected: 04/04/96 14:45
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32953
Tag: SM2
Date/Time Collected: 04/04/96 14:50
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32954
Tag: SM4
Date/Time Collected: 04/04/96 15:00
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32955
Tag: SM5
Date/Time Collected: 04/04/96 15:10
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32956
Tag: SM6
Date/Time Collected: 04/04/96 15:20
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32957
Tag: SM8
Date/Time Collected: 04/04/96 15:35
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32958
Tag: SM9
Date/Time Collected: 04/04/96 15:40
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32959
Tag: SM13
Date/Time Collected: 04/04/96 15:50
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32960
Tag: EB5
Date/Time Collected: 04/04/96 14:30
Matrix: Liquid
Container(s): 125 mL Plastic
Preservation: HNO3

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32948
Tag: SM3
Date/Time Collected: 04/04/96 14:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.6	%	1	160.3	CQV	04/04/96
Metals						
Chromium	1,570	mg/kg	1.0	6020	P R	04/05/96
Copper	704	mg/kg	1.0	6020	P R	04/05/96
Nickel	1,010	mg/kg	0.50	6020	P R	04/05/96
Zinc	728	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32949
Tag: SM7
Date/Time Collected: 04/04/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.5	%	1	160.3	CQV	04/04/96
Metals						
Chromium	1,140	mg/kg	1.0	6020	P R	04/05/96
Copper	724	mg/kg	1.0	6020	P R	04/05/96
Nickel	1,160	mg/kg	0.50	6020	P R	04/05/96
Zinc	982	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32950
Tag: SM10
Date/Time Collected: 04/04/96 15:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.6	%	1	160.3	CQV	04/04/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32950 (Continued)
Tag: SM10
Date/Time Collected: 04/04/96 15:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	2,810	mg/kg	1.0	6020	P R	04/05/96
Copper	1,470	mg/kg	1.0	6020	P R	04/05/96
Nickel	1,890	mg/kg	0.50	6020	P R	04/05/96
Zinc	1,870	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32951
Tag: DUP (SM-6)
Date/Time Collected: 04/04/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	CQV	04/04/96
Metals						
Chromium	1,350	mg/kg	1.0	6020	P R	04/05/96
Copper	673	mg/kg	1.0	6020	P R	04/05/96
Nickel	940	mg/kg	0.50	6020	P R	04/05/96
Zinc	950	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32952
Tag: SM1
Date/Time Collected: 04/04/96 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.1	%	1	160.3	CQV	04/04/96
Metals						
Copper	7.9	mg/kg	1.0	6020	P R	04/05/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32953
Tag: SM2
Date/Time Collected: 04/04/96 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.9	%	1	160.3	CQV	04/04/96
Metals						
Copper	1,170	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32954
Tag: SM4
Date/Time Collected: 04/04/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/04/96
Metals						
Copper	286	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32955
Tag: SM5
Date/Time Collected: 04/04/96 15:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/04/96
Metals						
Copper	5.3	mg/kg	1.0	6020	P R	04/05/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32956
Tag: SM6
Date/Time Collected: 04/04/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.5	%	1	160.3	CQV	04/04/96
Metals						
Copper	256	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32957
Tag: SM8
Date/Time Collected: 04/04/96 15:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	CQV	04/04/96
Metals						
Copper	1,170	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32958
Tag: SM9
Date/Time Collected: 04/04/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/04/96
Metals						
Copper	197	mg/kg	1.0	6020	P R	04/05/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 05, 1996

FECL #: AA32959
Tag: SM13
Date/Time Collected: 04/04/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	04/04/96
Metals						
Copper	902	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32960
Tag: EB5
Date/Time Collected: 04/04/96 14:30
Matrix: Liquid

Analysis	Results	Units	MDL	Method	Analyst	Date
Metals						
Copper	Not detected	mg/L	0.005	200.8	P R	04/05/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien & Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive # 300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO.: 4444-007-810 | PHONE NO.: 810 347-4350 | FAX NO.: 810 347-4357

PROJECT NO.: | CLIENT: General Motors
SAMPLER (SIGNATURE): [signature] | SAMPLER - PLEASE PRINT NAME: STEVE YOUNG
AFFILIATION: O'Brien & Gere

REPORT TO

NAME: JEFF RALSON
ADDRESS:
CITY: SAME | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

PRESERVATIVE CODE: A B
REFRIGERATE (Y/N): N N
BOTTLE TYPE: 4oz glass 1pt 4oz plastic

CODE: A = NONF, B = HN, C = H_2S, D = NaOH, E = HCL, F - ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
24148	4-4-96	1455	SM3	1	Total metals Cr, Cu, Ni, Zn — 24 HR T.A.T
49		1530	SM7	1	" " " " " "
50		1545	SM10	1	" " " " " "
51		—	DUP5	1	" " " " " "
24152		1445	SM1	1	Cu — Cr, Ni, Zn — Hold pending Notification from OBG
3		1450	SM2	1	Cu
4		1500	SM4	1	Cu
5		1510	SM5	1	Cu — 24 HR T.A.T
6		1520	SM6	1	Cu
7		1535	SM8	1	Cu
8		1540	SM9	1	Cu
9		1550	SM13	1	Cu
60		1430	EB5	1	Cu
					Please FAX JEFF Ralson the Results @ 810 347-4357 A.S.A.P. 24 HR T.A.T

RELINQUISHED BY: SIGNATURE [signature]	DATE 4-4-96	TIME 1700	
RECEIVED BY: SIGNATURE Daniel Brendan	DATE 4.4.96	TIME 17:00	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED AT FECL BY: SIGNATURE [signature]	DATE 4-4-96	TIME 6:45	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fi_e & Environme_.tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 08, 1996

File: 4144.007 #4
cc: JSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA32952-AA32959

Project: 4144.007-810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/04/96 18:45
PO #: Verbal

FECL #: AA32952
Tag: SM1
Date/Time Collected: 04/04/96 14:45
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32953
Tag: SM2
Date/Time Collected: 04/04/96 14:50
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32954
Tag: SM4
Date/Time Collected: 04/04/96 15:00
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA32955
Tag: SM5
Date/Time Collected: 04/04/96 15:10
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32956
Tag: SM6
Date/Time Collected: 04/04/96 15:20
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32957
Tag: SM8
Date/Time Collected: 04/04/96 15:35
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32958
Tag: SM9
Date/Time Collected: 04/04/96 15:40
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA32959
Tag: SM13
Date/Time Collected: 04/04/96 15:50
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA32952
Tag: SM1
Date/Time Collected: 04/04/96 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	92.1	%	1	160.3	CQV	04/04/9
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	04/05/96
Copper	7.9	mg/kg	1.0	6020	P R	04/05/96
Nickel	8.2	mg/kg	0.50	6020	P R	04/05/96
Zinc	16.8	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32953
Tag: SM2
Date/Time Collected: 04/04/96 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.9	%	1	160.3	CQV	04/04/96
Metals						
Chromium	2,070	mg/kg	1.0	6020	P R	04/05/96
Copper	1,170	mg/kg	1.0	6020	P R	04/05/96
Nickel	1,480	mg/kg	0.50	6020	P R	04/05/96
Zinc	1,240	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32954
Tag: SM4
Date/Time Collected: 04/04/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/04/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA32954 (Continued)
Tag: SM4
Date/Time Collected: 04/04/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	428	mg/kg	1.0	6020	P R	04/05/96
Copper	286	mg/kg	1.0	6020	P R	04/05/96
Nickel	365	mg/kg	0.50	6020	P R	04/05/96
Zinc	314	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32955
Tag: SM5
Date/Time Collected: 04/04/96 15:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date F
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/04/96
Metals						
Chromium	8.9	mg/kg	1.0	6020	P R	04/05/96
Copper	5.3	mg/kg	1.0	6020	P R	04/05/96
Nickel	16.3	mg/kg	0.50	6020	P R	04/05/96
Zinc	21.1	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA32956
Tag: SM6
Date/Time Collected: 04/04/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.5	%	1	160.3	CQV	04/04/96
Metals						
Chromium	400	mg/kg	1.0	6020	P R	04/05/96
Copper	256	mg/kg	1.0	6020	P R	04/05/'

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA32956 (Continued)
Tag: SM6
Date/Time Collected: 04/04/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	322	mg/kg	0.50	6020	P R	04 05/96
Zinc	319	mg/kg	1.0	6020	P R	04 05/96

FECL #: AA32957
Tag: SM8
Date/Time Collected: 04/04/96 15:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	CQV	04 04/96
Metals						
Chromium	2,300	mg/kg	1.0	6020	P R	04 05/96
Copper	1,170	mg/kg	1.0	6020	P R	04 05/96
Nickel	1,450	mg/kg	0.50	6020	P R	04 05/96
Zinc	1,050	mg/kg	1.0	6020	P R	04 05/96

FECL #: AA32958
Tag: SM9
Date/Time Collected: 04/04/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04 04/96
Metals						
Chromium	344	mg/kg	1.0	6020	P R	04 05/96
Copper	197	mg/kg	1.0	6020	P R	04 05/96
Nickel	283	mg/kg	0.50	6020	P R	04 05/96
Zinc	162	mg/kg	1.0	6020	P R	04 05/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA32959
Tag: SM13
Date/Time Collected: 04/04/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	04/04/96
Metals						
Chromium	1,670	mg/kg	1.0	6020	P R	04/05/96
Copper	902	mg/kg	1.0	6020	P R	04/05/96
Nickel	1,160	mg/kg	0.50	6020	P R	04/05/96
Zinc	1,040	mg/kg	1.0	6020	P R	04/05/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi e & Environme tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 09, 1996

File: 4144.007 #5
cc: JSK ← has copy

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi. MI 48375

Analytical Laboratory Report

FECL #(s): AA33168-AA33174

Project: 4144.007-810 GM
Samples collected by: P. LOWKES
Date/Time Submitted: 04/08/96 16:52
PO #: Verbal

FECL #: AA33168
Tag: SM8-1
Date/Time Collected: 04/08/96 14:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA33169
Tag: SM13-1
Date/Time Collected: 04/08/96 15:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA33170
Tag: SM3-1
Date/Time Collected: 04/08/96 13:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 09, 1996

FECL #: AA33171
Tag: SM7-1
Date/Time Collected: 04/08/96 15:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA33172
Tag: SM10-1
Date/Time Collected: 04/08/96 14:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA33173
Tag: SM6-1
Date/Time Collected: 04/08/96 12:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

FECL #: AA33174
Tag: SM2-1
Date/Time Collected: 04/08/96 13:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 09, 1996

FECL #: AA33168
Tag: SM8-1
Date/Time Collected: 04/08/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	CQV	04/09/96
Metals						
Chromium	1,390	mg/kg	1.0	6020	P R	04/09/96
Copper	718	mg/kg	1.0	6020	P R	04/09/96
Nickel	967	mg/kg	0.50	6020	P R	04/09/96
Zinc	841	mg/kg	1.0	6020	P R	04/09/96

FECL #: AA33169
Tag: SM13-1
Date/Time Collected: 04/08/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	CQV	04/09/96
Metals						
Chromium	6.5	mg/kg	1.0	6020	P R	04/09/96
Copper	3.7	mg/kg	1.0	6020	P R	04/09/96
Nickel	16.5	mg/kg	0.50	6020	P R	04/09/96
Zinc	14.9	mg/kg	1.0	6020	P R	04/09/96

FECL #: AA33170
Tag: SM3-1
Date/Time Collected: 04/08/96 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.6	%	1	160.3	CQV	04/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 09, 1996

FECL #: AA33170 (Continued)
Tag: SM3-1
Date/Time Collected: 04/08/96 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	1,030	mg/kg	1.0	6020	P R	04/09/96
Copper	764	mg/kg	1.0	6020	P R	04/09/96
Nickel	814	mg/kg	0.50	6020	P R	04/09/96
Zinc	823	mg/kg	1.0	6020	P R	04/09/96

FECL #: AA33171
Tag: SM7-1
Date/Time Collected: 04/08/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	82.2	%	1	160.3	CQV	04/09/96
Metals						
Chromium	580	mg/kg	1.0	6020	P R	04/09/96
Copper	490	mg/kg	1.0	6020	P R	04/09/96
Nickel	490	mg/kg	0.50	6020	P R	04/09/96
Zinc	611	mg/kg	1.0	6020	P R	04/09/96

FECL #: AA33172
Tag: SM10-1
Date/Time Collected: 04/08/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	CQV	04/09/96
Metals						
Chromium	14,700	mg/kg	1.0	6020	P R	04/09/96
Copper	7,030	mg/kg	1.0	6020	P R	04/09/

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 09, 1996

FECL #: AA33172 (Continued)
Tag: SM10-1
Date/Time Collected: 04/08/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	10,900	mg/kg	0.50	6020	P R	04/09/96
Zinc	7,780	mg/kg	1.0	6020	P R	04/09/96

FECL #: AA33173
Tag: SM6-1
Date/Time Collected: 04/08/96 12:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/09/96
Metals						
Chromium	790	mg/kg	1.0	6020	P R	04/09/96
Copper	2,200	mg/kg	1.0	6020	P R	04/09/96
Nickel	773	mg/kg	0.50	6020	P R	04/09/96
Zinc	919	mg/kg	1.0	6020	P R	04/09/96

FECL #: AA33174
Tag: SM2-1
Date/Time Collected: 04/08/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.1	%	1	160.3	CQV	04/09/96
Metals						
Chromium	1,070	mg/kg	1.0	6020	P R	04/09/96
Copper	692	mg/kg	1.0	6020	P R	04/09/96
Nickel	777	mg/kg	0.50	6020	P R	04/09/96
Zinc	770	mg/kg	1.0	6020	P R	04/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 09, 1996

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing, Suite 222 East Lansing MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9106

CHAIN OF CUSTODY RECORD

INVOICE TO

O'Brien + Gere Engineers
3950 Research Hill Place Drive # 300
Novi MI 48375
(810) 347-4350 (810) 347-4357
4144.007 S10
General Motors
Patrick J. Colucci

REPORT TO

Jeff Ralson
Same

LAB #	DATE	TIME	SAMPLE I.D. / LOCATION DESCRIPTION	TOTAL NO. CONTAINERS
33168	4/5/96	1400	SM 8-1	1
		1405	SM 8-2	1
		1410	SM 8-3	1
		1415	SM 8-4	1
		1420	SM 8-5	1
		1425	SM 8-6	1
33169		1500	SM 13-1	1
		1505	SM 13-2	1
		[illegible]	SM 13-3	1
		1515	SM [illegible]-4	1
		1520	SM [illegible]-5	1
		1525	SM 13-6	1
33175	↓	1615	LSWSC	1

PRESERVATIVE CODE: A - None, B - HNO3, C - H2SO4, D - NaOH, E - HCl

SAMPLE TYPE: GW (Groundwater), SW (Surface Water), SO (Soil), SD (Sediment), OTHER

ANALYSES

- Cu, Cr, Ni, Zn - 24 Hr T.A.T.
- Hold Pending Notification from OBG
- Cu, Cr, Ni, Zn - 24 Hour T.A.
- Hold Pending Notification from OBG
- Cr only - 24 Hr. T.A. T.

[signature]	4/5/96	16:15	
[signature]	4/8/96	18:20	
[signature]	4-8-96	16:52	

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien + Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive # 300
CITY: Novi | STATE: MI | ZIP CODE: 48375
P.O. NO | PHONE NO: (810) 347-4359 | FAX NO: (810) 347-4357

PROJECT NO: 9144.007.510 | COUNT: General Motors
SAMPLER (SIGNATURE): [signature] | SAMPLER - PLEASE PRINT NAME: Patrick J. Lowkes
AFFILIATION

REPORT TO

NAME: JEFF RALSON
ADDRESS: SAME
CITY | STATE | ZIP CODE
PHONE NO | FAX NO

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 4 oz. glass jar
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER
CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCL, F =

FEC LAB NO	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
33170	4/8/96	1300	SM 3-1	1	X Cu, Cr, Ni, Zn - 24 Hr. T.A.T.
	4/8/96	1305	SM 3-2	1	X Hold Pending Notification from OB6
		1310	SM 3-3	1	X
		1315	SM 3-4	1	X
		1320	SM 3-5	1	X
		1325	SM 3-6	1	X
33171		1530	SM 7-1	1	X Cu, Cr, Ni, Zn - 24 Hr. T.A.T.
		1535	SM 7-2	1	X Hold Pending Notification from OB6
			SM 7-3	1	X
		1545	SM 7-4	1	X
		1550	SM 7-5	1	X
		1555	SM 7-6	1	X
33172		1430	SM 10-1	1	X Cu, Cr, Ni, Zn - 24 Hr. T.A.T.
		1435	SM 10	1	X Hold Pending Notification from OB6
		1440	SM 10	1	X " " "

RELINQUISHED BY: SIGNATURE [signature] | DATE 4/8/96 | TIME 16:30
RECEIVED BY: SIGNATURE [signature] | DATE 4/8/96 | TIME 16:30

RELINQUISHED BY: SIGNATURE | DATE | TIME
RECEIVED AT FEC BY: SIGNATURE | DATE | TIME

RELINQUISHED BY: SIGNATURE | DATE | TIME
RECEIVED BY: SIGNATURE | DATE | TIME

SEAL NO | SEAL INTACT YES [ ] NO [ ] | INITIALS | TEMP. ON ARRIVAL
LAB NO | SEAL INTACT YES [ ] NO [ ] | INITIALS

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: O'Brien + Gere Engineers
ADDRESS: 39500 Orchard Hill Place Drive # 300
CITY: Novi STATE: MI ZIP CODE: 48375
P.O. NO.: PHONE NO.: (810) 347-4350 FAX NO.: (810) 347-4357
PROJECT NO.: 4144.007.810 PROJECT NAME: General Motors
SAMPLER (SIGNATURE): Patrick J. Lawkes SAMPLER (PLEASE PRINT NAME): Patrick J. Lawkes
LOCATION:

REPORT TO

NAME: Jeff Ralson
ADDRESS: → Same
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.:

PRESERVATIVE CODE
REFRIGERATE (Y/N):
BOTTLE TYPE:
SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER
CODE: A = NONE, B = HNO3, C = H2SO4, D = NaOH, E = HCl, F = ...

FSC LAB. NO	SAMPLE COLLECTION DATE	TIME	SAMPLE IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
	4/8/96	1445	SM 10 - 4	1	X HOLD Pending Notification from OBG
		1450	SM 10 - 5	1	X
		1455	SM 10 - 6	1	X
33173		1430	SM 6 - 1	1	X Cu, Cr, Ni, Zn - 24 Hr. T.A.T.
		[illegible]	SM 6 - 2	1	X Hold Pending Notification From OBG
		[illegible]	SM 6 - 3	1	X
		1445	SM 6 - 4	1	X
		[illegible]	SM 6 - 5	1	X
			SM 6 - 6		X
33174		1330	SM 2 -	1	X Cu, Cr, Ni, Zn - 24 Hr. T.A.T.
		1335	SM 2 - 2	1	X Hold Pending Notification from OBG
		[illegible]	SM 2 - 3	1	X
		1345	SM 2 - 4	1	X
		1350	SM 2 - 5	1	X
	↓	1355	SM 2 - 6	1	X

RELINQUISHED BY: SIGNATURE	[signature]	DATE: 4/8/96	TIME: 16:10	RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED BY: SIGNATURE	[signature]	DATE: 4/8/96	TIME: 16:10	RECEIVED FOR LAB BY: SIGNATURE	DATE	TIME
RELINQUISHED BY: SIGNATURE		DATE	TIME			
RECEIVED BY: SIGNATURE		DATE	TIME			

SPECIAL INSTRUCTIONS: CONDITION: COOLER TEMP: HEADSPACE: CHLORINATED: TURN AROUND TIME (TAT) REQUESTED:

Fi.e & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 10, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33188-AA33193

Project: 4144-007-810 GM
Samples collected by: P. LOWKES
Date/Time Submitted: 04/10/96 11:30
PO #: Verbal

FECL #: AA33188
Tag: SM8-2
Date/Time Collected: 04/08/96
Matrix: Soil
Container(s): 1-4 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA33189
Tag: SM3-2
Date/Time Collected: 04/08/96
Matrix: Soil
Container(s): 1-4 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA33190
Tag: SM7-2
Date/Time Collected: 04/08/96
Matrix: Soil
Container(s): 1-4 oz Glass Jar
Preservation: None/Refrigeration

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FECL #: AA33191
Tag: SM10-2
Date/Time Collected: 04/08/96
Matrix: Soil
Container(s): 1-4 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA33192
Tag: SM6-2
Date/Time Collected: 04/08/96
Matrix: Soil
Container(s): 1-4 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA33193
Tag: SM2-2
Date/Time Collected: 04/08/96
Matrix: Soil
Container(s): 1-4 oz Glass Jar
Preservation: None/Refrigeration

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FECL #: AA33188
Tag: SM8-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.9	%	1	160.3	CQV	04/10/96
Metals						
Chromium	879	mg/kg	1.0	6020	P R	04/10/96
Copper	681	mg/kg	1.0	6020	P R	04/10/96
Nickel	619	mg/kg	0.50	6020	P R	04/10/96
Zinc	698	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33189
Tag: SM3-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.7	%	1	160.3	CQV	04/10/96
Metals						
Chromium	739	mg/kg	1.0	6020	P R	04/10/96
Copper	511	mg/kg	1.0	6020	P R	04/10/96
Nickel	795	mg/kg	0.50	6020	P R	04/10/96
Zinc	558	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33190
Tag: SM7-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.1	%	1	160.3	CQV	04/10/96

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FECL #: AA33190 (Continued)
Tag: SM7-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	337	mg/kg	1.0	6020	P R	04/10/96
Copper	456	mg/kg	1.0	6020	P R	04/10/96
Nickel	316	mg/kg	0.50	6020	P R	04/10/96
Zinc	327	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33191
Tag: SM10-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/10/96
Metals						
Chromium	111	mg/kg	1.0	6020	P R	04/10/96
Copper	76.9	mg/kg	1.0	6020	P R	04/10/96
Nickel	85.3	mg/kg	0.50	6020	P R	04/10/96
Zinc	58.7	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33192
Tag: SM6-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/10/96
Metals						
Chromium	170	mg/kg	1.0	6020	P R	04/10/96
Copper	144	mg/kg	1.0	6020	P R	04/10

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FECL #: AA33192 (Continued)
Tag: SM6-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	132	mg/kg	0.50	6020	P R	04/10/96
Zinc	135	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33193
Tag: SM2-2
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.1	%	1	160.3	CQV	04/10/96
Metals						
Chromium	17.4	mg/kg	1.0	6020	P R	04/10/96
Copper	15.7	mg/kg	1.0	6020	P R	04/10/96
Nickel	25.5	mg/kg	0.50	6020	P R	04/10/96
Zinc	35.3	mg/kg	1.0	6020	P R	04/10/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

O'BRIEN & GERE ENGINEERS, INC.

SUBJECT	SHEET	BY	DATE	JOB NO.
			04/08/96	

THIS NOTE SERVES AS AUTHORIZATION TO ANALYZE THE FOLLOWING SAMPLES:

FECL #	OBG SAMPLE ID	PARAMETERS	DATE COLLECTE
NA 33188	SM8-2	Cr, Cu, Ni, Zn	04-08-96
NA 33189	SM3-2	Cr, Cu, Ni, Zn	04-08-96
NA 33190	SM7-2	Cr, Cu, Ni, Zn	04-08-96
NA 33191	SM10-2	Cr, Cu, Ni, Zn	04-08-96
NA 33192	SM6-2	Cr, Cu, Ni, Zn	04-08-96
NA 33193	SM2-2	Cr, Cu, Ni, Zn	04-08-96

Rec'd 4-10-96 11:30

Lorraine

WE NEED A 24 HOUR TURNAROUND. PLEASE CALL ME AT (810) 347-4350 IF YOU HAVE QUESTIONS.

THANKS, JEFF RALSON

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 11, 1996

FECL #: AA33199
Tag: SM4-1
Date/Time Collected: 04/10/96 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.5	%	1	160.3	CQV	04/11/96
Metals						
Chromium	18.6	mg/kg	1.0	6020	P R	04/10/96
Copper	12.8	mg/kg	1.0	6020	P R	04/10/96
Nickel	21.8	mg/kg	0.50	6020	P R	04/10/96
Zinc	26.1	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33200
Tag: SM9-1
Date/Time Collected: 04/10/96 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	3,700	mg/kg	1.0	6020	P R	04/10/96
Copper	2,190	mg/kg	1.0	6020	P R	04/10/96
Nickel	2,640	mg/kg	0.50	6020	P R	04/10/96
Zinc	2,160	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33201
Tag: LF5-1
Date/Time Collected: 04/10/96 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	CQV	04/11/96

Revised Report
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FECL #: AA33257
Tag: LF6A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.0	%	1	160.3	CQV	04/11/96
Metals						
Chromium	206	mg/kg	1.0	6020	P R	04/12/96
Copper	111	mg/kg	1.0	6020	P R	04/12/96
Nickel	147	mg/kg	0.50	6020	P R	04/12/96
Zinc	148	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33258
Tag: SM9-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	7,980	mg/kg	1.0	6020	P R	04/12/96
Copper	3,930	mg/kg	1.0	6020	P R	04/12/96
Nickel	5,120	mg/kg	0.50	6020	P R	04/12/96
Zinc	3,620	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33259
Tag: LF5-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	04/11/96

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FECL #: AA33334
Tag: SM3-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	CQV	04/12/96
Metals						
Chromium	1,420	mg/kg	1.0	6020	P R	04/12/96
Copper	482	mg/kg	1.0	6020	P R	04/12/96
Nickel	898	mg/kg	0.50	6020	P R	04/12/96
Zinc	530	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33335
Tag: SM6-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.0	%	1	160.3	CQV	04/12/96
Metals						
Chromium	143	mg/kg	1.0	6020	P R	04/12/96
Copper	249	mg/kg	1.0	6020	P R	04/12/96
Nickel	179	mg/kg	0.50	6020	P R	04/12/96
Zinc	170	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33336
Tag: MC8A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/12/96

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FECL #: AA33338 (Continued)
Tag: LF4A-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	739	mg/kg	0.50	6020	P R	04/12/96
Zinc	674	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33339
Tag: SM8-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.5	%	1	160.3	CQV	04/12/9
Metals						
Copper	187	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33340
Tag: SM7-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/12/96
Metals						
Nickel	15.2	mg/kg	0.50	6020	P R	04/12/96

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FECL #: AA33354
Tag: LF6A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Result	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%		160.3	CQV	04/15/96
Metals						
Chromium	5.5	mg/kg	1.0	6020	P R	04/15/96
Copper	4.0	mg/kg	1.0	6020	P R	04/15/96
Nickel	15.3	mg/kg	0.50	6020	P R	04/15/96
Zinc	15.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33355
Tag: SM9-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.5	%	1	160.3	CQV	04/15/96
Metals						
Chromium	4.6	mg/kg	1.0	6020	P R	04/15/96
Copper	6.0	mg/kg	1.0	6020	P R	04/15/96
Nickel	5.9	mg/kg	0.50	6020	P R	04/15/96
Zinc	14.1	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33356
Tag: LF5-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/15/96

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FECL #: AA33363 (Continued)
Tag: SS7-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	375	mg/kg	1.0	6020	P R	04/15/96
Copper	140	mg/kg	1.0	6020	P R	04/15/96
Nickel	273	mg/kg	0.50	6020	P R	04/15/96
Zinc	252	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33364
Tag: SB11-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.3	%		160.3	CQV	04/15/96
Metals						
Chromium	51.9	mg/kg	1.0	6020	P R	04/15/96
Copper	38.6	mg/kg	1.0	6020	P R	04/15/96
Nickel	57.9	mg/kg	0.50	6020	P R	04/15/96
Zinc	53.9	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33370
Tag: SM3-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/15/96
Metals						
Chromium	11.1	mg/kg	1.0	6020	P R	04/15/96
Copper	11.5	mg/kg	1.0	6020	P R	04/15/96

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FECL #: AA33370 (Continued)
Tag: SM3-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	31.3	mg/kg	0.50	6020	P R	04/15/96
Zinc	25.2	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33371
Tag: SM6-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.3	%	1	160.3	CQV	04/15/96
Metals						
Chromium	589	mg/kg	1.0	6020	P R	04/15/96
Copper	285	mg/kg	1.0	6020	P R	04/15/96
Nickel	441	mg/kg	0.50	6020	P R	04/15/96
Zinc	246	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33372
Tag: LF3A-4
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90	%	1	160.3	CQV	04/15/96
Metals						
Chromium	87.4	mg/kg	1.0	6020	P R	04/15/96
Copper	41.9	mg/kg	1.0	6020	P R	04/15/96
Nickel	58.2	mg/kg	0.50	6020	P R	04/15/96
Zinc	65.2	mg/kg	1.0	6020	P R	04/15/96

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FECL #: AA33373
Tag: LF4A-4
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%		160.3	CQV	04/15/96
Metals						
Chromium	1,820	mg/kg	1.0	6020	P R	04/15/96
Copper	800	mg/kg	1.0	6020	P R	04/15/96
Nickel	1,030	mg/kg	0.50	6020	P R	04/15/96
Zinc	1,180	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33374
Tag: SM8-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	04/15/96
Metals						
Copper	4.9	mg/kg	1.0	6020	P R	04/15/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 17, 1996

FECL #: AA33404
Tag: S[illegible]7-2
Date/Time Collected: [illegible]4/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	CQV	04/16/96
Metals						
Chromium	68.0	mg/kg	1.0	6020	P R	04/16/96
Copper	31.4	mg/kg	1.0	6020	P R	04/16/96
Nickel	56.4	mg/kg	0.50	6020	P R	04/16/96
Zinc	65.4	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33405
Tag: SM6-6
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	04/16/96
Metals						
Chromium	60.2	mg/kg	1.0	6020	P R	04/16/96
Copper	54.1	mg/kg	1.0	6020	P R	04/16/96
Nickel	69.3	mg/kg	0.50	6020	P R	04/16/96
Zinc	74.6	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33406
Tag: LF4A-5
Date/Time Collected: [illegible]4/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/16/96

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FECL #: AA33463
Tag: SM12
Date/Time Collected: 04/17/96 14:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	CQV	04/17/96
Metals						
Chromium	455	mg/kg	1.0	6020	E B	04/17/96
Copper	239	mg/kg	1.0	6020	E B	04/17/96
Nickel	321	mg/kg	0.50	6020	E B	04/17/96
Zinc	260	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33464
Tag: SM11
Date/Time Collected: 04/17/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.6	%	1	160.3	CQV	04/17/96
Metals						
Chromium	615	mg/kg	1.0	6020	E B	04/17/96
Copper	346	mg/kg	1.0	6020	E B	04/17/96
Nickel	437	mg/kg	0.50	6020	E B	04/17/96
Zinc	345	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33465
Tag: LF12
Date/Time Collected: 04/17/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	04/17/96

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FECL #: AA33523
Tag: LB-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	8.4	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33524
Tag: SM12-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/18/96
Metals						
Chromium	235	mg/kg	1.0	6020	E B	04/18/96
Copper	151	mg/kg	1.0	6020	E B	04/18/96
Nickel	169	mg/kg	0.50	6020	E B	04/18/96
Zinc	150	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33525
Tag: SM11-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	CQV	04/18/96
Metals						
Chromium	1,218	mg/kg	1.0	6020	E B	04/18/96
Copper	630	mg/kg	1.0	6020	E B	04/18/96

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FECL #: AA33525 (Continued)
Tag: SM11-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	865	mg/kg	0.50	6020	E B	04/18/96
Zinc	692	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33526
Tag: MC7-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.0	%	1	160.3	CQV	04/18/96
Metals						
Chromium	22.3	mg/kg	1.0	6020	E B	04/18/96
Copper	16.0	mg/kg	1.0	6020	E B	04/18/96
Nickel	20.7	mg/kg	0.50	6020	E B	04/18/96
Zinc	30.1	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33527
Tag: MC6-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	104	mg/kg	1.0	6020	E B	04/18/96
Copper	43.2	mg/kg	1.0	6020	E B	04/18/96
Nickel	74.1	mg/kg	0.50	6020	E B	04/18/96
Zinc	56.9	mg/kg	1.0	6020	E B	04/18/96

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April 22, 1996

FECL #: AA33584 (Continued)
Tag: LF-A-7
Date/Time Collected: 04/19/96 12:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	33.6	mg/kg	1.0	6020	E B	04/19/96
Copper	22.0	mg/kg	1.0	6020	E B	04/19/96
Nickel	29.3	mg/kg	0.50	6020	E B	04/19/96

FECL #: AA33585
Tag: SM6-7
Date/Time Collected: 04/19/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.8	%	1	160.3	CQV	04/19/96
Metals						
Chromium	319	mg/kg	1.0	6020	E B	04/19/96
Copper	598	mg/kg	1.0	6020	E B	04/19/96
Nickel	393	mg/kg	0.50	6020	E B	04/19/96

FECL #: AA33586
Tag: LF10-7
Date/Time Collected: 04/19/96 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	CQV	04/19/96
Metals						
Zinc	1,640	mg/kg	1.0	6020	E B	04/19/96

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FECL #: AA33246
Tag: MC13A-1
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	270	mg/kg	1.0	6020	P R	04/12/96
Copper	130	mg/kg	1.0	6020	P R	04/12/96
Nickel	102	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33247
Tag: SM10-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	22.2	mg/kg	1.0	6020	P R	04/12/96
Copper	18.3	mg/kg	1.0	6020	P R	04/12/96
Nickel	22.2	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33248
Tag: MC2A-1
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	CQV	04/11/96

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FECL #: AA33248 (Continued)
Tag: MC3A
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	13.9	mg/kg	1.0	6020	P R	04/12/96
Copper	10.4	mg/kg	1.0	6020	P R	04/12/96
Nickel	19.4	mg/kg	0.50	6020	P R	04/12/96

FECL #: AA33249
Tag: MC5A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	CQV	04/11/96
Metals						
Chromium	8.7	mg/kg	1.0	6020	P R	04/12/96
Copper	5.8	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33250
Tag: SM8-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	CQV	04/11/96
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	04/12/96
Copper	45.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	33.2	mg/kg	0.50	6020	P R	04/12/96
Zinc	16.8	mg/kg	1.0	6020	P R	04/12/96

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Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 22, 1996

FECL #: AA33251
Tag: SM3-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.0	%	1	160.3	CQV	04/11/96
Metals						
Chromium	717	mg/kg	1.0	6020	P R	04/12/96
Copper	608	mg/kg	1.0	6020	P R	04/12/96
Nickel	609	mg/kg	0.50	6020	P R	04/12/96
Zinc	759	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33252
Tag: SM7-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	22.3	mg/kg	1.0	6020	P R	04/12/96
Copper	23.9	mg/kg	1.0	6020	P R	04/12/96
Nickel	53.0	mg/kg	0.50	6020	P R	04/12/96
Zinc	48.0	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33253
Tag: SM6-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.9	%	1	160.3	CQV	04/11/96

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FECL #: AA33253 (Continued)
Tag: SM6-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	207	mg/kg	1.0	6020	P R	04/12/96
Copper	158	mg/kg	1.0	6020	P R	04/12/96
Nickel	187	mg/kg	0.50	6020	P R	04/12/96
Zinc	225	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33254
Tag: MCSA-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/12/96
Copper	51.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	71.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	125	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33255
Tag: LESA-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	155	mg/kg	1.0	6020	P R	04/12/96
Copper	81.2	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33574 (Continued)
Tag: SS1-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Result	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	12.8	mg/kg	1.0	6020	E B	04/19/96
Copper	14.7	mg/kg	1.0	6020	E B	04/19/96
Nickel	16.6	mg/kg	0.50	6020	E B	04/19/96
Zinc	21.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33575
Tag: SS2-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	04/19/96
Metals						
Chromium	104	mg/kg	1.0	6020	E B	04/19/96
Copper	57.0	mg/kg	1.0	6020	E B	04/19/96
Nickel	72.9	mg/kg	0.50	6020	E B	04/19/96
Zinc	68.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33576
Tag: SM12-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/19/96
Metals						
Chromium	31.5	mg/kg	1.0	6020	E B	04/19/96
Copper	34.6	mg/kg	1.0	6020	E B	04/19/96

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FECL #: AA33576 (Continued)
Tag: SM12-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	34.0	mg/kg	0.50	6020	E B	04/19/96
Zinc	29.1	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33577
Tag: SM11-2
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.9	%	1	160.3	CQV	04/19/
Metals						
Chromium	716	mg/kg	1.0	6020	E B	04/19/96
Copper	423	mg/kg	1.0	6020	E B	04/19/96
Nickel	542	mg/kg	0.50	6020	E B	04/19/96
Zinc	575	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33578
Tag: SS4-
Date/Time Collected: 04/1 /96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganic						
Total Solids	87.1	%	1	160.3	CQV	04/19/96
Metal						
Chromium	3,700	mg/kg	1.0	6020	E B	04/19/96
Copper	1,170	mg/kg	1.0	6020	E B	04/19/96
Nickel	2,120	mg/kg	0.50	6020	E B	04/19/96
Zinc	2,270	mg/kg	1.0	6020	E B	04/19/96

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O'Brien & Gere Engineers, Inc.
April 23, 1996

FECL #: AA33608
Tag: LF3A-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	CQV	04/22/96
Metals						
Chromium	5.7	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33609
Tag: LF10-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/22/96
Metals						
Zinc	330	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33610
Tag: SM12-3
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/22/96
Metals						
Chromium	11.2	mg/kg	1.0	6020	P R	04/23/96
Copper	10.5	mg/kg	1.0	6020	P R	04/23/96

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O'Brien & Gere Engineers, Inc.
April 23, 1996

FECL #: AA33611
Tag: SM6-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	CQV	04/22/96
Metals						
Chromium	6.0	mg/kg	1.0	6020	P R	04/23/96
Copper	4.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	8.4	mg/kg	0.50	6020	P R	04/23/96

FECL #: AA33612
Tag: SS2-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.3	%	1	160.3	CQV	04/22/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/23/96
Copper	44.4	mg/kg	1.0	6020	P R	04/23/96
Nickel	72.4	mg/kg	0.50	6020	P R	04/23/96

FECL #: AA33613
Tag: SS5-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	04/22/96

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FECL #: AA33615 (Continued)
Tag: LF11-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Zinc	49.3	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33616
Tag: SM11-3
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.7	%	1	160.3	CQV	04/22/96
Metals						
Chromium	41.8	mg/kg	1.0	6020	P R	04/23/96
Copper	22.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	38.1	mg/kg	0.50	6020	P R	04/23/96
Zinc	46.4	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33617
Tag: SS4-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/22/96
Metals						
Chromium	35.9	mg/kg	1.0	6020	P R	04/23/96
Copper	12.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	31.7	mg/kg	0.50	6020	P R	04/23/96
Zinc	38.9	mg/kg	1.0	6020	P R	04/23/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 24, 1996

FECL #: AA33649
Tag: LF10-9
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/24/96
Metals						
Zinc	182	mg/kg	1.0	6020	P R	04/24/96

FECL #: AA33650
Tag: SM11-4
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.5	%	1	160.3	CQV	04/24/96
Metals						
Chromium	4.7	mg/kg	1.0	6020	P R	04/24/96

FECL #: AA33651
Tag: LF11-3
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	04/24/96
Metals						
Chromium	18.7	mg/kg	1.0	6020	P R	04/24/96
Nickel	14.9	mg/kg	0.50	6020	P R	04/24/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34521
Tag: LF14 3.0 ft
Date/Time Collected: 05/13/96 12:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	05/13/96
Metals						
Chromium	8.6	mg/kg	1.0	6020	P R	05/13/96
Copper	7.4	mg/kg	1.0	6020	P R	05/13/96
Nickel	14.6	mg/kg	0.50	6020	P R	05/13/96
Zinc	21.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34522
Tag: SM14 4.0 ft
Date/Time Collected: 05/13/96 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	CQV	05/13/96
Metals						
Chromium	3.9	mg/kg	1.0	6020	P R	05/13/96
Copper	5.8	mg/kg	1.0	6020	P R	05/13/96
Nickel	10.1	mg/kg	0.50	6020	P R	05/13/96
Zinc	11.0	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34523
Tag: LF16 2.5 ft
Date/Time Collected: 05/13/96 11:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.9	%	1	160.3	CQV	05/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34528
Tag: SM15 4.5 ft
Date/Time Collected: 05/13/96 11:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.3	%	1	160.3	CQV	05/13/96
Metals						
Chromium	8.5	mg/kg	1.0	6020	P R	05/13/96
Copper	10.1	mg/kg	1.0	6020	P R	05/13/96
Nickel	6.96	mg/kg	0.50	6020	P R	05/13/96
Zinc	15.8	mg/kg	1.0	6020	P R	05/13/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

APPENDIX O

Closure Sample Analytical Data Sheets - Construction Related Landfarm Area

O'BRIEN & GERE ENGINEERS INC.

SUBJECT	SHEET	BY	DATE	JOB NO.
			04/08/96	

THIS NOTE SERVES AS AUTHORIZATION TO ANALYZE THE FOLLOWING SAMPLES:

FECL #	SAMPLE ID	PARAMETERS	DATE COLLECTED
AA33126	LF3	Chromium, nickel, zinc	04-05-96
AA33127	LF4	Chromium, nickel, zinc	04-05-96
AA33128	LF10	Chromium, nickel, zinc	04-05-96
AA33129	LF8	Chromium, nickel, zinc	04-05-96

WE NEED A 24 HOUR TURNAROUND. PLEASE CALL ME AT (810) 347-4350 IF YOU HAVE QUESTIONS.

THANKS, JEFF RALSON

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA33128 (Continued)
Tag: LF10
Date/Time Collected: 04/05/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	759	mg/kg	1.0	6020	P R	04/05/96
Copper	359	mg/kg	1.0	6020	P R	04/05/96
Nickel	504	mg/kg	0.50	6020	P R	04/05/96
Zinc	357	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33129
Tag: LF8
Date/Time Collected: 04/05/96 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/05/96
Metals						
Chromium	100	mg/kg	1.0	6020	P R	04/05/96
Copper	90.2	mg/kg	1.0	6020	P R	04/05/96
Nickel	96.6	mg/kg	0.50	6020	P R	04/05/96
Zinc	100	mg/kg	1.0	6020	P R	04/05/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA33126
Tag: LF3
Date/Time Collected: 04/05/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/05/96
Metals						
Chromium	76.7	mg/kg	1.0	6020	P R	04/05/96
Copper	37.5	mg/kg	1.0	6020	P R	04/05/96
Nickel	60.7	mg/kg	0.50	6020	P R	04/05/96
Zinc	63.1	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33127
Tag: LF4
Date/Time Collected: 04/05/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.1	%	1	160.3	CQV	04/05/96
Metals						
Chromium	2,080	mg/kg	1.0	6020	P R	04/05/96
Copper	1,010	mg/kg	1.0	6020	P R	04/05/96
Nickel	1,360	mg/kg	0.50	6020	P R	04/05/96
Zinc	1,250	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33128
Tag: LF10
Date/Time Collected: 04/05/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	CQV	04/05/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 08, 1996

FECL #: AA33129
Tag: LF8
Date/Time Collected: 04/05/96 13:00
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Fi_e & Environme_.tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

April 08, 1996

File: 4144.007 #4
cc: SSR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA33126-AA33129

Project: 4144.007 810 GM
Samples collected by: S. YOUNG
Date/Time Submitted: 04/05/96 19:00
PO #: Verbal

FECL #: AA33126
Tag: LF3
Date/Time Collected: 04/05/96 13:15
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33127
Tag: LF4
Date/Time Collected: 04/05/96 13:20
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA33128
Tag: LF10
Date/Time Collected: 04/05/96 13:10
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
April 04, 1996

FECL #: AA32772
Tag: LF5
Date/Time Collected: 04/02/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	CQV	04/03/96
Metals						
Chromium	688	mg/L	0.01	200.8	P R	04/02/96
Copper	379	mg/kg	1.0	6020	P R	04/02/96
Nickel	489	mg/kg	0.50	6020	P R	04/02/96
Zinc	383	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32773
Tag: LF7
Date/Time Collected: 04/02/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/03/96
Metals						
Chromium	276	mg/kg	1.0	6020	P R	04/02/96
Copper	141	mg/kg	1.0	6020	P R	04/02/96
Nickel	184	mg/kg	0.50	6020	P R	04/02/96
Zinc	161	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32774
Tag: [illegible]1
Date/Time Collected: 04/02/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	[illegible]	CQV	04/03/96

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FECL #: AA32772 (Continued)
Tag: LF5
Date/Time Collected: 04/02/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Copper	379	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32773
Tag: LF7
Date/Time Collected: 04/02/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/03/96
Metals						
Copper	141	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32774
Tag: RF1
Date/Time Collected: 04/02/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/03/96
Metals						
Copper	134	mg/kg	1.0	6020	P R	04/02/96

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FECL #: AA32770
Tag: LF6
Date/Time Collected: 04/02/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%	1	160.3	CQV	04/03/96
Metals						
Chromium	148	mg/kg	1.0	6020	P R	04/02/96
Copper	72.4	mg/kg	1.0	6020	P R	04/02/96
Nickel	100	mg/kg	0.50	6020	P R	04/02/96
Zinc	83.6	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32771
Tag: RB13
Date/Time Collected: 04/02/96 13:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/03/96
Metals						
Chromium	5.8	mg/kg	1.0	6020	P R	04/02/96
Copper	4.3	mg/kg	1.0	6020	P R	04/02/96
Nickel	13.9	mg/kg	0.50	6020	P R	04/02/96
Zinc	10.0	mg/kg	1.0	6020	P R	04/02/96

FECL #: AA32772
Tag: LF5
Date/Time Collected: 04/02/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	CQV	04/03/96

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FECL #: AA33123
Tag: LF9
Date/Time Collected: 04/05/96 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.4	%	1	160.3	CQV	04/05/96
Metals						
Chromium	168	mg/kg	1.0	6020	P R	04/05/96
Copper	184	mg/kg	1.0	6020	P R	04/05/96
Nickel	177	mg/kg	0.50	6020	P R	04/05/96
Zinc	224	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33124
Tag: DUP6
Date/Time Collected: 04/05/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	04/05/96
Metals						
Chromium	136	mg/kg	1.0	6020	P R	04/05/96
Copper	125	mg/kg	1.0	6020	P R	04/05/96
Nickel	151	mg/kg	0.50	6020	P R	04/05/96
Zinc	122	mg/kg	1.0	6020	P R	04/05/96

FECL #: AA33125
Tag: MC13A
Date/Time Collected: 04/05/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	CQV	04/05/96

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FECL #: AA33748
Tag: LF10-10
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/25/96
Metals						
Zinc	425	mg/kg	1.0	6020	P R	04/25/96

FECL #: AA33749
Tag: SS2-4
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.0	%	1	160.3		04/25/96
Metals						
Chromium	3,270	mg/kg	1.0	6020	P R	04/25/96
Copper	1,950	mg/kg	1.0	6020	P R	04/25/96
Nickel	2,210	mg/kg	0.50	6020	P R	04/25/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
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FECL #: AA33940
Tag: LF10-11
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.7	%	1	160.3	CQV	04/29/96
Metals						
Zinc	423	mg/kg	1.0	6020	P R	04/29/96

FECL #: AA33941
Tag: SS2-5
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/29/96
Metals						
Chromium	444	mg/kg	1.0	6020	P R	04/29/96
Copper	284	mg/kg	1.0	6020	P R	04/29/96
Nickel	333	mg/kg	0.50	6020	P R	04/29/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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May 01, 1996

FECL #: AA33983
Tag: LF10-12
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.6	%	1	160.3	CQV	04/30/96
Metals						
Zinc	35.0	mg/kg	1.0	6020	P R	04/30/96

FECL #: AA33984
Tag: SS-6
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.4	%	1	160.3	CQV	04/30/96
Metals						
Chromium	5.2	mg/kg	1.0	6020	P R	04/30/96
Copper	3.6	mg/kg	1.0	6020	P R	04/30/96
Nickel	3.6	mg/kg	0.50	6020	P R	04/30/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak 5/B

Violetta F. Murshak
Laboratory Director

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FECL #: AA33183 (Continued)
Tag: MC1A-1
Date/Time Collected: 04/09/96 14:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	5.8	mg/kg	0.50	6020	P R	04/10/96
Zinc	15.3	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33184
Tag: MC8A-1
Date/Time Collected: 04/09/96 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/09/96
Metals						
Chromium	162	mg/kg	1.0	6020	P R	04/10/96
Copper	91.2	mg/kg	1.0	6020	P R	04/10/96
Nickel	125	mg/kg	0.50	6020	P R	04/10/96
Zinc	128	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33185
Tag: LF6A-1
Date/Time Collected: 04/09/96 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/09/96
Metals						
Chromium	117	mg/kg	1.0	6020	P R	04/10/96
Copper	68.4	mg/kg	1.0	6020	P R	04/10/96
Nickel	94.7	mg/kg	0.50	6020	P R	04/10/96
Zinc	92.8	mg/kg	1.0	6020	P R	04/10/96

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FECL #: AA33186
Tag: LF3A-1
Date/Time Collected: 04/09/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%	1	160.3	CQV	04/09/96
Metals						
Chromium	149	mg/kg	1.0	6020	P R	04/10/96
Copper	108	mg/kg	1.0	6020	P R	04/10/96
Nickel	151	mg/kg	0.50	6020	P R	04/10/96
Zinc	193	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33187
Tag: LF4A-1
Date/Time Collected: 04/09/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/09/96
Metals						
Chromium	1,130	mg/kg	1.0	6020	P R	04/10/96
Copper	792	mg/kg	1.0	6020	P R	04/10/96
Nickel	871	mg/kg	0.50	6020	P R	04/10/96
Zinc	1,360	mg/kg	1.0	6020	P R	04/10/96

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FECL #: AA33199
Tag: SM4-1
Date/Time Collected: 04/10/96 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.5	%		160.3	CQV	04/11/96
Metals						
Chromium	18.6	mg/kg	1.0	6020	P R	04/10/96
Copper	12.8	mg/kg	1.0	6020	P R	04/10/96
Nickel	21.8	mg/kg	0.50	6020	P R	04/10/96
Zinc	26.1	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33200
Tag: SM9-1
Date/Time Collected: 04/10/96 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	3,700	mg/kg	1.0	6020	P R	04/10/96
Copper	2,190	mg/kg	1.0	6020	P R	04/10/96
Nickel	2,640	mg/kg	0.50	6020	P R	04/10/96
Zinc	2,160	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33201
Tag: LF5-1
Date/Time Collected: 04/10/96 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	CQV	04/11/96

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FECL #: AA33201 (Continued)
Tag: LF5-1
Date/Time Collected: 04/10/96 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	584	mg/kg	1.0	6020	P R	04/10/96
Copper	352	mg/kg	1.0	6020	P R	04/10/96
Nickel	389	mg/kg	0.50	6020	P R	04/10/96
Zinc	552	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33202
Tag: LF7-1
Date/Time Collected: 04/10/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	CQV	04/11/96
Metals						
Chromium	293	mg/kg	1.0	6020	P R	04/10/96
Copper	134	mg/kg	1.0	6020	P R	04/10/96
Nickel	182	mg/kg	0.50	6020	P R	04/10/96
Zinc	170	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33203
Tag: LF10-1
Date/Time Collected: 04/10/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.9	%	1	160.3	CQV	04/11/96
Metals						
Chromium	873	mg/kg	1.0	6020	P R	04/10/96
Copper	547	mg/kg	1.0	6020	P R	04/10/96

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FECL #: AA33203 (Continued)
Tag: LF10-1
Date/Time Collected: 04/10/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	608	mg/kg	0.50	6020	P R	04/10/96
Zinc	644	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33204
Tag: LF8-1
Date/Time Collected: 04/10/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/11/96
Metals						
Chromium	779	mg/kg	1.0	6020	P R	04/10/96
Copper	450	mg/kg	1.0	6020	P R	04/10/96
Nickel	551	mg/kg	0.50	6020	P R	04/10/96
Zinc	741	mg/kg	1.0	6020	P R	04/10/96

FECL #: AA33205
Tag: LF9-1
Date/Time Collected: 04/10/96 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.3	%	1	160.3	CQV	04/11/96
Metals						
Chromium	690	mg/kg	1.0	6020	P R	04/10/96
Copper	395	mg/kg	1.0	6020	P R	04/10/96
Nickel	479	mg/kg	0.50	6020	P R	04/10/96
Zinc	529	mg/kg	1.0	6020	P R	04/10/96

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FECL #: AA33257
Tag: LF6A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.0	%	1	160.3	CQV	04/11/96
Metals						
Chromium	206	mg/kg	1.0	6020	P R	04/12/96
Copper	111	mg/kg	1.0	6020	P R	04/12/96
Nickel	147	mg/kg	0.50	6020	P R	04/12/96
Zinc	148	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33258
Tag: SM9-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.7	%	1	160.3	CQV	04/11/96
Metals						
Chromium	7,930	mg/kg	1.0	6020	P R	04/12/96
Copper	3,930	mg/kg	1.0	6020	P R	04/12/96
Nickel	5,120	mg/kg	0.50	6020	P R	04/12/96
Zinc	3,620	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33259
Tag: LF5-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	04/11/96

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FECL #: AA33259 (Continued)
Tag: LF5-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	614	mg/kg	1.0	6020	P R	04/12/96
Copper	342	mg/kg	1.0	6020	P R	04/12/96
Nickel	438	mg/kg	0.50	6020	P R	04/12/96
Zinc	482	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33260
Tag: LF7-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.3	%	1	160.3	CQV	04/11/96
Metals						
Chromium	8.1	mg/kg	1.0	6020	P R	04/12/96
Copper	5.4	mg/kg	1.0	6020	P R	04/12/96
Nickel	10.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	22.4	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33261
Tag: LF10-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.9	%	1	160.3	CQV	04/11/96
Metals						
Chromium	612	mg/kg	1.0	6020	P R	04/12/96
Copper	466	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33261 (Continued)
Tag: LF10-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	590	mg/kg	0.50	6020	P R	04/12/96
Zinc	440	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33262
Tag: LF8-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	CQV	04/11/
Metals						
Chromium	596	mg/kg	1.0	6020	P R	04/12/96
Copper	330	mg/kg	1.0	6020	P R	04/12/96
Nickel	485	mg/kg	0.50	6020	P R	04/12/96
Zinc	433	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33263
Tag: LF9-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	18.4	mg/kg	1.0	6020	P R	04/12/96
Copper	19.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	28.0	mg/kg	0.50	6020	P R	04/12/96
Zinc	45.0	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33253 (Continued)
Tag: SM6-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	207	mg/kg	1.0	6020	P R	04/12/96
Copper	158	mg/kg	1.0	6020	P R	04/12/96
Nickel	187	mg/kg	0.50	6020	P R	04/12/96
Zinc	225	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33254
Tag: MC8A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/12/96
Copper	51.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	71.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	125	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33255
Tag: LF3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	155	mg/kg	1.0	6020	P R	04/12/96
Copper	81.2	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33255 (Continued)
Tag: LF3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	110	mg/kg	0.50	6020	P R	04/12/96
Zinc	157	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33256
Tag: LF4A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/11/
Metals						
Chromium	1,820	mg/kg	1.0	6020	P R	04/12/96
Copper	947	mg/kg	1.0	6020	P R	04/12/96
Nickel	1,150	mg/kg	0.50	6020	P R	04/12/96
Zinc	1,120	mg/kg	1.0	6020	P R	04/12/96

Note: Methods may be modified for improved performance.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33336 (Continued)
Tag: MC8A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	7.5	mg/kg	1.0	6020	P R	04/12/96
Copper	7.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	17.3	mg/kg	0.50	6020	P R	04/12/96
Zinc	21.3	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33337
Tag: LF3A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/12/96
Metals						
Chromium	1,260	mg/kg	1.0	6020	P R	04/12/96
Copper	455	mg/kg	1.0	6020	P R	04/12/96
Nickel	756	mg/kg	0.50	6020	P R	04/12/96
Zinc	948	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33338
Tag: LF4A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/12/96
Metals						
Chromium	1,130	mg/kg	1.0	6020	P R	04/12/96
Copper	518	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33338 (Continued)
Tag: LF4A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	739	mg/kg	0.50	6020	P R	04/12/96
Zinc	674	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33339
Tag: SM8-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.5	%	1	160.3	CQV	04/12/96
Metals						
Copper	187	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33340
Tag: SM7-4
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/12/96
Metals						
Nickel	15.2	mg/kg	0.50	6020	P R	04/12/96

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FECL #: AA33397
Tag: RB11-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/16/96
Metals						
Chromium	4.1	mg/kg	1.0	6020	P R	04/16/96
Copper	7.0	mg/kg	1.0	6020	P R	04/16/96
Nickel	27.1	mg/kg	0.50	6020	P R	04/16/96

FECL #: AA33398
Tag: LF3A-5
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.7	%	1	160.3	CQV	04/16/96
Metals						
Chromium	516	mg/kg	1.0	6020	P R	04/16/96
Copper	277	mg/kg	1.0	6020	P R	04/16/96
Nickel	386	mg/kg	0.50	6020	P R	04/16/96

FECL #: AA33399
Tag: LF5-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.0	%	1	160.3	CQV	04/16/96

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FECL #: AA33399 (Continued)
Tag: LF5-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	338	mg/kg	1.0	6020	P R	04/16/96
Copper	197	mg/kg	1.0	6020	P R	04/16/96
Nickel	239	mg/kg	0.50	6020	P R	04/16/96
Zinc	227	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33400
Tag: LF8-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R
Inorganics						
Total Solids	91.6	%	1	160.3	CQV	04/16/96
Metals						
Chromium	1,180	mg/kg	1.0	6020	P R	04/16/96
Copper	518	mg/kg	1.0	6020	P R	04/16/96
Nickel	833	mg/kg	0.50	6020	P R	04/16/96
Zinc	1,010	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33401
Tag: S[illegible]4-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	04/16/96
Metals						
Chromium	2,740	mg/kg	1.0	6020	P R	04/16/96
Copper	846	mg/kg	1.0	6020	P R	04/16/96

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FECL #: AA33354
Tag: LF6A-3
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.2	%	1	160.3	CQV	04/15/96
Metals						
Chromium	5.5	mg/kg	1.0	6020	P R	04/15/96
Copper	4.0	mg/kg	1.0	6020	P R	04/15/96
Nickel	15.3	mg/kg	0.50	6020	P R	04/15/96
Zinc	15.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33355
Tag: SM9-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.5	%	1	160.3	CQV	04/15/96
Metals						
Chromium	4.6	mg/kg	1.0	6020	P R	04/15/96
Copper	6.0	mg/kg	1.0	6020	P R	04/15/96
Nickel	5.9	mg/kg	0.50	6020	P R	04/15/96
Zinc	14.1	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33356
Tag: LF5-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/15/96

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FECL #: AA33356 (Continued)
Tag: LF5-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	531	mg/kg	1.0	6020	P R	04/15/96
Copper	294	mg/kg	1.0	6020	P R	04/15/96
Nickel	353	mg/kg	0.50	6020	P R	04/15/96
Zinc	430	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33357
Tag: LF10-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R·
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/15/96
Metals						
Chromium	1,210	mg/kg	1.0	6020	P R	04/15/96
Copper	715	mg/kg	1.0	6020	P R	04/15/96
Nickel	855	mg/kg	0.50	6020	P R	04/15/96
Zinc	828	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33358
Tag: LF8-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/15/96
Metals						
Chromium	513	mg/kg	1.0	6020	P R	04/15/96
Copper	485	mg/kg	1.0	6020	P R	04/15/96

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FECL #: AA33358 (Continued)
Tag: LF8-3
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	458	mg/kg	0.50	6020	P R	04/15/96
Zinc	602	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33359
Tag: MC12A-2
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%		160.3	CQV	04/15/96
Metals						
Chromium	40.0	mg/kg	1.0	6020	P R	04/15/96
Copper	24.8	mg/kg	1.0	6020	P R	04/15/96
Nickel	25.5	mg/kg	0.50	6020	P R	04/15/96
Zinc	58.0	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33360
Tag: SS4-1
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.9	%	1	160.3	CQV	04/15/96
Metals						
Chromium	2,620	mg/kg	1.0	6020	P R	04/15/96
Copper	71	mg/kg	1.0	6020	P R	04/15/96
Nickel	1,520	mg/kg	0.50	6020	P R	04/15/96
Zinc	1,670	mg/kg	1.0	6020	P R	04/15/96

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FECL #: AA33370 (Continued)
Tag: SM3-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	31.3	mg/kg	0.50	6020	P R	04/15/96
Zinc	25.2	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33371
Tag: SM6-5
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.3	%	1	160.3	CQV	04/15/96
Metals						
Chromium	589	mg/kg	1.0	6020	P R	04/15/96
Copper	285	mg/kg	1.0	6020	P R	04/15/96
Nickel	441	mg/kg	0.50	6020	P R	04/15/96
Zinc	246	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33372
Tag: LF3A-4
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.4	%	1	160.3	CQV	04/15/96
Metals						
Chromium	87.4	mg/kg	1.0	6020	P R	04/15/96
Copper	41.9	mg/kg	1.0	6020	P R	04/15/96
Nickel	58.2	mg/kg	0.50	6020	P R	04/15/96
Zinc	65.2	mg/kg	1.0	6020	P R	04/15/96

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FECL #: AA33373
Tag: LF4A-4
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/15/96
Metals						
Chromium	1,820	mg/kg	1.0	6020	P R	04/15/96
Copper	800	mg/kg	1.0	6020	P R	04/15/96
Nickel	1,030	mg/kg	0.50	6020	P R	04/15/96
Zinc	1,180	mg/kg	1.0	6020	P R	04/15/96

FECL #: AA33374
Tag: SM8-5
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	CQV	04/15/96
Metals						
Copper	4.9	mg/kg	1.0	6020	P R	04/15/96

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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33404
Tag: SM7-2
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	CQV	04/16/96
Metals						
Chromium	68.0	mg/kg	1.0	6020	P R	04/16/96
Copper	31.4	mg/kg	1.0	6020	P R	04/16/96
Nickel	50.4	mg/kg	0.50	6020	P R	04/16/96
Zinc	65.4	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33405
Tag: SM6-6
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	04/16/96
Metals						
Chromium	60.2	mg/kg	1.0	6020	P R	04/16/96
Copper	54.1	mg/kg	1.0	6020	P R	04/16/96
Nickel	69.3	mg/kg	0.50	6020	P R	04/16/96
Zinc	74.6	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33406
Tag: LF4A-5
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/16/96

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FECL #: AA33406 (Continued)
Tag: LF4A-5
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	2,200	mg/kg	1.0	6020	P R	04/16/96
Copper	1,130	mg/kg	1.0	6020	P R	04/16/96
Nickel	1,420	mg/kg	0.50	6020	P R	04/16/96
Zinc	1,730	mg/kg	1.0	6020	P R	04/16/96

FECL #: AA33407
Tag: LF10-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	CQV	04/16/96
Metals						
Chromium	552	mg/kg	1.0	6020	P R	04/16/96
Copper	428	mg/kg	1.0	6020	P R	04/16/96
Nickel	512	mg/kg	0.50	6020	P R	04/16/96
Zinc	420	mg/kg	1.0	6020	P R	04/16/96

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Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

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FECL #: AA33468
Tag: LF5-5
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	CQV	04/17/96
Metals						
Chromium	33.2	mg/kg	1.0	6020	E B	04/17/96
Copper	17.6	mg/kg	1.0	6020	E B	04/17/96
Nickel	33.1	mg/kg	0.50	6020	E B	04/17/96
Zinc	30.0	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33469
Tag: LF8-5
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	464	mg/kg	1.0	6020	E B	04/17/96
Copper	306	mg/kg	1.0	6020	E B	04/17/96
Nickel	370	mg/kg	0.50	6020	E B	04/17/96
Zinc	421	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33470
Tag: SS4-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.1	%	1	160.3	CQV	04/17/96

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FECL #: AA33472 (Continued)
Tag: SS6-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	426	mg/kg	0.50	6020	E B	04/17/96
Zinc	394	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33473
Tag: LF4A-6
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	CQV	04/17/96
Metals						
Chromium	1,820	mg/kg	1.0	6020	E B	04/17/96
Copper	922	mg/kg	1.0	6020	E B	04/17/96
Nickel	1,200	mg/kg	0.50	6020	E B	04/17/96
Zinc	952	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33474
Tag: LF10-5
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.7	%	1	160.3	CQV	04/17/96
Metals						
Chromium	543	mg/kg	1.0	6020	E B	04/17/96
Copper	380	mg/kg	1.0	6020	E B	04/17/96
Nickel	431	mg/kg	0.50	6020	E B	04/17/96
Zinc	353	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33475
Tag: LF3A-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/17/96
Metals						
Chromium	65.7	mg/kg	1.0	6020	E B	04/17/96
Copper	42.8	mg/kg	1.0	6020	E B	04/17/96
Nickel	53.4	mg/kg	0.50	6020	E B	04/17/96

FECL #: AA33476
Tag: SS7-3
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	20.8	mg/kg	1.0	6020	E B	04/17/96
Copper	12.2	mg/kg	1.0	6020	E B	04/17/96
Nickel	21.9	mg/kg	0.50	6020	E B	04/17/96

FECL #: AA33477
Tag: MC12A-4
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.7	%	1	160.3	CQV	04/17/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33463
Tag: SM12
Date/Time Collected: 04/17/96 14:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	CQV	04/17/96
Metals						
Chromium	455	mg/kg	1.0	6020	EB	04/17/96
Copper	239	mg/kg	1.0	6020	EB	04/17/96
Nickel	321	mg/kg	0.50	6020	EB	04/17/96
Zinc	260	mg/kg	1.0	6020	EB	04/17/96

FECL #: AA33464
Tag: SM11
Date/Time Collected: 04/17/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.6	%	1	160.3	CQV	04/17/96
Metals						
Chromium	615	mg/kg	1.0	6020	EB	04/17/96
Copper	346	mg/kg	1.0	6020	EB	04/17/96
Nickel	437	mg/kg	0.50	6020	EB	04/17/96
Zinc	345	mg/kg	1.0	6020	EB	04/17/96

FECL #: AA33465
Tag: LF12
Date/Time Collected: 04/17/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	04/17/96

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FECL #: AA33465 (Continued)
Tag: LF12
Date/Time Collected: 04/17/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.3	mg/kg	1.0	6020	E B	04/17/96
Copper	5.9	mg/kg	1.0	6020	E B	04/17/96
Nickel	9.1	mg/kg	0.50	6020	E B	04/17/96
Zinc	17.3	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33466
Tag: MC7
Date/Time Collected: 04/17/96 15:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	217	mg/kg	1.0	6020	E B	04/17/96
Copper	88.4	mg/kg	1.0	6020	E B	04/17/96
Nickel	146	mg/kg	0.50	6020	E B	04/17/96
Zinc	114	mg/kg	1.0	6020	E B	04/17/96

FECL #: AA33467
Tag: MC8
Date/Time Collected: 04/17/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.0	%	1	160.3	CQV	04/17/96
Metals						
Chromium	167	mg/kg	1.0	6020	E B	04/17/96
Copper	85.9	mg/kg	1.0	6020	E B	04/17/96

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FECL #: AA33523
Tag: LF5-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	8.4	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33524
Tag: SM12-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	04/18/96
Metals						
Chromium	235	mg/kg	1.0	6020	E B	04/18/96
Copper	151	mg/kg	1.0	6020	E B	04/18/96
Nickel	169	mg/kg	0.50	6020	E B	04/18/96
Zinc	150	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33525
Tag: SM11-1
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	CQV	04/18/96
Metals						
Chromium	1218	mg/kg	1.0	6020	E B	04/18/96
Copper	930	mg/kg	1.0	6020	E B	04/18/96

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FECL #: AA33528
Tag: LF8-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.0	%	1	160.3	CQV	04/18/96
Metals						
Chromium	976	mg/kg	1.0	6020	E B	04/18/96
Copper	523	mg/kg	1.0	6020	E B	04/18/96
Nickel	653	mg/kg	0.50	6020	E B	04/18/96
Zinc	730	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33529
Tag: SS4-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.5	%	1	160.3	CQV	04/18/96
Metals						
Chromium	3,270	mg/kg	1.0	6020	E B	04/18/96
Copper	868	mg/kg	1.0	6020	E B	04/18/96
Nickel	1,770	mg/kg	0.50	6020	E B	04/18/96
Zinc	1,620	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33530
Tag: SS5-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/18/96

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FECL #: AA33530 (Continued)
Tag: SS5-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	378	mg/kg	1.0	6020	E B	04/18/96
Copper	264	mg/kg	1.0	6020	E B	04/18/96
Nickel	380	mg/kg	0.50	6020	E B	04/18/96
Zinc	318	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33531
Tag: SS6-4
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	338	mg/kg	1.0	6020	E B	04/18/96
Copper	163	mg/kg	1.0	6020	E B	04/18/96
Nickel	205	mg/kg	0.50	6020	E B	04/18/96
Zinc	227	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33532
Tag: LF10-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	04/18/96
Metals						
Chromium	22.4	mg/kg	1.0	6020	E B	04/18/96
Copper	15.9	mg/kg	1.0	6020	E B	04/18/96

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FECL #: AA33532 (Continued)
Tag: LF10-6
Date/Time Collected: 04/10/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	16.7	mg/kg	0.50	6020	E B	04/18/96
Zinc	276	mg/kg	1.0	6020	E B	04/18/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33538
Tag: LF1
Date/Time Collected: 04/18/96 12:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.5	%	1	160.3	CQV	04/18/96
Metals						
Chromium	231	mg/kg	1.0	6020	E B	04/18/96
Copper	109	mg/kg	1.0	6020	E B	04/18/96
Nickel	139	mg/kg	0.50	6020	E B	04/18/96
Zinc	130	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33539
Tag: LF11
Date/Time Collected: 04/18/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	CQV	04/18/96
Metals						
Chromium	527	mg/kg	1.0	6020	E B	04/18/96
Copper	278	mg/kg	1.0	6020	E B	04/18/96
Nickel	355	mg/kg	0.50	6020	E B	04/18/96
Zinc	356	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33540
Tag: LF2
Date/Time Collected: 04/18/96 12:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/18/96

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FECL #: AA33540 (Continued)
Tag: LF2
Date/Time Collected: 04/18/96 12:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	17.6	mg/kg	1.0	6020	E B	04/18/96
Copper	13.2	mg/kg	1.0	6020	E B	04/18/96
Nickel	20.8	mg/kg	0.50	6020	E B	04/18/96
Zinc	27.5	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33541
Tag: SS1
Date/Time Collected: 04/18/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/18/96
Metals						
Chromium	184	mg/kg	1.0	6020	E B	04/18/96
Copper	86.5	mg/kg	1.0	6020	E B	04/18/96
Nickel	117	mg/kg	0.50	6020	E B	04/18/96
Zinc	136	mg/kg	1.0	6020	E B	04/18/96

FECL #: AA33542
Tag: SS2
Date/Time Collected: 04/18/96 16:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	CQV	04/18/96
Metals						
Chromium	232	mg/kg	1.0	6020	E B	04/18/96
Copper	114	mg/kg	1.0	6020	E B	04/18/96

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FECL #: AA33572
Tag: LF1-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	CQV	04/19/96
Metals						
Chromium	16.6	mg/kg	1.0	6020	E B	04/19/96
Copper	16.1	mg/kg	1.0	6020	E B	04/19/96
Nickel	23.1	mg/kg	0.50	6020	E B	04/19/96
Zinc	22.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33573
Tag: LF11-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/19/96
Metals						
Chromium	733	mg/kg	1.0	6020	E B	04/19/96
Copper	261	mg/kg	1.0	6020	E B	04/19/96
Nickel	564	mg/kg	0.50	6020	E B	04/19/96
Zinc	342	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33574
Tag: SS1-1
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.0	%	1	160.3	CQV	04/19/96

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FECL #: AA33582
Tag: LF4-7
Date/Time Collected: 04/19/96 12:18
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	CQV	04/19/96
Metals						
Chromium	1.7	mg/kg	1.0	6020	E B	04/19/96
Copper	4.1	mg/kg	1.0	6020	E B	04/19/96
Nickel	1.68	mg/kg	0.50	6020	E B	04/19/96
Zinc	5.9	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33583
Tag: LF8-7
Date/Time Collected: 04/19/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	CQV	04/19/96
Metals						
Chromium	339	mg/kg	1.0	6020	E B	04/19/96
Copper	270	mg/kg	1.0	6020	E B	04/19/96
Nickel	292	mg/kg	0.50	6020	E B	04/19/96
Zinc	292	mg/kg	1.0	6020	E B	04/19/96

FECL #: AA33584
Tag: LF3A-7
Date/Time Collected: 04/19/96 12:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	CQV	04/19/96

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FECL #: AA33584 (Continued)
Tag: LF3A-7
Date/Time Collected: 04/19/96 12:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	33.6	mg/kg	1.0	6020	E B	04/19/96
Copper	22.0	mg/kg	1.0	6020	E B	04/19/96
Nickel	29.3	mg/kg	0.50	6020	E B	04/19/96

FECL #: AA33585
Tag: SM6-7
Date/Time Collected: 04/19/96 13:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.8	%	1	160.3	CQV	04/19/96
Metals						
Chromium	319	mg/kg	1.0	6020	E B	04/19/96
Copper	598	mg/kg	1.0	6020	E B	04/19/96
Nickel	305	mg/kg	0.50	6020	E B	04/19/96

FECL #: AA33586
Tag: LF10-7
Date/Time Collected: 04/19/96 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	CQV	04/19/96
Metals						
Zinc	1,640	mg/kg	1.0	6020	E B	04/19/96

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FECL #: AA33253 (Continued)
Tag: SM6-3
Date/Time Collected: 04/08/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	207	mg/kg	1.0	6020	P R	04/12/96
Copper	158	mg/kg	1.0	6020	P R	04/12/96
Nickel	187	mg/kg	0.50	6020	P R	04/12/96
Zinc	225	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33254
Tag: MC8A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	92.6	mg/kg	1.0	6020	P R	04/12/96
Copper	51.6	mg/kg	1.0	6020	P R	04/12/96
Nickel	71.8	mg/kg	0.50	6020	P R	04/12/96
Zinc	125	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33255
Tag: LF3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.6	%	1	160.3	CQV	04/11/96
Metals						
Chromium	155	mg/kg	1.0	6020	P R	04/12/96
Copper	81.2	mg/kg	1.0	6020	P R	04/12/96

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FECL #: AA33255 (Continued)
Tag: LF3A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	110	mg/kg	0.50	6020	P R	04/12/96
Zinc	157	mg/kg	1.0	6020	P R	04/12/96

FECL #: AA33256
Tag: LF4A-2
Date/Time Collected: 04/09/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	CQV	04/11/96
Metals						
Chromium	1,820	mg/kg	1.0	6020	P R	04/12/96
Copper	947	mg/kg	1.0	6020	P R	04/12/96
Nickel	1,150	mg/kg	0.50	6020	P R	04/12/96
Zinc	1,120	mg/kg	1.0	6020	P R	04/12/96

Note: Methods may be modified for improved performance.
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Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

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FECL #: AA33608
Tag: LF3A-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	CQV	04/22/96
Metals						
Chromium	5.7	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33609
Tag: LF10-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	CQV	04/22/96
Metals						
Zinc	330	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33610
Tag: SM12-3
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.0	%	1	160.3	CQV	04/22/96
Metals						
Chromium	11.2	mg/kg	1.0	6020	P R	04/23/96
Copper	10.5	mg/kg	1.0	6020	P R	04/23/96

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FECL #: AA33613 (Continued)
Tag: SS5-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	10.9	mg/kg	1.0	6020	P R	04/23/96
Copper	7.6	mg/kg	1.0	6020	P R	04/23/96
Nickel	23.3	mg/kg	0.50	6020	P R	04/23/96

FECL #: AA33614
Tag: LF8-8
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	CQV	04/22/96
Metals						
Chromium	190	mg/kg	1.0	6020	P R	04/23/96
Copper	228	mg/kg	1.0	6020	P R	04/23/96
Nickel	183	mg/kg	0.50	6020	P R	04/23/96
Zinc	164	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33615
Tag: LF11-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.6	%	1	160.3	CQV	04/22/96
Metals						
Chromium	48.3	mg/kg	1.0	6020	P R	04/23/96
Copper	28.0	mg/kg	1.0	6020	P R	04/23/96
Nickel	46.7	mg/kg	0.50	6020	P R	04/23/96

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FECL #: AA33615 (Continued)
Tag: LF11-2
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Zinc	49.3	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33616
Tag: SM11-3
Date/Time Collected: 04/17/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.7	%	1	160.3	CQV	04/22/96
Metals						
Chromium	41.8	mg/kg	1.0	6020	P R	04/23/96
Copper	22.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	38.1	mg/kg	0.50	6020	P R	04/23/96
Zinc	46.4	mg/kg	1.0	6020	P R	04/23/96

FECL #: AA33617
Tag: SS4-6
Date/Time Collected: 04/11/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	CQV	04/22/96
Metals						
Chromium	35.9	mg/kg	1.0	6020	P R	04/23/96
Copper	12.1	mg/kg	1.0	6020	P R	04/23/96
Nickel	31.7	mg/kg	0.50	6020	P R	04/23/96
Zinc	38.9	mg/kg	1.0	6020	P R	04/23/96

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FECL #: AA33649
Tag: LF10-9
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/24/96
Metals						
Zinc	182	mg/kg	1.0	6020	P R	04/24/96

FECL #: AA33650
Tag: SB11-4
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	CQV	04/24/96
Metals						
Chromium	4.7	mg/kg	1.0	6020	P R	04/24/96

FECL #: AA33651
Tag: LF11-3
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	04/24/96
Metals						
Chromium	18.7	mg/kg	1.0	6020	P R	04/24/96
Nickel	14.9	mg/kg	0.50	6020	P R	04/24/96

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FECL #: AA33652
Tag: SS7-3
Date/Time Collected: 04/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	CQV	04/24/96
Metals						
Chromium	4,550	mg/kg	1.0	6020	P R	04/24/96
Copper	3,050	mg/kg	1.0	6020	P R	04/24/96
Nickel	2,970	mg/kg	0.50	6020	P R	04/24/96

FECL #: AA33653
Tag: LF8-9
Date/Time Collected: 04/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	04/24/96
Metals						
Chromium	22.1	mg/kg	1.0	6020	P R	04/24/96
Copper	25.0	mg/kg	1.0	6020	P R	04/24/96
Nickel	35.3	mg/kg	0.50	6020	P R	04/24/96
Zinc	49.3	mg/kg	1.0	6020	P R	04/24/96

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FECL#: AA34415
Tag: SS14-0.5 ft.
Date/Time Collected: 05/09/96 13:41
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	CQV	05/09/96
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	05/09/96
Copper	3.4	mg/kg	1.0	6020	P R	05/09/96
Nickel	3.4	mg/kg	0.50	6020	P R	05/09/96
Zinc	7.7	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34416
Tag: SS15-5.0 ft.
Date/Time Collected: 05/09/96 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	CQV	05/09/96
Metals						
Chromium	31.8	mg/kg	1.0	6020	P R	05/09/96
Copper	17.3	mg/kg	1.0	6020	P R	05/09/96
Nickel	30.6	mg/kg	0.50	6020	P R	05/09/96
Zinc	35.5	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34417
Tag: LF18-7.0 ft.
Date/Time Collected: 05/09/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.2	%	1	160.3	CQV	05/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34417 (Continued)
Tag: LF18-7.0 ft.
Date/Time Collected: 05/09/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	05/09/96
Copper	10.5	mg/kg	1.0	6020	P R	05/09/96
Nickel	5.3	mg/kg	0.50	6020	P R	05/09/96
Zinc	15.6	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34418
Tag: SS3-4.0 ft.
Date/Time Collected: 05/09/96 10:39
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	CQV	05/09/96
Metals						
Chromium	4.4	mg/kg	1.0	6020	P R	05/09/96
Copper	6.1	mg/kg	1.0	6020	P R	05/09/96
Nickel	6.5	mg/kg	0.50	6020	P R	05/09/96
Zinc	15.5	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34419
Tag: LF21-5.5 ft.
Date/Time Collected: 05/09/96 10:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	CQV	05/09/96
Metals						
Chromium	7.3	mg/kg	1.0	6020	P R	05/09/96
Copper	9.1	mg/kg	1.0	6020	P R	05/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34419 (Continued)
Tag: LF21-5.5 ft.
Date/Time Collected: 05/09/96 10:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	15.9	mg/kg	0.50	6020	P R	05/09/96
Zinc	22.8	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34420
Tag: SS12-3.5 ft. Deep
Date/Time Collected: 05/09/96 10:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.8	%	1	160.3	CQV	05/09/96
Metals						
Chromium	11.4	mg/kg	1.0	6020	P R	05/09/96
Copper	16.2	mg/kg	1.0	6020	P R	05/09/96
Nickel	19.4	mg/kg	0.50	6020	P R	05/09/96
Zinc	27.0	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34421
Tag: LF17-3.0 ft.
Date/Time Collected: 05/09/96 09:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.7	%	1	160.3	CQV	05/09/96
Metals						
Chromium	3.4	mg/kg	1.0	6020	P R	05/09/96
Copper	5.5	mg/kg	1.0	6020	P R	05/09/96
Nickel	5.7	mg/kg	0.50	6020	P R	05/09/96
Zinc	11.9	mg/kg	1.0	6020	P R	05/09/96

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O'Brien & Gere Engineers, Inc.
May 10, 1996

FECL #: AA34422
Tag: LF20-4.5 ft.
Date/Time Collected: 05/09/96 08:13
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	CQV	05/09/96
Metals						
Chromium	1.8	mg/kg	1.0	6020	P R	05/09/96
Copper	3.9	mg/kg	1.0	6020	P R	05/09/96
Nickel	1.8	mg/kg	0.50	6020	P R	05/09/96
Zinc	6.4	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34423
Tag: SS13-2.5 ft.
Date/Time Collected: 05/09/96 11:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.4	%	1	160.3	CQV	05/09/96
Metals						
Chromium	6.5	mg/kg	1.0	6020	P R	05/09/96
Copper	5.7	mg/kg	1.0	6020	P R	05/09/96
Nickel	12.0	mg/kg	0.50	6020	P R	05/09/96
Zinc	12.5	mg/kg	1.0	6020	P R	05/09/96

FECL #: AA34424
Tag: SS4-7 ft.
Date/Time Collected: 05/09/96 13:24
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	CQV	05/09/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34516 (Continued)
Tag: SS10 3.5 ft
Date/Time Collected: 05/13/96 08:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	2.3	mg/kg	1.0	6020	P R	05/13/96
Copper	6.7	mg/kg	1.0	6020	P R	05/13/96
Nickel	10.2	mg/kg	0.50	6020	P R	05/13/96
Zinc	12.2	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34517
Tag: SS11 4.0 ft
Date/Time Collected: 05/13/96 08:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	05/13/96
Copper	8.7	mg/kg	1.0	6020	P R	05/13/96
Nickel	15.4	mg/kg	0.50	6020	P R	05/13/96
Zinc	21.7	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34518
Tag: LF22 1.0 ft
Date/Time Collected: 05/13/96 10:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.8	mg/kg	1.0	6020	P R	05/13/96
Copper	7.3	mg/kg	1.0	6020	P R	05/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
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FECL #: AA34525 (Continued)
Tag: LF19 3.0 ft
Date/Time Collected: 05/13/96 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	12.6	mg/kg	0.50	6020	P R	05/13/96
Zinc	19.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34526
Tag: SB16 1.5 ft
Date/Time Collected: 05/13/96 07:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	CQV	05/13
Metals						
Chromium	4.3	mg/kg	1.0	6020	P R	05/13/96
Copper	4.1	mg/kg	1.0	6020	P R	05/13/96
Nickel	1[illegible].6	mg/kg	0.50	6020	P R	05/13/96
Zinc	12.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34527
Tag: LF18 4.0 ft
Date/Time Collected: 05/13/96 07:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.6	%	1	160.3	CQV	05/13/96
Metals						
Chromium	2.7	mg/kg	1.0	6020	P R	05/13/96
Copper	5.6	mg/kg	1.0	6020	P R	05/13/96
Nickel	3.02	mg/kg	0.50	6020	P R	05/13/96
Zinc	9.7	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34518 (Continued)
Tag: LF22 1.0 ft
Date/Time Collected: 05/13/96 10:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	13.4	mg/kg	0.50	6020	P R	05/13/96
Zinc	38.3	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34519
Tag: LF23 2.0 ft
Date/Time Collected: 05/13/96 09:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.4	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.4	mg/kg	1.0	6020	P R	05/13/96
Copper	6.9	mg/kg	1.0	6020	P R	05/13/96
Nickel	14.3	mg/kg	0.50	6020	P R	05/13/96
Zinc	21.6	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34520
Tag: LF13 1.0 ft
Date/Time Collected: 05/13/96 10:28
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	05/13/96
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	05/13/96
Copper	3.1	mg/kg	1.0	6020	P R	05/13/96
Nickel	6.40	mg/kg	0.50	6020	P R	05/13/96
Zinc	15.6	mg/kg	1.0	6020	P R	05/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34521
Tag: LF14 3.0 ft
Date/Time Collected: 05/13/96 12:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	CQV	05/13/96
Metals						
Chromium	8.6	mg/kg	1.0	6020	P R	05/13/96
Copper	7.4	mg/kg	1.0	6020	P R	05/13/96
Nickel	14.6	mg/kg	0.50	6020	P R	05/13/96
Zinc	21.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34522
Tag: SM14 4.0 ft
Date/Time Collected: 05/13/96 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	CQV	05/13/96
Metals						
Chromium	3.9	mg/kg	1.0	6020	P R	05/13/96
Copper	5.8	mg/kg	1.0	6020	P R	05/13/96
Nickel	10.1	mg/kg	0.50	6020	P R	05/13/96
Zinc	11.0	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34523
Tag: LF16 3.5 ft
Date/Time Collected: 05/13/96 11:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.9	%	1	160.3	CQV	05/13/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 14, 1996

FECL #: AA34523 (Continued)
Tag: LF16 3.5 ft
Date/Time Collected: 05/13/96 11:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	38.5	mg/kg	1.0	6020	P R	05/13/96
Copper	76.7	mg/kg	1.0	6020	P R	05/13/96
Nickel	64.2	mg/kg	0.50	6020	P R	05/13/96
Zinc	110	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34524
Tag: LF15 2.5 ft
Date/Time Collected: 05/13/96 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.6	mg/kg	1.0	6020	P R	05/13/96
Copper	4.6	mg/kg	1.0	6020	P R	05/13/96
Nickel	14.3	mg/kg	0.50	6020	P R	05/13/96
Zinc	17.5	mg/kg	1.0	6020	P R	05/13/96

FECL #: AA34525
Tag: LF19 3.0 ft
Date/Time Collected: 05/13/96 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	CQV	05/13/96
Metals						
Chromium	6.1	mg/kg	1.0	6020	P R	05/13/96
Copper	8.5	mg/kg	1.0	6020	P R	05/13/96

Fi.e & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File 4144.007 #4
cc: SSR

May 15, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA34562

Project: 4144-007-810 GM
Samples collected by: H.S.
Date/Time Submitted: 05/14/96 14:30
PO #: Verbal

FECL #: AA34562
Tag: LF 16 4.0 ft
Date/Time Collected: 05/13/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 15, 1996

FECL #: AA34562
Tag: LF 16 4.0 ft
Date/Time Collected: 05/13/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.9	%	1	160.3	CQV	05/14/96
Metals						
Chromium	22.0	mg/kg	1.0	6020	P R	05/14/96
Copper	60.7	mg/kg	1.0	6020	P R	05/14/96
Nickel	81.2	mg/kg	0.50	6020	P R	05/14/96
Zinc	81.4	mg/kg	1.0	6020	P R	05/14/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

O'BRIEN & GERE
ENGINEERS, INC.

SUBJ	SHEET	BY	DATE	JOB NO

THIS SERVES AS AUTHORIZATION TO ANALYZE THE FOLLOWING SAMPLES:

OBG SAMPLE ID	PARAMETERS	DATE COLLECTED
LF16 4.0 ft 34562	Cr, Cu, Ni, Zn	5/13/96

Roseanne
5/14/96 2:30pm

WE NEED A 24 HOUR TURNAROUND. PLEASE CONTACT ME AT (810) 347-4350 IF YOU HAVE QUESTIONS.

THANKS, JEFF RALSON

Fi.e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

File: 4144.007 #4
cc: SSR

May 16, 1996

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA34584

Project: 4144-007-810 GM
Samples collected by: H.S.
Date/Time Submitted: 05/15/96 11:30
PO #: Verbal

FECL #: AA34584
Tag: LF16 4.5 ft
Date/Time Collected: 05/13/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 16, 1996

FECL #: AA34584
Tag: LF16 4.5 ft
Date/Time Collected: 05/13/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	MGG	05/15/96
Metals						
Chromium	8.8	mg/kg	1.0	6020	P R	05/16/96
Nickel	29.8	mg/kg	0.50	6020	P R	05/16/96
Zinc	45.3	mg/kg	1.0	6020	P R	05/16/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak 5.13.

Violetta F. Murshak
Laboratory Director

ENGINEERS INC.

SUBJECT	SHEET	BY	DATE	JOB NO.

THIS SERVES AS AUTHORIZATION TO ANALYZE THE FOLLOWING SAMPLES:

OBG SAMPLE ID	PARAMETERS	DATE COLLECTED
LF16 4.5	Cu, Ni, Zn	5/13/96

34584

Roxanne Ane 11:30

5-15-96

WE NEED A 24 HOUR TURNAROUND. PLEASE CONTACT ME AT (810) 347-4350 IF YOU HAVE QUESTIONS.

THANKS, JEFF RALSON

TOTAL P.02

Fi..e & Environme..tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

Revised Report
May 17, 1996

File: 4144.007 #4
cc: SJR

Attention: Mr. Jeff Ralson

O'Brien & Gere Engineers, Inc.
39500 Orchard Hill Place
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA34584

Project: 4144-007-810 GM
Samples collected by: H.S.
Date/Time Submitted: 05/15/96 11:30
PO #: Verbal

FECL #: AA34584
Tag: LF16 4.5 ft
Date/Time Collected: 05/13/96
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: None/Refrigeration

Revised Report
Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
May 17, 1996

FECL #: AA34584
Tag: LF16 4.5 ft
Date/Time Collected: 05/13/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	MGG	05/15/96
Metals						
Copper	6.9	mg/kg	1.0	6020	P R	05/16/96
Nickel	29.8	mg/kg	0.50	6020	P R	05/16/96
Zinc	45.3	mg/kg	1.0	6020	P R	05/16/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

APPENDIX P

Closure Sample Analytical Data Sheets -East Area

Fi[illegible] & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

FILE: 4144.007 #4

November 18, 1996

Attention: Mr. Paul Gottler

O'Brien & Gere Engineers, Inc.
39830 Grand River A, Suite B2
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA41435-AA41441

Project: 4144.007 GM Delphi Coldwater Rd. Flint
Samples collected by: PAUL GOTTLER
Date/Time Submitted: 11/14/96 19:30
PO #: Verbal

FECL #: AA41435
Tag: West Area WA1-0 (0-0.5ft)
Date/Time Collected: 11/14/96 11:45
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

FECL #: AA41436
Tag: WA2-0 (0-0.5ft)
Date/Time Collected: 11/14/96 13:40
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

FECL #: AA41437
Tag: WA3-0 (0-0.5ft)
Date/Time Collected: 11/14/96 13:55
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 18, 1996

FECL #: AA41438
Tag: WA7-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:00
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

FECL #: AA41439
Tag: WA8-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:15
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

FECL #: AA41440
Tag: WA9-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:30
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

FECL #: AA41441
Tag: WA10-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:45
Matrix: Soil
Container(s): 1-8oz glass jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 18, 1996

FECL #: AA41435
Tag: West Area WA1-0 (0-0.5ft)
Date/Time Collected: 11/14/96 11:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	I M	11/18/96
Metals						
Chromium	405	mg/kg	1.0	6020	P R	11/15/96
Copper	232	mg/kg	1.0	6020	P R	11/15/96
Nickel	277	mg/kg	0.50	6020	P R	11/15/96
Zinc	400	mg/kg	1.0	6020	P R	11/15/96

FECL #: AA41436
Tag: WA2-0 (0-0.5ft)
Date/Time Collected: 11/14/96 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.6	%	1	160.3	I M	11/18/96
Metals						
Chromium	106	mg/kg	1.0	6020	P R	11/15/96
Copper	60.3	mg/kg	1.0	6020	P R	11/15/96
Nickel	59.5	mg/kg	0.50	6020	P R	11/15/96
Zinc	99.0	mg/kg	1.0	6020	P R	11/15/96

FECL #: AA41437
Tag: WA3-0 (0-0.5ft)
Date/Time Collected: 11/14/96 13:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	I M	11/18/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 18, 1996

FECL #: AA41437 (Continued)
Tag: WA3-0 (0-0.5ft)
Date/Time Collected: 11/14/96 13:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	156	mg/kg	1.0	6020	P R	11/15/96
Copper	81.5	mg/kg	1.0	6020	P R	11/15/96
Nickel	79.0	mg/kg	0.50	6020	P R	11/15/96
Zinc	181	mg/kg	1.0	6020	P R	11/15/96

FECL #: AA41438
Tag: WA7-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	I M	11/18/96
Metals						
Chromium	321	mg/kg	1.0	6020	P R	11/15/96
Copper	182	mg/kg	1.0	6020	P R	11/15/96
Nickel	228	mg/kg	0.50	6020	P R	11/15/96
Zinc	299	mg/kg	1.0	6020	P R	11/15/96

FECL #: AA41439
Tag: WA8-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	I M	11/18/96
Metals						
Chromium	1,110	mg/kg	1.0	6020	P R	11/15/96
Copper	582	mg/kg	1.0	6020	P R	11/15/96

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FECL #: AA41439 (Continued)
Tag: WA8-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	667	mg/kg	0.50	6020	P R	11/15/96
Zinc	787	mg/kg	1.0	6020	P R	11/15/96

FECL #: AA41440
Tag: WA9-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.6	%	1	160.3	I M	11/18/96
Metals						
Chromium	596	mg/kg	1.0	6020	P R	11/15/96
Copper	399	mg/kg	1.0	6020	P R	11/15/96
Nickel	464	mg/kg	0.50	6020	P R	11/15/96
Zinc	549	mg/kg	1.0	6020	P R	11/15/96

FECL #: AA41441
Tag: WA10-0 (0-0.5ft)
Date/Time Collected: 11/14/96 15:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	11/18/96
Metals						
Chromium	940	mg/kg	1.0	6020	P R	11/15/96
Copper	427	mg/kg	1.0	6020	P R	11/15/96
Nickel	620	mg/kg	0.50	6020	P R	11/15/96
Zinc	637	mg/kg	1.0	6020	P R	11/15/96

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Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak 3.18.

Violetta F. Murshak
Laboratory Director

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FECL #: AA41903
Tag: WA10-1(0.5-1.0 ft)
Date/Time Collected: 11/15/96 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	12/01/96
Metals						
Chromium	1,300	mg/kg	1.0	6020	E B	11/27/96
Copper	766	mg/kg	1.0	6020	E B	11/27/96
Nickel	898	mg/kg	0.50	6020	E B	11/27/96
Zinc	813	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41904
Tag: WA9-1(0.5-1.0 ft)
Date/Time Collected: 11/15/96 14:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	I M	12/01/96
Metals						
Chromium	1,800	mg/kg	1.0	6020	E B	11/27/96
Copper	761	mg/kg	1.0	6020	E B	11/27/96
Nickel	1,150	mg/kg	0.50	6020	E B	11/27/96
Zinc	1,740	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41905
Tag: WA8-1(0.5-1.0 ft)
Date/Time Collected: 11/15/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	I M	12/01/96

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FECL #: AA41905 (Continued)
Tag: WA8-1(0.5-1.0 ft)
Date/Time Collected: 11/15/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	7,910	mg/kg	1.0	6020	E B	11/27/96
Copper	15,500	mg/kg	1.0	6020	E B	11/27/96
Nickel	11,500	mg/kg	0.50	6020	E B	11/27/96
Zinc	11,200	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41906
Tag: WA1-1
Date/Time Collected: 11/14/96 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	12/01/96
Metals						
Chromium	254	mg/kg	1.0	6020	E B	11/27/96
Copper	184	mg/kg	1.0	6020	E B	11/27/96
Nickel	216	mg/kg	0.50	6020	E B	11/27/96
Zinc	354	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41907
Tag: WA11-0 0-0.5 ft
Date/Time Collected: 11/15/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	I M	12/01/96
Metals						
Chromium	107	mg/kg	1.0	6020	E B	11/27/96
Copper	118	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41907 (Continued)
Tag: WA11-0 0-0.5 ft
Date/Time Collected: 11/15/96 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	134	mg/kg	0.50	6020	E B	11/27/96
Zinc	139	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41908
Tag: WA12-0 0-0.5 ft
Date/Time Collected: 11/15/96 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	12/01/96
Metals						
Chromium	424	mg/kg	1.0	6020	E B	11/27/96
Copper	270	mg/kg	1.0	6020	E B	11/27/96
Nickel	332	mg/kg	0.50	6020	E B	11/27/96
Zinc	315	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41909
Tag: WA13-0 0-0.5 ft
Date/Time Collected: 11/15/96 12:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	12/01/96
Metals						
Chromium	302	mg/kg	1.0	6020	E B	11/27/96
Copper	196	mg/kg	1.0	6020	E B	11/27/96
Nickel	241	mg/kg	0.50	6020	E B	11/27/96
Zinc	240	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA41910
Tag: WA14-0 0-0.5 ft
Date/Time Collected: 11/15/96 12:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	12/01/96
Metals						
Chromium	95.5	mg/kg	1.0	6020	E B	11/27/96
Copper	73.2	mg/kg	1.0	6020	E B	11/27/96
Nickel	87.4	mg/kg	0.50	6020	E B	11/27/96
Zinc	96.8	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41911
Tag: EA2-1 (.5-1 ft)
Date/Time Collected: 11/19/96 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	I M	12/01/96
Metals						
Chromium	5.0	mg/kg	1.0	6020	E B	11/27/96
Copper	4.1	mg/kg	1.0	6020	E B	11/27/96
Nickel	12.0	mg/kg	0.50	6020	E B	11/27/96
Zinc	18.9	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41912
Tag: EA4-1 (.5-1 ft)
Date/Time Collected: 11/19/96 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%		160.3	I M	12/01/96

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FECL #: AA41926 (Continued)
Tag: EA25-0
Date/Time Collected: 11/18/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	28.9	mg/kg	1.0	6020	E B	11/27/96
Copper	20.3	mg/kg	1.0	6020	E B	11/27/96
Nickel	28.7	mg/kg	0.50	6020	E B	11/27/96
Zinc	40.1	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41927
Tag: EA26-0
Date/Time Collected: 11/18/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	12/01/96
Metals						
Chromium	39.2	mg/kg	1.0	6020	E B	11/27/96
Copper	23.0	mg/kg	1.0	6020	E B	11/27/96
Nickel	35.2	mg/kg	0.50	6020	E B	11/27/96
Zinc	30.6	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41930
Tag: WA4-0 0-0.5
Date/Time Collected: 11/26/96 16:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	I M	12/01/96
Metals						
Chromium	139	mg/kg	1.0	6020	E B	11/27/96
Copper	89.7	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA41930 (Continued)
Tag: WA4-0 0-0.5
Date/Time Collected: 11/26/96 16:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	78.8	mg/kg	0.50	6020	E B	11/27/96
Zinc	127	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41931
Tag: WA5-0 0-0.5
Date/Time Collected: 11/26/96 16:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	12/01/
Metals						
Chromium	104	mg/kg	1.0	6020	E B	11/27/96
Copper	40.6	mg/kg	1.0	6020	E B	11/27/96
Nickel	44.0	mg/kg	0.50	6020	E B	11/27/96
Zinc	63.3	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41932
Tag: WA6-0 0-0.5
Date/Time Collected: 11/26/96 16:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	12/01/96
Metals						
Chromium	323	mg/kg	1.0	6020	E B	11/27/96
Copper	273	mg/kg	1.0	6020	E B	11/27/96
Nickel	308	mg/kg	0.50	6020	E B	11/27/96
Zinc	650	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA42140 (Continued)
Tag: E 10-2
Date/Time Collected: 11/19/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	21.0	mg/kg	0.50	6020	E B	12/05/96
Zinc	48.3	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42141
Tag: EA12-2
Date/Time Collected: 11/19/96 15:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.0	%	1	160.3	JH	12/04/96
Metals						
Chromium	162	mg/kg	1.0	6020	E B	12/05/96
Copper	154	mg/kg	1.0	6020	E B	12/05/96
Nickel	164	mg/kg	0.50	6020	E B	12/05/96
Zinc	258	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42142
Tag: WA15-0
Date/Time Collected: 11/15/96 12:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	JH	12/04/96
Metals						
Chromium	12,800	mg/kg	1.0	6020	E B	12/05/96
Copper	9,840	mg/kg	1.0	6020	E B	12/05/96
Nickel	15,700	mg/kg	0.50	6020	E B	12/05/96
Zinc	8,880	mg/kg	1.0	6020	E B	12/05/96

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FECL #: AA42143
Tag: WA16-0
Date/Time Collected: 11/15/96 12:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	JH	12/04/96
Metals						
Chromium	80.8	mg/kg	1.0	6020	E B	12/05/96
Copper	40.8	mg/kg	1.0	6020	E B	12/05/96
Nickel	48.9	mg/kg	0.50	6020	E B	12/05/96
Zinc	77.7	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42144
Tag: WA17-0
Date/Time Collected: 11/15/96 11:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.0	%	1	160.3	JH	12/04/96
Metals						
Chromium	102	mg/kg	1.0	6020	E B	12/05/96
Copper	66.1	mg/kg	1.0	6020	E B	12/05/96
Nickel	65.6	mg/kg	0.50	6020	E B	12/05/96
Zinc	99.6	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42145
Tag: WA21-0
Date/Time Collected: 11/15/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.8	%	1	160.3	JH	12/04/96

FECL #: AA42145 (Continued)
Tag: WA21-0
Date/Time Collected: 11/15/96 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	144	mg/kg	1.0	6020	E B	12/05/96
Copper	109	mg/kg	1.0	6020	E B	12/05/96
Nickel	120	mg/kg	0.50	6020	E B	12/05/96
Zinc	142	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42146
Tag: WA22-0
Date/Time Collected: 11/15/96 10:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.4	%	1	160.3	JH	12/04/96
Metals						
Chromium	177	mg/kg	1.0	6020	E B	12/05/96
Copper	169	mg/kg	1.0	6020	E B	12/05/96
Nickel	177	mg/kg	0.50	6020	E B	12/05/96
Zinc	196	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42147
Tag: WA23-0
Date/Time Collected: 11/15/96 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.9	%	1	160.3	JH	12/04/96
Metals						
Chromium	191	mg/kg	1.0	6020	E B	12/05/96
Copper	177	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42147 (Continued)
Tag: WA23-0
Date/Time Collected: 11/15/96 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	184	mg/kg	0.50	6020	E B	12/05/96
Zinc	185	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42148
Tag: WA24-0
Date/Time Collected: 11/15/96 10:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.7	%	1	160.3	JH	12/04/
Metals						
Chromium	1,020	mg/kg	1.0	6020	E B	12/05/96
Copper	554	mg/kg	1.0	6020	E B	12/05/96
Nickel	674	mg/kg	0.50	6020	E B	12/05/96
Zinc	548	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42149
Tag: WA1-2 (1.0-1.5 ft)
Date/Time Collected: 11/14/96 12:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	JH	12/04/96
Metals						
Chromium	41.9	mg/kg	1.0	6020	E B	12/05/96
Copper	29.9	mg/kg	1.0	6020	E B	12/05/96
Nickel	43.6	mg/kg	0.50	6020	E B	12/05/96
Zinc	88.0	mg/kg	1.0	6020	E B	12/05/96

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FECL #: AA42150
Tag: WA8-2 (1.0-1.5 ft)
Date/Time Collected: 11/15/96 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.4	%	1	160.3	JH	12/04/96
Metals						
Chromium	243	mg/kg	1.0	6020	E B	12/05/96
Copper	492	mg/kg	1.0	6020	E B	12/05/96
Nickel	323	mg/kg	0.50	6020	E B	12/05/96
Zinc	425	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42151
Tag: WA9-2 (1.0-1.5 ft)
Date/Time Collected: 11/15/96 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.2	%	1	160.3	JH	12/04/96
Metals						
Chromium	2,460	mg/kg	1.0	6020	E B	12/05/96
Copper	1,020	mg/kg	1.0	6020	E B	12/05/96
Nickel	1,580	mg/kg	0.50	6020	E B	12/05/96
Zinc	1,280	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42152
Tag: WA10-2 (1.0-1.5 ft)
Date/Time Collected: 11/15/96 13:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	JH	12/04/96

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FECL #: AA42152 (Continued)
Tag: WA10-2 (1.0-1.5 ft)
Date/Time Collected: 11/15/96 13:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	26.3	mg/kg	1.0	6020	E B	12/05/96
Copper	20.0	mg/kg	1.0	6020	E B	12/05/96
Nickel	33.0	mg/kg	0.50	6020	E B	12/05/96
Zinc	36.6	mg/kg	1.0	6020	E B	12/05/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
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Violetta F. Murshak 3. B

Violetta F. Murshak
Laboratory Director

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FECL #: AA42207
Tag: WA18-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	50.4	mg/kg	1.0	6020	P R	12/06/96
Copper	46.6	mg/kg	1.0	6020	P R	12/06/96
Nickel	40.4	mg/kg	0.50	6020	P R	12/06/96
Zinc	65.7	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42208
Tag: WA19-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.4	%	1	160.3	JH	12/05/96
Metals						
Chromium	144	mg/kg	1.0	6020	P R	12/06/96
Copper	95.6	mg/kg	1.0	6020	P R	12/06/96
Nickel	80.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	132	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42209
Tag: WA25-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	76.8	%	1	160.3	JH	12/05/96

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FECL #: AA42209 (Continued)
Tag: WA25-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	291	mg/kg	1.0	6020	P R	12/06/96
Copper	140	mg/kg	1.0	6020	P R	12/06/96
Nickel	197	mg/kg	0.50	6020	P R	12/06/96
Zinc	206	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42210
Tag: WA26-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.4	%	1	160.3	JH	12/05/96
Metals						
Chromium	38.9	mg/kg	1.0	6020	P R	12/06/96
Copper	17.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	28.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	103	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42211
Tag: WA27-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	72.0	%	1	160.3	JH	12/05/96
Metals						
Chromium	25.2	mg/kg	1.0	6020	P R	12/06/96
Copper	15.2	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42211 (Continued)
Tag: WA27-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	19.5	mg/kg	0.50	6020	P R	12/06/96
Zinc	83.5	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42212
Tag: WA28-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.7	%	1	160.3	JH	12/05/96
Metals						
Chromium	20.4	mg/kg	1.0	6020	P R	12/06/96
Copper	12.5	mg/kg	1.0	6020	P R	12/06/96
Nickel	19.4	mg/kg	0.50	6020	P R	12/06/96
Zinc	59.5	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42213
Tag: WA29-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	241	mg/kg	1.0	6020	P R	12/06/96
Copper	175	mg/kg	1.0	6020	P R	12/06/96
Nickel	211	mg/kg	0.50	6020	P R	12/06/96
Zinc	200	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42214
Tag: WA30-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	224	mg/kg	1.0	6020	P R	12/06/96
Copper	80.5	mg/kg	1.0	6020	P R	12/06/96
Nickel	98.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	199	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42215
Tag: WA31-0
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.0	%	1	160.3	JH	12/05/96
Metals						
Chromium	150	mg/kg	1.0	6020	P R	12/06/96
Copper	95.7	mg/kg	1.0	6020	P R	12/06/96
Nickel	76.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	177	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42216
Tag: WA1-3
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	JH	12/05/96

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FECL #: AA42216 (Continued)
Tag: WA1-3
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	19.7	mg/kg	1.0	6020	P R	12/06/96
Copper	12.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	26.1	mg/kg	0.50	6020	P R	12/06/96
Zinc	38.8	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42217
Tag: WA1-4
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	JH	12/05/96
Metals						
Chromium	9.0	mg/kg	1.0	6020	P R	12/06/96
Copper	4.7	mg/kg	1.0	6020	P R	12/06/96
Nickel	9.4	mg/kg	0.50	6020	P R	12/06/96
Zinc	25.9	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42218
Tag: WA1-5
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.4	%	1	160.3	JH	12/05/96
Metals						
Chromium	10.9	mg/kg	1.0	6020	P R	12/06/96
Copper	6.6	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42218 (Continued)
Tag: WA1-5
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	12.5	mg/kg	0.50	6020	P R	12/06/96
Zinc	27.6	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42219
Tag: WA1-6
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	JH	12/0[illegible]
Metals						
Chromium	14.6	mg/kg	1.0	6020	P R	12/06/96
Copper	8.8	mg/kg	1.0	6020	P R	12/06/96
Nickel	24.4	mg/kg	0.50	6020	P R	12/06/96
Zinc	39.8	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42220
Tag: WA1-7
Date/Time Collected: 11/14/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	19.2	mg/kg	1.0	6020	P R	12/06/96
Copper	14.4	mg/kg	1.0	6020	P R	12/06/96
Nickel	28.9	mg/kg	0.50	6020	P R	12/06/96
Zinc	55.0	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42221
Tag: WA8-3
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	JH	12/05/96
Metals						
Chromium	43.1	mg/kg	1.0	6020	P R	12/06/96
Copper	73.4	mg/kg	1.0	6020	P R	12/06/96
Nickel	55.5	mg/kg	0.50	6020	P R	12/06/96
Zinc	86.0	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42222
Tag: WA8-4
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	JH	12/05/96
Metals						
Chromium	15.2	mg/kg	1.0	6020	P R	12/06/96
Copper	24.1	mg/kg	1.0	6020	P R	12/06/96
Nickel	19.7	mg/kg	0.50	6020	P R	12/06/96
Zinc	44.9	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42223
Tag: WA8-5
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	JH	12/05/96

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FECL #: AA42223 (Continued)
Tag: WA8-5
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	6.7	mg/kg	1.0	6020	P R	12/06/96
Copper	10.6	mg/kg	1.0	6020	P R	12/06/96
Nickel	8.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	15.6	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42224
Tag: WA8-6
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	JH	12/05/96
Metals						
Chromium	5.7	mg/kg	1.0	6020	P R	12/06/96
Copper	5.1	mg/kg	1.0	6020	P R	12/06/96
Nickel	5.4	mg/kg	0.50	6020	P R	12/06/96
Zinc	13.0	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42225
Tag: WA8-7
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	6.2	mg/kg	1.0	6020	P R	12/06/96
Copper	5.0	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42225 (Continued)
Tag: WA8-7
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	7.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	16.4	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42226
Tag: WA9-3
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.8	%	1	160.3	JH	12/05/96
Metals						
Chromium	2,250	mg/kg	1.0	6020	P R	12/06/96
Copper	1,040	mg/kg	1.0	6020	P R	12/06/96
Nickel	1,380	mg/kg	0.50	6020	P R	12/06/96
Zinc	1,580	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42227
Tag: WA9-4
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	3,240	mg/kg	1.0	6020	P R	12/06/96
Copper	1,210	mg/kg	1.0	6020	P R	12/06/96
Nickel	1,980	mg/kg	0.50	6020	P R	12/06/96
Zinc	1,720	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42228
Tag: WA9-5
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	279	mg/kg	1.0	6020	P R	12/06/96
Copper	116	mg/kg	1.0	6020	P R	12/06/96
Nickel	189	mg/kg	0.50	6020	P R	12/06/96
Zinc	174	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42229
Tag: WA9-6
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.9	%	1	160.3	JH	12/05/96
Metals						
Chromium	41.3	mg/kg	1.0	6020	P R	12/06/96
Copper	21.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	42.7	mg/kg	0.50	6020	P R	12/06/96
Zinc	54.4	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42230
Tag: WA9-7
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	JH	12/05/96

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FECL #: AA42230 (Continued)
Tag: WA9-7
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	21.9	mg/kg	1.0	6020	P R	12/06/96
Copper	13.4	mg/kg	1.0	6020	P R	12/06/96
Nickel	27.8	mg/kg	0.50	6020	P R	12/06/96
Zinc	38.6	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42231
Tag: WA10-3
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	13.1	mg/kg	1.0	6020	P R	12/06/96
Copper	8.0	mg/kg	1.0	6020	P R	12/06/96
Nickel	22.9	mg/kg	0.50	6020	P R	12/06/96
Zinc	28.7	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42232
Tag: WA10-4
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	JH	12/05/96
Metals						
Chromium	15.5	mg/kg	1.0	6020	P R	12/06/96
Copper	9.9	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42232 (Continued)
Tag: WA10-4
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	24.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	31.5	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42233
Tag: WA10-5
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.5	%	1	160.3	JH	12/0
Metals						
Chromium	22.7	mg/kg	1.0	6020	P R	12/06/96
Copper	16.2	mg/kg	1.0	6020	P R	12/06/96
Nickel	28.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	46.5	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42234
Tag: WA10-6
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.9	%	1	160.3	JH	12/05/96
Metals						
Chromium	14.2	mg/kg	1.0	6020	P R	12/06/96
Copper	8.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	22.1	mg/kg	0.50	6020	P R	12/06/96
Zinc	33.2	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42235
Tag: WA10-7
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	6.6	mg/kg	1.0	6020	P R	12/06/96
Copper	13.1	mg/kg	1.0	6020	P R	12/06/96
Nickel	13.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	20.7	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42236
Tag: EA13-0
Date/Time Collected: 11/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.0	%	1	160.3	JH	12/05/96
Metals						
Chromium	89	mg/kg	1.0	6020	P R	12/06/96
Copper	91.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	158	mg/kg	0.50	6020	P R	12/06/96
Zinc	134	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42237
Tag: EA14-0
Date/Time Collected: 11/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.8	%	1	160.3	JH	12/05/96

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

4144 007#

January 24, 1997

Attention: Mr. Jeff Johnson

O'Brien & Gere Engineers, Inc.
39830 Grand River A, Suite B2
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA43356-AA43465

Project: 4144.007 GM Coldwater Rd. West Area
Samples collected by: M. REECE
Date/Time Submitted: 01/23/97 16:55
PO #: Verbal

FECL #: AA43356
Tag: WA11-1 (.5-1')
Date/Time Collected: 01/23/97 11:00
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43357
Tag: WA11-2 (1-1.5')
Date/Time Collected: 01/23/97 11:05
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43358
Tag: WA11-3 (1.5-2')
Date/Time Collected: 01/23/97 11:10
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43359
Tag: WA11-4 (2-2.5')
Date/Time Collected: 01/23/97 11:15
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43360
Tag: WA11-5 (2.5-3')
Date/Time Collected: 01/23/97 11:20
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43361
Tag: WA11-6 (3-3.5')
Date/Time Collected: 01/23/97 11:25
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43362
Tag: WA11-7 (3.5-4')
Date/Time Collected: 01/23/97 11:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43363
Tag: WA12-1 (.5-1')
Date/Time Collected: 01/23/97 11:00
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43364
Tag: WA12-2 (1-1.5')
Date/Time Collected: 01/23/97 11:05
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43365
Tag: WA12-3 (1.5-2')
Date/Time Collected: 01/23/97 11:10
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43366
Tag: WA12-4 (2-2.5')
Date/Time Collected: 01/23/97 11:15
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43367
Tag: WA12-5 (2.5-3')
Date/Time Collected: 01/23/97 11:20
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43368
Tag: WA12-6 (3-3.5')
Date/Time Collected: 01/23/97 11:25
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43369
Tag: WA12-7 (3.5-4')
Date/Time Collected: 01/23/97 11:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43370
Tag: WA13-1 (.5-1')
Date/Time Collected: 01/23/97 12:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43371
Tag: WA13-2 (1-1.5')
Date/Time Collected: 01/23/97 12:32
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43372
Tag: WA13-3 (1.5-2')
Date/Time Collected: 01/23/97 12:34
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43373
Tag: WA13-4 (2-2.5')
Date/Time Collected: 01/23/97 12:36
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43374
Tag: WA13-5 (2.5-3')
Date/Time Collected: 01/23/97 12:38
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43375
Tag: WA13-6 (3-3.5')
Date/Time Collected: 01/23/97 12:40
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43376
Tag: WA13-7 (3.5-4')
Date/Time Collected: 01/23/97 12:42
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43377
Tag: WA17-1 (.5-1')
Date/Time Collected: 01/23/97 12:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43378
Tag: WA17-2 (1-1.5')
Date/Time Collected: 01/23/97 12:32
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43379
Tag: WA17-3 (1.5-2')
Date/Time Collected: 01/23/97 12:34
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43380
Tag: WA17-4 (2-2.5')
Date/Time Collected: 01/23/97 12:36
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43381
Tag: WA17-5 (2.5-3')
Date/Time Collected: 01/23/97 12:38
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43382
Tag: WA17-6 (3-3.5')
Date/Time Collected: 01/23/97 12:40
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43383
Tag: WA17-7 (3.5-4')
Date/Time Collected: 01/23/97 12:42
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43384
Tag: WA18-1 (.5-1')
Date/Time Collected: 01/23/97 12:50
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43385
Tag: WA18-2 (1-1.5')
Date/Time Collected: 01/23/97 12:52
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43386
Tag: WA18-3 (1.5-2')
Date/Time Collected: 01/23/97 12:54
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43387
Tag: WA18-4 (2-2.5')
Date/Time Collected: 01/23/97 12:56
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43388
Tag: WA18-5 (2.5-3')
Date/Time Collected: 01/23/97 12:58
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43389
Tag: WA18-6 (3-3.5')
Date/Time Collected: 01/23/97 13:00
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43390
Tag: WA18-7 (3.5-4')
Date/Time Collected: 01/23/97 13:02
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43391
Tag: WA19-1 (.5-1')
Date/Time Collected: 01/23/97 12:50
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43392
Tag: WA19-2 (1-1.5')
Date/Time Collected: 01/23/97 12:52
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43393
Tag: WA19-3 (1.5-2')
Date/Time Collected: 01/23/97 12:54
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43394
Tag: WA19-4 (2-2.5')
Date/Time Collected: 01/23/97 12:56
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43395
Tag: WA19-5 (2.5-3')
Date/Time Collected: 01/23/97 12:58
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43396
Tag: WA19-6 (3-3.5')
Date/Time Collected: 01/23/97 13:00
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43397
Tag: WA21-1 (.5-1')
Date/Time Collected: 01/23/97 13:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43398
Tag: WA21-2 (1-1.5')
Date/Time Collected: 01/23/97 13:32
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43399
Tag: WA21-3 (1.5-2')
Date/Time Collected: 01/23/97 13:34
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43400
Tag: WA21-4 (2-2.5')
Date/Time Collected: 01/23/97 13:36
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43401
Tag: WA21-5 (2.5-3')
Date/Time Collected: 01/23/97 13:38
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43402
Tag: WA21-6 (3-3.5')
Date/Time Collected: 01/23/97 13:40
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43403
Tag: WA21-7 (3.5-4')
Date/Time Collected: 01/23/97 13:42
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43404
Tag: WA22-1 (.5-1')
Date/Time Collected: 01/23/97 13:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43405
Tag: WA22-2 (1-1.5')
Date/Time Collected: 01/23/97 13:32
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43406
Tag: WA22-3 (1.5-2')
Date/Time Collected: 01/23/97 13:34
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43407
Tag: WA22-4 (2-2.5')
Date/Time Collected: 01/23/97 13:36
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43408
Tag: WA22-5 (2.5-3')
Date/Time Collected: 01/23/97 13:38
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43409
Tag: WA22-6 (3-3.5')
Date/Time Collected: 01/23/97 13:40
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43410
Tag: WA23-1 (.5-1')
Date/Time Collected: 01/23/97 13:50
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43411
Tag: WA23-2 (1-1.5')
Date/Time Collected: 01/23/97 13:52
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43412
Tag: WA23-3 (1.5-2')
Date/Time Collected: 01/23/97 13:54
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43413
Tag: WA23-4 (2-2.5')
Date/Time Collected: 01/23/97 13:56
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43414
Tag: WA23-5 (2.5-3')
Date/Time Collected: 01/23/97 13:58
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43415
Tag: WA23-6 (3-3.5')
Date/Time Collected: 01/23/97 14:00
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43416
Tag: WA23-7 (3.5-4')
Date/Time Collected: 01/23/97 14:02
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43417
Tag: WA24-1 (.5-1')
Date/Time Collected: 01/23/97 13:50
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43418
Tag: WA24-2 (1-1.5')
Date/Time Collected: 01/23/97 13:52
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43419
Tag: WA24-3 (1.5-2')
Date/Time Collected: 01/23/97 13:54
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43420
Tag: WA24-4 (2-2.5')
Date/Time Collected: 01/23/97 13:56
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43421
Tag: WA24-5 (2.5-3')
Date/Time Collected: 01/23/97 13:58
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43422
Tag: WA24-6 (3-3.5')
Date/Time Collected: 01/23/97 14:00
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43423
Tag: WA24-7 (3.5-4')
Date/Time Collected: 01/23/97 14:02
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43424
Tag: WA25-1 (.5-1')
Date/Time Collected: 01/23/97 14:10
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43425
Tag: WA25-2 (1-1.5')
Date/Time Collected: 01/23/97 14:12
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43426
Tag: WA25-3 (1.5-2')
Date/Time Collected: 01/23/97 14:14
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43427
Tag: WA25-4 (2-2.5')
Date/Time Collected: 01/23/97 14:16
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43428
Tag: WA25-5 (2.5-3')
Date/Time Collected: 01/23/97 14:18
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43429
Tag: WA25-6 (3-3.5')
Date/Time Collected: 01/23/97 14:20
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43430
Tag: WA25-7 (3.5-4')
Date/Time Collected: 01/23/97 14:22
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43431
Tag: WA26-1 (.5-1')
Date/Time Collected: 01/23/97 14:10
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43432
Tag: WA26-2 (1-1.5')
Date/Time Collected: 01/23/97 14:12
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43433
Tag: WA26-3 (1.5-2')
Date/Time Collected: 01/23/97 14:14
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43434
Tag: WA26-4 (2-2.5')
Date/Time Collected: 01/23/97 14:16
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43435
Tag: WA26-5 (2.5-3')
Date/Time Collected: 01/23/97 14:18
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43436
Tag: WA26-6 (3-3.5')
Date/Time Collected: 01/23/97 14:20
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43437
Tag: WA26-7 (3.5-4')
Date/Time Collected: 01/23/97 14:22
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43438
Tag: WA28-1 (.5-1')
Date/Time Collected: 01/23/97 14:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43439
Tag: WA28-2 (1-1.5')
Date/Time Collected: 01/23/97 14:32
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43440
Tag: WA28-3 (1.5-2')
Date/Time Collected: 01/23/97 14:34
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43441
Tag: WA28-4 (2-2.5')
Date/Time Collected: 01/23/97 14:36
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43442
Tag: WA28-5 (2.5-3')
Date/Time Collected: 01/23/97 14:38
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43443
Tag: WA28-6 (3-3.5')
Date/Time Collected: 01/23/97 14:40
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43444
Tag: WA28-7 (3.5-4')
Date/Time Collected: 01/23/97 14:42
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43445
Tag: WA29-1 (.5-1')
Date/Time Collected: 01/23/97 14:30
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43446
Tag: WA29-2 (1-1.5')
Date/Time Collected: 01/23/97 14:32
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43447
Tag: WA29-3 (1.5-2')
Date/Time Collected: 01/23/97 14:34
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43448
Tag: WA29-4 (2-2.5')
Date/Time Collected: 01/23/97 14:36
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43449
Tag: WA29-5 (2.5-3')
Date/Time Collected: 01/23/97 14:38
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43450
Tag: WA29-6 (3-3.5')
Date/Time Collected: 01/23/97 14:40
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43451
Tag: WA29-7 (3.5-4')
Date/Time Collected: 01/23/97 14:42
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43452
Tag: WA30-1 (.5-1')
Date/Time Collected: 01/23/97 14:44
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43453
Tag: WA30-2 (1-1.5')
Date/Time Collected: 01/23/97 14:46
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43454
Tag: WA30-3 (1.5-2')
Date/Time Collected: 01/23/97 14:48
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43455
Tag: WA30-4 (2-2.5')
Date/Time Collected: 01/23/97 14:50
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43456
Tag: WA30-5 (2.5-3')
Date/Time Collected: 01/23/97 14:52
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43457
Tag: WA30-6 (3-3.5')
Date/Time Collected: 01/23/97 14:54
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43458
Tag: WA30-7 (3.5-4')
Date/Time Collected: 01/23/97 14:56
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43459
Tag: WA31-1 (.5-1')
Date/Time Collected: 01/23/97 14:44
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43460
Tag: WA31-2 (1-1.5')
Date/Time Collected: 01/23/97 14:46
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43461
Tag: WA31-3 (1.5-2')
Date/Time Collected: 01/23/97 14:48
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43462
Tag: WA31-4 (2-2.5')
Date/Time Collected: 01/23/97 14:50
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43463
Tag: WA31-5 (2.5-3')
Date/Time Collected: 01/23/97 14:52
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43464
Tag: WA31-6 (3-3.5')
Date/Time Collected: 01/23/97 14:54
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

FECL #: AA43465
Tag: WA31-7 (3.5-4')
Date/Time Collected: 01/23/97 14:56
Matrix: Soil
Container(s): 1-Glass
Preservation: Refrigeration/None

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FECL #: AA43356
Tag: WA11-1 (.5-1')
Date/Time Collected: 01/23/97 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	18.6	mg/kg	1.0	6020	P R	01/23/97
Copper	11.9	mg/kg	1.0	6020	P R	01/23/97
Nickel	26.6	mg/kg	0.50	6020	P R	01/23/97
Zinc	26.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43357
Tag: WA11-2 (1-1.5')
Date/Time Collected: 01/23/97 11:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	14.8	mg/kg	1.0	6020	P R	01/23/97
Copper	8.7	mg/kg	1.0	6020	P R	01/23/97
Nickel	23.3	mg/kg	0.50	6020	P R	01/23/97
Zinc	25.4	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43358
Tag: WA11-3 (1.5-2')
Date/Time Collected: 01/23/97 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	I M	01/23/97

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FECL #: AA43358 (Continued)
Tag: WA11-3 (1.5-2')
Date/Time Collected: 01/23/97 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	20.7	mg/kg	1.0	6020	P R	01/23/97
Copper	13.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	26.1	mg/kg	0.50	6020	P R	01/23/97
Zinc	30.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43359
Tag: WA11-4 (2-2.5')
Date/Time Collected: 01/23/97 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	33.9	mg/kg	1.0	6020	P R	01/23/97
Copper	15.5	mg/kg	1.0	6020	P R	01/23/97
Nickel	33.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	36.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43360
Tag: WA11-5 (2.5-3')
Date/Time Collected: 01/23/97 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	162	mg/kg	1.0	6020	P R	01/23/97
Copper	86.9	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43360 (Continued)
Tag: WA11-5 (2.5-3')
Date/Time Collected: 01/23/97 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	180	mg/kg	0.50	6020	P R	01/23/97
Zinc	131	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43361
Tag: WA11-6 (3-3.5')
Date/Time Collected: 01/23/97 11:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	1,540	mg/kg	1.0	6020	P R	01/23/97
Copper	741	mg/kg	1.0	6020	P R	01/23/97
Nickel	1,100	mg/kg	0.50	6020	P R	01/23/97
Zinc	902	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43362
Tag: WA11-7 (3.5-4')
Date/Time Collected: 01/23/97 11:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	934	mg/kg	1.0	6020	P R	01/23/97
Copper	639	mg/kg	1.0	6020	P R	01/23/97
Nickel	765	mg/kg	0.50	6020	P R	01/23/97
Zinc	622	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43363
Tag: WA12-1 (.5-1')
Date/Time Collected: 01/23/97 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	12.3	mg/kg	1.0	6020	P R	01/23/97
Copper	10.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	34.9	mg/kg	0.50	6020	P R	01/23/97
Zinc	27.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43364
Tag: WA12-2 (1-1.5')
Date/Time Collected: 01/23/97 11:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.0	mg/kg	1.0	6020	P R	01/23/97
Copper	6.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	21.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	20.6	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43365
Tag: WA12-3 (1.5-2')
Date/Time Collected: 01/23/97 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.6	%	1	160.3	I M	01/23/97

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FECL #: AA43365 (Continued)
Tag: WA12-3 (1.5-2')
Date/Time Collected: 01/23/97 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	532	mg/kg	1.0	6020	P R	01/23/97
Copper	426	mg/kg	1.0	6020	P R	01/23/97
Nickel	543	mg/kg	0.50	6020	P R	01/23/97
Zinc	451	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43366
Tag: WA12-4 (2-2.5')
Date/Time Collected: 01/23/97 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	680	mg/kg	1.0	6020	P R	01/23/97
Copper	548	mg/kg	1.0	6020	P R	01/23/97
Nickel	662	mg/kg	0.50	6020	P R	01/23/97
Zinc	503	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43367
Tag: WA12-5 (2.5-3')
Date/Time Collected: 01/23/97 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	60.5	mg/kg	1.0	6020	P R	01/23/97
Copper	55.2	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43367 (Continued)
Tag: WA12-5 (2.5-3')
Date/Time Collected: 01/23/97 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	63.6	mg/kg	0.50	6020	P R	01/23/97
Zinc	70.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43368
Tag: WA12-6 (3-3.5')
Date/Time Collected: 01/23/97 11:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	3,200	mg/kg	1.0	6020	P R	01/23/97
Copper	1,590	mg/kg	1.0	6020	P R	01/23/97
Nickel	2,100	mg/kg	0.50	6020	P R	01/23/97
Zinc	1,840	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43369
Tag: WA12-7 (3.5-4')
Date/Time Collected: 01/23/97 11:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3,020	mg/kg	1.0	6020	P R	01/23/97
Copper	1,450	mg/kg	1.0	6020	P R	01/23/97
Nickel	1,970	mg/kg	0.50	6020	P R	01/23/97
Zinc	1,740	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43370
Tag: WA13-1 (.5-1')
Date/Time Collected: 01/23/97 12:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	1,620	mg/kg	1.0	6020	P R	01/23/97
Copper	950	mg/kg	1.0	6020	P R	01/23/97
Nickel	1,140	mg/kg	0.50	6020	P R	01/23/97
Zinc	1,040	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43371
Tag: WA13-2 (1-1.5')
Date/Time Collected: 01/23/97 12:32
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	1,870	mg/kg	1.0	6020	P R	01/23/97
Copper	1,070	mg/kg	1.0	6020	P R	01/23/97
Nickel	1,370	mg/kg	0.50	6020	P R	01/23/97
Zinc	1,260	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43372
Tag: WA13-3 (1.5-2')
Date/Time Collected: 01/23/97 12:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97

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FECL #: AA43372 (Continued)
Tag: WA13-3 (1.5-2')
Date/Time Collected: 01/23/97 12:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	12.9	mg/kg	1.0	6020	P R	01/23/97
Copper	19.4	mg/kg	1.0	6020	P R	01/23/97
Nickel	11.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	53.9	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43373
Tag: WA13-4 (2-2.5')
Date/Time Collected: 01/23/97 12:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.6	mg/kg	1.0	6020	P R	01/23/97
Copper	9.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	6.8	mg/kg	0.50	6020	P R	01/23/97
Zinc	14.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43374
Tag: WA13-5 (2.5-3')
Date/Time Collected: 01/23/97 12:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.1	mg/kg	1.0	6020	P R	01/23/97
Copper	4.3	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43374 (Continued)
Tag: WA13-5 (2.5-3')
Date/Time Collected: 01/23/97 12:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	8.1	mg/kg	0.50	6020	P R	01/23/97
Zinc	10.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43375
Tag: WA13-6 (3-3.5')
Date/Time Collected: 01/23/97 12:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	8.0	mg/kg	1.0	6020	P R	01/23/97
Copper	4.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	15.8	mg/kg	0.50	6020	P R	01/23/97
Zinc	10.4	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43376
Tag: WA13-7 (3.5-4')
Date/Time Collected: 01/23/97 12:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.6	%	1	160.3	I M	01/23/97
Metals						
Chromium	6.5	mg/kg	1.0	6020	P R	01/23/97
Copper	2.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	21.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	10.2	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43377
Tag: WA17-1 (.5-1')
Date/Time Collected: 01/23/97 12:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	74.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	175	mg/kg	1.0	6020	P R	01/23/97
Copper	112	mg/kg	1.0	6020	P R	01/23/97
Nickel	81.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	119	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43378
Tag: WA17-2 (1-1.5')
Date/Time Collected: 01/23/97 12:32
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	530	mg/kg	1.0	6020	P R	01/23/97
Copper	321	mg/kg	1.0	6020	P R	01/23/97
Nickel	425	mg/kg	0.50	6020	P R	01/23/97
Zinc	314	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43379
Tag: WA17-3 (1.5-2')
Date/Time Collected: 01/23/97 12:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	01/23/97

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FECL #: AA43379 (Continued)
Tag: WA17-3 (1.5-2')
Date/Time Collected: 01/23/97 12:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	240	mg/kg	1.0	6020	P R	01/23/97
Copper	138	mg/kg	1.0	6020	P R	01/23/97
Nickel	156	mg/kg	0.50	6020	P R	01/23/97
Zinc	163	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43380
Tag: WA17-4 (2-2.5')
Date/Time Collected: 01/23/97 12:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	419	mg/kg	1.0	6020	P R	01/23/97
Copper	232	mg/kg	1.0	6020	P R	01/23/97
Nickel	268	mg/kg	0.50	6020	P R	01/23/97
Zinc	277	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43381
Tag: WA17-5 (2.5-3')
Date/Time Collected: 01/23/97 12:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	390	mg/kg	1.0	6020	P R	01/23/97
Copper	242	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43381 (Continued)
Tag: WA17-5 (2.5-3')
Date/Time Collected: 01/23/97 12:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	274	mg/kg	0.50	6020	P R	01/23/97
Zinc	244	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43382
Tag: WA17-6 (3-3.5')
Date/Time Collected: 01/23/97 12:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	757	mg/kg	1.0	6020	P R	01/23/97
Copper	350	mg/kg	1.0	6020	P R	01/23/97
Nickel	420	mg/kg	0.50	6020	P R	01/23/97
Zinc	384	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43383
Tag: WA17-7 (3.5-4')
Date/Time Collected: 01/23/97 12:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	355	mg/kg	1.0	6020	P R	01/23/97
Copper	188	mg/kg	1.0	6020	P R	01/23/97
Nickel	193	mg/kg	0.50	6020	P R	01/23/97
Zinc	221	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43384
Tag: WA18-1 (.5-1')
Date/Time Collected: 01/23/97 12:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	14.7	mg/kg	1.0	6020	P R	01/23/97
Copper	9.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	11.4	mg/kg	0.50	6020	P R	01/23/97
Zinc	41.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43385
Tag: WA18-2 (1-1.5')
Date/Time Collected: 01/23/97 12:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	6.6	mg/kg	1.0	6020	P R	01/23/97
Copper	4.7	mg/kg	1.0	6020	P R	01/23/97
Nickel	6.4	mg/kg	0.50	6020	P R	01/23/97
Zinc	22.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43386
Tag: WA18-3 (1.5-2')
Date/Time Collected: 01/23/97 12:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.4	%	1	160.3	I M	01/23/97

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FECL #: AA43386 (Continued)
Tag: WA18-3 (1.5-2')
Date/Time Collected: 01/23/97 12:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	4.5	mg/kg	1.0	6020	P R	01/23/97
Copper	2.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	4.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	14.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43387
Tag: WA18-4 (2-2.5')
Date/Time Collected: 01/23/97 12:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	6.9	mg/kg	1.0	6020	P R	01/23/97
Copper	4.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	10.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	22.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43388
Tag: WA18-5 (2.5-3')
Date/Time Collected: 01/23/97 12:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.6	mg/kg	1.0	6020	P R	01/23/97
Copper	6.6	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43388 (Continued)
Tag: WA18-5 (2.5-3')
Date/Time Collected: 01/23/97 12:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	16.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	30.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43389
Tag: WA18-6 (3-3.5')
Date/Time Collected: 01/23/97 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	8.7	mg/kg	1.0	6020	P R	01/23/97
Copper	6.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	15.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	29.6	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43390
Tag: WA18-7 (3.5-4')
Date/Time Collected: 01/23/97 13:02
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	7.0	mg/kg	1.0	6020	P R	01/23/97
Copper	5.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	16.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	24.0	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43391
Tag: WA19-1 (.5-1')
Date/Time Collected: 01/23/97 12:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.6	%	1	160.3	I M	01/23/97
Metals						
Chromium	16.6	mg/kg	1.0	6020	P R	01/23/97
Copper	11.7	mg/kg	1.0	6020	P R	01/23/97
Nickel	22.9	mg/kg	0.50	6020	P R	01/23/97
Zinc	43.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43392
Tag: WA19-2 (1-1.5')
Date/Time Collected: 01/23/97 12:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.6	%	1	160.3	I M	01/23/97
Metals						
Chromium	90.9	mg/kg	1.0	6020	P R	01/23/97
Copper	53.3	mg/kg	1.0	6020	P R	01/23/97
Nickel	60.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	89.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43393
Tag: WA19-3 (1.5-2')
Date/Time Collected: 01/23/97 12:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	I M	01/23/97

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FECL #: AA43393 (Continued)
Tag: WA19-3 (1.5-2')
Date/Time Collected: 01/23/97 12:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	55.9	mg/kg	1.0	6020	P R	01/23/97
Copper	42.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	43.4	mg/kg	0.50	6020	P R	01/23/97
Zinc	59.1	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43394
Tag: WA19-4 (2-2.5')
Date/Time Collected: 01/23/97 12:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	86.0	%	1	160.3	I M	01/23/97
Metals						
Chromium	8.1	mg/kg	1.0	6020	P R	01/23/97
Copper	8.3	mg/kg	1.0	6020	P R	01/23/97
Nickel	19.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	23.1	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43395
Tag: WA19-5 (2.5-3')
Date/Time Collected: 01/23/97 12:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	13.2	mg/kg	1.0	6020	P R	01/23/97
Copper	5.6	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43395 (Continued)
Tag: WA19-5 (2.5-3')
Date/Time Collected: 01/23/97 12:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	19.8	mg/kg	0.50	6020	P R	01/23/97
Zinc	23.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43396
Tag: WA19-6 (3-3.5')
Date/Time Collected: 01/23/97 13:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	10.9	mg/kg	1.0	6020	P R	01/23/97
Copper	8.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	23.9	mg/kg	0.50	6020	P R	01/23/97
Zinc	34.0	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43397
Tag: WA21-1 (.5-1')
Date/Time Collected: 01/23/97 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	76.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	1,010	mg/kg	1.0	6020	P R	01/23/97
Copper	680	mg/kg	1.0	6020	P R	01/23/97
Nickel	342	mg/kg	0.50	6020	P R	01/23/97
Zinc	520	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43398
Tag: WA21-2 (1-1.5')
Date/Time Collected: 01/23/97 13:32
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	112	mg/kg	1.0	6020	P R	01/23/97
Copper	66.2	mg/kg	1.0	6020	P R	01/23/97
Nickel	69.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	84.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43399
Tag: WA21-3 (1.5-2')
Date/Time Collected: 01/23/97 13:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	78.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	215	mg/kg	1.0	6020	P R	01/23/97
Copper	130	mg/kg	1.0	6020	P R	01/23/97
Nickel	144	mg/kg	0.50	6020	P R	01/23/97
Zinc	146	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43400
Tag: WA21-4 (2-2.5')
Date/Time Collected: 01/23/97 13:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.1	%	1	160.3	I M	01/23/97

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FECL #: AA43400 (Continued)
Tag: WA21-4 (2-2.5')
Date/Time Collected: 01/23/97 13:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	578	mg/kg	1.0	6020	P R	01/23/97
Copper	386	mg/kg	1.0	6020	P R	01/23/97
Nickel	478	mg/kg	0.50	6020	P R	01/23/97
Zinc	384	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43401
Tag: WA21-5 (2.5-3')
Date/Time Collected: 01/23/97 13:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	266	mg/kg	1.0	6020	P R	01/23/97
Copper	173	mg/kg	1.0	6020	P R	01/23/97
Nickel	194	mg/kg	0.50	6020	P R	01/23/97
Zinc	188	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43402
Tag: WA21-6 (3-3.5')
Date/Time Collected: 01/23/97 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	75.4	mg/kg	1.0	6020	P R	01/23/97
Copper	69.8	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43402 (Continued)
Tag: WA21-6 (3-3.5')
Date/Time Collected: 01/23/97 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	74.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	70.4	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43403
Tag: WA21-7 (3.5-4')
Date/Time Collected: 01/23/97 13:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	8.2	mg/kg	1.0	6020	P R	01/23/97
Copper	6.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	10.3	mg/kg	0.50	6020	P R	01/23/97
Zinc	25.3	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43404
Tag: WA22-1 (.5-1')
Date/Time Collected: 01/23/97 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	7.7	mg/kg	1.0	6020	P R	01/23/97
Copper	4.9	mg/kg	1.0	6020	P R	01/23/97
Nickel	9.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	19.3	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43405
Tag: WA22-2 (1-1.5')
Date/Time Collected: 01/23/97 13:32
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.3	mg/kg	1.0	6020	P R	01/23/97
Copper	4.5	mg/kg	1.0	6020	P R	01/23/97
Nickel	7.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	17.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43406
Tag: WA22-3 (1.5-2')
Date/Time Collected: 01/23/97 13:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	6.5	mg/kg	1.0	6020	P R	01/23/97
Copper	6.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	12.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	27.3	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43407
Tag: WA22-4 (2-2.5')
Date/Time Collected: 01/23/97 13:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.4	%	1	160.3	I M	01/23/97

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FECL #: AA43407 (Continued)
Tag: WA22-4 (2-2.5')
Date/Time Collected: 01/23/97 13:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	9.7	mg/kg	1.0	6020	P R	01/23/97
Copper	5.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	16.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	23.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43408
Tag: WA22-5 (2.5-3')
Date/Time Collected: 01/23/97 13:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	87.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	10.4	mg/kg	1.0	6020	P R	01/23/97
Copper	6.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	21.8	mg/kg	0.50	6020	P R	01/23/97
Zinc	27.6	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43409
Tag: WA22-6 (3-3.5')
Date/Time Collected: 01/23/97 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.8	mg/kg	1.0	6020	P R	01/23/97
Copper	3.7	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43409 (Continued)
Tag: WA22-6 (3-3.5')
Date/Time Collected: 01/23/97 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	14.5	mg/kg	0.50	6020	P R	01/23 97
Zinc	17.4	mg/kg	1.0	6020	P R	01/23 97

FECL #: AA43410
Tag: WA23-1 (.5-1')
Date/Time Collected: 01/23/97 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.8	%	1	160.3	I M	01/23 97
Metals						
Chromium	32.8	mg/kg	1.0	6020	P R	01/23 97
Copper	27.7	mg/kg	1.0	6020	P R	01/23 97
Nickel	32.7	mg/kg	0.50	6020	P R	01/23 97
Zinc	32.5	mg/kg	1.0	6020	P R	01/23 97

FECL #: AA43411
Tag: WA23-2 (1-1.5')
Date/Time Collected: 01/23/97 13:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.6	%	1	160.3	I M	01/23 97
Metals						
Chromium	3.3	mg/kg	1.0	6020	P R	01/23 97
Copper	2.1	mg/kg	1.0	6020	P R	01/23 97
Nickel	3.1	mg/kg	0.50	6020	P R	01/23 97
Zinc	9.4	mg/kg	1.0	6020	P R	01/23 97

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FECL #: AA43412
Tag: WA23-3 (1.5-2')
Date/Time Collected: 01/23/97 13:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.3	mg/kg	1.0	6020	P R	01/23/97
Copper	2.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	3.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	6.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43413
Tag: WA23-4 (2-2.5')
Date/Time Collected: 01/23/97 13:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	7.1	mg/kg	1.0	6020	P R	01/23/97
Copper	5.3	mg/kg	1.0	6020	P R	01/23/97
Nickel	10.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	22.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43414
Tag: WA23-5 (2.5-3')
Date/Time Collected: 01/23/97 13:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	I M	01/23/97

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FECL #: AA43414 (Continued)
Tag: WA23-5 (2.5-3')
Date/Time Collected: 01/23/97 13:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	9.7	mg/kg	1.0	6020	P R	01/23/97
Copper	8.6	mg/kg	1.0	6020	P R	01/23/97
Nickel	16.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	34.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43415
Tag: WA23-6 (3-3.5')
Date/Time Collected: 01/23/97 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.6	mg/kg	1.0	6020	P R	01/23/97
Copper	5.7	mg/kg	1.0	6020	P R	01/23/97
Nickel	10.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	16.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43416
Tag: WA23-7 (3.5-4')
Date/Time Collected: 01/23/97 14:02
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	I M	01/23/97
Metals						
Chromium	8.2	mg/kg	1.0	6020	P R	01/23/97
Copper	5.9	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43416 (Continued)
Tag: WA23-7 (3.5-4')
Date/Time Collected: 01/23/97 14:02
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	14.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	22.6	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43417
Tag: WA24-1 (.5-1')
Date/Time Collected: 01/23/97 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	661	mg/kg	1.0	6020	P R	01/23/97
Copper	459	mg/kg	1.0	6020	P R	01/23/97
Nickel	527	mg/kg	0.50	6020	P R	01/23/97
Zinc	437	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43418
Tag: WA24-2 (1-1.5')
Date/Time Collected: 01/23/97 13:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	19.5	mg/kg	1.0	6020	P R	01/23/97
Copper	14.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	23.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	27.7	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43419
Tag: WA24-3 (1.5-2')
Date/Time Collected: 01/23/97 13:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.4	mg/kg	1.0	6020	P R	01/23/97
Copper	5.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	17.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	22.0	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43420
Tag: WA24-4 (2-2.5')
Date/Time Collected: 01/23/97 13:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.5	mg/kg	1.0	6020	P R	01/23/97
Copper	6.3	mg/kg	1.0	6020	P R	01/23/97
Nickel	18.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	25.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43421
Tag: WA24-5 (2.5-3')
Date/Time Collected: 01/23/97 13:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	01/23/97

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FECL #: AA43421 (Continued)
Tag: WA24-5 (2.5-3')
Date/Time Collected: 01/23/97 13:58
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	9.2	mg/kg	1.0	6020	P R	01/23 97
Copper	6.3	mg/kg	1.0	6020	P R	01/23 97
Nickel	18.2	mg/kg	0.50	6020	P R	01/23 97
Zinc	24.1	mg/kg	1.0	6020	P R	01/23 97

FECL #: AA43422
Tag: WA24-6 (3-3.5')
Date/Time Collected: 01/23/97 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	89.4	%	1	160.3	I M	01/23 97
Metals						
Chromium	7.6	mg/kg	1.0	6020	P R	01/23 97
Copper	5.5	mg/kg	1.0	6020	P R	01/23 97
Nickel	15.9	mg/kg	0.50	6020	P R	01/23 97
Zinc	21.1	mg/kg	1.0	6020	P R	01/23 97

FECL #: AA43423
Tag: WA24-7 (3.5-4')
Date/Time Collected: 01/23/97 14:02
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	I M	01/23 97
Metals						
Chromium	8.6	mg/kg	1.0	6020	P R	01/23 97
Copper	5.9	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43423 (Continued)
Tag: WA24-7 (3.5-4')
Date/Time Collected: 01/23/97 14:02
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	15.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	22.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43424
Tag: WA25-1 (.5-1')
Date/Time Collected: 01/23/97 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.6	%	1	160.3	I M	01/23/97
Metals						
Chromium	11.4	mg/kg	1.0	6020	P R	01/23/97
Copper	5.8	mg/kg	1.0	6020	P R	01/23/97
Nickel	9.6	mg/kg	0.50	6020	P R	01/23/97
Zinc	23.1	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43425
Tag: WA25-2 (1-1.5')
Date/Time Collected: 01/23/97 14:12
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	10.7	mg/kg	1.0	6020	P R	01/23/97
Copper	5.2	mg/kg	1.0	6020	P R	01/23/97
Nickel	13.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	28.3	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43426
Tag: WA25-3 (1.5-2')
Date/Time Collected: 01/23/97 14:14
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.8	mg/kg	1.0	6020	P R	01/23/97
Copper	7.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	20.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	26.1	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43427
Tag: WA25-4 (2-2.5')
Date/Time Collected: 01/23/97 14:16
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	8.0	mg/kg	1.0	6020	P R	01/23/97
Copper	5.6	mg/kg	1.0	6020	P R	01/23/97
Nickel	16.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	24.6	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43428
Tag: WA25-5 (2.5-3')
Date/Time Collected: 01/23/97 14:18
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.1	%	1	160.3	I M	01/23/97

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FECL #: AA43428 (Continued)
Tag: WA25-5 (2.5-3')
Date/Time Collected: 01/23/97 14:18
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	11.6	mg/kg	1.0	6020	P R	01 23/97
Copper	7.6	mg/kg	1.0	6020	P R	01 23/97
Nickel	21.2	mg/kg	0.50	6020	P R	01 23/97
Zinc	29.3	mg/kg	1.0	6020	P R	01 23/97

FECL #: AA43429
Tag: WA25-6 (3-3.5')
Date/Time Collected: 01/23/97 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	I M	01 23/97
Metals						
Chromium	13.4	mg/kg	1.0	6020	P R	01 23/97
Copper	13.0	mg/kg	1.0	6020	P R	01 23/97
Nickel	25.2	mg/kg	0.50	6020	P R	01 23/97
Zinc	34.0	mg/kg	1.0	6020	P R	01 23/97

FECL #: AA43430
Tag: WA25-7 (3.5-4')
Date/Time Collected: 01/23/97 14:22
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	I M	01 23/97
Metals						
Chromium	13.9	mg/kg	1.0	6020	P R	01 23/97
Copper	7.4	mg/kg	1.0	6020	P R	01 23/97

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FECL #: AA43430 (Continued)
Tag: WA25-7 (3.5-4')
Date/Time Collected: 01/23/97 14:22
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	22.9	mg/kg	0.50	6020	P R	01/23/97
Zinc	29.5	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43431
Tag: WA26-1 (.5-1')
Date/Time Collected: 01/23/97 14:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	68.7	%	1	160.3	I M	01/23/9
Metals						
Chromium	39.5	mg/kg	1.0	6020	P R	01/23/97
Copper	21.7	mg/kg	1.0	6020	P R	01/23/97
Nickel	31.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	75.3	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43432
Tag: WA26-2 (1-1.5')
Date/Time Collected: 01/23/97 14:12
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	77.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	13.4	mg/kg	1.0	6020	P R	01/23/97
Copper	7.9	mg/kg	1.0	6020	P R	01/23/97
Nickel	12.0	mg/kg	0.50	6020	P R	01/23/97
Zinc	38.8	mg/kg	1.0	6020	P R	01/23/9

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FECL #: AA43433
Tag: WA26-3 (1.5-2')
Date/Time Collected: 01/23/97 14:14
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	4.8	mg/kg	1.0	6020	P R	01/23/97
Copper	2.9	mg/kg	1.0	6020	P R	01/23/97
Nickel	4.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	14.0	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43434
Tag: WA26-4 (2-2.5')
Date/Time Collected: 01/23/97 14:16
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.6	mg/kg	1.0	6020	P R	01/23/97
Copper	3.2	mg/kg	1.0	6020	P R	01/23/97
Nickel	6.6	mg/kg	0.50	6020	P R	01/23/97
Zinc	12.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43435
Tag: WA26-5 (2.5-3')
Date/Time Collected: 01/23/97 14:18
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	I M	01/23/97

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FECL #: AA43435 (Continued)
Tag: WA26-5 (2.5-3')
Date/Time Collected: 01/23/97 14:18
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	7.1	mg/kg	1.0	6020	P R	01/23/97
Copper	5.7	mg/kg	1.0	6020	P R	01/23/97
Nickel	9.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	19.7	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43436
Tag: WA26-6 (3-3.5')
Date/Time Collected: 01/23/97 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R
Inorganics						
Total Solids	89.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	13.7	mg/kg	1.0	6020	P R	01/23/97
Copper	10.6	mg/kg	1.0	6020	P R	01/23/97
Nickel	23.1	mg/kg	0.50	6020	P R	01/23/97
Zinc	35.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43437
Tag: WA26-7 (3.5-4')
Date/Time Collected: 01/23/97 14:22
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	6.7	mg/kg	1.0	6020	P R	01/23/97
Copper	5.1	mg/kg	1.0	6020	P R	01/23/9

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FECL #: AA43437 (Continued)
Tag: WA26-7 (3.5-4')
Date/Time Collected: 01/23/97 14:22
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	10.9	mg/kg	0.50	6020	P R	01/23/97
Zinc	19.0	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43438
Tag: WA28-1 (.5-1')
Date/Time Collected: 01/23/97 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	385	mg/kg	1.0	6020	P R	01/23/97
Copper	413	mg/kg	1.0	6020	P R	01/23/97
Nickel	206	mg/kg	0.50	6020	P R	01/23/97
Zinc	289	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43439
Tag: WA28-2 (1-1.5')
Date/Time Collected: 01/23/97 14:32
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	24.5	mg/kg	1.0	6020	P R	01/23/97
Copper	33.2	mg/kg	1.0	6020	P R	01/23/97
Nickel	68.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	100	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43440
Tag: WA28-3 (1.5-2')
Date/Time Collected: 01/23/97 14:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.6	%	1	160.3	I M	01.23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01.23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01.23/97
Nickel	1.2	mg/kg	0.50	6020	P R	01.23/97
Zinc	3.4	mg/kg	1.0	6020	P R	01.23/97

FECL #: AA43441
Tag: WA28-4 (2-2.5')
Date/Time Collected: 01/23/97 14:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.5	%	1	160.3	I M	01.23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43442
Tag: WA28-5 (2.5-3')
Date/Time Collected: 01/23/97 14:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	I M	01 23/97

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FECL #: AA43442 (Continued)
Tag: WA28-5 (2.5-3')
Date/Time Collected: 01/23/97 14:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43443
Tag: WA28-6 (3-3.5')
Date/Time Collected: 01/23/97 14:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43444
Tag: WA28-7 (3.5-4')
Date/Time Collected: 01/23/97 14:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43444 (Continued)
Tag: WA28-7 (3.5-4')
Date/Time Collected: 01/23/97 14:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43445
Tag: WA29-1 (.5-1')
Date/Time Collected: 01/23/97 14:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	2.2	mg/kg	1.0	6020	P R	01/23/97
Copper	2.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	1.9	mg/kg	0.50	6020	P R	01/23/97
Zinc	4.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43446
Tag: WA29-2 (1-1.5')
Date/Time Collected: 01/23/97 14:32
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	81.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	1.5	mg/kg	1.0	6020	P R	01/23/97
Copper	1.1	mg/kg	1.0	6020	P R	01/23/97
Nickel	4.6	mg/kg	0.50	6020	P R	01/23/97
Zinc	9.8	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43447
Tag: WA29-3 (1.5-2')
Date/Time Collected: 01/23/97 14:34
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	1.2	mg/kg	0.50	6020	P R	01/23/97
Zinc	2.0	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43448
Tag: WA29-4 (2-2.5')
Date/Time Collected: 01/23/97 14:36
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	0.80	mg/kg	0.50	6020	P R	01/23/97
Zinc	2.6	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43449
Tag: WA29-5 (2.5-3')
Date/Time Collected: 01/23/97 14:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	80.2	%	1	160.3	I M	01/23/97

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FECL #: AA43449 (Continued)
Tag: WA29-5 (2.5-3')
Date/Time Collected: 01/23/97 14:38
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43450
Tag: WA29-6 (3-3.5')
Date/Time Collected: 01/23/97 14:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date
Inorganics						
Total Solids	81.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43451
Tag: WA29-7 (3.5-4')
Date/Time Collected: 01/23/97 14:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23

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FECL #: AA43451 (Continued)
Tag: WA29-7 (3.5-4')
Date/Time Collected: 01/23/97 14:42
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43452
Tag: WA30-1 (.5-1')
Date/Time Collected: 01/23/97 14:44
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	1.5	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	1.50	mg/kg	0.50	6020	P R	01/23/97
Zinc	2.9	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43453
Tag: WA30-2 (1-1.5')
Date/Time Collected: 01/23/97 14:46
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	0.60	mg/kg	0.50	6020	P R	01/23/97
Zinc	1.1	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43454
Tag: WA30-3 (1.5-2')
Date/Time Collected: 01/23/97 14:48
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.6	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43455
Tag: WA30-4 (2-2.5')
Date/Time Collected: 01/23/97 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43456
Tag: WA30-5 (2.5-3')
Date/Time Collected: 01/23/97 14:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.9	%	1	160.3	I M	01/23/97

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FECL #: AA43456 (Continued)
Tag: WA30-5 (2.5-3')
Date/Time Collected: 01/23/97 14:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43457
Tag: WA30-6 (3-3.5')
Date/Time Collected: 01/23/97 14:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	1.2	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43458
Tag: WA30-7 (3.5-4')
Date/Time Collected: 01/23/97 14:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97

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FECL #: AA43458 (Continued)
Tag: WA30-7 (3.5-4')
Date/Time Collected: 01/23/97 14:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43459
Tag: WA31-1 (.5-1')
Date/Time Collected: 01/23/97 14:44
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	I M	01/23/..
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	2.3	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43460
Tag: WA31-2 (1-1.5')
Date/Time Collected: 01/23/97 14:46
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	Not detected	mg/kg	1.0	6020	P R	01/23/97
Copper	Not detected	mg/kg	1.0	6020	P R	01/23/97
Nickel	Not detected	mg/kg	0.50	6020	P R	01/23/97
Zinc	Not detected	mg/kg	1.0	6020	P R	01/23/

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FECL #: AA43461
Tag: WA31-3 (1.5-2')
Date/Time Collected: 01/23/97 14:48
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.4	mg/kg	1.0	6020	P R	01/23/97
Copper	5.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	19.8	mg/kg	0.50	6020	P R	01/23/97
Zinc	25.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43462
Tag: WA31-4 (2-2.5')
Date/Time Collected: 01/23/97 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	7.5	mg/kg	1.0	6020	P R	01/23/97
Copper	5.0	mg/kg	1.0	6020	P R	01/23/97
Nickel	17.4	mg/kg	0.50	6020	P R	01/23/97
Zinc	65.8	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43463
Tag: WA31-5 (2.5-3')
Date/Time Collected: 01/23/97 14:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.4	%	1	160.3	I M	01/23/97

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FECL #: AA43463 (Continued)
Tag: WA31-5 (2.5-3')
Date/Time Collected: 01/23/97 14:52
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	10.6	mg/kg	1.0	6020	P R	01/23/97
Copper	6.4	mg/kg	1.0	6020	P R	01/23/97
Nickel	21.5	mg/kg	0.50	6020	P R	01/23/97
Zinc	25.0	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43464
Tag: WA31-6 (3-3.5')
Date/Time Collected: 01/23/97 14:54
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	10.4	mg/kg	1.0	6020	P R	01/23/97
Copper	5.5	mg/kg	1.0	6020	P R	01/23/97
Nickel	23.4	mg/kg	0.50	6020	P R	01/23/97
Zinc	23.1	mg/kg	1.0	6020	P R	01/23/97

FECL #: AA43465
Tag: WA31-7 (3.5-4')
Date/Time Collected: 01/23/97 14:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.6	%	1	160.3	I M	01/23/97
Metals						
Chromium	11.4	mg/kg	1.0	6020	P R	01/23/97
Copper	5.5	mg/kg	1.0	6020	P R	01/23/

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FECL #: AA43465 (Continued)
Tag: WA31-7 (3.5-4')
Date/Time Collected: 01/23/97 14:56
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	23.7	mg/kg	0.50	6020	P R	01/23/97
Zinc	20.9	mg/kg	1.0	6020	P R	01/23/97

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Fi.e & Environme..tal
Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

4144 007 #4

January 23, 1997

Attention: Mr. Jeff Johnson

O'Brien & Gere Engineers, Inc.
39830 Grand River A, Suite B2
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA43239-AA43296

Project: 4144.007 GM Coldwater Rd. West Area
Samples collected by: M. REECE
Date/Time Submitted: 01/22/97 17:42
PO #: Verbal

FECL #: AA43239
Tag: WA2-1 (.5-1')
Date/Time Collected: 01/22/97 10:55
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43240
Tag: WA2-2 (1-1.5')
Date/Time Collected: 01/22/97 11:00
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43241
Tag: WA2-3 (1.5-2')
Date/Time Collected: 01/22/97 11:05
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43242
Tag: WA2-4 (2-2.5')
Date/Time Collected: 01/22/97 11:10
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43243
Tag: WA2-5 (2.5-3')
Date/Time Collected: 01/22/97 11:15
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43244
Tag: WA2-6 (3-3.5')
Date/Time Collected: 01/22/97 11:20
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43245
Tag: WA2-7 (3.5-4')
Date/Time Collected: 01/22/97 11:25
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43246
Tag: WA3-1 (.5-1')
Date/Time Collected: 01/22/97 13:05
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43247
Tag: WA3-2 (1-1.5')
Date/Time Collected: 01/22/97 13:15
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43248
Tag: WA3-3 (1.5-2')
Date/Time Collected: 01/22/97 13:20
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43249
Tag: WA3-4 (2-2.5')
Date/Time Collected: 01/22/97 13:30
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43250
Tag: WA3-5 (2.5-3')
Date/Time Collected: 01/22/97 13:35
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43251
Tag: WA3-6 (3-3.5')
Date/Time Collected: 01/22/97 13:40
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43252
Tag: WA3-7 (3.5-4')
Date/Time Collected: 01/22/97 13:50
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43253
Tag: WA4-1 (.5-1')
Date/Time Collected: 01/22/97 11:45
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43254
Tag: WA4-2 (1-1.5')
Date/Time Collected: 01/22/97 11:50
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43255
Tag: WA4-3 (1.5-2')
Date/Time Collected: 01/22/97 11:55
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43256
Tag: WA4-4 (2-2.5')
Date/Time Collected: 01/22/97 12:00
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43257
Tag: WA4-5 (2.5-3')
Date/Time Collected: 01/22/97 12:05
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43258
Tag: WA5-1 (.5-1')
Date/Time Collected: 01/22/97 12:20
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43259
Tag: WA5-2 (1-1.5')
Date/Time Collected: 01/22/97 12:25
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

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O'Brien & Gere Engineers, Inc.
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FECL #: AA43260
Tag: WA5-3 (1.5-2')
Date/Time Collected: 01/22/97 12:30
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43261
Tag: WA5-4 (2-2.5')
Date/Time Collected: 01/22/97 12:40
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43262
Tag: WA5-5 (2.5-3')
Date/Time Collected: 01/22/97 12:45
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43263
Tag: WA5-6 (3-3.5')
Date/Time Collected: 01/22/97 12:50
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43264
Tag: WA6-1 (.5-1')
Date/Time Collected: 01/22/97 10:10
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43265
Tag: WA6-2 (1-1.5')
Date/Time Collected: 01/22/97 10:20
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

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O'Brien & Gere Engineers, Inc.
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FECL #: AA43266
Tag: WA6-3 (1.5-2')
Date/Time Collected: 01/22/97 10:25
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43267
Tag: WA6-4 (2-2.5')
Date/Time Collected: 01/22/97 10:30
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43268
Tag: WA6-5 (2.5-3')
Date/Time Collected: 01/22/97 10:35
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43269
Tag: WA6-6 (3-3.5')
Date/Time Collected: 01/22/97 10:40
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43270
Tag: WA6-7 (3.5-4')
Date/Time Collected: 01/22/97 10:45
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43271
Tag: WA7-1 (.5-1')
Date/Time Collected: 01/22/97 09:25
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
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FECL #: AA43272
Tag: WA7-2 (1-1.5')
Date/Time Collected: 01/22/97 09:30
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43273
Tag: WA7-3 (1.5-2')
Date/Time Collected: 01/22/97 09:35
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43274
Tag: WA7-4 (2-2.5')
Date/Time Collected: 01/22/97 09:40
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43275
Tag: WA7-5 (2.5-3')
Date/Time Collected: 01/22/97 09:50
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43276
Tag: WA7-6 (3-3.5')
Date/Time Collected: 01/22/97 09:55
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43277
Tag: WA7-7 (3.5-4')
Date/Time Collected: 01/22/97 10:00
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
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FECL #: AA43278
Tag: WA14-1 (.5-1')
Date/Time Collected: 01/22/97 15:20
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43279
Tag: WA14-2 (1-1.5')
Date/Time Collected: 01/22/97 15:25
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43280
Tag: WA14-3 (1.5-2')
Date/Time Collected: 01/22/97 15:30
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43281
Tag: WA14-4 (2-2.5')
Date/Time Collected: 01/22/97 15:35
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43282
Tag: WA14-5 (2.5-3')
Date/Time Collected: 01/22/97 15:40
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43283
Tag: WA15-1 (.5-1')
Date/Time Collected: 01/22/97 14:45
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43284
Tag: WA15-2 (1-1.5')
Date/Time Collected: 01/22/97 14:50
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43285
Tag: WA15-3 (1.5-2')
Date/Time Collected: 01/22/97 14:55
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43286
Tag: WA15-4 (2-2.5')
Date/Time Collected: 01/22/97 15:00
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43287
Tag: WA15-5 (2.5-3')
Date/Time Collected: 01/22/97 15:05
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43288
Tag: WA15-6 (3-3.5')
Date/Time Collected: 01/22/97 15:10
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43289
Tag: WA15-7 (3.5-4')
Date/Time Collected: 01/22/97 15:15
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
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FECL #: AA43290
Tag: WA16-1 (.5-1')
Date/Time Collected: 01/22/97 16:00
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43291
Tag: WA16-2 (1-1.5')
Date/Time Collected: 01/22/97 16:05
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43292
Tag: WA16-3 (1.5-2')
Date/Time Collected: 01/22/97 16:10
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43293
Tag: WA16-4 (2-2.5')
Date/Time Collected: 01/22/97 16:15
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43294
Tag: WA16-5 (2.5-3')
Date/Time Collected: 01/22/97 16:20
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

FECL #: AA43295
Tag: WA16-6 (3-3.5')
Date/Time Collected: 01/22/97 16:25
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43296
Tag: WA16-7 (3.5-4')
Date/Time Collected: 01/22/97 16:30
Matrix: Soil
Container(s): 1-Glass Jar
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43239
Tag: WA2-1 (.5-1')
Date/Time Collected: 01/22/97 10:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	172	mg/kg	1.0	6020	P R	01/22/97
Copper	99.0	mg/kg	1.0	6020	P R	01/22/97
Nickel	129	mg/kg	0.50	6020	P R	01/22/97
Zinc	121	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43240
Tag: WA2-2 (1-1.5')
Date/Time Collected: 01/22/97 11:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.5	%	1	160.3	I M	01/23/97
Metals						
Chromium	324	mg/kg	1.0	6020	P R	01/22/97
Copper	184	mg/kg	1.0	6020	P R	01/22/97
Nickel	206	mg/kg	0.50	6020	P R	01/22/97
Zinc	205	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43241
Tag: WA2-3 (1.5-2')
Date/Time Collected: 01/22/97 11:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	01/23/97

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O'Brien & Gere Engineers, Inc.
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FECL #: AA43241 (Continued)
Tag: WA2-3 (1.5-2')
Date/Time Collected: 01/22/97 11:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	359	mg/kg	1.0	6020	P R	01 22/97
Copper	221	mg/kg	1.0	6020	P R	01 22/97
Nickel	196	mg/kg	0.50	6020	P R	01 22/97
Zinc	231	mg/kg	1.0	6020	P R	01 22/97

FECL #: AA43242
Tag: WA2-4 (2-2.5')
Date/Time Collected: 01/22/97 11:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	47.8	mg/kg	1.0	6020	P R	01/22/97
Copper	25.7	mg/kg	1.0	6020	P R	01/22/97
Nickel	40.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	40.9	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43243
Tag: WA2-5 (2.5-3')
Date/Time Collected: 01/22/97 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.2	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.0	mg/kg	1.0	6020	P R	01/22/97
Copper	5.3	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43243 (Continued)
Tag: WA2-5 (2.5-3')
Date/Time Collected: 01/22/97 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	8.9	mg/kg	0.50	6020	P R	01/22/97
Zinc	20.2	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43244
Tag: WA2-6 (3-3.5')
Date/Time Collected: 01/22/97 11:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	I M	01/23.
Metals						
Chromium	5.8	mg/kg	1.0	6020	P R	01/22/97
Copper	4.3	mg/kg	1.0	6020	P R	01/22/97
Nickel	16.6	mg/kg	0.50	6020	P R	01/22/97
Zinc	17.3	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43245
Tag: WA2-7 (3.5-4')
Date/Time Collected: 01/22/97 11:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.3	mg/kg	1.0	6020	P R	01/22/97
Copper	3.9	mg/kg	1.0	6020	P R	01/22/97
Nickel	21.4	mg/kg	0.50	6020	P R	01/22/97
Zinc	14.1	mg/kg	1.0	6020	P R	01/22/97

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
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FECL #: AA43246
Tag: WA3-1 (.5-1')
Date/Time Collected: 01/22/97 13:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	128	mg/kg	1.0	6020	P R	01/22/97
Copper	72.7	mg/kg	1.0	6020	P R	01/22/97
Nickel	92.4	mg/kg	0.50	6020	P R	01/22/97
Zinc	100	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43247
Tag: WA3-2 (1-1.5')
Date/Time Collected: 01/22/97 13:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	333	mg/kg	1.0	6020	P R	01/22/97
Copper	175	mg/kg	1.0	6020	P R	01/22/97
Nickel	201	mg/kg	0.50	6020	P R	01/22/97
Zinc	209	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43248
Tag: WA3-3 (1.5-2')
Date/Time Collected: 01/22/97 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	I M	01/23/97

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FECL #: AA43248 (Continued)
Tag: WA3-3 (1.5-2')
Date/Time Collected: 01/22/97 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	285	mg/kg	1.0	6020	P R	01/22/9
Copper	151	mg/kg	1.0	6020	P R	01/22/9
Nickel	188	mg/kg	0.50	6020	P R	01/22/9
Zinc	185	mg/kg	1.0	6020	P R	01/22/9

FECL #: AA43249
Tag: WA3-4 (2-2.5')
Date/Time Collected: 01/22/97 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date F
Inorganics						
Total Solids	90.2	%	1	160.3	I M	01/23/9
Metals						
Chromium	81.9	mg/kg	1.0	6020	P R	01/22/9
Copper	41.6	mg/kg	1.0	6020	P R	01/22/9
Nickel	56.0	mg/kg	0.50	6020	P R	01/22/9
Zinc	63.6	mg/kg	1.0	6020	P R	01/22/9

FECL #: AA43250
Tag: WA3-5 (2.5-3')
Date/Time Collected: 01/22/97 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	I M	01/23/9
Metals						
Chromium	150	mg/kg	1.0	6020	P R	01/22/9
Copper	55.3	mg/kg	1.0	6020	P R	01/22/

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FECL #: AA43250 (Continued)
Tag: WA3-5 (2.5-3')
Date/Time Collected: 01/22/97 13:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	60.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	72.8	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43251
Tag: WA3-6 (3-3.5')
Date/Time Collected: 01/22/97 13:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	01/22/97
Copper	4.8	mg/kg	1.0	6020	P R	01/22/97
Nickel	16.5	mg/kg	0.50	6020	P R	01/22/97
Zinc	16.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43252
Tag: WA3-7 (3.5-4')
Date/Time Collected: 01/22/97 13:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.9	mg/kg	1.0	6020	P R	01/22/97
Copper	5.1	mg/kg	1.0	6020	P R	01/22/97
Nickel	19.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	15.3	mg/kg	1.0	6020	P R	01/22/97

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O'Brien & Gere Engineers, Inc.
January 23, 1997

FECL #: AA43253
Tag: WA4-1 (.5-1')
Date/Time Collected: 01/22/97 11:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	71.7	mg/kg	1.0	6020	P R	01/22/97
Copper	42.5	mg/kg	1.0	6020	P R	01/22/97
Nickel	51.0	mg/kg	0.50	6020	P R	01/22/97
Zinc	62.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43254
Tag: WA4-2 (1-1.5')
Date/Time Collected: 01/22/97 11:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	82.4	%	1	160.3	I M	01/23/97
Metals						
Chromium	6.0	mg/kg	1.0	6020	P R	01/22/97
Copper	4.9	mg/kg	1.0	6020	P R	01/22/97
Nickel	13.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	16.0	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43255
Tag: WA4-3 (1.5-2')
Date/Time Collected: 01/22/97 11:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	I M	01/23/97

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FECL #: AA43255 (Continued)
Tag: WA4-3 (1.5-2')
Date/Time Collected: 01/22/97 11:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	3.7	mg/kg	1.0	6020	P R	01/22/97
Copper	3.3	mg/kg	1.0	6020	P R	01/22/97
Nickel	13.8	mg/kg	0.50	6020	P R	01/22/97
Zinc	9.8	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43256
Tag: WA4-4 (2-2.5')
Date/Time Collected: 01/22/97 12:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.3	mg/kg	1.0	6020	P R	01/22/97
Copper	4.2	mg/kg	1.0	6020	P R	01/22/97
Nickel	8.8	mg/kg	0.50	6020	P R	01/22/97
Zinc	12.3	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43257
Tag: WA4-5 (2.5-3')
Date/Time Collected: 01/22/97 12:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.1	mg/kg	1.0	6020	P R	01/22/97
Copper	3.2	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43257 (Continued)
Tag: WA4-5 (2.5-3')
Date/Time Collected: 01/22/97 12:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	15.6	mg/kg	0.50	6020	P R	01/22/97
Zinc	11.3	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43258
Tag: WA5-1 (.5-1')
Date/Time Collected: 01/22/97 12:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.8	%	1	160.3	I M	01/23.
Metals						
Chromium	141	mg/kg	1.0	6020	P R	01/22/97
Copper	79.7	mg/kg	1.0	6020	P R	01/22/97
Nickel	85.5	mg/kg	0.50	6020	P R	01/22/97
Zinc	94.5	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43259
Tag: WA5-2 (1-1.5')
Date/Time Collected: 01/22/97 12:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	63.7	mg/kg	1.0	6020	P R	01/22/97
Copper	41.1	mg/kg	1.0	6020	P R	01/22/97
Nickel	37.2	mg/kg	0.50	6020	P R	01/22/97
Zinc	46.4	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43260
Tag: WA5-3 (1.5-2')
Date/Time Collected: 01/22/97 12:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.0	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.1	mg/kg	1.0	6020	P R	01/22/97
Copper	4.0	mg/kg	1.0	6020	P R	01/22/97
Nickel	15.4	mg/kg	0.50	6020	P R	01/22/97
Zinc	13.4	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43261
Tag: WA5-4 (2-2.5')
Date/Time Collected: 01/22/97 12:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.4	mg/kg	1.0	6020	P R	01/22/97
Copper	4.6	mg/kg	1.0	6020	P R	01/22/97
Nickel	15.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	16.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43262
Tag: WA5-5 (2.5-3')
Date/Time Collected: 01/22/97 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	I M	01/23/97

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FECL #: AA43262 (Continued)
Tag: WA5-5 (2.5-3')
Date/Time Collected: 01/22/97 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	4.9	mg/kg	1.0	6020	P R	01/22/97
Copper	4.0	mg/kg	1.0	6020	P R	01/22/97
Nickel	15.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	14.8	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43263
Tag: WA5-6 (3-3.5')
Date/Time Collected: 01/22/97 12:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R
Inorganics						
Total Solids	90.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.1	mg/kg	1.0	6020	P R	01/22/97
Copper	3.1	mg/kg	1.0	6020	P R	01/22/97
Nickel	17.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	12.2	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43264
Tag: WA6-1 (.5-1')
Date/Time Collected: 01/22/97 10:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	138	mg/kg	1.0	6020	P R	01/22/97
Copper	178	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43264 (Continued)
Tag: WA6-1 (.5-1')
Date/Time Collected: 01/22/97 10:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	212	mg/kg	0.50	6020	P R	01 22/97
Zinc	622	mg/kg	1.0	6020	P R	01 22/97

FECL #: AA43265
Tag: WA6-2 (1-1.5')
Date/Time Collected: 01/22/97 10:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.3	%	1	160.3	I M	01 23/97
Metals						
Chromium	12.5	mg/kg	1.0	6020	P R	01 22/97
Copper	6.0	mg/kg	1.0	6020	P R	01 22/97
Nickel	17.1	mg/kg	0.50	6020	P R	01 22/97
Zinc	21.7	mg/kg	1.0	6020	P R	01 22/97

FECL #: AA43266
Tag: WA6-3 (1.5-2')
Date/Time Collected: 01/22/97 10:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01 23/97
Metals						
Chromium	4.3	mg/kg	1.0	6020	P R	01 22/97
Copper	4.9	mg/kg	1.0	6020	P R	01 22/97
Nickel	19.2	mg/kg	0.50	6020	P R	01 22/97
Zinc	17.7	mg/kg	1.0	6020	P R	01 22/97

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FECL #: AA43267
Tag: WA6-4 (2-2.5')
Date/Time Collected: 01/22/97 10:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.0	mg/kg	1.0	6020	P R	01/22/97
Copper	3.8	mg/kg	1.0	6020	P R	01/22/97
Nickel	3.9	mg/kg	0.50	6020	P R	01/22/97
Zinc	8.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43268
Tag: WA6-5 (2.5-3')
Date/Time Collected: 01/22/97 10:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.2	mg/kg	1.0	6020	P R	01/22/97
Copper	3.6	mg/kg	1.0	6020	P R	01/22/97
Nickel	5.4	mg/kg	0.50	6020	P R	01/22/97
Zinc	9.5	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43269
Tag: WA6-6 (3-3.5')
Date/Time Collected: 01/22/97 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	I M	01/23/97

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FECL #: AA43269 (Continued)
Tag: WA6-6 (3-3.5')
Date/Time Collected: 01/22/97 10:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	5.8	mg/kg	1.0	6020	P R	01/22/97
Copper	4.5	mg/kg	1.0	6020	P R	01/22/97
Nickel	8.6	mg/kg	0.50	6020	P R	01/22/97
Zinc	15.3	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43270
Tag: WA6-7 (3.5-4')
Date/Time Collected: 01/22/97 10:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.4	mg/kg	1.0	6020	P R	01/22/97
Copper	6.4	mg/kg	1.0	6020	P R	01/22/97
Nickel	16.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	25.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43271
Tag: WA7-1 (.5-1')
Date/Time Collected: 01/22/97 09:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	41.5	mg/kg	1.0	6020	P R	01/22/97
Copper	28.7	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43271 (Continued)
Tag: WA7-1 (.5-1')
Date/Time Collected: 01/22/97 09:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	52.6	mg/kg	0.50	6020	P R	01/22/97
Zinc	45.5	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43272
Tag: WA7-2 (1-1.5')
Date/Time Collected: 01/22/97 09:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01/23/..
Metals						
Chromium	5.2	mg/kg	1.0	6020	P R	01/22/97
Copper	6.7	mg/kg	1.0	6020	P R	01/22/97
Nickel	21.2	mg/kg	0.50	6020	P R	01/22/97
Zinc	31.1	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43273
Tag: WA7-3 (1.5-2')
Date/Time Collected: 01/22/97 09:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	5.3	mg/kg	1.0	6020	P R	01/22/97
Copper	8.0	mg/kg	1.0	6020	P R	01/22/97
Nickel	20.6	mg/kg	0.50	6020	P R	01/22/97
Zinc	28.4	mg/kg	1.0	6020	P R	01/22/

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FECL #: AA43274
Tag: WA7-4 (2-2.5')
Date/Time Collected: 01/22/97 09:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.7	%	1	160.3	I M	01/23/97
Metals						
Chromium	4.5	mg/kg	1.0	6020	P R	01/22/97
Copper	7.6	mg/kg	1.0	6020	P R	01/22/97
Nickel	5.6	mg/kg	0.50	6020	P R	01/22/97
Zinc	12.3	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43275
Tag: WA7-5 (2.5-3')
Date/Time Collected: 01/22/97 09:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.1	mg/kg	1.0	6020	P R	01/22/97
Copper	3.7	mg/kg	1.0	6020	P R	01/22/97
Nickel	3.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	8.3	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43276
Tag: WA7-6 (3-3.5')
Date/Time Collected: 01/22/97 09:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97

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FECL #: AA43276 (Continued)
Tag: WA7-6 (3-3.5')
Date/Time Collected: 01/22/97 09:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	2.9	mg/kg	1.0	6020	P R	01/22/97
Copper	3.3	mg/kg	1.0	6020	P R	01/22/97
Nickel	5.2	mg/kg	0.50	6020	P R	01/22/97
Zinc	9.6	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43277
Tag: WA7-7 (3.5-4')
Date/Time Collected: 01/22/97 10:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date R
Inorganics						
Total Solids	86.8	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.5	mg/kg	1.0	6020	P R	01/22/97
Copper	4.4	mg/kg	1.0	6020	P R	01/22/97
Nickel	12.9	mg/kg	0.50	6020	P R	01/22/97
Zinc	12.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43278
Tag: WA14-1 (.5-1')
Date/Time Collected: 01/22/97 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	325	mg/kg	1.0	6020	P R	01/22/97
Copper	255	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43278 (Continued)
Tag: WA14-1 (.5-1')
Date/Time Collected: 01/22/97 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	358	mg/kg	0.50	6020	P R	01/22/97
Zinc	277	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43279
Tag: WA14-2 (1-1.5')
Date/Time Collected: 01/22/97 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
otal Solids	82.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	269	mg/kg	1.0	6020	P R	01/22/97
Copper	194	mg/kg	1.0	6020	P R	01/22/97
Nickel	258	mg/kg	0.50	6020	P R	01/22/97
Zinc	223	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43280
Tag: WA14-3 (1.5-2')
Date/Time Collected: 01/22/97 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.9	mg/kg	1.0	6020	P R	01/22/97
Copper	5.6	mg/kg	1.0	6020	P R	01/22/97
Nickel	8.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	11.3	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43281
Tag: WA14-4 (2-2.5')
Date/Time Collected: 01/22/97 15:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	2.2	mg/kg	1.0	6020	P R	01/22/97
Copper	2.7	mg/kg	1.0	6020	P R	01/22/97
Nickel	1.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	4.4	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43282
Tag: WA14-5 (2.5-3')
Date/Time Collected: 01/22/97 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.0	mg/kg	1.0	6020	P R	01/22/97
Copper	2.0	mg/kg	1.0	6020	P R	01/22/97
Nickel	2.0	mg/kg	0.50	6020	P R	01/22/97
Zinc	6.5	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43283
Tag: WA15-1 (.5-1')
Date/Time Collected: 01/22/97 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	I M	01/23/97

FECL #: AA43283 (Continued)
Tag: WA15-1 (.5-1')
Date/Time Collected: 01/22/97 14:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	101	mg/kg	1.0	6020	P R	01/22/97
Copper	93.4	mg/kg	1.0	6020	P R	01/22/97
Nickel	104	mg/kg	0.50	6020	P R	01/22/97
Zinc	93.4	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43284
Tag: WA15-2 (1-1.5')
Date/Time Collected: 01/22/97 14:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.8	mg/kg	1.0	6020	P R	01/22/97
Copper	5.1	mg/kg	1.0	6020	P R	01/22/97
Nickel	15.4	mg/kg	0.50	6020	P R	01/22/97
Zinc	18.6	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43285
Tag: WA15-3 (1.5-2')
Date/Time Collected: 01/22/97 14:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	4.6	mg/kg	1.0	6020	P R	01/22/97
Copper	4.4	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43285 (Continued)
Tag: WA15-3 (1.5-2')
Date/Time Collected: 01/22/97 14:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	13.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	15.1	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43286
Tag: WA15-4 (2-2.5')
Date/Time Collected: 01/22/97 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.2	%	1	160.3	I M	01/23/
Metals						
Chromium	3.3	mg/kg	1.0	6020	P R	01/22/97
Copper	4.2	mg/kg	1.0	6020	P R	01/22/97
Nickel	10.2	mg/kg	0.50	6020	P R	01/22/97
Zinc	13.4	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43287
Tag: WA15-5 (2.5-3')
Date/Time Collected: 01/22/97 15:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.0	mg/kg	1.0	6020	P R	01/22/97
Copper	3.5	mg/kg	1.0	6020	P R	01/22/97
Nickel	10.8	mg/kg	0.50	6020	P R	01/22/97
Zinc	12.3	mg/kg	1.0	6020	P R	01/22/9

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FECL #: AA43288
Tag: WA15-6 (3-3.5')
Date/Time Collected: 01/22/97 15:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	2.9	mg/kg	1.0	6020	P R	01/22/97
Copper	3.5	mg/kg	1.0	6020	P R	01/22/97
Nickel	12.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	13.8	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43289
Tag: WA15-7 (3.5-4')
Date/Time Collected: 01/22/97 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.9	mg/kg	1.0	6020	P R	01/22/97
Copper	5.4	mg/kg	1.0	6020	P R	01/22/97
Nickel	13.3	mg/kg	0.50	6020	P R	01/22/97
Zinc	18.5	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43290
Tag: WA16-1 (.5-1')
Date/Time Collected: 01/22/97 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.0	%	1	160.3	I M	01/23/97

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FECL #: AA43290 (Continued)
Tag: WA16-1 (.5-1')
Date/Time Collected: 01/22/97 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	79.2	mg/kg	1.0	6020	P R	01/22/97
Copper	55.1	mg/kg	1.0	6020	P R	01/22/97
Nickel	59.4	mg/kg	0.50	6020	P R	01/22/97
Zinc	69.7	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43291
Tag: WA16-2 (1-1.5')
Date/Time Collected: 01/22/97 16:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	01/23/97
Metals						
Chromium	323	mg/kg	1.0	6020	P R	01/22/97
Copper	176	mg/kg	1.0	6020	P R	01/22/97
Nickel	225	mg/kg	0.50	6020	P R	01/22/97
Zinc	218	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43292
Tag: WA16-3 (1.5-2')
Date/Time Collected: 01/22/97 16:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	I M	01/23/97
Metals						
Chromium	431	mg/kg	1.0	6020	P R	01/22/97
Copper	244	mg/kg	1.0	6020	P R	01/22/97

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FECL #: AA43292 (Continued)
Tag: WA16-3 (1.5-2')
Date/Time Collected: 01/22/97 16:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	313	mg/kg	0.50	6020	P R	01/22/97
Zinc	287	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43293
Tag: WA16-4 (2-2.5')
Date/Time Collected: 01/22/97 16:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	9.4	mg/kg	1.0	6020	P R	01/22/97
Copper	7.4	mg/kg	1.0	6020	P R	01/22/97
Nickel	21.7	mg/kg	0.50	6020	P R	01/22/97
Zinc	14.4	mg/kg	1.0	6020	P R	01/22/97

FECL #: AA43294
Tag: WA16-5 (2.5-3')
Date/Time Collected: 01/22/97 16:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	I M	01/23/97
Metals						
Chromium	3.6	mg/kg	1.0	6020	P R	01/22/97
Copper	4.9	mg/kg	1.0	6020	P R	01/22/97
Nickel	11.9	mg/kg	0.50	6020	P R	01/22/97
Zinc	14.4	mg/kg	1.0	6020	P R	01/22/97

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January 23, 1997

FECL #: AA43295
Tag: WA16-6 (3-3.5')
Date/Time Collected: 01/22/97 16:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.1	%	1	160.3	I M	01/23/9[illegible]
Metals						
Chromium	5.4	mg/kg	1.0	6020	P R	01/22/9[illegible]
Copper	4.9	mg/kg	1.0	6020	P R	01/22/9[illegible]
Nickel	13.1	mg/kg	0.50	6020	P R	01/22/9[illegible]
Zinc	14.2	mg/kg	1.0	6020	P R	01/22/9[illegible]

FECL #: AA43296
Tag: WA16-7 (3.5-4')
Date/Time Collected: 01/22/97 16:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	I M	01/23/9[illegible]
Metals						
Chromium	3.7	mg/kg	1.0	6020	P R	01/22/9[illegible]
Copper	4.2	mg/kg	1.0	6020	P R	01/22/9[illegible]
Nickel	15.9	mg/kg	0.50	6020	P R	01/22/9[illegible]
Zinc	18.8	mg/kg	1.0	6020	P R	01/22/9[illegible]

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
January 23, 1997

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of FECL.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

APPENDIX Q

Closure Sample Analytical Data Sheets - West Area

Fi. e & Environme. tal Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Drive, Suite 222 East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

FILE: 4144.007 #4

November 22, 1996

Attention: Mr. Jeffrey A. Johnson

O'Brien & Gere Engineers, Inc.
39830 Grand River A, Suite B2
Novi, MI 48375

Analytical Laboratory Report

FECL #(s): AA41588-AA41599

Project: 4144.007 GM Delphi Coldwater Rd. E. Area
Samples collected by: MLR/JJ
Date/Time Submitted: 11/19/96 22:40
PO #: Verbal

FECL #: AA41588
Tag: EA1-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:15
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41589
Tag: EA2-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:20
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41590
Tag: EA3-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:25
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41591
Tag: EA4-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:30
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41592
Tag: EA5-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:35
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41593
Tag: EA6-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:40
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41594
Tag: EA7-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:45
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41595
Tag: EA8-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:50
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41596
Tag: EA9-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:55
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41597
Tag: EA10-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:00
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41598
Tag: EA11-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:05
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

FECL #: AA41599
Tag: EA12-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:10
Matrix: Soil
Container(s): 1-4 oz Glass
Preservation: Refrigeration/None

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41588
Tag: EA1-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	I M	11/20/96
Metals						
Chromium	123	mg/kg	1.0	6020	P R	11/21/96
Copper	67.2	mg/kg	1.0	6020	P R	11/21/96
Nickel	97.5	mg/kg	0.50	6020	P R	11/21/96
Zinc	93.2	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41589
Tag: EA2-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	I M	11/20/96
Metals						
Chromium	357	mg/kg	1.0	6020	P R	11/21/96
Copper	186	mg/kg	1.0	6020	P R	11/21/96
Nickel	248	mg/kg	0.50	6020	P R	11/21/96
Zinc	205	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41590
Tag: EA3-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.1	%	1	160.3	I M	11/20/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41590 (Continued)
Tag: EA3-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	183	mg/kg	1.0	6020	P R	11/21/96
Copper	108	mg/kg	1.0	6020	P R	11/21/96
Nickel	140	mg/kg	0.50	6020	P R	11/21/96
Zinc	120	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41591
Tag: EA4-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	11/20/96
Metals						
Chromium	196	mg/kg	1.0	6020	P R	11/21/96
Copper	96.9	mg/kg	1.0	6020	P R	11/21/96
Nickel	140	mg/kg	0.50	6020	P R	11/21/96
Zinc	155	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41592
Tag: EA5-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	I M	11/20/96
Metals						
Chromium	28.2	mg/kg	1.0	6020	P R	11/21/96
Copper	16.9	mg/kg	1.0	6020	P R	11/21/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41592 (Continued)
Tag: EA5-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	27.2	mg/kg	0.50	6020	P R	11/21/96
Zinc	34.0	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41593
Tag: EA6-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	I M	11/2(
Metals						
Chromium	48.6	mg/kg	1.0	6020	P R	11/21/96
Copper	27.6	mg/kg	1.0	6020	P R	11/21/96
Nickel	43.6	mg/kg	0.50	6020	P R	11/21/96
Zinc	50.0	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41594
Tag: EA7-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	83.9	%	1	160.3	I M	11/20/96
Metals						
Chromium	342	mg/kg	1.0	6020	P R	11/21/96
Copper	207	mg/kg	1.0	6020	P R	11/21/96
Nickel	258	mg/kg	0.50	6020	P R	11/21/96
Zinc	268	mg/kg	1.0	6020	P R	11/21/9[illegible]

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41595
Tag: EA8-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.4	%	1	160.3	I M	11/20/96
Metals						
Chromium	210	mg/kg	1.0	6020	P R	11/21/96
Copper	130	mg/kg	1.0	6020	P R	11/21/96
Nickel	159	mg/kg	0.50	6020	P R	11/21/96
Zinc	189	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41596
Tag: EA9-0 (0-0.5ft)
Date/Time Collected: 11/18/96 15:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	11/20/96
Metals						
Chromium	102	mg/kg	1.0	6020	P R	11/21/96
Copper	54.8	mg/kg	1.0	6020	P R	11/21/96
Nickel	78.8	mg/kg	0.50	6020	P R	11/21/96
Zinc	80.9	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41597
Tag: EA10-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.0	%	1	160.3	I M	11/20/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41597 (Continued)
Tag: EA10-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	337	mg/kg	1.0	6020	P R	11/21/96
Copper	120	mg/kg	1.0	6020	P R	11/21/96
Nickel	213	mg/kg	0.50	6020	P R	11/21/96
Zinc	170	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41598
Tag: EA11-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	I M	11/20/96
Metals						
Chromium	181	mg/kg	1.0	6020	P R	11/21/96
Copper	95.6	mg/kg	1.0	6020	P R	11/21/96
Nickel	134	mg/kg	0.50	6020	P R	11/21/96
Zinc	138	mg/kg	1.0	6020	P R	11/21/96

FECL #: AA41599
Tag: EA12-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.1	%	1	160.3	I M	11/20/96
Metals						
Chromium	155	mg/kg	1.0	6020	P R	11/21/96
Copper	83.1	mg/kg	1.0	6020	P R	11/21/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
November 22, 1996

FECL #: AA41599 (Continued)
Tag: EA12-0 (0-0.5ft)
Date/Time Collected: 11/18/96 16:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	114	mg/kg	0.50	6020	P R	11/21/96
Zinc	140	mg/kg	1.0	6020	P R	11/21/96

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.
Results relate only to items tested.
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Violetta F. Murshak 3.B.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
December 02, 1996

FECL #: AA41910
Tag: WA14-[illegible].5 ft
Date/Time Collected: 11/15/96 12:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.7	%	1	160.3	I M	12/01/96
Metals						
Chromium	95.5	mg/kg	1.0	6020	E B	11/27/96
Copper	73.2	mg/kg	1.0	6020	E B	11/27/96
Nickel	87.4	mg/kg	0.50	6020	E B	11/27/96
Zinc	96.8	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41911
Tag: EA2-1 (.5-1 ft)
Date/Time Collected: 11/19/96 11:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.8	%	1	160.3	I M	12/01/96
Metals						
Chromium	5.0	mg/kg	1.0	6020	E B	11/27/96
Copper	4.1	mg/kg	1.0	6020	E B	11/27/96
Nickel	12.0	mg/kg	0.50	6020	E B	11/27/96
Zinc	18.9	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41912
Tag: EA4-1 (.5-1 ft)
Date/Time Collected: 11/19/96 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.5	%	1	160.3	I M	12/01/96

Analytical Laboratory Report
O'Brien & Gere Engineers, Inc.
December 02, 1996

FECL #: AA41912 (Continued)
Tag: EA4-1 (.5-1 ft)
Date/Time Collected: 11/19/96 12:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	51.7	mg/kg	1.0	6020	E B	11/27/96
Copper	34.9	mg/kg	1.0	6020	E B	11/27/96
Nickel	47.4	mg/kg	0.50	6020	E B	11/27/96
Zinc	89.3	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41913
Tag: EA6-1 (.5-1 ft)
Date/Time Collected: 11/19/96 13:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	I M	12/01/96
Metals						
Chromium	61.2	mg/kg	1.0	6020	E B	11/27/96
Copper	40.3	mg/kg	1.0	6020	E B	11/27/96
Nickel	51.9	mg/kg	0.50	6020	E B	11/27/96
Zinc	71.2	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41914
Tag: EA8-1 (.5-1 ft)
Date/Time Collected: 11/19/96 13:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.2	%	1	160.3	I M	12/01/96
Metals						
Chromium	186	mg/kg	1.0	6020	E B	11/27/96
Copper	120	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41914 (Continued)
Tag: EA8-1 (.5-1 ft)
Date/Time Collected: 11/19/96 13:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	142	mg/kg	0.50	6020	E B	11/27/96
Zinc	173	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41915
Tag: EA10-1
Date/Time Collected: 11/19/96 14:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.3	%	1	160.3	I M	12/01/96
Metals						
Chromium	91.1	mg/kg	1.0	6020	E B	11/27/96
Copper	62.5	mg/kg	1.0	6020	E B	11/27/96
Nickel	78.3	mg/kg	0.50	6020	E B	11/27/96
Zinc	109	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41916
Tag: EA12-1 (.5-1 ft)
Date/Time Collected: 11/19/96 15:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	12/01/96
Metals						
Chromium	196	mg/kg	1.0	6020	E B	11/27/96
Copper	131	mg/kg	1.0	6020	E B	11/27/96
Nickel	147	mg/kg	0.50	6020	E B	11/27/96
Zinc	188	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA41917
Tag: EA15-0
Date/Time Collected: 11/18/96 16:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	I M	12/01/96
Metals						
Chromium	29.6	mg/kg	1.0	6020	E B	11/27/96
Copper	25.0	mg/kg	1.0	6020	E B	11/27/96
Nickel	31.2	mg/kg	0.50	6020	E B	11/27/96
Zinc	78.8	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41918
Tag: EA16-0
Date/Time Collected: 11/18/96 16:10
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	I M	12/01/96
Metals						
Chromium	16.5	mg/kg	1.0	6020	E B	11/27/96
Copper	13.3	mg/kg	1.0	6020	E B	11/27/96
Nickel	22.1	mg/kg	0.50	6020	E B	11/27/96
Zinc	49.8	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41919
Tag: EA17-0
Date/Time Collected: 11/18/96 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.1	%	1	160.3	I M	12/01/96

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FECL #: AA41919 (Continued)
Tag: EA17-0
Date/Time Collected: 11/18/96 16:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	25.1	mg/kg	1.0	6020	E B	11/27/96
Copper	16.4	mg/kg	1.0	6020	E B	11/27/96
Nickel	31.8	mg/kg	0.50	6020	E B	11/27/96
Zinc	51.7	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41920
Tag: EA18-0
Date/Time Collected: 11/18/96 15:55
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%	1	160.3	I M	12/01/96
Metals						
Chromium	27.8	mg/kg	1.0	6020	E B	11/27/96
Copper	17.6	mg/kg	1.0	6020	E B	11/27/96
Nickel	29.6	mg/kg	0.50	6020	E B	11/27/96
Zinc	41.2	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41921
Tag: EA19-0
Date/Time Collected: 11/18/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	I M	12/01/96
Metals						
Chromium	46.9	mg/kg	1.0	6020	E B	11/27/96
Copper	26.2	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA41921 (Continued)
Tag: EA19-0
Date/Time Collected: 11/18/96 15:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	33.0	mg/kg	0.50	6020	E B	11/27/96
Zinc	85.9	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41922
Tag: EA20-0
Date/Time Collected: 11/18/96 15:45
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.5	%	1	160.3	I M	12/0
Metals						
Chromium	34.6	mg/kg	1.0	6020	E B	11/27/96
Copper	21.1	mg/kg	1.0	6020	E B	11/27/96
Nickel	36.2	mg/kg	0.50	6020	E B	11/27/96
Zinc	66.5	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41923
Tag: EA21-0
Date/Time Collected: 11/18/96 15:40
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.6	%	1	160.3	I M	12/01/96
Metals						
Chromium	34.8	mg/kg	1.0	6020	E B	11/27/96
Copper	22.0	mg/kg	1.0	6020	E B	11/27/96
Nickel	33.6	mg/kg	0.50	6020	E B	11/27/96
Zinc	57.1	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA41924
Tag: EA23-0
Date/Time Collected: 11/18/96 15:35
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	88.8	%	1	160.3	I M	12/01/9
Metals						
Chromium	49.0	mg/kg	1.0	6020	E B	11/27/9
Copper	32.1	mg/kg	1.0	6020	E B	11/27/9
Nickel	44.4	mg/kg	0.50	6020	E B	11/27/9
Zinc	54.5	mg/kg	1.0	6020	E B	11/27/9

FECL #: AA41925
Tag: EA24-0
Date/Time Collected: 11/18/96 15:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	89.3	%	1	160.3	I M	12/01/9
Metals						
Chromium	35.8	mg/kg	1.0	6020	E B	11/27/9
Copper	18.5	mg/kg	1.0	6020	E B	11/27/9
Nickel	28.0	mg/kg	0.50	6020	E B	11/27/9
Zinc	26.5	mg/kg	1.0	6020	E B	11/27/9

FECL #: AA41926
Tag: EA25-0
Date/Time Collected: 11/18/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	89.6	%	1	160.3	I M	12/01/9

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FECL #: AA41926 (Continued)
Tag: EA25-0
Date/Time Collected: 11/18/96 15:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	28.9	mg/kg	1.0	6020	E B	11/27/96
Copper	20.3	mg/kg	1.0	6020	E B	11/27/96
Nickel	28.7	mg/kg	0.50	6020	E B	11/27/96
Zinc	40.1	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41927
Tag: EA26-0
Date/Time Collected: 11/18/96 15:15
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.9	%	1	160.3	I M	12/01/96
Metals						
Chromium	39.2	mg/kg	1.0	6020	E B	11/27/96
Copper	23.0	mg/kg	1.0	6020	E B	11/27/96
Nickel	35.2	mg/kg	0.50	6020	E B	11/27/96
Zinc	30.6	mg/kg	1.0	6020	E B	11/27/96

FECL #: AA41930
Tag: WA-0 0-0.5
Date/Time Collected: 11/26/96 16:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.0	%		160.3	I M	12/01/96
Metals						
Chromium	139	mg/kg	1.0	6020	E B	11/27/96
Copper	89.7	mg/kg	1.0	6020	E B	11/27/96

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FECL #: AA42136
Tag: EA2-2
Date/Time Collected: 11/19/96 11:25
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.5	%	1	160.3	JH	12/04/96
Metals						
Chromium	106	mg/kg	1.0	6020	E B	12/05/96
Copper	48.4	mg/kg	1.0	6020	E B	12/05/96
Nickel	77.6	mg/kg	0.50	6020	E B	12/05/96
Zinc	81.0	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42137
Tag: EA4-2
Date/Time Collected: 11/19/96 12:50
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	89.9	%	1	160.3	JH	12/04/96
Metals						
Chromium	22.3	mg/kg	1.0	6020	E B	12/05/96
Copper	15.0	mg/kg	1.0	6020	E B	12/05/96
Nickel	29.7	mg/kg	0.50	6020	E B	12/05/96
Zinc	54.8	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42138
Tag: EA6-2
Date/Time Collected: 11/19/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.3	%	1	160.3	JH	12/04/96

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FECL #: AA42138 (Continued)
Tag: EA6-2
Date/Time Collected: 11/19/96 13:30
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	247	mg/kg	1.0	6020	E B	12/05/96
Copper	142	mg/kg	1.0	6020	E B	12/05/96
Nickel	197	mg/kg	0.50	6020	E B	12/05/96
Zinc	210	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42139
Tag: EA8-2
Date/Time Collected: 11/19/96 14:00
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.1	%	1	160.3	JH	12/04/96
Metals						
Chromium	362	mg/kg	1.0	6020	E B	12/05/96
Copper	232	mg/kg	1.0	6020	E B	12/05/96
Nickel	319	mg/kg	0.50	6020	E B	12/05/96
Zinc	322	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42140
Tag: EA10-2
Date/Time Collected: 11/19/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.7	%	1	160.3	JH	12/04/96
Metals						
Chromium	19.1	mg/kg	1.0	6020	E B	12/05/96
Copper	13.4	mg/kg	1.0	6020	E B	12/05/96

FECL

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FECL #: AA42140 (Continued)
Tag: EA10-2
Date/Time Collected: 11/19/96 14:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	21.0	mg/kg	0.50	6020	E B	12/05/96
Zinc	48.3	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA42141
Tag: EA12-2
Date/Time Collected: 11/19/96 15:05
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	84.0	%	1	160.3	JH	12/04/96
Metals						
Chromium	162	mg/kg	1.0	6020	E B	12/05/96
Copper	154	mg/kg	1.0	6020	E B	12/05/96
Nickel	164	mg/kg	0.50	6020	E B	12/05/96
Zinc	258	mg/kg	1.0	6020	E B	12/05/96

FECL #: AA4214[illegible]
Tag: W[illegible]15-0
Date/Time Collected: 11/15/96 12:20
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	79.8	%	1	160.3	JH	12/04/96
Metals						
Chromium	12,800	mg/kg	1.0	6020	E B	12/05/96
Copper	9,840	mg/kg	1.0	6020	E B	12/05/96
Nickel	15,700	mg/kg	0.50	6020	E B	12/05/96
Zinc	8,880	mg/kg	1.0	6020	E B	12/05/96

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FECL #: AA42235
Tag: WA10-7
Date/Time Collected: 11/15/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	92.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	6.6	mg/kg	1.0	6020	P R	12/06/96
Copper	13.1	mg/kg	1.0	6020	P R	12/06/96
Nickel	13.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	20.7	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42236
Tag: EA13-0
Date/Time Collected: 11/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.0	%	1	160.3	JH	12/05/96
Metals						
Chromium	189	mg/kg	1.0	6020	P R	12/06/96
Copper	91.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	158	mg/kg	0.50	6020	P R	12/06/96
Zinc	134	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42237
Tag: EA14-0
Date/Time Collected: 11/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.8	%	1	160.3	JH	12/05/96

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FECL #: AA42237 (Continued)
Tag: EA14-0
Date/Time Collected: 11/18/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	59.2	mg/kg	1.0	6020	P R	12/06/96
Copper	43.4	mg/kg	1.0	6020	P R	12/06/96
Nickel	57.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	109	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42238
Tag: EA2-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	95.2	mg/kg	1.0	6020	P R	12/06/96
Copper	43.6	mg/kg	1.0	6020	P R	12/06/96
Nickel	86.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	82.0	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42239
Tag: EA2-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	14.9	mg/kg	1.0	6020	P R	12/06/96
Copper	12.2	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42239 (Continued)
Tag: EA2-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	21.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	41.8	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42240
Tag: EA2-5
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.4	%	1	160.3	JH	12/0[illegible]
Metals						
Chromium	14.6	mg/kg	1.0	6020	P R	12/06/96
Copper	12.2	mg/kg	1.0	6020	P R	12/06/96
Nickel	24.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	37.9	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42241
Tag: EA2-6
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.6	%	1	160.3	JH	12/05/96
Metals						
Chromium	12.7	mg/kg	1.0	6020	P R	12/06/96
Copper	14.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	22.7	mg/kg	0.50	6020	P R	12/06/96
Zinc	39.5	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42242
Tag: EA4-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	JH	12/05/96
Metals						
Chromium	16.7	mg/kg	1.0	6020	P R	12/06/96
Copper	13.1	mg/kg	1.0	6020	P R	12/06/96
Nickel	27.1	mg/kg	0.50	6020	P R	12/06/96
Zinc	49.1	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42243
Tag: EA4-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.8	%	1	160.3	JH	12/05/96
Metals						
Chromium	16.0	mg/kg	1.0	6020	P R	12/06/96
Copper	11.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	24.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	46.5	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42244
Tag: EA4-5
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.0	%	1	160.3	JH	12/05/96

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FECL #: AA42244 (Continued)
Tag: EA4-5
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	7.3	mg/kg	1.0	6020	P R	12/06/96
Copper	6.0	mg/kg	1.0	6020	P R	12/06/96
Nickel	10.1	mg/kg	0.50	6020	P R	12/06/96
Zinc	19.7	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42245
Tag: EA4-6
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	94.1	%	1	160.3	JH	12/05/96
Metals						
Chromium	9.2	mg/kg	1.0	6020	P R	12/06/96
Copper	7.6	mg/kg	1.0	6020	P R	12/06/96
Nickel	10.6	mg/kg	0.50	6020	P R	12/06/96
Zinc	27.4	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42246
Tag: EA6-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	91.1	%	1	160.3	JH	12/05/96
Metals						
Chromium	134	mg/kg	1.0	6020	P R	12/06/96
Copper	74.7	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42246 (Continued)
Tag: EA6-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	101	mg/kg	0.50	6020	P R	12/06/96
Zinc	135	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42247
Tag: EA6-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.9	%	1	160.3	JH	12/05/96
Metals						
Chromium	22.3	mg/kg	1.0	6020	P R	12/06/96
Copper	15.7	mg/kg	1.0	6020	P R	12/06/96
Nickel	28.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	42.0	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42248
Tag: EA6-5
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	90.3	%	1	160.3	JH	12/05/96
Metals						
Chromium	9.7	mg/kg	1.0	6020	P R	12/06/96
Copper	7.7	mg/kg	1.0	6020	P R	12/06/96
Nickel	16.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	30.1	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42249
Tag: EA6-6
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	92.7	%	1	160.3	JH	12/05/9
Metals						
Chromium	11.6	mg/kg	1.0	6020	P R	12/06/9
Copper	8.3	mg/kg	1.0	6020	P R	12/06/9
Nickel	20.2	mg/kg	0.50	6020	P R	12/06/9
Zinc	28.3	mg/kg	1.0	6020	P R	12/06/9

FECL #: AA42250
Tag: EA8-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	94.4	%	1	160.3	JH	12/05/9
Metals						
Chromium	176	mg/kg	1.0	6020	P R	12/06/9
Copper	111	mg/kg	1.0	6020	P R	12/06/9
Nickel	141	mg/kg	0.50	6020	P R	12/06/9
Zinc	176	mg/kg	1.0	6020	P R	12/06/9

FECL #: AA42251
Tag: EA8-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Ru
Inorganics						
Total Solids	93.8	%	1	160.3	JH	12/05/9

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FECL #: AA42251 (Continued)
Tag: EA8-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	95.2	mg/kg	1.0	6020	P R	12/06/96
Copper	61.6	mg/kg	1.0	6020	P R	12/06/96
Nickel	88.7	mg/kg	0.50	6020	P R	12/06/96
Zinc	105	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42252
Tag: EA10-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.4	%	1	160.3	JH	12/05/96
Metals						
Chromium	16.3	mg/kg	1.0	6020	P R	12/06/96
Copper	11.1	mg/kg	1.0	6020	P R	12/06/96
Nickel	16.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	29.1	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42253
Tag: EA10-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.1	%	1	160.3	JH	12/05/96
Metals						
Chromium	11.5	mg/kg	1.0	6020	P R	12/06/96
Copper	6.8	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42253 (Continued)
Tag: EA10-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	13.4	mg/kg	0.50	6020	P R	12/06/96
Zinc	28.1	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42254
Tag: EA10-5
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.7	%	1	160.3	JH	12/0
Metals						
Chromium	12.1	mg/kg	1.0	6020	P R	12/06/96
Copper	7.5	mg/kg	1.0	6020	P R	12/06/96
Nickel	19.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	34.1	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42255
Tag: EA10-6
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.4	%	1	160.3	JH	12/05/96
Metals						
Chromium	10.2	mg/kg	1.0	6020	P R	12/06/96
Copper	7.3	mg/kg	1.0	6020	P R	12/06/96
Nickel	17.8	mg/kg	0.50	6020	P R	12/06/96
Zinc	32.9	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42256
Tag: EA10-7
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.8	%	1	160.3	JH	12/05/96
Metals						
Chromium	7.5	mg/kg	1.0	6020	P R	12/06/96
Copper	6.4	mg/kg	1.0	6020	P R	12/06/96
Nickel	15.2	mg/kg	0.50	6020	P R	12/06/96
Zinc	25.2	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42277
Tag: EA12-3
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	86.2	%	1	160.3	JH	12/05/96
Metals						
Chromium	39.8	mg/kg	1.0	6020	P R	12/06/96
Copper	39.0	mg/kg	1.0	6020	P R	12/06/96
Nickel	51.9	mg/kg	0.50	6020	P R	12/06/96
Zinc	74.7	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42278
Tag: EA12-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.7	%	1	160.3	JH	12/05/96

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FECL #: AA42278 (Continued)
Tag: EA12-4
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals						
Chromium	15.9	mg/kg	1.0	6020	P R	12/06/96
Copper	13.2	mg/kg	1.0	6020	P R	12/06/96
Nickel	25.7	mg/kg	0.50	6020	P R	12/06/96
Zinc	35.0	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42279
Tag: EA12-5
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	88.3	%	1	160.3	JH	12/05/96
Metals						
Chromium	9.7	mg/kg	1.0	6020	P R	12/06/96
Copper	7.7	mg/kg	1.0	6020	P R	12/06/96
Nickel	12.1	mg/kg	0.50	6020	P R	12/06/96
Zinc	25.5	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42280
Tag: EA12-6
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	87.8	%	1	160.3	JH	12/05/96
Metals						
Chromium	5.8	mg/kg	1.0	6020	P R	12/06/96
Copper	5.9	mg/kg	1.0	6020	P R	12/06/96

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FECL #: AA42280 (Continued)
Tag: EA12-6
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Metals (Continued)						
Nickel	6.5	mg/kg	0.50	6020	P R	12/06/96
Zinc	15.3	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42281
Tag: EA12-7
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	85.9	%	1	160.3	JH	12/05/96
Metals						
Chromium	7.8	mg/kg	1.0	6020	P R	12/06/96
Copper	6.7	mg/kg	1.0	6020	P R	12/06/96
Nickel	9.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	23.2	mg/kg	1.0	6020	P R	12/06/96

FECL #: AA42282
Tag: EA4-7
Date/Time Collected: 11/19/96
Matrix: Soil

Analysis	Results	Units	MDL	Method	Analyst	Date Run
Inorganics						
Total Solids	93.5	%	1	160.3	JH	12/05/96
Metals						
Chromium	54.1	mg/kg	1.0	6020	P R	12/06/96
Copper	32.9	mg/kg	1.0	6020	P R	12/06/96
Nickel	47.3	mg/kg	0.50	6020	P R	12/06/96
Zinc	60.1	mg/kg	1.0	6020	P R	12/06/96

APPENDIX R

April 1997 and October 1997 Modification to Closure Plan Requests

AJF

O'BRIEN & GERE
ENGINEERS, INC.

April 23, 1997

Mr. David Slayton
Michigan Department of Environmental Quality
Waste Management Division
P.O. Box 30241
Lansing, MI 48909-7741

Re: Coldwater Road, Flint, MI
Closure Plan Modification Request
MID 005 356 860

File: 4144.007 #2

Dear Mr. Slayton:

On behalf of General Motors Corporation (GM), we hereby request a modification to the 1989 Closure Plan for the Coldwater Road site in Flint, Michigan. This modification requests the use of Type B health-based criteria and other 307 Rules as the criteria for closure (in lieu of the background values in the 1989 Closure Plan) for the residual materials remaining at the site.

This request for modification to the Closure Plan is broken down into the following sections:

- Section 1 - Background
- Section 2 - Statistical Analysis of Soil Data
- Section 3 - Excavation and Disposal of Soil above the Cutoff Value
- Section 4 - Final Site Grading and Seeding
- Section 5 - Attainment of Type B Criteria

Section 1 - Background

Several RCRA Regulated Units, Solid Waste Management Units (SWMUs) and Other Corrective Action Areas (OCAs) at the Coldwater Road Site have been closed to the cleanup standard of background, as specific in the original closure plan. The closure consisted of excavation and solidification of sludge (F006) and contaminated media and disposal in an on-site hazardous waste landfill. These areas were:

- Former sludge drying beds;
- Drum storage area;
- Settling lagoons (excluding the lagoon berm);
- Former landfarm area (excluding several miscellaneous areas on the east side);
- Former sludge lakes (including the area north of the sludge lakes);
- Decontamination pits;
- Waste pile pad;
- Marshy area west of the drying beds;
- Chromium reduction basins;
- Klein Street right-of-way; and
- Daniels property.

O'Brien & Gere Engineers, Inc., an O'Brien & Gere company
39830 Grand River Avenue / Suite B-2 / Novi, MI 48375 / (810) 426-8970 FAX (810) 426-8997
. . . and offices in major U.S. cities.

These areas are shown on Figure 1. Documentation of closure activities for these units is provided in the November 1994 Draft Closure Certification Documentation Package prepared by Roy F. Weston, Inc., which has been submitted to the Michigan Department of Environmental Quality (MDEQ).

After two expansions of the initial landfill, the landfill reached maximum capacity. Several areas of contaminated soil remained which contained metals greater than the background closure criteria. These were:

- Lagoon berm;
- Sludge retention basin;
- Miscellaneous cleanup area;
- Stabilized materials area;
- Stockpiled materials area;
- Landfarm area;
- Haul road area; and
- Railroad area.

GM submitted a request to delist the materials in these areas for off-site disposal as non-hazardous waste. The delisting petition was approved by MDEQ on February 7, 1996. Following approval of the delisting petition, GM excavated material in all of these areas and disposed of it off site, in accordance with the MDEQ-approved "Work Plan for Excavation of Delisted Materials" (Work Plan), dated February 1996. As a result of this phase of closure activities, several additional areas were closed to the background closure standard. These were:

- Lagoon berm;
- Haul road area; and
- Railroad area.

However, in spite of the removal of substantial material in each of these areas, closure samples analyzed for four metals (chromium, copper, nickel, and zinc) indicated that five of the areas still exceeded the background standard for one or more metals. In addition, two new areas (the "East" and "West" areas) were determined by sampling to exceed the background standard for one or more metals. These seven areas are hereinafter referred to as the "Remaining Materials Area" or RMA and are the subject of this closure plan amendment.

The Remaining Materials Area consists of:

- Sludge retention basin (underlying soil only);
- Miscellaneous cleanup area;
- Stabilized materials area;
- Stockpiled materials area;
- Landfarm area;
- East area; and
- West area.

Sampling and analyses of various media associated with the RMA were performed in accordance with discussions with MDEQ personnel. The sample locations are shown on Figure 2. Media sampled and analyzed for the four metals were:

- Ground water down gradient of the RMA;
- Surface water from the retention basin; and
- Surface soil and subsurface soil within the RMA for total metals and leachable metals analyses.

The analytical results for the four metals were compared to site specific background cleanup criteria in the Closure Plan and MDEQ Type B health-based criteria in MERA Operational Memorandum #8, Revision 3, dated February 4, 1994. Leachate results were compared to RCRA hazardous waste characteristic levels and MDEQ Act 64 characteristic levels. The attached tables summarizing the results of these sampling events are:

- Table 1 - Ground Water and Retention Basin Surface Water Analytical Results;
- Table 2 - Total Metals and TCLP Metals Analytical Results;
- Table 3 - Total Metals and SPLP Metals Analytical Results; and
- Table 4 - Soil Analytical Data - (West area, East area, Land farm area, Stabilized Materials area, Retention Basin area, Soil Stockpile area, Miscellaneous Cleanup area and Down gradient Monitoring Wells area).

Investigatory activities indicate an apparent ground water flow direction to the west/northwest in the upper perched zone in the RMA as shown on Figure 3. Ground water and surface water analytical data for the four metals are below site specific criteria (Ground Water/Surface Water Interface (GSI) values) and Type B health-based drinking water values (Table 1).

The results of TCLP analyses (Table 2) indicate that material in the RMA is characteristically non-hazardous. The SPLP results (Table 3) indicate that leachable levels of the four metals are below Type B health based drinking water values.

The soil analytical data for the four metals (Table 4) indicates that results are below the Type B Direct Contact values. Many of the results exceed the site specific background closure criteria as outlined on Table 4. The locations of soil samples with one or more metal results exceeding the site specific background closure criteria are shown on Figure 4.

In summary, the ground water and soil analytical results for the four metals in the RMA meet MDEQ Type B criteria. Additionally, TCLP results indicate that the material is characteristically non-hazardous. However, many of the soil sample results (shown on Table 4) are above the site specific background closure criteria, although these results are below Type B criteria. Therefore, a statistical evaluation was performed to determine the locations within the RMA with statistically elevated results for the four metals.

Section 2 - Statistical Analysis of Soil Data

The objective of the statistical analysis was to evaluate the data population and determine statistically relevant "cutoff" values for the four metals to indicate elevated sample results. These cutoff values would be compared to the site data to determine soil sample locations in the RMA with statistically elevated results. The statistical analysis report is included in Appendix A. The analysis identified cutoff values for the four metals as shown below:

- Chromium - 5106 ppm
- Copper - 4812 ppm
- Nickel - 4111 ppm
- Zinc - 3763 ppm

Table 3 in Appendix A provides a comparison of the analytical results for soil samples in the RMA to the calculated cutoff value. The results indicate that the following four samples exceeded the cutoff value for the four metals:

Soil Samples Exceeding Cutoff Values

Sample Location	*Depth of Sample Interval*
SM9-2	18"
SM10-1	12"
WA8-1	12"
WA15-0	6"

The locations of the four samples are shown on Figure 5. Analytical results from the deeper interval at these sample locations were below the cutoff values, indicating vertical delineation.

To horizontally delineate the extent of soil material with metals concentrations above the cutoff value, additional samples were collected radially outward from these four sample locations and analyzed for the four metals. The results from this delineation sampling (summarized on Table 5) identified the horizontal extent of material with metals concentrations above the cutoff, which is also presented on Figure 5.

Section 3 - Excavation and Disposal of Soil above the Cutoff Value

Although the cutoff values and the results of samples with concentrations above the cutoff values were below MDEQ Type B Direct Contact values, GM implemented an excavation and disposal program for the areas above the cutoff values, as shown in Figure 5. The excavation and disposal program incorporated the construction methods, air monitoring protocols, and decontamination procedures as outlined in the Work Plan.

Excavation and staging at the site commenced on February 27, 1997 and continued through March 5, 1997. Soil in the areas above the cutoff values was excavated using a backhoe. The excavation continued in each area until the estimated limit of material above the cutoff values (staked prior to excavation) was reached. Once the limit of excavation was reached (as shown on Figure 5), discrete soil samples were collected from the floor and sidewall of the excavation pursuant to Verification of Soil Remediation (VSR) guidance (Draft, April 1994, Revision 1) for a small site. Soil samples collected from the excavation were placed in glass sample containers and capped with a teflon lined lid then placed in an iced cooler. The soil samples were transported under chain-of-custody documentation to Fire and Environmental Consulting Laboratories (FECL) in East Lansing, Michigan for analysis of the four metals. For quality control purposes, duplicate samples were also collected and analyzed. The results of this additional sampling, summarized on Table 5, indicate that the areas were cleaned to below the cutoff values.

The excavated soil was loaded into dump trucks and temporarily stockpiled near the railroad track. From the temporary stockpiles, the excavated soil was loaded into Laidlaw/USPCI rail cars on March 10, 1997 for off-site transportation and disposal. Two loaders with bucket scales were used to transfer the stockpiled soil into the rail cars. The excavated soil was loaded into water tight, 100 ton capacity railroad gondola cars. A spray-on surfactant cover was applied to the top of the soil material after loading. Following loading activities, the upper 1 ft of soil in the stockpile and loading area was removed and also placed in the rail cars for off site disposal. As loading of the rail cars continued, a train was assembled and prepared to transport the excavated soil to the ECDC Environmental facility in East Carbon, Utah, for disposal. Approximately 2,516 tons of soil and debris was loaded into twenty-seven rail cars.

Air monitoring was conducted during soil handling activities. Dust monitoring was performed near the workers breathing zone and at several perimeter locations with portable, Real Time Aerosol Monitors (RAMs), to assess the background and downwind concentrations of total dust generated during on-site activities. In addition, the workers breathing zone and the site perimeter were monitored with a Toxirea Photoionization Detector (TPID). The TPID measures volatile organic compound (VOC) concentrations in air. The RAMs and TPIDs were continuously operated over the 8 to 10 hr work days. The air monitoring results were at or near zero for VOCs and dust during soil handling activities.

Section 4 - Final Site Grading and Seeding

Upon approval of this closure plan amendment, the site will be restored for aesthetic and run-off control purposes. A low altitude aerial survey of the RMA and adjacent areas will be performed to facilitate the design of final grades. The area will be graded to promote controlled run-off to an existing drainage swale which ultimately drains to the wetlands area northwest of the RMA. Clean fill material may be brought on site for grading purposes. Additionally, a minimum of 6" of clean topsoil will be placed after regrading of the area to achieve the final design grades. The site will be prepared as necessary for proper seeding. Final acceptance of the seed growth will be determined at the end of the first full growing season.

Section 5 - Attainment of Type B Criteria

This closure plan amendment requests that the cleanup standard for the RMA be changed to the Type B health-based criteria established under Act 307. In accordance with Act 307, Rule 711, compliance with Type B criteria is attained when concentrations in soil are below applicable values for migration pathways pertinent to the site. The pertinent migration pathways associated with the remaining materials at the Coldwater Road site are:

- Migration to ground water;
- Migration to surface water (nearby wetlands); and
- Direct contact.

Concentrations of the four metals must be no greater than the Type B criteria specific to these migration pathways for the site to meet the closure criteria. An evaluation of each pertinent pathway for the remaining materials is shown on Figure 6, attached. The summary of the migration pathway evaluation for the site is as follows:

Migration to Ground Water

In accordance with Rule 711 (2), the leachate concentrations of the four metals must be no greater than the Type B health-based drinking water value. Appropriate leachate procedures are outlined in the MDEQ MERA Memorandum #12, Revision 2, January 5, 1995. As shown in Table 3, the leachate values for the four metals in soil within the RMA, generated by the SPLP method (an MDEQ approved procedure) are below the Type B health-based drinking water value. Therefore, Type B is attained for this pathway.

Migration to Surface Water

In accordance with Rule 713, the concentrations of the four metals in the ground water at the surface water interface must be no greater than the site specific GSI value. As shown on Table 1, the concentrations of the four metals in ground water down gradient of the RMA (MW-25 and MW-26), which is up gradient of the ground water/surface water interface, are below the site specific GSI. Therefore, Type B is attained for this pathway.

Direct Contact

In accordance with Rule 711 (1) (d), the concentrations of the four metals in soil must be no greater than the direct contact criteria. As shown on Table 4, the concentrations of the four metals in soil within the RMA are below the direct contact criteria; therefore, Type B criteria is attained for this pathway.

Based on the above summary, Type B criteria is attained in the RMA. Therefore, we respectfully request a modification to the 1989 Closure Plan by changing the cleanup criteria from the site specific background cleanup criteria to Type B health-based criteria. Based on the change in criteria for this site, closure will be obtained after final site grading is complete.

Pending your review and approval of this modification to the 1989 Closure Plan, GM will submit a Supplemental Closure Certification Document for the Coldwater Road site, documenting the delisted material closure activities and the final closure activities under this proposed amendment (i.e., removal of material above the cutoff value and final site grading/seeding). Enclosed are four copies of this document, with attachments. As we discussed, we will provide you with electronic files of the statistical analysis, if requested.

Please contact Robert Metcalf at (810) 236-0300 or me at (810) 426-8970 if you have any questions or comments.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Scott L. Cormier, P.E.
Managing Engineer

SLC/tss

Enclosures

cc: Mr. Robert Metcalf, P.E. - General Motors WFG, Flint, MI
Mr. Edward Peterson - General Motors WFG, Detroit, MI
Ms. Jean Caufield - General Motors WFG, Detroit, MI
Mr. Jeffery Johnson - O'Brien & Gere Engineers, Novi, MI
Mr. Aamer Raza - O'Brien & Gere Engineers, Syracuse, NY

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Table 1
Ground Water and Retention Basin Surface Water
Analytical Results (Dissolved Metals)
Coldwater Road - Flint, MI

LOCATION		MW-25	MW-26	RBSW	Site Specific GSI Value (mg/L)	Act 307 Type B Criteria Health-Based Drinking Water Value (mg/L)
	Date Collected	12/23/96	12/23/96	11/1/96		
Analytical Parameter	Analytical Method	(mg/L)	(mg/L)	(mg/L)		
Chromium, Dissolved	200.8	< 0.01	< 0.01	0.01	0.126	37.0 {C}
Copper, Dissolved	200.8	< 0.01	< 0.01	< 0.01	0.032	1.30 {C}
Nickel, Dissolved	200.8	0.036	0.030	0.008	0.098	0.53 {C}
Zinc, Dissolved	200.8	0.02	< 0.01	< 0.01	0.137	2.30 {C}

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) {C} denotes per MERA Memo #8 Revision 3, background, as defined in Rule 701 (c), may be substituted as the cleanup criteria if higher than the Type B cleanup criterion.
3) GSI - Ground Water - Surface Water Interface
4) RBSW - Retention Basin Surface Water

Table 2
Total Metals and TCLP Metals Analytical Results
Coldwater Road - Flint, MI

			TOTAL METALS RESULTS						
LOCATION			SM-12	SM-6-1	LF-11-1	LF-3	SS-7	WA8 - 1	WA15 - 0
		Date Collected	11/96	11/96	11/96	11/96	11/96	11/15/96	11/15/96
		Depth	0.5 - 1.0	1.0-1.5	1.0-1.5	0 - 0.5	0 - 0.5	0.5 - 1.0	0.0 - 0.5
Analytical Parameter	Analysis	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	Totals	6020	233	1020	645	278	597	7910	12800
Copper	Totals	6020	113	1650	420	105	129	15500	9840
Nickel	Totals	6020	156	1200	445	167	335	11500	15700
Zinc	Totals	6020	156	1490	396	157	309	11200	8880

			TCLP RESULTS							
LOCATION			SM-12	SM-6-1	LF-11-1	LF-3	SS-7	WA8 - 1	WA15 - 0	HW
		Date Collected	11/96	11/96	11/96	11/96	11/96	35384	35384	Characterization
		Depth	0.5 - 1.0	1.0-1.5	1.0-1.5	0 - 0.5	0 - 0.5	0.5 - 1.0	0.0 - 0.5	Level
Analytical Parameter	Analysis	Method	mg/L	mg/L	mg/L	mg/L	mg/L	mg/kg	mg/kg	mg/L
Chromium	TCLP	200.8	0.23	0.04	0.06	0.03	0.03	0.06	0.04	5
Copper	TCLP	200.8	0.28	7.69	0.17	0.12	0.05	5.2	1.04	500
Nickel	TCLP	200.8	0.205	2.9	0.255	0.214	0.186	7.62	4.52	-
Zinc	TCLP	200.8	0.09	8.37	0.16	0.25	0.27	14.1	5.92	100

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) "-" denotes level not developed

Table 3
Total Metals and SPLP Metals Analytical Results
Coldwater Road - Flint, MI

			TOTAL METALS RESULTS						
LOCATION			SM-12	SM-6-1	LF-11-1	SS-13-3	LF-3	SS-7	RB-4-1
		Date Collected	11/96	11/96	11/96	11/96	11/96	11/96	11/96
		Depth	0.5 - 1.0	1.0-1.5	1.0-1.5	1.5-2.0	0 - 0.5	0 - 0.5	1.0-1.5
Analytical Parameter	Analysis	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	Totals	6020	233	1020	645	8.8	278	597	8
Copper	Totals	6020	113	1650	420	5.4	105	129	7.5
Nickel	Totals	6020	156	1200	445	16.1	167	335	20.0
Zinc	Totals	6020	156	1490	396	23.7	157	309	22.9

			SPLP RESULTS							
LOCATION			SM-12	SM-6-1	LF-11-1	SS-13-3	LF-3	SS-7	RB-4-1	Type B
		Date Collected	11/96	11/96	11/96	11/96	11/96	11/96	11/96	Health-Based
		Depth	0.5 - 1.0	1.0-1.5	1.0-1.5	1.5-2.0	0 - 0.5	0 - 0.5	1.0-1.5	DW Values
Analytical Parameter	Analysis	Method	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chromium	SPLP	200.8	0.11	0.02	0.04	<0.01	<0.01	<0.01	<0.01	37.00
Copper	SPLP	200.8	0.12	0.04	0.05	<0.01	<0.01	0.02	0.01	1.30
Nickel	SPLP	200.8	0.02	0.021	0.028	0.006	<0.005	0.011	<0.005	0.53
Zinc	SPLP	200.8	<0.01	0.09	0.13	0.04	<0.01	0.06	0.05	2.30

Notes:
1. Samples analyzed by FECL of East Lansing, Michigan
2. "<" denotes result less than detection limit

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Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA1-0	WA1-1	WA1-2	WA1-3	WA1-4	WA1-5	WA1-6	WA1-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96	11/14/96		
	Depth	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	405	254	41.9	19.7	9.0	10.9	14.6	19.2	30	390,000
Copper	6020	232	184	29.9	12.9	4.7	6.6	8.8	14.4	28	98,000
Nickel	6020	277	216	43.6	26.1	9.4	12.5	24.4	28.9	46	20,000
Zinc	6020	400	354	88.0	38.8	25.9	27.6	39.8	55.0	80	86,000

LOCATION		WA2-0	WA2-1	WA2-2	WA2-3	WA2-4	WA2-5	WA2-6	WA2-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/14/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97		
	Depth	0-0.5 ft	1-0.5 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	106	172	324	359	47.8	5	5.8	5.3	30	390,000
Copper	6020	60.3	99	184	221	25.7	5.3	4.3	3.9	28	98,000
Nickel	6020	59.5	129	206	196.0	40.3	8.9	16.6	21.4	46	20,000
Zinc	6020	99.0	121	205.0	231	40.9	20	17	14.1	80	86,000

LOCATION		WA3-0	WA3-1	WA3-2	WA3-3	WA3-4	WA3-5	WA3-6	WA3-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/14/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97		
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	156	128	333	285	81.9	150.0	4.9	3.9	30	390,000
Copper	6020	81.5	72.7	175	151	41.6	55.3	4.8	5.1	28	98,000
Nickel	6020	70	92.4	201	188	56.0	60.7	16.5	19.3	46	20,000
Zinc	6020	141.6	100	209	185	63.6	72.8	16.7	15.3	80	86,000

LOCATION		WA4-0	WA4-1	WA4-2	WA4-3	WA4-4	WA4-5	WA5-0	WA5-1	Background Clean-up Level	Direct Contact Values
	Date Collected	11/26/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/26/96	01/22/97		
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	139	71.7	6	3.7	3.3	3.1	104	141	30	390,000
Copper	6020	89.7	42.5	4.9	3.3	4.2	3.2	40.6	79.7	28	98,000
Nickel	6020	72.8	51	13.3	13.8	8.8	15.6	44	85.5	46	20,000
Zinc	6020	127.0	62.7	16	9.8	12.3	11.3	63	94.5	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA5-2	WA5-3	WA5-4	WA5-5	WA5-6	WA6-0	WA6-1	WA6-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/26/96	01/22/97	01/22/97		
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	63.7	3.1	5.4	4.9	3.1	323	138	12.5	30	390,000
Copper	6020	41.1	4	4.6	4	3.1	273	178	6	28	98,000
Nickel	6020	37.2	15.4	15.3	15.7	17.7	308	212	17.1	46	20,000
Zinc	6020	46.4	13	17	14.8	12.2	650	622	21.7	80	86,000

LOCATION		WA6-3	WA6-4	WA6-5	WA6-6	WA6-7	WA7-0	WA7-1	WA7-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/14/96	01/22/97	01/22/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.3	3	3.2	5.8	9.4	321	41.5	5.2	30	390,000
Copper	6020	4.9	3.8	3.6	4.5	6.4	182	28.7	6.7	28	98,000
Nickel	6020	19.2	3.9	5.4	8.6	16.7	228	52.6	21.2	46	20,000
Zinc	6020	17.7	8.7	9.5	15.3	25.7	299	45.5	31.1	80	86,000

LOCATION		WA7-3	WA7-4	WA7-5	WA7-6	WA7-7	WA8-0	WA8-1	WA8-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/14/96	11/15/96	11/15/96		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.3	4.5	3.1	2.9	3.5	1,110	7910	243	30	390,000
Copper	6020	8	7.6	3.7	3.3	4.4	582	15500	492	28	98,000
Nickel	6020	20.6	5.6	5.6	5.2	12.9	667	11500	323	46	20,000
Zinc	6020	28.4	12.3	12.3	9.6	12.7	787	11200	425	80	86,000

LOCATION		WA8-3	WA8-4	WA8-5	WA8-6	WA8-7	WA9-0	WA9-1	WA9-2	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	11/15/96	11/15/96	11/15/96	11/15/96	11/14/96	11/15/96	11/15/96		
	Depth	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.0-3.5 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	43.1	15.2	6.7	5.7	6.2	596	1800	2460	30	390,000
Copper	6020	73.4	24.1	10.6	5.1	5.0	399	761	1020	28	98,000
Nickel	6020	55.5	19.7	8.2	5.4	7.2	464	1150	1580	46	20,000
Zinc	6020	86.0	44.9	15.6	13.0	16.4	549	1740	1280 0	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA9-3	WA9-4	WA9-5	WA9-6	WA9-7	WA10-0	WA10-1	WA10-2	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	11/15/96	11/15/96	11/15/96	11/15/96	11/14/96	11/15/96	11/15/96		
	Depth	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft	0-0.5 ft	.5-1.0 ft	1.0-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2250	3240	279	41.3	21.9	940	1300	26.3	30	390,000
Copper	6020	1040	1210	116	21.9	13.4	427	766	20.0	28	98,000
Nickel	6020	1380	1980	189	42.7	27.8	620	898	33.0	46	20,000
Zinc	6020	1580	1720	174	54.4	38.6	637	813	36.6	80	86,000

LOCATION		WA10-3	WA10-4	WA10-5	WA10-6	WA10-7	WA11-0	WA11-1	WA11-2	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	11/15/96	11/15/96	11/15/96	11/15/96	11/15/96	01/23/97	01/23/97		
	Depth	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.0-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	13.1	15.5	22.7	14.2	6.6	107.0	18.6	14.8	30	390,000
Copper	6020	8.0	9.9	16.2	8.9	13.1	118.0	11.9	8.7	28	98,000
Nickel	6020	22.9	24.2	28.6	22.1	13.6	134.0	26.6	23.3	46	20,000
Zinc	6020	28.7	31.5	46.5	33.2	20.7	139.0	26.2	25.4	80	86,000

LOCATION		WA11-3	WA11-4	WA11-5	WA11-6	WA11-7	WA12-0	WA12-1	WA12-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	20.7	33.9	162	1,540	934	424.0	12.3	9	30	390,000
Copper	6020	13.8	15.5	86.9	741	639	270.0	10	6.8	28	98,000
Nickel	6020	26.1	33.2	180	1,100	765	332.0	34.9	21	46	20,000
Zinc	6020	30.7	36.2	131 0	902.0	622.0	315.0	27.5	20.6	80	86,000

LOCATION		WA13-0	WA13-1	WA13-2	WA13-3	WA13-5	WA13-5	WA13-6	WA13-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97		
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	302	1,620	1,870	12.9	5.6	5.1	8	6.5	30	390,000
Copper	6020	196	950	1,070	19.4	9	4.3	4.1	2.8	28	98,000
Nickel	6020	241	1 140	1,370	11.7	6.8	8.1	15.8	21.7	46	20,000
Zinc	6020	240	1,040	1,260	53.9	14.8	10.8	10.4	10.2	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA14-0	WA14-1	WA14-2	WA14-3	WA14-4	WA14-5	WA15-0	WA15-1	Background Clean-up Level	Direct Contact Values
	Date Collected	11/15/96	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/15/96	01/22/97		
	Depth	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	95.5	325.0	269.0	3.9	2.2	3	12800	101	30	390,000
Copper	6020	73.2	255.0	194.0	5.6	2.7	2	9840	93.4	28	98,000
Nickel	6020	87.5	358.0	258.0	8.7	1.7	2	15700	104	46	20,000
Zinc	6020	96.8	277.0	223.0	11.3	4.4	6.5	8880	93.4	80	86,000

LOCATION		WA15-2	WA15-3	WA15-4	WA15-5	WA15-6	WA15-7	WA16-0	WA16-1	Background Clean-up Level	Direct Contact Values
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/15/96	01/22/97		
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.8	4.6	3.3	3	2.9	3.9	80.8	79.2	30	390,000
Copper	6020	5.1	4.4	4.2	3.5	3.5	5.4	40.8	55.1	28	98,000
Nickel	6020	15.4	13.7	10.2	10.8	12.3	13.3	48.9	59.4	46	20,000
Zinc	6020	18.6	15.1	13.4	12.3	13.8	18.5	77.7	69.7	80	86,000

LOCATION		WA16-2	WA16-3	WA16-4	WA16-5	WA16-6	WA16-7	WA17-0	WA17-1	Background Clean-up Level	Direct Contact Values
	Date Collected	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	01/22/97	11/15/96	01/23/97		
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	323	431	9.4	3.6	5.4	3.7	102	175	30	390,000
Copper	6020	176	244	7.4	4.9	4.9	4.2	66.1	112	28	98,000
Nickel	6020	225	313	21.7	11.9	13.1	15.9	65.6	81	46	20,000
Zinc	6020	218	287	14.4	14.4	14.2	18.8	99.6	119.0	80	86,000

LOCATION		WA17-2	WA17-3	WA17-4	WA17-5	WA17-6	WA17-7	WA18-0	WA18-1	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97		
	Depth	1-1.5 ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	530	240	419	390	757	355	50.4	14.7	30	390,000
Copper	6020	321	138	232	242	350	188	46.6	9.8	28	98,000
Nickel	6020	425	156.0	268	274	420	193	40.4	11.4	46	20,000
Zinc	6020	314.0	163	277	244	384	221	65.7	41.7	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA18-2	WA18-3	WA18-4	WA18-5	WA18-6	WA18-7	WA19-0	WA19-1	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97		
	Depth	1-1.5ft	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.6	4.5	6.9	9.6	8.7	7	144	16.6	30	390,000
Copper	6020	4.7	2.1	4.8	6.6	6.1	5.8	95.6	11.7	28	98,000
Nickel	6020	6.4	4.7	10	16.2	15.0	16	80.6	22.9	46	20,000
Zinc	6020	22.7	14.2	22.7	30.5	29.6	24.0	132	43.7	80	86,000

LOCATION		WA19-2	WA19-3	WA19-4	WA19-5	WA19-6	WA21-0	WA21-1	WA21-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97		
	Depth	1-1.5 ft	1.5-21 ft	2-2.5 ft	2.5-3 ft	3-35 ft	0-0.5 ft	3-3.5 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	90.9	55.9	8.1	13.2	10.9	144	1,010	112.0	30	390,000
Copper	6020	53.3	42	8.3	5.6	8.1	109	680.0	66.2	28	98,000
Nickel	6020	60.7	43.4	19.2	19.8	23.9	120	342.0	69.5	46	20,000
Zinc	6020	89.2	59.1	23.1	23.5	34	142	520.0	84.5	80	86,000

LOCATION		WA21-3	WA21-4	WA21-5	WA21-6	WA21-7	WA22-0	WA22-1	WA22-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	215	578	266	75.4	8.2	177	7.7	5.3	30	390,000
Copper	6020	130	386	173	69.8	6	169	4.9	4.5	28	98,000
Nickel	6020	144	478	194	74	10.3	177	9.5	7.5	46	20,000
Zinc	6020	146	384	188	70.4	25.3	196	19.3	17.7	80	86,000

LOCATION		WA22-3	WA22-4	WA22-5	WA22-6	WA23-0	WA23-1	WA23-2	WA23-3	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.5	9.7	10.4	5.8	191	32.8	3.3	3.3	30	390,000
Copper	6020	6.8	5.1	6.8	3.7	177	27.7	2.1	2	28	98,000
Nickel	6020	12.5	16.2	21.8	14.5	184	32.7	3.1	3.5	46	20,000
Zinc	6020	27.3	23.7	27.6	17.4	185	32.5	9.4	6.5	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA23-4	WA23-5	WA23-6	WA23-7	WA24-0	WA24-1	WA 24-2	WA24-3	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97		
	Depth	2-2.5 ft	2.5-3 ft	3-3.5ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	7.1	9.7	3.6	8.2	1020	661	19.5	9.4	30	390,000
Copper	6020	5.3	8.6	5.7	5.9	554	459	14.1	5.8	28	98,000
Nickel	6020	10.5	16	10.7	14	674	527	23	17.2	46	20,000
Zinc	6020	22.5	34.8	16.5	22.6	548	437	27.7	22.0	80	86,000

LOCATION		WA24-4	WA24-5	WA24-6	WA24-7	WA25-0	WA25-1	WA25-2	WA25-3	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97		
	Depth	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	9.5	9.2	7.6	8.6	291	11.4	10.7	9.8	30	390,000
Copper	6020	6.3	6.3	5.5	5.9	140	5.8	5.2	7	28	98,000
Nickel	6020	18	18.2	15.9	15.7	197	9.6	13.5	20.2	46	20,000
Zinc	6020	25.8	24.1	21.2	22.8	206	23.1	28.3	26.1	80	86,000

LOCATION		WA25-4	WA25-5	WA25-6	WA25-7	WA26-0	WA26-1	WA26-2	WA26-3	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97	01/23/97		
	Depth	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft	1.5-2 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	8.0	11.6	13.4	13.9	38.9	39.5	13.4	4.8	30	390,000
Copper	6020	5.6	7.6	13	7.4	17.9	21.7	7.9	2.9	28	98,000
Nickel	6020	16.5	21.2	25.2	22.9	28.2	31	12	4.7	46	20,000
Zinc	6020	24.6	29.3	34	29.5	103	75.3	38.8	14	80	86,000

LOCATION		WA26-4	WA26-5	WA26-6	WA26-7	WA27-0	WA28-0	WA28-1	WA28-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	11/15/96	01/23/97	01/23/97		
	Depth	2-2.5 ft	2.5-3 ft	3-3.5ft	3.5-4 ft	0-0.5 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.6	7.1	13.7	6.7	25.2	20.4	385	24.5	30	390,000
Copper	6020	3.2	5.7	10.6	5.1	15.2	12.5	413	33.2	28	98,000
Nickel	6020	6.6	9.7	23.1	10.9	19.5	19.4	206	68.5	46	20,000
Zinc	6020	12.2	19.7	35.2	19.0	83.5	59.5	289.0	100	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

West Area (WA) Investigation

LOCATION		WA28-3	WA28-4	WA28-5	WA28-6	WA28-7	WA29-0	WA29-1	WA29-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5 -1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	<1.0	<1.0	<1.0	<1.0	<1.0	241	2.2	1.5	30	390,000
Copper	6020	<1.0	<1.0	<1.0	<1.0	<1.0	175	2	1.1	28	98,000
Nickel	6020	1.2	<0.50	<0.50	<0.50	<0.50	211	1.9	4.6	46	20,000
Zinc	6020	3.4	<1.0	<1.0	<1.0	<1.0	200	4.8	9.8	80	86,000

LOCATION		WA29-3	WA 29-4	WA29-5	WA29-6	WA29-7	WA30-0	WA30-1	WA30-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	<1.0	<1.0	<1.0	<1.0	<1.0	224	1.5	<1.0	30	390,000
Copper	6020	<1.0	<1.0	<1.0	<1.0	<1.0	80.5	<1.0	<1.0	28	98,000
Nickel	6020	1.2	0.8	<0.5	<0.5	<0.5	98.6	1.5	0.6	46	20,000
Zinc	6020	2	2.6	<1.0	<1.0	<1.0	199	2.9	1.1	80	86,000

LOCATION		WA30-3	WA30-4	WA30-5	WA30-6	WA30-7	WA31-0	WA31-1	WA31-2	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97	11/15/96	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft	0-0.5 ft	0.5-1 ft	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	<1.0	<1.0	<1.0	<1.0	<1.0	150	<1.0	<1.0	30	390,000
Copper	6020	<1.0	<1.0	<1.0	<1.0	<1.0	95.7	<1.0	<1.0	28	98,000
Nickel	6020	<0.5	<0.5	<0.5	<0.5	<0.5	76.2	<0.5	<0.5	46	20,000
Zinc	6020	<1.0	<1.0	<1.0	1.2	<1.0	177	2.3	<1.0	80	86,000

LOCATION		WA31-3	WA31-4	WA31-5	WA31-6	WA31-7	Background Clean-up Level	Direct Contact Values
	Date Collected	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97		
	Depth	1.5-2 ft	2-2.5 ft	2.5-3 ft	3-3.5 ft	3.5-4 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	9.4	7.5	10.6	10.4	11.4	30	390,000
Copper	6020	5	5	6.4	5.5	5.5	28	98,000
Nickel	6020	19.8	17.4	21.5	23.4	23.7	46	20,000
Zinc	6020	25.8	65.8	25	23.1	20.9	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

East Area (EA) Investigation

LOCATION		EA1-0	EA2-0	EA3-0	EA4-0	EA5-0	EA6-0	EA7-0	EA8-0	Background Clean-up Level	Direct Contact Values
	Date Collected	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96		
	Depth	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	123	357	183	196	28.2	48.6	342	210	30	390,000
Copper	6020	67.2	186	108	96.6	16.9	27.6	207	130	28	98,000
Nickel	6020	97.5	248	140	140	27.2	43.6	258	159	46	20,000
Zinc	6020	93.2	205	120	155	34.0	50.0	268	189	80	86,000

LOCATION		EA9-0	EA10-0	EA11-0	EA12-0	EA13-0	EA14-0	EA15-0	EA16-0	Background Clean-up Level	Direct Contact Values
	Date Collected	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96		
	Depth	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	102	337	181	155	189	59.2	29.6	16.5	30	390,000
Copper	6020	54.8	120	95.6	83.1	91.9	43.4	25.0	13.3	28	98,000
Nickel	6020	78.8	213	134	114	158	57.3	31.2	22.1	46	20,000
Zinc	6020	80.9	170	138	140	134	109	78.8	49.8	80	86,000

LOCATION		EA17-0	EA18-0	EA19-0	EA20-0	EA21-0	EA23-0	EA24-0	EA25-0	EA26-0	Background Clean-up Level	Direct Contact Values
	Date Collected	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96	11/18/96		
	Depth	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft	0-0.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	25.1	27.8	46.9	34.6	34.8	49.0	35.8	28.9	39.2	30	390,000
Copper	6020	16.4	17.6	26.2	21.1	22.0	32.1	18.5	20.3	23.0	28	98,000
Nickel	6020	31.8	29.6	33.0	36.2	33.6	44.4	28.0	28.7	35.2	46	20,000
Zinc	6020	51.7	41.2	85.9	66.5	57.1	54.5	26.5	40.1	30.6	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

East Area (EA) Investigation

LOCATION		EA2-1	EA2-2	EA2-3	EA2-4	EA2-5	EA2-6	EA4-1	EA4-2	EA4-3	Background Clean-up Level	Direct Contact Values
	Date Collected	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96		
	Depth	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.0	106.0	95.2	14.9	14.6	12.7	51.7	22.3	16.7	30	390,000
Copper	6020	4.1	48.4	43.6	12.2	12.2	14.9	34.9	15.0	13.1	28	98,000
Nickel	6020	12.0	77.6	86.6	21.3	24.3	22.7	47.4	29.7	27.1	46	20,000
Zinc	6020	18.9	81.0	82.0	41.8	37.9	39.5	89.3	54.8	49.1	80	86,000

LOCATION		EA4-4	EA4-5	EA4-6	EA4-7	EA6-1	EA6-2	EA6-3	EA6-4	EA6-5	Background Clean-up Level	Direct Contact Values
	Date Collected	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96		
	Depth	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	16.0	7.3	9.2	54.1	61.2	247.0	134.0	22.3	9.7	30	390,000
Copper	6020	11.9	6.0	7.6	32.9	40.3	142.0	74.7	15.7	7.7	28	98,000
Nickel	6020	24.6	10.1	10.6	47.3	51.9	197.0	101.0	28.2	16.3	46	20,000
Zinc	6020	46.5	19.7	27.4	60.1	71.2	210.0	135.0	42.0	30.1	80	86,000

LOCATION		EA6-6	EA8-1	EA8-2	EA8-3	EA8-4	EA10-1	EA10-2	EA10-3	EA10-4	Background Clean-up Level	Direct Contact Values
	Date Collected	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96		
	Depth	3.0-3.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	11.6	186.0	362.0	176.0	95.2	91.1	19.1	16.3	11.5	30	390,000
Copper	6020	8.3	120.0	232.0	111.0	61.6	62.5	13.4	11.1	6.8	28	98,000
Nickel	6020	20.2	142.0	319.0	141.0	88.7	78.3	21.0	16.3	13.4	46	20,000
Zinc	6020	28.3	173.0	322.0	176.0	105.0	109.0	48.3	29.1	28.1	80	86,000

LOCATION		EA10-5	EA10-6	EA10-7	EA12-1	EA12-2	EA12-3	EA12-4	EA12-5	EA12-6	EA12-7	Background Clean-up Level	Direct Contact Values
	Date Collected	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96	11/19/96		
	Depth	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft	.5-1.0 ft	1.0-1.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.5-3.0 ft	3.0-3.5 ft	3.5-4.0 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	12.1	10.2	7.5	196.0	162.0	39.8	15.9	9.7	5.8	7.8	30	390,000
Copper	6020	7.5	7.3	6.4	131.0	154.0	39.0	13.2	7.7	5.9	6.7	28	98,000
Nickel	6020	19.2	17.8	15.2	147.0	164.0	51.9	25.7	12.1	6.5	9.3	46	20,000
Zinc	6020	34.1	32.9	25.2	188.0	258.0	74.7	35.0	25.5	15.3	23.2	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Land Farm (LF) Investigation

LOCATION		LF1	LF1-1	LF2	LF3A-4	LF3A-5	LF3A-6	LF3A-7	LF3A-8	LF4A-6	LF4-7	Background Clean-up Level	Direct Contact Values
	Date Collected	4/18/96	4/18/96	4/18/96	4/09/96	4/09/96	4/10/96	4/19/96	4/19/96	4/09/96	4/19/96		
	Depth	6"	12"	6"	30"	36"	42"	48"	56"	42"	48"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	231	16.6	17.6	87.4	516	65.7	33.6	5.7	1820	1.7	30	390,000
Copper	6020	109	16.1	13.2	41.9	277	42.8	22.0	NA	922	4.1	28	98,000
Nickel	6020	139	23.1	20.8	58.2	386	53.4	29.3	NA	1200	1.7	46	20,000
Zinc	6020	130	22.9	27.5	65.2	NA	NA	NA	NA	952	5.9	80	86,000

LOCATION		LF5	LF5-1	LF5-2	LF5-3	LF5-4	LF5-5	LF5-6	LF6	LF6A-1	LF6A-2	Background Clean-up Level	Direct Contact Values
	Date Collected	4/02/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/02/96	4/09/96	4/09/96		
	Depth	6"	12"	18"	24"	30"	36"	42"	6"	12"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	688	584	614	531	338	33.2	8.4	148	117	206	30	390,000
Copper	6020	379	352	342	294	197	17.6	NA	72.4	68.4	111	28	98,000
Nickel	6020	489	389	438	353	239	33.1	NA	100	94.7	147	46	20,000
Zinc	6020	383	552	482	430	227	30.0	NA	83.6	92.8	148	80	86,000

LOCATION		LF6A-3	LF7	LF7-1	LF7-2	LF8	Dup6(LF8)	LF8-1	LF8-2	LF8-3	LF8-4	Background Clean-up Level	Direct Contact Values
	Date Collected	4/09/96	4/02/96	4/10/96	4/10/96	4/05/96	4/05/96	4/10/96	4/10/96	4/10/96	4/10/96		
	Depth	24"	6"	12"	18"	6"	6"	12"	18"	24"	30"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	5.5	276	293	8.1	100	136	779	596	513	1180	30	390,000
Copper	6020	4.0	141	134	5.4	90.2	125	450	330	485	518	28	98,000
Nickel	6020	15.3	184	182	10.8	96.6	151	551	485	458	833	46	20,000
Zinc	6020	15.0	161	170	22.4	100	122	741	433	602	1010	80	86,000

LOCATION		LF8-5	LF8-6	LF8-7	LF8-8	LF8-9	LF9	LF9-1	LF9-2	LF10	LF10-1	Background Clean-up Level	Direct Contact Values
	Date Collected	4/10/96	4/10/96	4/19/96	4/19/96	4/19/96	4/05/96	4/10/96	4/10/96	4/05/96	4/10/96		
	Depth	36"	42"	48"	54"	60"	6"	12"	18"	6"	12"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	464	976	339	190	22.1	168	690	18.4	759	873	30	390,000
Copper	6020	306	523	270	228	25.0	184	395	19.6	359	547	28	98,000
Nickel	6020	370	653	292	183	35.3	177	479	28.0	504	608	46	20,000
Zinc	6020	421	730	292	164	49.3	224	529	45.0	357	644	80	86,000

Notes:

1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Land Farm (LF) Investigation

LOCATION		LF10-2	LF10-3	LF10-4	LF10-5	LF10-6	LF10-7	LF10-8	LF10-9	LF10-10	LF10-11	Background Clean-up Level	Direct Contact Values
	Date Collected	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/19/96	4/19/96	4/19/96	4/18/96	4/19/96		
	Depth	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	612	1210	552	543	22.4	NA	NA	NA	NA	NA	30	390,000
Copper	6020	466	715	428	380	15.9	NA	NA	NA	NA	NA	28	98,000
Nickel	6020	590	855	512	431	16.7	NA	NA	NA	NA	NA	46	20,000
Zinc	6020	440	828	420	353	276	1640	330	182	425	423	80	86,000

LOCATION		LF10-12	LF11	LF11-1	LF11-2	LF11-3	LF12	LF13 1.0	LF14 3.0	LF15 2.5	LF 16 3.5	Background Clean-up Level	Direct Contact Values
	Date Collected	4/19/96	4/18/96	4/18/96	4/18/96	4/18/96	4/17/96	5/13/96	5/13/96	5/13/96	5/13/96		
	Depth	78"	6"	12"	18"	24"	6"	18"	42"	36"	48"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	NA	527	733	48.3	18.7	6.3	3.5	8.6	6.6	38.5	30	390,000
Copper	6020	NA	278	261	28.0	NA	5.9	3.1	7.4	4.6	76.7	28	98,000
Nickel	6020	NA	355	564	46.7	14.9	9.1	6.4	14.6	14.3	64.2	46	20,000
Zinc	6020	35.0	356	342	49.3	NA	17.3	15.6	21.5	17.5	110	80	86,000

LOCATION		LF16 4.0	LF16 4.5	LF17-3.0	LF18 4.0	LF18-7.0	LF19 3.0	LF20-4.5	LF21-5.5	LF22 1.0	LF23 2.0	Background Clean-up Level	Direct Contact Values
	Date Collected	5/13/96	5/13/96	5/09/96	5/13/96	5/09/96	5/13/96	5/09/96	5/09/96	5/13/96	5/13/96		
	Depth	54"	60"	36"	78"	114"	42"	60"	72"	12"	24"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	22.0	8.8	3.4	2.7	3.5	6.1	1.8	7.3	6.8	6.4	30	390,000
Copper	6020	60.7	6.9	5.5	5.6	10.5	8.5	3.9	9.1	7.3	6.9	28	98,000
Nickel	6020	81.2	29.8	5.7	3.0	5.3	12.6	1.8	15.9	13.4	14.3	46	20,000
Zinc	6020	81.4	45.3	11.9	9.7	15.6	19.5	6.4	22.8	38.3	21.6	80	86,000

Notes:

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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Stabilized Materials (SM) Area Investigation

LOCATION		SM1	SM2	SM2-1	SM2-2	SM3	SM3-1	SM3-2	SM3-3	SM3-4	Background Clean-up Level	Direct Contact Values
	Date Collected	4/04/96	4/04/96	4/08/96	4/08/96	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96		
	Depth	6"	6"	12"	18"	6"	12"	18"	24"	30"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	3.5	2070	1070	17.4	1570	1030	739	717	1420	30	390,000
Copper	6020	7.9	1170	692	15.7	704	764	511	608	482	28	98,000
Nickel	6020	8.2	1480	777	25.5	1010	814	795	609	898	46	20,000
Zinc	6020	16.8	1340	770	35.3	728	823	558	759	530	80	86,000

LOCATION		SM3-5	SM4	SM4-1	SM5	SM6	DUP(SM6)	SM6-1	SM6-2	SM6-3	Background Clean-up Level	Direct Contact Values
	Date Collected	4/08/96	4/04/96	4/10/96	4/04/96	4/04/96	4/04/96	4/08/96	4/08/96	4/08/96		
	Depth	36"	6"	12"	6"	6"	6"	12"	18"	24"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	11.1	428	18.6	8.9	400	1350	790	170	207	30	390,000
Copper	6020	11.5	286	12.8	5.3	256	673	2200	144	158	28	98,000
Nickel	6020	31.3	365	21.8	16.3	322	940	773	132	187	46	20,000
Zinc	6020	25.2	314	26.1	21.1	319	950	919	135	225	80	86,000

LOCATION		SM6-4	SM6-5	SM6-6	SM6-7	SM6-8	SM7	SM7-1	SM7-2	SM7-3	SM7-4	Background Clean-up Level	Direct Contact Values
	Date Collected	4/08/96	4/08/96	4/08/96	4/19/96	4/19/96	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96		
	Depth	30"	36"	42"	48"	54"	6"	12"	18"	24"	30"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	143	589	60.2	319	6.0	1140	580	337	22.3	NA	30	390,000
Copper	6020	249	285	54.1	598	4.1	724	490	456	23.9	NA	28	98,000
Nickel	6020	179	441	69.3	393	8.4	1160	490	316	53.0	15.2	46	20,000
Zinc	6020	170	746	74.6	NA	NA	982	611	327	48.0	NA	80	86,000

Notes:

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Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Stabilized Materials (SM) Area Investigation

LOCATION		SM8	SM8-1	SM8-2	SM8-3	SM8-4	SM8-5	SM9	SM9-1	SM9-2	Background Clean-up Level	Direct Contact Values
	Date Collected	4/04/96	4/08/96	4/08/96	4/08/96	4/08/96	4/08/96	4/04/96	4/10/96	4/10/96		
	Depth	6"	12"	18"	24"	30"	36"	6"	12"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2300	1390	879	4.9	NA	NA	344	3700	7908	30	390,000
Copper	6020	1170	718	681	45.6	187	4.9	197	2190	3930	28	98,000
Nickel	6020	1450	967	619	33.2	NA	NA	283	2640	5120	46	20,000
Zinc	6020	1050	841	698	16.8	NA	NA	162	2160	3620	80	86,000

LOCATION		SM9-3	SM10	SM10-1	SM10-2	SM10-3	SM11	SM11-1	SM11-2	SM11-3	Background Clean-up Level	Direct Contact Values
	Date Collected	4/10/96	4/04/96	4/08/96	4/08/96	4/08/96	4/17/96	4/17/96	4/17/96	4/17/96		
	Depth	24"	6"	12"	18"	24"	6"	12"	18"	24"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.6	2810	14700	111	22.2	615	1218	716	41.8	30	390,000
Copper	6020	6.0	1470	7030	76.9	18.3	346	630	423	22.1	28	98,000
Nickel	6020	5.9	1890	10900	85.3	22.2	437	865	542	38.1	46	20,000
Zinc	6020	14.1	1870	7780	58.7	NA	345	692	575	46.4	80	86,000

LOCATION		SM11-4	SM12	SM12-1	SM12-2	SM12-3	SM13	SM13-1	SM14 4.0	SM15 4.5	Background Clean-up Level	Direct Contact Values
	Date Collected	4/17/96	4/17/96	4/17/96	4/17/96	4/17/96	4/04/96	4/08/96	5/13/96	5/13/96		
	Depth	30"	6"	12"	18"	24"	6"	12"	54"	60"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.7	455	235	31.5	11.2	1670	6.5	3.9	8.5	30	390,000
Copper	6020	NA	239	151	34.6	10.5	902	3.7	5.8	10.1	28	98,000
Nickel	6020	NA	321	169	34.0	NA	1160	16.5	10.1	7.0	46	20,000
Zinc	6020	NA	260	150	29.1	NA	1040	14.9	11.0	15.8	80	86,000

Notes:

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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Retention Basin (RB) Area Investigation

LOCATION		RB1	RB2	RB3	RB3-1	RB3-2	RB4	RB4-1	RB5	RB6	Dup4(RB6)	Background Clean-up Level	Direct Contact Values
	Date Collected	4/03/96	4/03/96	4/03/96	4/11/96	4/11/96	4/03/96	4/11/96	4/03/96	4/03/96	4/03/96		
	Depth	6"	6"	6"	12"	18"	6"	12"	6"	6"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	6.3	4.1	272	6.8	NA	239	14.0	9.7	107	80.0	30	390,000
Copper	6020	4.2	8.4	174	9.2	NA	126	11.8	16.2	59.8	46.5	28	98,000
Nickel	6020	24.6	23.6	229	48.8	12.5	195	25.0	22.3	88.8	70.0	46	20,000
Zinc	6020	18.6	16.9	182	28.9	NA	150	30.2	26.7	80.9	54.8	80	86,000

LOCATION		RB6-1	RB6-2	RB6-3	RB7	RB7-1	RB8	RB9	RB9-1	RB10	RB10-1	Background Clean-up Level	Direct Contact Values
	Date Collected	4/11/96	4/11/96	4/11/96	4/03/96	4/11/96	4/03/96	4/03/96	4/11/96	4/03/96	4/11/96		
	Depth	12"	18"	24"	6"	12"	6"	6"	12"	6"	12"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	34.5	119	3.3	186	10.0	2.0	3.9	NA	647	12.4	30	390,000
Copper	6020	30.7	86.0	6.9	106	8.2	3.4	7.7	NA	420	12.2	28	98,000
Nickel	6020	40.8	NA	NA	156	22.6	22.4	63.6	15.6	494	20.8	46	20,000
Zinc	6020	37.5	NA	NA	110	24.6	6.2	19.5	NA	403	29.1	80	86,000

LOCATION		RB11	RB11-1	RB11-2	RB11-3	RB12	RB13	RB14	RB14-1	RB15	Background Clean-up Level	Direct Contact Values
	Date Collected	4/02/96	4/11/96	4/11/96	4/11/96	4/02/96	4/02/96	4/02/96	4/11/96	4/02/96		
	Depth	6"	12"	18"	24"	6"	6"	6"	12"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	289	372	51.9	4.1	2.7	5.8	539	4.3	9.2	30	390,000
Copper	6020	134	196	38.6	7.0	5.0	4.3	304	3.6	4.3	28	98,000
Nickel	6020	174	283	57.9	27.1	8.6	13.9	390	11.2	13.3	46	20,000
Zinc	6020	151	234	53.9	NA	9.1	10.0	305	16.0	11.3	80	86,000

Notes:

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4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Soil Stockpile (SS) Area Investigation

LOCATION		SS1	SS1-1	SS2	SS2-1	SS2-2	SS2-3	SS2-4	SS2-5	SS2-6	Background Clean-up Level	Direct Contact Values
	Date Collected	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96	4/18/96		
	Depth	6"	12"	6"	12"	18"	24"/30"	36"	42"	48"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	184	12.8	232	104	92.6	4550	3270	444	5.2	30	390,000
Copper	6020	86.5	14.7	114	57	44.4	3050	1950	284	3.6	28	98,000
Nickel	6020	117	16.6	142	72.9	72.4	2970	2210	333	3.6	46	20,000
Zinc	6020	136	21.9	148	68.9	NA	NA	NA	NA	NA	80	86,000

LOCATION		SS3-4.0	SS4-6	SS4-7	SS5-6	SS6-6	SS7-3	SS8 4.0	SS9 3.0	Background Clean-up Level	Direct Contact Values
	Date Collected	5/09/96	4/11/96	5/09/96	4/11/96	4/11/96	4/11/96	5/13/96	5/13/96		
	Depth	48"	42"	48"	42"	42"	24"	48"	36"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	4.4	35.9	10.8	10.9	7.8	20.8	3.5	5.4	30	390,000
Copper	6020	6.1	12.1	NA	7.6	8.8	12.2	8.9	4.2	28	98,000
Nickel	6020	6.5	31.7	NA	23.3	17.0	21.9	7.0	12.6	46	20,000
Zinc	6020	15.5	38.9	NA	NA	31.7	NA	15.7	15.3	80	86,000

LOCATION		SS10 3.5	SS11 4.0	SS12-3.5	SS13-2.5	SS14-0.5	SS15-5.0	SS15-5.5	SS16 1.5	Background Clean-up Level	Direct Contact Values
	Date Collected	5/13/96	5/13/96	5/09/96	5/09/96	5/09/96	5/09/96	5/09/96	5/13/96		
	Depth	42"	48"	42"	30"	48"	102"	108"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	2.3	6.8	11.4	6.5	3.5	31.8	5.7	4.3	30	390,000
Copper	6020	6.7	8.7	10.2	5.7	3.4	17.3	NA	4.1	28	98,000
Nickel	6020	10.2	15.4	19.4	12.0	3.4	30.6	NA	10.6	46	20,000
Zinc	6020	12.2	21.7	27.0	12.5	7.7	35.5	NA	12.5	80	86,000

Notes:

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Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Miscellaneous Cleanup (MC) Area Investigation

LOCATION		MC1	MC1A	MC1A-1	MC2	MC3	MC3A-1	MC3A-2	MC4	MC4A	MC4A-1	Background Clean-up Level	Direct Contact Values
	Date Collected	4/01/96	4/11/96	4/09/96	4/01/96	4/01/96	4/09/96	4/09/96	4/01/96	4/11/96	4/09/96		
	Depth	6"	12"	18"	6"	6"	18"	24"	6"	12"	18"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	346	407	4.5	1.9	117	49.9	13.9	249	112	9.3	30	390,000
Copper	6020	239	268	4.9	2.2	62.8	37.4	10.4	127	66.0	10.0	28	98,000
Nickel	6020	154	199	5.8	5.0	72.7	46.2	19.4	176	84.2	17.6	46	20,000
Zinc	6020	220	290	15.3	6.0	80.4	59.0	NA	157	101	23.1	80	86,000

LOCATION		MC5	Dup3(MC5)	MC5A-1	MC5A-2	MC6	MC6-1	MC6-2	MC7	MC7-1	MC8	Background Clean-up Level	Direct Contact Values
	Date Collected	4/01/96	4/01/96	4/09/96	4/09/96	4/17/96	4/17/96	4/17/96	4/17/96	4/17/96	4/01/96		
	Depth	6"	6"	18"	24"	6"	12"	18"	6"	12"	6"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	362	458	65.9	8.7	167	104	5.2	217	22.3	128	30	390,000
Copper	6020	196	198	34.2	5.8	85.9	43.2	3.7	88.4	16.0	68.1	28	98,000
Nickel	6020	245	278	33.1	NA	121	74.1	11.0	146	20.7	97.2	46	20,000
Zinc	6020	231	284	49.0	NA	102	56.9	NA	114	30.1	90.1	80	86,000

LOCATION		MC8A-1	MC8A-2	MC8A-3	MC9	MC10	MC10A	MC11	MC11A	MC12	MC12A	Background Clean-up Level	Direct Contact Values
	Date Collected	4/09/96	4/09/96	4/09/96	4/01/96	4/01/96	4/10/96	4/01/96	4/11/96	4/01/96	4/10/96		
	Depth	18"	24"	30"	6"	6"	12"	6"	12"	6"	12"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	162	92.6	7.5	4.9	64.9	4.9	315	6.8	117	185	30	390,000
Copper	6020	91.2	51.6	7.6	5.5	25.7	NA	176	5.4	70.2	102	28	98,000
Nickel	6020	1125	71.8	17.3	13.5	33.4	NA	208	16.0	73.4	118	46	20,000
Zinc	6020	128	125	21.3	14.1	41.9	NA	196	21.8	94.0	139	80	86,000

LOCATION		MC12A-1	MC12A-2	MC12A-3	MC12A-4	MC13	MC13A	MC13A-1	MC13A-2	MC13A-3	Background Clean-up Level	Direct Contact Values
	Date Collected	4/09/96	4/10/96	4/10/96	4/10/96	4/01/96	4/05/96	4/08/96	4/05/96	4/05/96		
	Depth	18"	24"	30"	36"	6"	12"	18"	24"	30"		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	284	40.0	46.8	6.8	345	128	270	32.7	16.1	30	390,000
Copper	6020	156	24.8	NA	NA	187	63.0	130	21.2	NA	28	98,000
Nickel	6020	162	25.5	NA	NA	113	57.8	102	16.9	NA	46	20,000
Zinc	6020	190	53.0	NA	NA	181	78.0	NA	NA	NA	80	86,000

Notes:

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3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 4
Soil Analytical Data
Coldwater Road - Flint, MI

Downgradient Monitoring Wells

LOCATION		MW25-1	MW25-2	MW25-3	MW25-4	MW25-5	MW25-6	MW25-7	MW25-8	Background Clean-up Level	Direct Contact Values
	Date Collected	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96		
	Depth	1.0'	2.0'	3.0'	4.0'	5.0'	6.0'	7.0'	8.0'		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	22	22	20	18	22	18	17	14	30	390,000
Copper	6020	17	17	13	18	16	15	14	15	28	98,000
Nickel	6020	23	25	21	19	19	20	20.0	18	46	20,000
Zinc	6020	57	59	46	56.0	49	53	77	46	80	86,000

LOCATION		MW25-9	MW25-10	MW25-11	MW25-12	MW26-1	MW26-2	MW26-3	MW26-4	Background Clean-up Level	Direct Contact Values
	Date Collected	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96		
	Depth	9.0'	10.0'	11.0'	12.0'	1.0'	2.0'	3.0'	4.0'		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	20	15	20	11	21	19	30	17	30	390,000
Copper	6020	17	15	18	12	21	20	32	17	28	98,000
Nickel	6020	22	20	23	11	25	40	35	21	46	20,000
Zinc	6020	55	50	58	37	59	62	59	50	80	86,000

LOCATION		MW26-5	MW26-6	MW26-7	MW26-8	MW26-9	MW26-10	MW26-11	MW26-12	Background Clean-up Level	Direct Contact Values
	Date Collected	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96	12/20/96		
	Depth	5.0'	6.0'	7.0'	8.0'	9.0'	10.0'	11.0'	12.0'		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	16	20	20	17	15	22	25	29	30	390,000
Copper	6020	16	19	17	17	9.3	25	17	22	28	98,000
Nickel	6020	22	23	19	17	14	37	2	27	46	20,000
Zinc	6020	46	51	68	61	33	58	67	130	80	86,000

Notes:
1) Samples analyzed by FECL of East Lansing, Michigan
2) Shading denotes sample concentration exceeds background cleanup level
3) Background cleanup level per O'Brien & Gere 1989 Closure Plan
4) Direct Contact values per MERA Operational Memorandum #8, Revision 3 - Type B criteria

Table 5
Excavation of Material Above Cutoff Level
Closure Verification Samples
Coldwater Road - Flint, MI

LOCATION		SMEX-1	SMEX-2	SMEX-3	SMEX-4	SMEX-5	SMEX-5 D	SMEX-6	SMEX-7	Background Clean-up Level	Soil Cutoff Level
	Date Collected	02/26/97	02/26/97	02/26/97	02/26/97	03/04/97	03/04/97	03/04/97	02/26/97		
	Depth	Sidewall	Sidewall	Sidewall	Sidewall	Sidewall	Sidewall	Sidewall	Sidewall		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	15.7	97.5	7.4	9.2	14.1	76.4	2.9	490	30	5,106
Copper	6020	12.8	105	5.7	5.6	67.2	234	6	183	28	4,812
Nickel	6020	45.1	96.1	22.8	28.3	178	202	3.82	293	46	4,111
Zinc	6020	57.3	117.0	25.9	26.7	30.3	81.2	7.8	249.0	80	3,763

LOCATION		WA8X-1	WA8X-2	WA8X-3	WA8X-4	WA8X-5	Background Clean-up Level	Soil Cutoff Level
	Date Collected	02/26/97	02/26/97	02/26/97	02/26/97	02/26/97		
	Depth	Sidewall	Sidewall	Sidewall	Sidewall	Sidewall		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	7.9	866	10	109	88.8	30	5,106
Copper	6020	8.2	570	8.2	151	58.1	28	4,812
Nickel	6020	24	620	21.7	156	81.3	46	4,111
Zinc	6020	25.9	481	33.7	160	89.6	80	3,763

LOCATION		WA15X-1	WA15X-2	WA15X-3	WA15X-4	WA15X-4 D	WA15X-5	Background Clean-up Level	Soil Cutoff Level
	Date Collected	02/26/97	01/23/97	01/23/97	01/23/97	03/04/97	01/23/97		
	Depth	Sidewall	3-3.5 ft	3.5-4 ft	0.5-1 ft	Sidewall	1-1.5 ft		
Analytical Parameter	Method	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium	6020	16.5	225	225	281	799	260	30	5,106
Copper	6020	11.1	121	155	169	493	153	28	4,812
Nickel	6020	15.1	134	197	202	628	194	46	4,111
Zinc	6020	30.6	162	192	246	540	195.0	80	3,763

D - duplicate sample

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GRAVEL DRIVE

HAUL ROAD AREA

LANDFILL AREA

FORMER LANDFARM AREA

FORMER SETTLING LAGOON AREA

CLOSED SLUDGE DRYING BED AREA

NON-GM PROPERTY

RAILROAD TRACKS

EAST AREA

WEST AREA

SOIL STOCKPILE AREA

STABILIZED MATERIALS AREA

RETENTION BASIN AREA

10' WIDE DRAINAGE SWALE

SEEDED BERM

MW-19-A

MW-18-A

MW-26

MW-25

MW-9-S

EA1 EA2 EA3 EA4 EA5 EA6 EA7 EA8 EA9 EA10 EA11 EA12 EA13 EA14 EA15 EA16 EA17 EA18 EA19 EA20 EA21 EA22 EA23 EA24 EA25 EA26

LF1 LF2 LF3 LF4 LF5 LF6 LF7 LF8 LF9 LF10 LF11 LF12 LF13 LF14 LF15 LF16 LF17 LF18 LF19 LF20 LF21 LF22 LF23

SS1 SS2 SS3 SS4 SS5 SS6 SS7 SS8 SS9 SS10 SS11 SS12 SS13 SS14 SS15 SS16

SM1 SM2 SM3 SM4 SM5 SM6 SM7 SM8 SM9 SM10 SM11 SM12 SM13 SM14 SM15

RB1 RB2 RB3 RB4 RB5 RB6 RB7 RB8 RB9 RB10 RB11 RB12 RB13 RB14 RB15

MC1 MC2 MC3 MC4 MC5 MC6 MC7 MC8 MC9 MC10 MC11 MC12 MC13

WA1 WA2 WA3 WA4 WA5 WA6 WA7 WA8 WA9 WA10 WA11 WA12 WA13 WA14 WA15 WA16 WA17 WA18 WA19 WA21 WA22 WA23 WA24 WA25 WA26 WA27 WA28 WA29 WA30 WA31

LEGEND

- SOIL SAMPLE LOCATION
- MONITORING WELL
- POWER POLE
- CHAIN LINK FENCE
- LIMIT OF FORMER EXCAVATION
- EAST/WEST AREA BOUNDARY

NOTES:

- MC DENOTES MISCELLANEOUS CLEANUP AREA
- LF DENOTES LANDFARM AREA
- RB DENOTES RETENTION BASIN AREA
- SS DENOTES SOIL STOCKPILE AREA
- SM DENOTES STABILIZED MATERIAL AREA
- EA DENOTES EAST AREA
- WA DENOTES WEST AREA

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IN CHARGE OF _____

DESIGNED BY _____ CHECKED BY _____

DRAWN BY _____

1"=50'-0" 50 25 0 50 100

APPROXIMATE SCALE IN FEET

NO.	DATE	REVISION	INIT.

CH2M HILL ENGINEERS, INC.

GENERAL MOTORS CORPORATION
DELPHI INTERIOR & LIGHTING SYSTEMS
COLDWATER ROAD PLANT

REMAINING MATERIALS AREA
SAMPLE LOCATION PLAN

FILE NO. 4144.007.024

DATE APRIL 1997

2

PLOT SCALE=50

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PLOT SCALE: 200

STANLEY ROAD

B12 (758.19)

760

765

770

775

780

785

NEW WETLANDS

B11 (DRY)

B10A (784.94)

B10 (778.45)

B1A (NA)

MW1 (795.35)

B2A (795.35)

C & O RAILROAD

B5 (DRY)

MW25 (784.19)

B19A (DRY)

REMAINING MATERIALS AREA

790

B18A

B6A (790.81)

APPROX. OUTLINE OF LANDFILL

795

B7 (797.38)

800

B8 (805.42)

B14 (NA)

MANUFACTURING BUILDING

I-275

LEGEND

- B14 — MONITORING WELL LOCATION
- (784.94) — GROUND WATER ELEVATION ON 12/23/96
- (DRY) — WELL WAS DRY GROUND WATER BELOW BOTTOM OF WELL
- APPARENT GROUND WATER FLOW DIRECTION IN UPPER PERCHED ZONE
- 765 — GROUND WATER POTENTIOMETRIC ELEVATION

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IN CHARGE OF _____

DESIGNED BY _____ CHECKED BY _____

DRAWN BY _____

200 0 200 400

APPROXIMATE SCALE: 1" = 200'

NO.	DATE	REVISION	INIT.

CH2M HILL ENGINEERS, INC.

GENERAL MOTORS CORPORATION
DELPHI INTERIOR & LIGHTING SYSTEMS
COLDWATER ROAD PLANT

SITE PLAN
UPPER PERCHED ZONE
GROUND WATER FLOW MAP

FILE NO. 4144.007-030

DATE APRIL, 1997

3

I:\NOVI PROJECTS\4144007\DWG\027.DWG

GRAVEL DRIVE

HAUL ROAD AREA

LANDFILL AREA

RAILROAD TRACKS

EAST AREA

SOIL STOCKPILE AREA

STABILIZED MATERIALS AREA

FORMER LANDFARM AREA

FORMER SETTLING LAGOON AREA

RETENTION BASIN AREA

SEEDED BERM

10' WIDE DRAINAGE SWALE

CLOSED SLUDGE DRYING BED AREA

NON-GM PROPERTY

WEST AREA

MW-18-A

MW-19-A

MW-26

MW-25

MW-8-S

LEGEND

- SOIL SAMPLE LOCATION
- MONITORING WELL
- POWER POLE
- CHAIN LINK FENCE
- LIMIT OF FORMER EXCAVATION
- EAST/WEST AREA BOUNDARY
- SAMPLE WITH ONE OR MORE ANALYTICAL PARAMETERS ABOVE BACKGROUND CLEANUP LEVEL

NOTES:

MC	DENOTES MISCELLANEOUS CLEANUP AREA
LF	DENOTES LANDFARM AREA
RB	DENOTES RETENTION BASIN AREA
SS	DENOTES SOIL STOCKPILE AREA
SM	DENOTES STABILIZED MATERIAL AREA
EA	DENOTES EAST AREA
WA	DENOTES WEST AREA

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IN CHARGE OF

DESIGNED BY ____ CHECKED BY ____

DRAWN BY

1"=50'-0" (50 25 0 50 100)

APPROXIMATE SCALE IN FEET

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE ENGINEERS, INC.

GENERAL MOTORS CORPORATION
DELPHI INTERIOR & LIGHTING SYSTEMS
COLDWATER ROAD PLANT

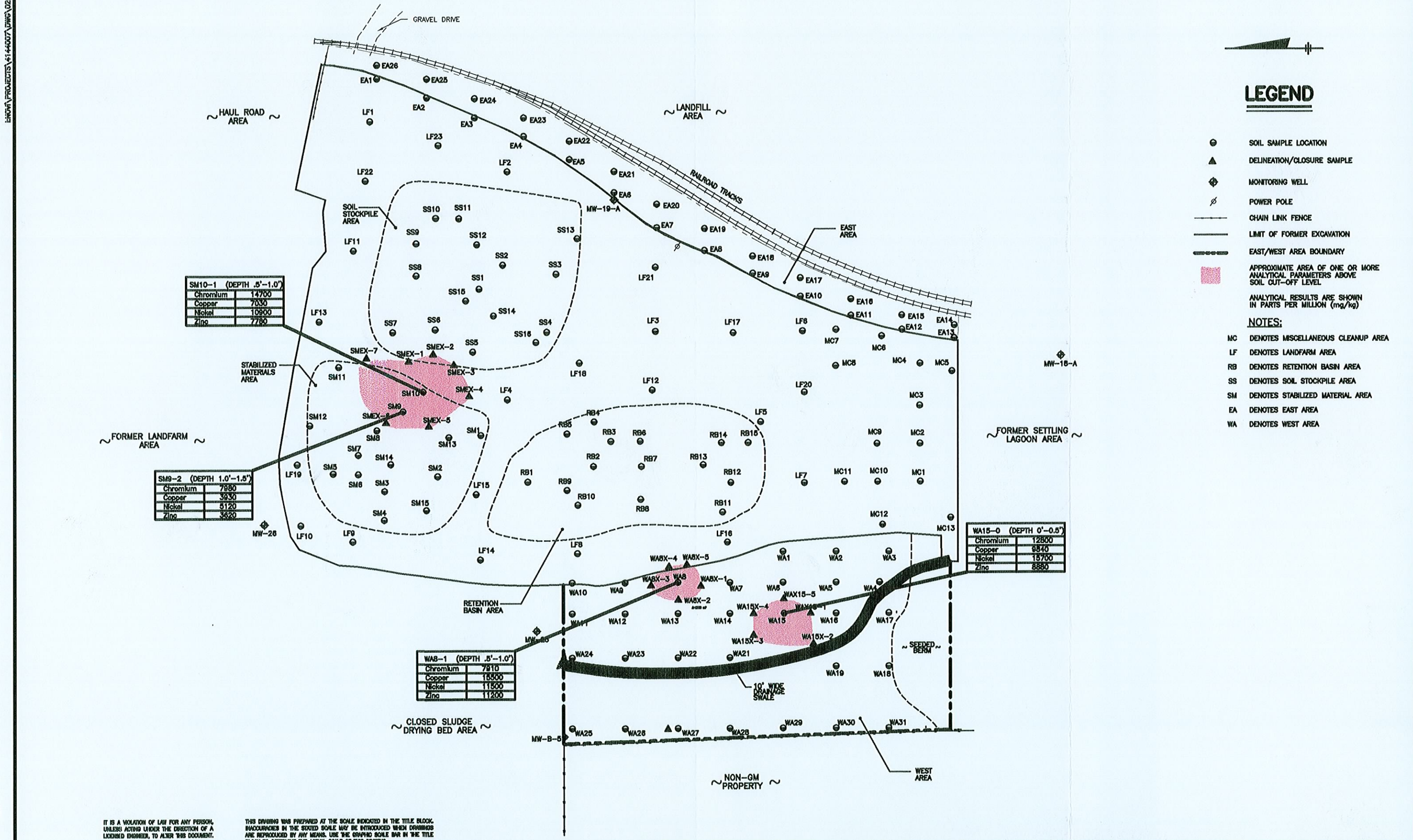
REMAINING MATERIALS AREA
SAMPLES ABOVE
BACKGROUND CLEANUP LEVEL

FILE NO. 4144.007-027

DATE APRIL, 1997

4

PLOT SCALE=50



LEGEND

- SOIL SAMPLE LOCATION
- DELINEATION/CLOSURE SAMPLE
- MONITORING WELL
- POWER POLE
- CHAIN LINK FENCE
- LIMIT OF FORMER EXCAVATION
- EAST/WEST AREA BOUNDARY
- APPROXIMATE AREA OF ONE OR MORE ANALYTICAL PARAMETERS ABOVE SOIL CUT-OFF LEVEL
- ANALYTICAL RESULTS ARE SHOWN IN PARTS PER MILLION (mg/kg)

NOTES:

MC	DENOTES MISCELLANEOUS CLEANUP AREA
LF	DENOTES LANDFARM AREA
RB	DENOTES RETENTION BASIN AREA
SS	DENOTES SOIL STOCKPILE AREA
SM	DENOTES STABILIZED MATERIAL AREA
EA	DENOTES EAST AREA
WA	DENOTES WEST AREA

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IN CHARGE OF
DESIGNED BY ..... CHECKED BY .....
DRAWN BY

1"=50'-0" (50 25 0 50 100) APPROXIMATE SCALE IN FEET

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE ENGINEERS, INC.

GENERAL MOTORS CORPORATION
DELPHI INTERIOR & LIGHTING SYSTEMS
COLDWATER ROAD PLANT

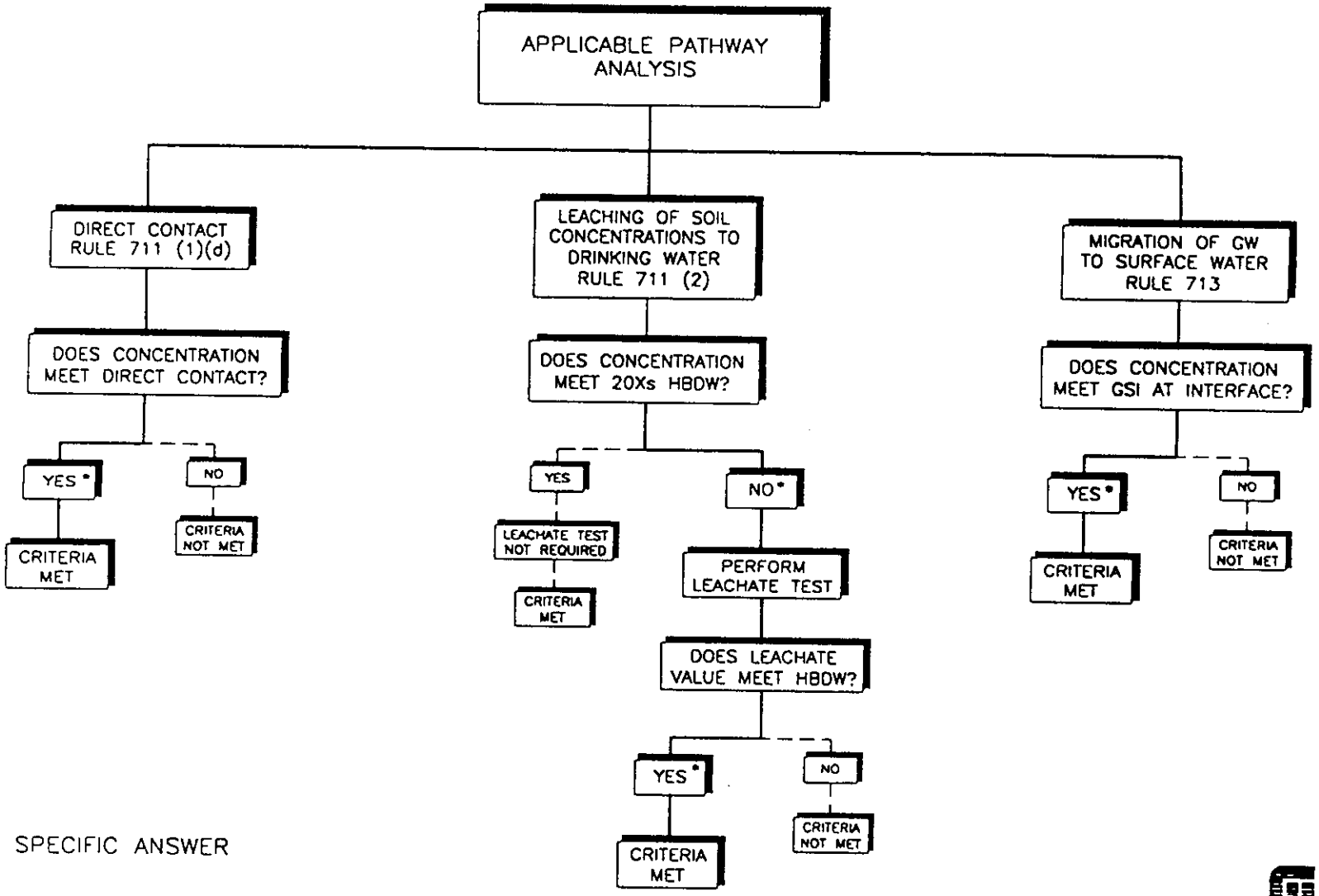
REMAINING MATERIALS AREA
APPROXIMATE AREAS ABOVE
SOIL CUTOFF LEVEL

FILE NO. 4144.007-026
DATE APRIL, 1997
5

PLOT SCALE: 50

FIGURE 6
DETERMINATION OF SOIL MEETING TYPE B CRITERIA

GENERAL MOTORS CORPORATION
COLDWATER ROAD FACILITY



* SITE SPECIFIC ANSWER

O'BRIEN & GERE ENGINEERS, INC.

O'BRIEN & GERE
ENGINEERS, INC.

October 30, 1997

Ms. Kimberly M. Tyson
Environmental Engineer
Michigan Department of Environmental Quality
Waste Management Division
P.O. Box 30241
Lansing, MI 48909-7741

Re: Closure Plan Modification Request
GM - Coldwater Road Facility
Flint, Michigan - MID 005 356 860

File: 4144.007 #2

Dear Ms. Tyson:

In response to your notice of deficiencies outlined in the September 23, 1997 letter regarding the Closure Plan Modification Request for the General Motors Corporation (GM) Coldwater Road facility in Flint, Michigan, we offer the following responses:

1. MDEQ Comment: *There are five migration pathways pertinent to the General Motors Corporation, (GMC) Coldwater Road Facility that must be addressed to utilize the Type B cleanup criteria. Three of the five Type B pathways at the site have been addressed, and the remaining materials area (RMA) passes for those three pathways. The pathways addressed were a) direct contact, b) leaching to groundwater by synthetic precipitation leaching procedure (SPLP) testing and groundwater-surface water interface or GSI, and c) the soil inhalation pathway. The Waste Management Division (WMD) checked the soil inhalation pathway and the RMA does not exceed this criteria (Generic Soil Inhalation Criteria dated April 23, 1997). The pathways not addressed were runoff or erosion of soil to surface water (see comment 2), and the soil resource issues such as food chain, agriculture, phytotoxicity, etc. (See comment 3).*

Response: Refer to Comments 2 and 3.

2. MDEQ Comment: *It is recommended that a sedimentation basin be constructed at the point where the drainage swale exits the RMA to prevent runoff or erosion of soil into the adjacent wetlands [Part 201, Rule R 299.5711(1)(b) and (3)]. GMC must also address steps to prevent detachment of soil particles. Such preventive measures may include maximum slope criteria, timely establishment of protective plant cover, and mulch or other interim cover while the plant cover becomes established. Soil erosion may be further minimized by project schedules which either result in completion or avoid disturbing the soil during seasonal periods more prone to erosion particularly early spring with rainfall on saturated or frozen soil.*

Response: Soil runoff or erosion is not considered an applicable pathway for this site as a soil cover, consisting of a minimum of 6 inches of topsoil, will be applied on the remaining soil material. This topsoil cover will be seeded to provide a vegetative cover thereby minimizing future erosion issues. Runoff and

O'Brien & Gere Engineers, Inc., an O'Brien & Gere company
39830 Grand River Avenue / Suite B-2 / Novi, MI 48375
(248) 426-8970 / FAX (248) 426-8997 • http://www.obg.com
and offices in major U.S. cities

erosional issues are currently being addressed by silt fences and hay bales around the RMA. These engineering controls have been in place since early 1996 and are inspected weekly or following a significant storm event in accordance with permit MIR101570, issued on March 4, 1996.

Although the runoff/erosion pathway will be addressed by the topsoil cover and vegetation, GM has redesigned the final grading plan to incorporate use of the former retention basin as a storm water sedimentation basin. This sedimentation basin will collect storm water runoff in the RMA and an overflow channel will direct the discharge into the drainage swale located southwest of the RMA. A copy of the revised final grading plan can be submitted to your office if requested.

3. MDEQ Comment: *The closure plan modification does not address the soil resource pathway [Part 201, Rule R 299.5711(1)(e) and (6)]. However, standards to protect the soil resource are not promulgated as far as the WMD can determine, except for land application of sewage sludges in 40 CFR Part 503. Nickel concentrations in the RMA would not pass the ceiling concentrations allowable for sludge (420 mg/kg) as specified in 40 CFR 503.13. The WMD consulted various references on metal toxicity to plants. However, these references vary in the recommended maximum allowable levels of metals in regards to phytotoxicity concerns (i.e. plant species tolerances vary). The RMA does have some total metal soil concentrations that exceed all of the recommendations the WMD have found. GMC must address this pathway or place a deed restriction or notification on the deed for the RMA.*

Response: The Closure Plan Modification Request does not specifically address the subrule pertaining to direct uses of the soil resource because the threshold for applying this pathway has not been met at the site. The evaluation of this soil use is not as well understood nor thought to be as sensitive as other, more scientifically developed pathways such as soil ingestion and leaching of soil contaminants to ground water. The requirements pertaining to resource use were thus developed to reflect these uncertainties, including the need to develop criteria based on sound scientific principles when the MDEQ Director makes a site-specific determination to apply this pathway at a site. To our knowledge, there are no such criteria, nor has the Director determined this pathway to be applicable at this site. In fact, O'Brien & Gere and GM are unaware of any site where the department has applied this subrule.

Rule 711, which specifies the requirements for attaining compliance with the Type B soil criteria, references levels "to protect the direct uses of the soil resource, if information is available to establish such levels, as set forth in subrule (6) of this rule." [Emphasis added] Subrule 711(6) further requires the criteria to "be based on sound scientific principles." These rules were promulgated at a time when protective levels for this use were not available for evaluation and based on the information provided in your September 23, 1997 letter, it appears that is still correct.

The rules pertaining to the application of sewage sludge are not applicable to this site because the media of interest is subsurface soil, not sewage sludge which is repeatedly applied to surface soil on a periodic basis. It is inappropriate to merely apply these allowable sewage sludge concentrations as protective soil criteria. It should be noted that these sewage sludge application rules were in effect when the Administrative rules were promulgated and the director chose not to apply them as evaluation criteria. It is not clear what the other "various references" mentioned in your letter are and whether they represent new information based on sound science.

Besides the availability of applicable evaluation criteria, rule 711(6) requires the MDEQ director to determine the need for evaluating the soil resource pathway on a site-specific basis. This management determination was required because the department did not anticipate wide spread application of this pathway in the cleanup program. We are unaware of such a determination by the MDEQ Director for the RMA and thus this issue was not addressed in our Closure Plan Modification Request.

Notwithstanding the above discussion, your question regarding potential phytotoxicity will be addressed at the site with the application of topsoil and vegetative cover at the RMA. Topsoil is needed in this area to support vegetative growth due to the low carbon and nutrient content of the native soils in this area.

4. MDEQ Comment: *As demonstrated by TCLP test results, the contaminated soils in the RMA are not hazardous. The soils do not need an on-site delisting petition to be left in-place, provided that the soils pass all of the Type B pathways, which would therefore meet the RCRA cleanup criteria. The direct contact number for copper listed in the April 23, 1997 submittal has a decimal error. The direct contact number is 9,800 mg/kg. None of the remaining soils exceed the direct contact number.*

Response: No response requested.

5. MDEQ Comment: *The WMD recommends that the soil west of the drainage swale be graded or moved to other locations in the RMA to ensure that soil with elevated metals (that is, above local background but does not exceed Type B pathway criteria) does not erode onto private property.*

Response: As noted in the response to Comment No. 2, the runoff/erosion pathway will be addressed by covering the remaining soil material. However, as an additional conservative measure, the area west of the drainage swale will be regraded to direct surface runoff away from the adjacent residential properties. The final grades for this area will be determined during construction.

6. MDEQ Comment: *The GSI criteria have been revised as a result of the promulgation of new administrative rules for Part 31 of the Michigan Natural Resources and Environmental Protection Act. These rules are commonly referred to as the Great Lakes Initiative (GLI) rules. Previously the site specific GSI criteria calculated for the site was based on a surface water hardness of 323 mg/l. Based on the new formulas, a comparison of GSI criteria is as follows:*

Parameter	Previous GSI Criteria	Revised GSI Criteria
chromium	126 ug/l	194 ug/l
copper	32 ug/l	24 ug/l
nickel	98 ug/l	140 ug/l
zinc	137 ug/l	316 ug/l

There has been only one set of samples taken from the two monitoring wells that are at the GSI point of compliance. Additional data will be needed to determine long-term compliance with the site-specific GSI criteria already established for the site. The WMD has approved that GMC may cease monitoring when four consecutive quarters of groundwater data were below the GSI criteria. This was done near the RMA at the former sludge drying beds where there was a GSI exceedance for a period of time. However, there were no soils at the sludge drying beds above background. Since the RMA has soils above background, it may be appropriate to have a longer monitoring period. Part 111 and RCRA (40 CFR 264.100(f) allows termination of corrective action if the groundwater standard has not been exceeded for three years. Therefore, for a more conclusive demonstration, the company must propose to modify the closure plan to include groundwater monitoring at the RMA to show that GSI criteria is not exceeded.

Response: It is proposed to continue monitoring the ground water in the two monitoring wells downgradient of the RMA (MW-25 and MW-26) for a period of one year. This one year time period is the previously accepted standard for this and other sites and is justified based on the following:

- The soil material in the RMA has had metals in place above the site specific background for over 40 years and the ground water analytical data, collected just downgradient of the RMA, has not exceeded the site specific GSI criteria;
- Soil within the RMA with the highest concentrations of these metals were removed and disposed off site;
- Leachate from the SPLP testing to support the Closure Plan Modification Request indicates that metals in the RMA are not expected to leach to the ground water above the GSI criteria; and
- The two monitoring wells are conservatively located upgradient of the ground water/surface water interface.

If, during the one year ground water monitoring program at MW-25 and MW-26, an exceedance of the site specific GSI criteria is identified, the monitoring program may be extended or revised.

7. **MDEQ Comment:** *The October 6, 1992 closure plan (approved closure plan) must be amended to accommodate the GSI monitoring, sedimentation basin construction, and soil grading. Such modifications to the approved closure plan requires that the WMD follow the Part 111 public participation procedures.*

Response: The responses in this letter will serve as an amendment to the April 23, 1997 Closure Plan Modification Request for this site. As noted in the above responses, soil grading and sedimentation issues will be incorporated into the construction program, in addition to placement of the vegetated top soil cover. Additional ground water monitoring downgradient of the RMA is proposed for one year.

As discussed between Bob Metcalf and you, the grading, top soil cover placement and seeding program is currently underway in an attempt to complete the work prior to the winter of 1997. We also propose to collect two ground water samples from the downgradient monitoring wells in November 1997. The samples will be analyzed for dissolved chromium, copper, nickel, and zinc. The results of these sample events will be submitted to your office along with the current quarterly ground water monitoring program for the landfill

We will assist the MDEQ, as necessary regarding any public participation issues.

8. <u>October 10, 1997 Letter from Mr. William L. Yokum:</u> *Subsequent to the September 23, 1997 Closure Plan Modification Request Notification of Deficiency addressed above, an additional letter, dated October 10, 1997 was received from Mr. William L. Yokum identifying issues regarding the accumulation of F039 leachate in the Coldwater Road wastewater treatment plant (WWTP). Mr. Yokum requested that a response to these issues be included with the response to the Notification of Deficiency. In response to the issues outlined in Mr. Yokum's letter, we offer the following:*

<u>Issue A</u>: *The wastewater treatment plant operations (leachate treatment and subsequent discharge to the Genesee County sanitary sewer) considered in the approval of the revised closure plan have ceased.*

Response: GM intends to start up and operate the WWTP on or about November 17, 1997, to treat and discharge all wastewaters currently on site (including leachate) under the terms of the existing permit with the Beecher Metropolitan District as outlined on the attached correspondence to Ms. Patricia Robson. This operation may continue for up to 3 months, at which time decommissioning and deactivation of the WWTP may be initiated.

<u>Issue B:</u> *The package wastewater treatment plant proposed to replace the wastewater treatment plant has not been installed or put in operation.*

<u>Response:</u> The facility designed to handle leachate after deactivation of the existing WWTP is not a "package wastewater treatment plant" but rather a temporary storage facility to accumulate leachate from the landfill prior to direct discharge to the local sanitary sewer. This facility will also house the electrical controls and monitoring systems associated with the landfill. GM has let the contract for construction of this facility within the last week. It is anticipated that the facility will be completed and available for use by early spring 1998.

Efforts have been initiated to obtain the necessary permit for direct discharge of the leachate to the sanitary sewer. If timing of the permit does not coincide with availability of the temporary storage facility and WWTP deactivation, leachate from the landfill will be periodically transported off site for disposal.

<u>Issue C:</u> *The accumulation of F039 leachate in the wastewater treatment plant basins was not approved in closure plan revisions. Furthermore, leachate accumulation in the existing basins was specifically excluded from the Part 111, Rule 204(1) exemption discussed in Mr. Jack Schinderly's June 19, 1997 letter to Mr. Scott Cormier.*

Response: The process of removing the landfill leachate from the sumps (leak detection and leachate) has not changed other than using an outside contractor (from GM UAW staff) to manually pump water from the leak detection sumps to the leachate sumps. The combined wastewater (leak detection water and leachate) is then pumped to the WWTP for treatment. As the WWTP was temporarily deactivated due to the sale of the manufacturing facility to Peregrine, the leachate has temporarily accumulated in the process tanks at the treatment plant. This temporary accumulation was discussed with several MDEQ staff at the February 5, 1997 meeting in Lansing, Michigan, and the conceptual design for rerouting the leachate collection system (described in the response to item B above) was discussed at this meeting. A subsequent meeting at the site was held on June 9, 1997

to present the draft leachate handling system design with the result of this meeting indicating that handling of the leachate was not specifically outlined in the Consent Order and that only the Operation and Maintenance Plan (O&M Plan) would require modification upon completion of the construction.

Following start up of the WWTP, the accumulated landfill leachate is intended to be treated in the WWTP and discharged to the sanitary sewer, under the existing Beecher permit, similar to previous operations. GM intends to modify the O&M Plan following construction of the temporary storage facility.

Issue D: *The accumulation of F039 leachate in the existing basins is not consistent with the intent of the corrective action consent order and the approved closure plan and revisions to date.*

Response: The treatment of the accumulated leachate through the WWTP, likely starting in mid-November, is consistent with the intent of the corrective action order and approved closure plan. In addition, any leachate generated during the period following deactivation of the WWTP and start up of the new leachate accumulation facility, will be collected in a temporary, contained tank (or tank truck) for off site disposal (interim management plan) or management through the new accumulation facility.

In summary, the responses in this letter constitute an amendment to the April 23, 1997 Request for Closure Plan Modification. The Closure Plan Modification requests the use of Type B health-based criteria and other 307 Rules for this site. In addition, as requested by Mr. Yokum, this letter provides an estimated schedule for the leachate accumulation facility and an interim management plan.

Please call Bob Metcalf at (810) 236-0300 or me at (248) 426-8970 if you have any questions or would like additional information.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Scott L. Cormier, P.E.
Managing Engineer

SLC/tss

cc: Mr. Robert S. Metcalf, P.E. - General Motors WFG, Flint, MI
Mr. Edward E. Peterson - General Motors WFG, Flint, MI
Ms. Jean E. Caufield - General Motors, Detroit, MI
Mr. Scott J. Adamowski, P.E. - O'Brien & Gere Engineers, Novi, MI
Mr. Terry L. Woodward, P.E. - O'Brien & Gere Engineers, Novi, MI

APPENDIX S

Correspondence Regarding the Decommissioning of Wells

STATE OF MICHIGAN

JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY
"Better Service for a Better Environment"
HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973
INTERNET: www.deq.state.mi.us
RUSSELL J. HARDING, Director

REPLY TO
WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

September 7, 1999

Mr. Robert S. Metcalf, P.E.
General Motors Corporation
NAO Flint Operations Office
902 East Hamilton Avenue
Flint, Michigan 48550-8502

99 SEP -9 PM 1:23
GM NORTH AMERICAN OPERATIONS
FLINT REGION
RECEIVED

Dear Mr. Metcalf:

SUBJECT: Request to Terminate Groundwater Monitoring – Abandon Wells
Remaining Material Area
GMC-Delphi Coldwater Road, MID 005 356 860

The Waste Management Division (WMD) of the Michigan Department of Environmental Quality (DEQ) has reviewed your request, dated July 28, 1999, to terminate groundwater monitoring at the Remaining Material Area (RMA) of the site. In addition, you relayed your intention to plug and abandon 21 unused monitoring wells.

1. Plug and Abandon Wells: The WMD concurs that the wells listed in your letter are appropriate for decommissioning. However, more information about the "additional deep well" in the RMA is requested. My recollection is that this was a non-potable water supply well put in during the cleanup activities to provide water for the pug mill operation. I do not have a drilling log for this supply well, but assume it taps into the regional aquifer. As such, and since it is in the RMA, a more stringent plugging effort should be done. For example, one plugging procedure is to mill out sections of the casing within the confining layers, and to inject a grout seal, thus assuring the entire borehole is blocked. Please provide additional information on the depth and construction of the deep well, and if the plugging procedure will conform to Part 127 of Act 368 and the associated rules.) Response

2. Terminating Groundwater Monitoring in the RMA: The WMD agrees that analytical data from wells at the point of compliance (B-25, B-26) have been below the site specific groundwater surface water interface criteria for four quarters. The site has satisfied the requirements in the WMD "Conditions For Closure Modification Approval" dated June 26, 1998. Therefore, GMC may terminate groundwater monitoring at wells B-25 and B-26. GMC must still maintain the cover and security of the site, evidence of zoning (Industrial), and the "Notice of Approved Environmental Remediation" on the deed.) RSM working on final of RMA

EQP 0100a
(Rev. 1/97)

Post Closure groundwater monitoring must continue in accordance with the approved plan on a semi-annual basis for the landfill. If you have any questions, please contact me by e-mail, at beek@state.mi.us, or at the number below.

Sincerely,

Kimberly Tyson

Kimberly Tyson
Hazardous Waste Program Section
Waste Management Division
517-373-2487

cc: Ms. Liz Browne, DEQ – Shiawassee
Ms. De Montgomery, DEQ/U.S. Environmental Protection Agency Reporting
Mr. Dave Slayton, DEQ/HWP/C&E File

O'BRIEN & GERE
ENGINEERS, INC.

April 12, 2000

Ms. Kimberly Tyson
Waste Management Division
Michigan Department of Environmental Quality
John A. Hannah Building
PO Box 30241
Lansing, MI 48909-7741

Re: GM/REALM - Coldwater Road, Flint, Michigan
Monitoring Well Decommissioning

File: 4144.007 #2

Dear Ms. Tyson:

In response to the comments recieved from Michigan Department of Environmental Quality (MDEQ) in a letter dated September 7, 1999 O'Brien & Gere Engineers (O'Brien & Gere), on behalf of General Motors Corporation/REALM, has completed the decommissioning of 22 unused monitoring wells at the Coldwater Road site in Flint, Michigan. Wells decommissioned include: B1a, B1b, B1c, B1d, B1e, B2a, B2b, B2e, B2f, B2g, B4, B5, B6a, B8, B10a, B11, B12, B15a, B16a, MW25, MW26 and the deep well located in the Remaining Materials Area (RMA). Attached as figure 1 is a map depicting these wells. The work was performed between Wednesday, November 10, 1999 through Friday, November, 12, 1999.

A. Survey

A well location survey was performed to create a record of horizontal well locations. This survey includes wells that were decommissioned and wells that remain on-site. This work was performed by a certified Michigan Land Surveyor (Bartow & King Engineers). A map depicting the wells is enclosed as Figure 1.

B. Monitoring Well Decommissioning

The procedures used to decommission the monitoring wells were performed in accordance with ASTM method D5299-92 as follows: Wells at a depth greater than 30 feet below grade (fbg) had cement grout pressure tremied in place from the bottom of the well to approximately 2 fbg. The well riser was cut and removed approximately 2 fbg and soil was placed overtop of the well to meet existing grade. Wells at a depth equal to or less than 30 fbg had the riser and screen removed, then the hole pressure grouted from the bottom to approximately 1 fbg, with a concrete grout. Soil was then placed over the well to meet existing grade. Subsequent to the completion of the decommissioning of these wells, Abandoned Well Plugging Record forms were completed and are attached for your records. Copies of these logs were also distributed to the Well Owner (General Motors Corporation/REALM), Geological Survey Department, Local Health Department, and the Drilling Contractor.

C. Deep Well Decommissioning

A video inspection of the deep well was performed. Prior to the video log, the drilling subcontractor (Hart Well Drilling Company), added approximately 3,000 gl of water overnight via a gravity feed system to the well. On October 21, 1999, the video log of the well indicated the drop pipe was located approximately 110

O'Brien & Gere Engineers, Inc., an O'Brien & Gere Company
39830 Grand River Avenue / Suite B-2 / Novi, MI 48375 / (248) 426-8970 FAX (248) 426-8997
. . .and offices in major U.S. cities

ft below grade (fbg). At this time the video camera was removed from the well and the drop pipe (1.5 inch diameter) and attached pump (3 hp, 30 gpm, Red Jacket) were removed from the well. An attempt was made to continue video inspection of the well, however, based on the removal of the drop pipe and pump, the water in the well was clouded and the well casing was not visible with the camera. The video camera was removed and the total depth of the well was measured using a weighted tape. The total depth of the well was measured to be approximately 308 fbg with a water level measured using a water level probe at approximately 106.5 ft from the Top of Casing (TOC).

Based on the information obtained from the video inspection and review of existing geologic site data, Hart Well Drilling Company completed the decommissioning of the deep well located within the RMA. On November 10, 1999 This deep well was pressure tremied from the bottom of the well up to approximately 3 fbg with a neat cement. The riser was cut off and removed at approximately 3 fbg and the riser had a slip cap glued on top of it, then soil was placed overtop of the decommissioned well to meet grade in that area.

If you have any questions or would like additional information, please call either Robert Metcalf at (810) 236-0300 or me at (248) 426-8970.

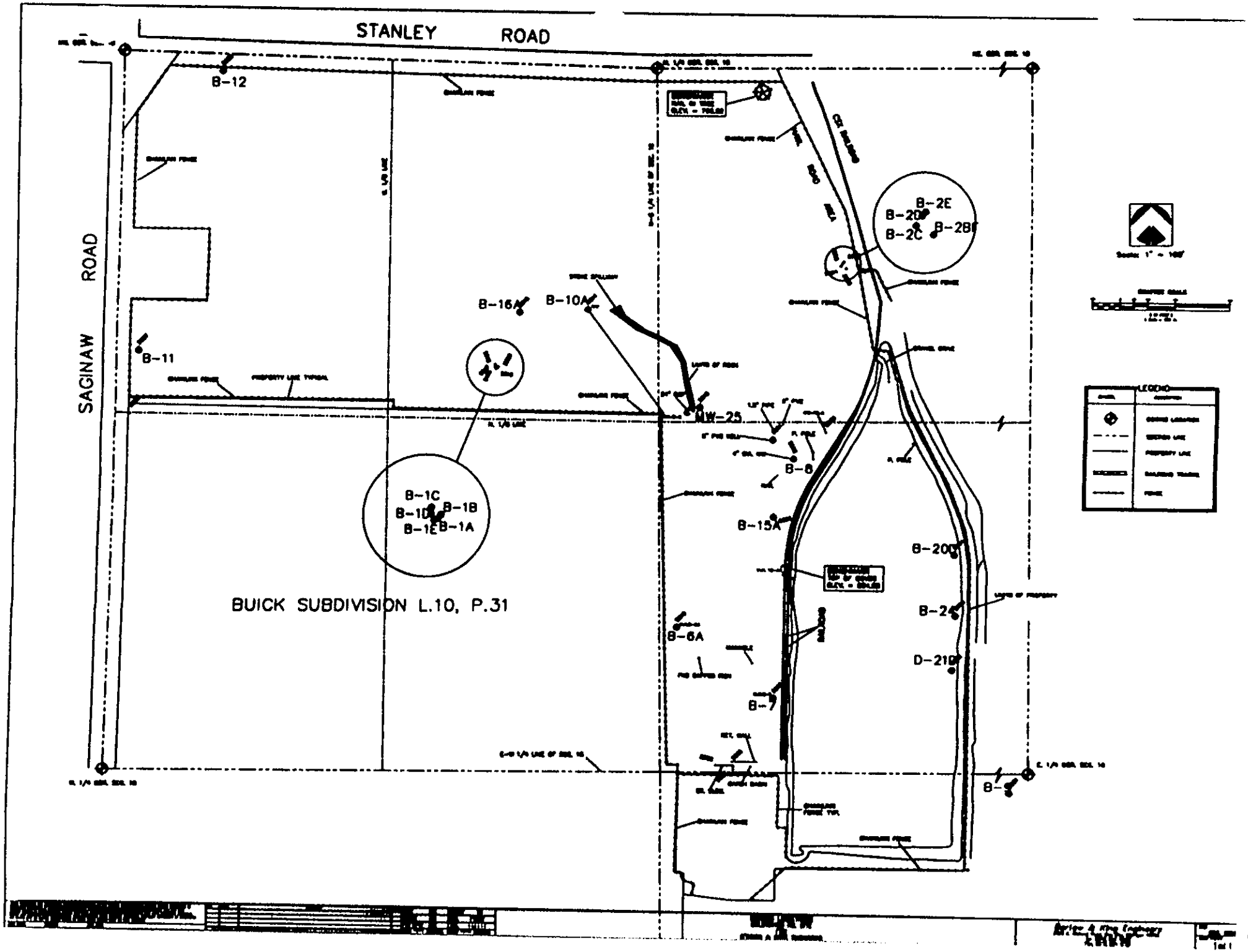
Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Scott L. Cormier, P.E.
Senior Manager

Enclosures

cc: Mr. Robert Metcalf, P.E. - General Motors Corporation, Flint, MI
Mr. Warren van Dongen - O'Brien & Gere Engineers, Novi, MI
Mr. Chad A. Krieter - O'Brien & Gere Engineers, Novi, MI
Mr. Anthony J Finch, CPG - O'Brien & Gere Engineers, Novi, MI


STANLEY ROAD
SAGINAW ROAD
B-12
B-11
B-16A
B-10A
B-1C
B-1D
B-1E
B-1B
B-1A
B-2E
B-2D
B-2C
B-2B
MW-25
B-8
B-15A
B-20
B-6A
B-7
D-21
BUICK SUBDIVISION L.10, P.31

Point Listing made Wed Nov 17 11:46:40 1999

Drawing Name: 991112pt
Project Name: 991112
Project Path: G:\dwg\991112\991112\
User Name: clayu

Number	Elevation	Description	Northing	Easting	Latitude	Longitude
34	0.00	-	0.0000	0.0000	0.0000	-73.2919
90	0.00	b18-a	199.7752	-147.5689	0.0002	-73.2921
880	0.00	b19-a	702.8297	27.3418	0.0007	-73.2919
1291	0.00	b-2b	1314.3715	79.8283	0.0013	-73.2919
1292	0.00	b-2a	1317.0341	86.4207	0.0013	-73.2919
2102	799.82	bm-rail.in.tree	1978.5000	-229.7000	0.0020	-73.2922
2500	813.79	bm-arrow.on.hyd	-840.8839	-159.2514	-0.0008	-73.2921
2796	0.00	b23d	-943.9104	322.0534	-0.0009	-73.2916
2797	0.00	b14	-907.9852	284.3108	-0.0009	-73.2917
3219	0.00	b22d	-674.0813	506.7579	-0.0007	-73.2914
4053	0.00	b5	762.7444	-577.4079	0.0008	-73.2925
4136	0.00	b18a	702.4462	27.3908	0.0007	-73.2919
8800	0.00	check8880	702.5113	27.2979	0.0007	-73.2919
8801	0.00	deep.well	673.2386	-169.2783	0.0007	-73.2921
8802	0.00	b6	804.2906	-91.8978	0.0008	-73.2920
8803	0.00	b15a	378.6443	-161.8156	0.0004	-73.2921
8804	804.96	cb.rim(804.96)	191.2243	-127.9618	0.0002	-73.2921
8805	0.00	b7	-312.6208	-149.6360	-0.0003	-73.2921
8806	813.46	bm.rail.se.cor.bl	-586.1081	-293.9788	-0.0006	-73.2922
8807	0.00	se.cor.bldg	-582.8872	-293.8847	-0.0006	-73.2922
8808	0.00	sw.cor.bldg	-584.8367	-368.1186	-0.0006	-73.2923
8809	0.00	check82500	-840.8308	-159.2220	-0.0008	-73.2921
8810	0.00	b6a	-47.4986	-512.8362	-0.0009	-73.2925
8811	0.00	mw26	1102.2342	-333.2287	0.0011	-73.2923
8812	0.00	check880	199.8272	-147.5786	0.0002	-73.2921
8813	0.00	mw25	788.5111	-443.1937	0.0008	-73.2924
8814	0.00	b10a	1153.7825	-867.8217	0.0011	-73.2928
8815	0.00	b16a	1140.3350	-1121.8425	0.0011	-73.2931
8816	0.00	b-1c	938.1889	-1289.1819	0.0009	-73.2931
8817	0.00	b-1d	931.8838	-1289.3386	0.0009	-73.2931
8818	0.00	b-1e	924.7863	-1286.8210	0.0009	-73.2931
8819	0.00	b-1a	926.2416	-1282.8338	0.0009	-73.2931
8820	0.00	b-1b	931.8271	-1198.3286	0.0009	-73.2931
8821	0.00	trav.nail	2017.7776	-1368.3415	0.0020	-73.2933
8822	0.00	b-2e	1348.8619	81.2539	0.0013	-73.2919
8823	0.00	b-2d	1342.2984	77.9969	0.0013	-73.2919
8824	0.00	b-2c	1331.2986	78.8798	0.0013	-73.2919
8825	0.00	b-2bf	1321.8411	80.4940	0.0013	-73.2919
8826	0.00	trav.nail	736.8676	-2991.8984	0.0007	-73.2945
8827	0.00	b11	975.7841	-2931.8777	0.0010	-73.2944
8828	0.00	check880	199.7294	-147.5746	0.0002	-73.2921
8829	0.00	trav.nail	-806.6883	461.8879	-0.0008	-73.2915
8830	0.00	check82500	-840.8828	-159.2288	-0.0008	-73.2921
8831	0.00	b8	-951.8825	722.2887	-0.0008	-73.2912
8832	0.00	d21d	-196.4483	887.4899	-0.0002	-73.2914
8833	0.00	b24	18.2819	516.8312	0.0000	-73.2914
8834	0.00	b20d	242.4829	886.5816	0.0002	-73.2914
8835	0.00	check85011	1162.2815	-333.2578	0.0011	-73.2923
8836	0.00	b12	2030.2420	-2237.7449	0.0020	-73.2941
8837	0.00	-	0.0000	0.0000	0.0000	-73.2919
8838	0.00	b18-e	199.7752	-147.5689	0.0002	-73.2921
8839	0.00	b19-a	702.8297	27.3418	0.0007	-73.2919
8840	0.00	b-2b	1314.3715	79.8283	0.0013	-73.2919
8841	0.00	b-2a	1317.0341	86.4207	0.0013	-73.2919
8842	799.82	bm-rail.in.tree	1978.5000	-229.7000	0.0020	-73.2922
8843	813.79	bm-arrow.on.hyd	-840.8839	-159.2514	-0.0008	-73.2921
8844	0.00	b23d	-943.9104	322.0534	-0.0009	-73.2916
8845	0.00	b14	-907.9852	284.3108	-0.0009	-73.2917
8846	0.00	b22d	-674.0813	506.7579	-0.0007	-73.2914
8847	0.00	b5	762.7444	-577.4079	0.0008	-73.2925
8848	0.00	b18a	702.4462	27.3908	0.0007	-73.2919
8849	0.00	check8880	702.5113	27.2979	0.0007	-73.2919
8850	0.00	deep.well	673.2386	-169.2783	0.0007	-73.2921
8851	0.00	b6	804.2906	-91.8978	0.0008	-73.2920
8852	0.00	b15a	378.6443	-161.8156	0.0004	-73.2921
8853	804.96	cb.rim(804.96)	191.2243	-127.9618	0.0002	-73.2921
8854	0.00	b7	-312.6208	-149.6360	-0.0003	-73.2921
8855	813.46	bm.rail.se.cor.bl	-586.1081	-293.9788	-0.0006	-73.2922
8856	0.00	se.cor.bldg	-582.8872	-293.8847	-0.0006	-73.2922
8857	0.00	sw.cor.bldg	-584.8367	-368.1186	-0.0006	-73.2923
8858	0.00	check82500	-840.8308	-159.2220	-0.0008	-73.2921
8859	0.00	b6a	-47.4986	-512.8362	-0.0009	-73.2925
8860	0.00	mw26	1102.2342	-333.2287	0.0011	-73.2923
8861	0.00	check880	199.8272	-147.5786	0.0002	-73.2921
8862	0.00	mw25	788.5111	-443.1937	0.0008	-73.2924
8863	0.00	b10a	1153.7825	-867.8217	0.0011	-73.2928
8864	0.00	b16a	1140.3350	-1121.8425	0.0011	-73.2931

Number	Elevation	Description	Northing	Easting	Latitude	Longitude
5065	0.00	b-1c	939.1869	-1209.1519	0.0009	-73.2931
5066	0.00	b-1d	931.8636	-1209.3386	0.0008	-73.2931
5067	0.00	b-1e	924.7053	-1205.9210	0.0008	-73.2931
5068	0.00	b-1a	928.2416	-1202.0338	0.0009	-73.2931
5069	0.00	b-1b	931.0271	-1198.3295	0.0009	-73.2931
5070	0.00	trav.nail	2017.7776	-1366.3415	0.0020	-73.2933
5071	0.00	b-2e	1346.8819	81.2536	0.0013	-73.2919
5072	0.00	b-2d	1342.2084	77.5059	0.0013	-73.2919
5073	0.00	b-2c	1331.2068	70.9788	0.0013	-73.2919
5074	0.00	b-2bf	1321.8411	80.4049	0.0013	-73.2919
5075	0.00	trav.nail	738.8578	-2561.0604	0.0007	-73.2945
5076	0.00	b11	975.7041	-2531.6777	0.0010	-73.2944
5077	0.00	check900	199.7294	-147.5745	0.0002	-73.2921
5078	0.00	trav.nail	-806.0583	481.8570	-0.0006	-73.2915
5079	0.00	check2500	-840.8826	-159.2288	-0.0008	-73.2921
5080	0.00	b9	-861.8525	722.2567	-0.0008	-73.2912
5081	0.00	d21d	-196.4483	507.4980	-0.0002	-73.2914
5082	0.00	b24	10.2018	515.5312	0.0000	-73.2914
5083	0.00	b20d	242.4620	508.9618	0.0002	-73.2914
5084	0.00	check5011	1102.2815	-333.2576	0.0011	-73.2923
5085	0.00	b12	2030.2420	-2237.7440	0.0020	-73.2941

TAX NO:

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
ABANDONED WELL PLUGGING RECORD

PERMIT NO:

1. LOCATION OF WELL
County: Genesee | Township Name: Genesse | Fraction: NW ¼ NW ¼ SE ¼ | Section No.: 18 | Town No.: T8N N/S | Range No.: R7E E/W

Distance and Direction from Road Intersection:
4.5 tenths mile west of M-54 (Dort Hwy)
4.5 tenths mile north of Coldwater Rd
Street Address & City of Well Location: 1245 Coldwater Rd, Flint, MI

12. OWNER OF WELL: GM/Realm
Address: 902 E Hamilton Ave
Flint MI 48550
Address Same as Well Location ☐ Yes ☒ No

2. WELL DEPTH: 308 ft.

3. Date Plugging Completed: 11 /10 / 99

13. DROP PIPE/PUMPING EQUIPMENT REMOVED
☒ Yes ☐ No (Explain in COMMENTS)

4. USE: ☐ Single Family ☐ Type I Public ☐ Heat Pump ☒ Test Well
☐ Irrigation ☐ Type II Public
☐ Test Well ☐ Type III Public

14. PLUGGING MATERIAL:
Bentonite Chips: from ____ ft. to ____ ft. ____ 50# bags
Bentonite Pellets: from ____ ft. to ____ ft. ____ 50# bags
Bentonite Grout: from ____ ft. to ____ ft. ____ 50# bags
Neat Cement: from 308 ft. to 0 ft. 56 Bulk bags
Cement Grout: from ____ ft. to ____ ft. ____ Bulk bags
Other: ____

5. REASON FOR ABANDONING WELL
☐ Municipal Water Hookup ☐ New Well Drilled
☐ Other ____ ☐ Unsatisfactory

6. CASING:
5" in. dia. to ? ft. depth.
____ in. dia. to ____ ft. depth.

7. CASING MATERIAL
☐ Steel ☐ Other ____
☒ Plastic

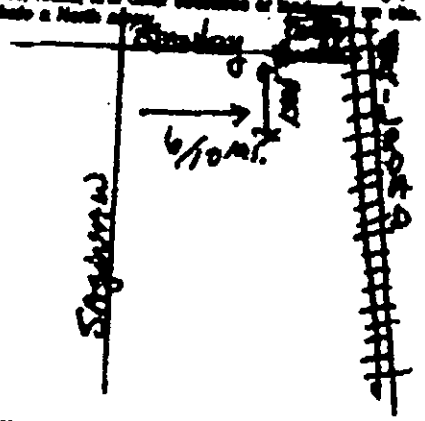
8. CASING STATUS AFTER PLUGGING
☒ Buried 3 ft. below grade ☐ Removed
☐ Above Grade ____ in.

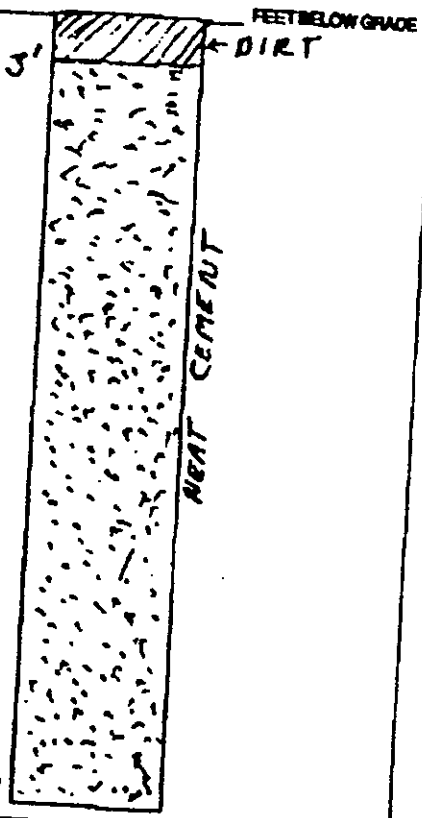
15. LOST CIRCULATION ZONE MATERIALS USED ☐ Yes ☒ No
Type ____ Quantity ____ Placed from ____ ft. to ____ ft.

9. FLOWING WELL: ☐ Yes ☒ No

16. PLUGGING SKETCH (Complete if combination of materials was used.)
Show type of plugging materials and interval plugged.

10. SITE SKETCH:
Show location of plugged well(s) relative to buildings, drives, roads, and other obstructions on site. Include a North arrow.





11. COMMENTS

1) Removed pumping equipment.
2) Install tremie pipe to 308'.
3) Pumped cement from TD back to surface.
4) Cut off casing 3' below grade.
5) Filled in hole with dirt.

17. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was plugged under my jurisdiction and this report is true to the best of my knowledge and belief.
Hart Well Drilling Company 1686
Address: 4154 S Jefferson Mason MI 48854
Signed: [signature] Date: 11/11/99

NOTE: Plugging from well bottom up to ground surface is required.

IMPORTANT: File with deed.

WELL OWNER COPY

Completion is required under authority of Part 127 Act 368 PA 1978
Failure to comply is a misdemeanor

PERMIT NO:

1. LOCATION OF WELL
County: GENESEE
Township Name: GENESEE ~~CITY OF FLINT~~
Fraction: NW 1/4 NW 1/4 SE 1/4
Section No.: 18
Town No.: T8N N/S
Range No.: R7E E/W

Distance and Direction from Road Intersection
4.6 TENTHS MILE WEST OF M-54 (DORT HWY)
4.5 TENTHS MILE NORTH OF COLDWATER RD
Street Address & City of Well Location: ~~1246 COLDWATER RD~~ 6220 HORTON STREET, FLINT, MI

12. OWNER OF WELL
Address: GM / REALM
902 E. HAMILTON AVE.
FLINT, MI 48550
Address Same as Well Location: ☐ Yes ☒ No 466-MLS-0[illegible]

2. WELL DEPTH: 8.

3. Date Plugging Completed: 11/12/99

13. DROP PIPE/PUMPING EQUIPMENT REMOVED
☐ Yes ☐ No (Explain in COMMENTS)

4. USE: ☐ Single Family ☐ Irrigation ☐ Test Well ☐ Type I Public ☐ Type II Public ☐ Type III Public ☐ Heat Pump ☒ MONITORING WELL

14. PLUGGING MATERIAL:
Bentonite Chips: from _____ ft. to _____ ft. _____ 50# bags
Bentonite Pellets: from _____ ft. to _____ ft. _____ 50# bags
Other: from _____ ft. to _____ ft. _____

5. REASON FOR ABANDONING WELL
☐ New Well Drilled
☐ [illegible]

6. [illegible]

15. LOST CASING

16. PLUGGING SLURRY
Slurry Mix: [illegible]

7. [illegible]

8. [illegible]
☐ Removed

9. [illegible]

10. [illegible]

STR.

TYPICAL
[illegible]
NO WELLS
[illegible]
B-5 = 8ft
MW 26 = 8ft
MW [illegible] = [illegible]
B-[illegible] = [illegible]
A-2E = 8ft
B-26 = 8ft
B-[illegible] = [illegible]
[illegible]
12-11C ft.

11. COMMENTS
WELLS DECOMMISSIONED BY REMOVING WELL MATERIALS (RISER & SCREEN) AND GROUT (BENTONITE) FILLING BORE HOLE FROM BOTTOM TO APPROXIMATELY 1 FT. BELOW GRADE.
WELLS LESS THAN 30 FT HAD MATERIALS REMOVED AND BORE FILLED, WELLS GREATER THAN 30 FT HAD MATERIAL REMOVED 2 FT below GRADE AND PVC GROUTED IN PLACE.

17. WATER WELL CONSTRUCTION CONTRACTOR: This well was completed by
This well was plugged under my [illegible] and this report is true to the best of my knowledge and belief.
O'BRIEN + GERE Engineers
DRILLING Contractor: Water Development Service
Address: G-3265 S. DORT HIGHWAY, FLINT MI
Signed: [signature] (Driller) Date: 11/15/99

18. Plugging from well bottom up to ground surface is required.

IMPORTANT: File with deed.

INSPECTION PERFORMED BY O'BRIEN + GERE
WELL OWNER COPY

EQP 2044 (03/1999)

TAX NO:

ABANDONED WELL PLUGGING RECORD

Completion is required under authority of Part 127 Act 368 PA 1978
Failure to comply is a misdemeanor

PERMIT NO:

1. LOCATION OF WELL

County: GENESEE | Township Name: GENESEE COUNTY PLAT | Fraction: NW¼ of NW¼ of SE¼ | Section No.: 12 | Town No.: T6N N/S | Range No.: R7E E/W

Distance and Direction from Road Intersection: 4.5 TENTHS MILE WEST OF M-54 (DORT HWY) 4.5 TENTHS MILE NORTH OF COLDWATER RD

Street Address & City of Well Location: 6220 NORTON STREET, FLINT, MI

12. OWNER OF WELL: GM / REALTY
Address: 902 E. HAMILTON AVE. FLINT, MI 48550
Address Same as Well Location: ☐ Yes ☒ No

2. WELL DEPTH: 12 - 22½ ft.

3. Date Plugging Completed: 11/10/99

13. DROP PIPE/PUMP/BOWL EQUIPMENT REMOVED: ☐ Yes ☐ No (Explain in COMMENTS) N/A

4. USE: ☐ Single Family ☐ Type I Public ☐ Heat Pump ☐ Injection ☐ Type II Public ☒ MONITORING WELL ☐ Test Well ☐ Type III Public

5. PERFORATION/ABANDONED WELL ☐ New Well Drilled ☐ Other

14. PLUGGING MATERIAL:

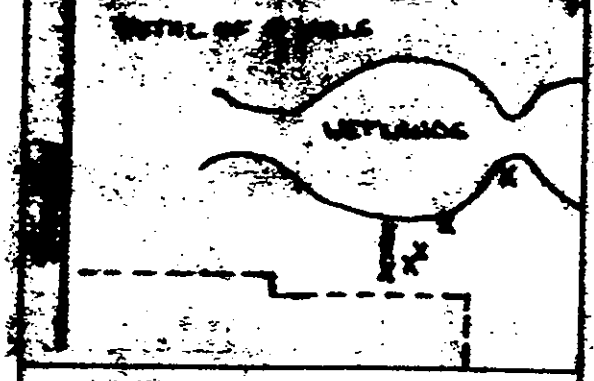
6.

7.

8.

9.

10.



11. COMMENTS:
WELLS DECOMMISSIONED BY REMOVING WELL MATERIALS (CASING + SCREEN) AND SEALING GROUT (CEMENT) PUMPED INTO HOLE FROM BOTTOM TO APPROXIMATELY 1 FT. BELOW GRADE.
WELLS LESS THAN 20 FT. HAD MATERIALS REMOVED AND HOLE FILLED, WELLS GREATER THAN 30 FT HAD MATERIALS REMOVED 20 FT BELOW GRADE AND ARE GROUTED IN PLACE

NOTE: Plugging from well bottom up to ground surface is required.

B-1A = 21'
B-1B = 22'
B-1C = 22'
B-1D = 21'
B-1E = 22'
B-1F = 21'
B-1G = 12.5'

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was plugged under my supervision and this report is true to the best of my knowledge and belief. Name of Person, Firm or Corporation Employed by Contractor: GREEN & GREEN ENGINEERS
DRILLING CONTRACTOR: YOUNG ENVIRONMENTAL CLEAN
Address: 6220 NORTON STREET, FLINT, MI
Signed: [signature] (Owner's Agent) Date: 11/16/99

INSPECTION PERFORMED BY GREEN & GREEN

IMPORTANT: File with deed.

WELL OWNER COPY

EQP 2444 (10/98)

Completion is required under authority of Part 127 Act 368 PA 1978
Failure to comply is a misdemeanor

PERMIT NO.

1. LOCATION OF WELL
County: GENESEE | Township Name: GENESEE ~~CITY OF FLINT~~ | Fraction: NW¼ NW¼ SE¼ | Section No.: 19 | Town No.: T6N N/S | Range No.: R7E E/W

Distance and Direction from Road Intersection: 4.5 TENTHS MILE WEST OF M-54 (DORT HWY) 4.5 TENTHS MILE NORTH OF GOLDWATER RD
Street Address & City of Well Location: ~~5230 DORTON STREET~~ ~~DORT GOLDWATER RD~~, FLINT, MI

12. OWNER OF WELL: GM / REALM
Address: 902 E. HAMILTON AVE. FLINT, MI 48550
Address Same as Well Location: ☐ Yes ☒ No
~~41-155-020~~

2. WELL DEPTH: 19 - 23 ft.
3. Date Plugging Completed: 11 / 10 / 99
13. DROP PIPE/PUMPING EQUIPMENT REMOVED: ☐ Yes ☐ No (Explain in COMMENTS) N/A

4. USE: ☐ Single Family ☐ Irrigation ☐ Test Well ☐ Type I Public ☐ Type II Public ☐ Type III Public ☐ Heat Pump ☒ MONITORING WELLS

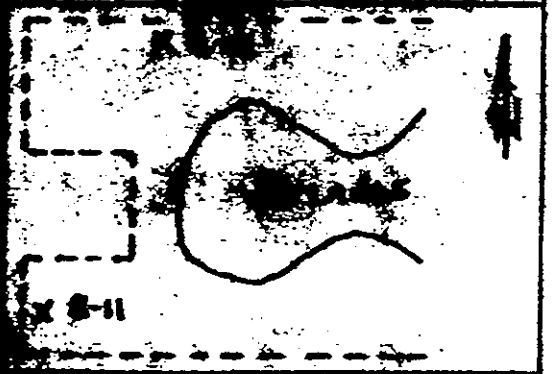
14. PLUGGING MATERIAL:
Bentonite Chips: from ___ ft. to ___ ft. ___ bags
Bentonite Pellets: from ___ ft. to ___ ft. ___ bags
Bentonite Grout: from ___ ft. to ___ ft. ___ bags
[illegible]: from ___ ft. to ___ ft. ___ bags
[illegible]: from ___ ft. to ___ ft. ___ bags
[illegible] BY AUGER

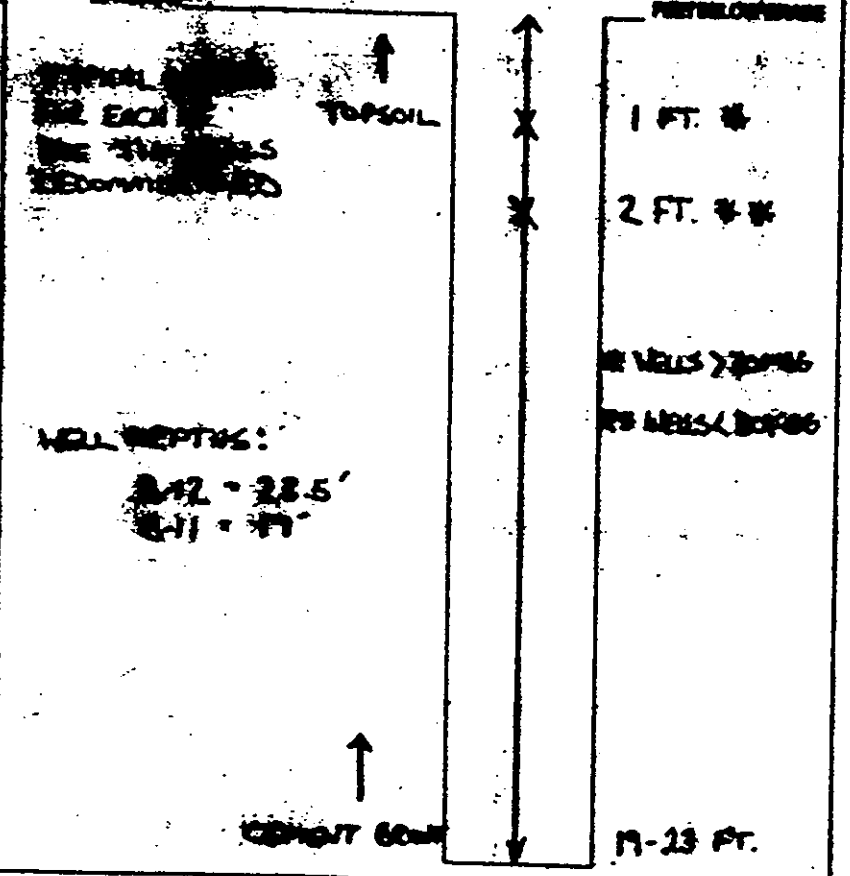
8. [illegible] ☐ New Well Drilled ☐ Unknown

[illegible] ☐ Removed

10. [illegible] ☐ Yes ☐ No
Type ___ Quantity ___ From ___ ft. To ___ ft.

16. [illegible] (If additional space is needed, attach separate sheet)





15. REMARKS
WELLS DECOMMISSIONED BY REMOVING WELL MATERIALS (BENTONITE + CEMENT) AND GROUT (CEMENT) PUMPED INTO HOLE FROM BOTTOM TO APPROXIMATELY 1 FT. BELOW GRADE. WELLS WESTERN 30 FT. AND ANNULAR SPACE AND WELL FLUSHED. WELLS GREATER THAN 30 FT. AND MATERIAL REMOVED 2 FT BELOW GRADE AND PIPE CRIMPED IN PLACE

NOTE: Plugging from well bottom up to ground surface is required.

17. WATER WELL CONTRACTOR'S CERTIFICATION: THIS FORM COMPLETED BY O'BRIEN + GERE ENGINEERS
This well was plugged under my jurisdiction and this report is true to the best of my knowledge and belief.
Drilling Contractor: YOUNG'S ENVIRONMENTAL CLEANUP
Registration No.
Address: 6-5305 N. DORT HIGHWAY FLINT MI
Signed: [signature] (O'BRIEN + GERE) Date: 11/15/99
Authorized Representative
INSPECTION PERFORMED BY O'BRIEN + GERE

IMPORTANT: File with deed.

WELL OWNER COPY

EQP 2044 (03/1999)

APPENDIX T

MDEQ Correspondence and O'Brien& Gere Response Regarding the Accumulation of F006/F039 Leachate

cc: WD, SEB, SLC

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

MARY A. MATTHEWS, Director

REPLY TO:

SWMA/RRSE DISTRICT OFFICE
10650 BENNETT DR
MONROE MI 48867-9782

September 9, 1999

Mr. Robert S. Metcalf
General Motors Corporation
Worldwide Facilities Group
NAO Flint Operations Office
902 East Hamilton Avenue
Flint, Michigan 48550-8502

1999 SEP 14 PM 2:53

PROPERTY MANAGEMENT
FLINT SITE
RECEIVED

Dear Mr. Metcalf:

SUBJECT: August 20, 1999 Inspection - MID 005 356 660

On August 20, 1999 Michigan Department of Environmental Quality (DEQ) staff conducted an inspection of the General Motors Coldwater Road Facility (GM/REALM) remediation area located at G-1245 East Coldwater Road, Flint, Genesee County, Michigan, to evaluate compliance with Part 111, Hazardous Waste Management, of the *Natural Resources and Environmental Protection Act*, 1994 PA 451, as amended (NREPA); MCL 324.11101 et seq (Part 111); Subtitle C of the Federal Resource Conservation and Recovery Act, as amended (RCRA); Part 121, Liquid Industrial Wastes, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); MCL 324.12101 et seq (Part 121); and any regulations promulgated pursuant to these Acts.

Based upon information obtained and observations made during the inspection, DEQ staff have determined that the landfill and remediation areas are in compliance with the requirements of Part 111, Subtitle C of RCRA and Part 121 that were evaluated.

However, the inspection revealed the following concerns at the leachate accumulation tank:

1. The accumulation of F006/F039 leachate in the storage tank was approved in closure plan revisions. However, leachate accumulated in the tank prior to discharge to the municipal sewer was specifically excluded from the Part 111, Rule 204(1) exemption discussed in Mr. Jack Schinderle's June 19, 1997 letter to Mr. Scott Cormier.

EQP 6100a
(Rev. 1/96)

2. Unless the F006/F039 leachate is delisted, or the nature of the leachate has changed sufficiently to warrant recharacterization pursuant to Part 111, Rule 302, GM/REALM must manage accumulated landfill leachate as a hazardous waste and the new storage tank as a hazardous waste tank. Commingling of leak detection sump water with leachate sump water results in the combined quantity being subjected to the mixture rule, Part 111, Rule 203(1)(c).

3. GM/REALM should promptly submit documentation of compliance with the generator requirements in 40 CFR 265, Subpart J, including tank labeling, inspection records, and new hazardous waste tank certification by an independent, qualified , registered professional engineer.

Please address the above issues in a written response to this office by September 30, 1999.

If you have any questions, please feel free to contact me.

Sincerely,

William L. Yocum
Environmental Quality Analyst
Waste Management Division
517-625-4871

WLY/ smb

cc: Ms. JoAnn Merrick, DEQ
Mr. Steve Buda, DEQ
Ms. Kimberly M. Tyson, DEQ
Ms. De Montgomery/Mr. Dave Slayton, DEQ
Mr. Jack Schinderle, DEQ

O'BRIEN & GERE
OPERATIONS INC

October 8, 1999

Mr. William L. Yocum
MDEQ – Waste Management Division
Shiawassee District Headquaters
10650 Bennett Drive
Morrice, MI 48857-9792

Re: GM/REALM – Coldwater Road, Flint, MI
MID 005 356 860
Response to September 9, 1999 Letter

File: 4144.007 #2

Dear Mr. Yocum:

On behalf of GM/REALM, O'Brien & Gere is responding to comments outlined in the September 9, 1999 letter to Mr. Robert Metcalf (attached for reference). The letter outlines comments associated with the accumulation of F006/F039 leachate in the aboveground storage tank located at the GM Coldwater Road Facility. We offer the following responses:

1. MDEQ Comment - The accumulation of F006/F039 leachate in the storage tank was approved in closure plan revisions. However, leachate accumulated in the tank prior to discharge to the municipal sewer was specifically excluded from part 111, Rule 204(1) exemption discussed in Mr. Jack Schinderle's June 19, 1997 letter to Mr. Scott Cormier.

Response – As noted in the October 30, 1997 letter to Ms. Kimberly Tyson, handling of the leachate was not specifically outlined in the Consent Order and handling of the leachate using the new storage tank system would be addressed in an Operation & Maintenance Plan (O&M Plan) for the new storage tank system. The O&M Plan for this new storage tank system (O'Brien & Gere, August 1998, revised October 1999) was not required to be submitted to the MDEQ; however, we have attached a copy of the O&M Plan for your information. The O&M Plan includes equipment maintenance guides and operational instructions, as well as inspection requirements consistent with the approved Post-Closure Care Plan approved for this site.

Discharge to the Beecher Metropolitan Sewer District sanitary sewer system was approved by the City of Flint as outlined in interim permit no. 6-08-04-04-GML1. GM/REALM currently manages accumulated liquid as a hazardous waste prior to discharge to the sanitary sewer even though this liquid remains characteristically non-hazardous.

O'Brien & Gere Operations Inc., an O'Brien & Gere company
39830 Grand River Avenue, Suite B-2, Novi, Michigan 48375
(248) 926-7023 FAX (248) 926-8963 e-mail www.obg.com
and offices nationwide

2. MDEQ Comment - Unless the F006/F039 leachate is delisted, or the nature of the leachate has changed sufficiently to warrant recharacterization pursuant to Part 111, Rule 302, GM/REALM must manage accumulated landfill leachate as a hazardous waste and the new storage tank as a hazardous waste tank. Commingling of leak detection sump water with leachate sump water results in the combined quantity being subjected to the mixture rule, Part 111, Rule 203(1)(c).

- **Response** – The combined liquid from the landfill leachate sump and leak detection vault accumulates in the aboveground storage tank. Based on the applicable provisions of 40 CFR 265, Subpart J and the approved Post-Closure Care Plan for this site, GM/REALM currently manages the accumulated liquid as a hazardous waste and the new storage tank as a hazardous waste tank even though the liquid remains characteristically non-hazardous. To document compliance with 40 CFR 265, Subpart J and the approved Post-Closure Care Plan, we have provided a description of the collection and storage system and current management practices:

  A. Landfill leachate collection and storage tank system components and operation:

  The landfill leachate collection system includes a series of leachate collection sumps under the landfill that pump liquid to the storage tank via an underground, double wall, HDPE force main with leak detection cable within the interstitial space of the underground piping network. The conveyance piping enters the storage tank collection building within the secondary containment unit. Water collected in the landfill leak detection vaults is manually pumped every two weeks into the leachate sumps. In accordance with the approved Post-Closure Care Plan, the water in the leak detection vaults is sampled and analyzed quarterly and the leachate from the leachate sumps is sampled and analyzed semi-annually.

  The leachate storage tank is a 15,000 gallon aboveground, fiberglass tank contained within a concrete secondary containment unit, housed inside a heated building. The volume of liquid pumped to the tank is measured by a totalizing flow meter. The liquid level in the tank is monitored by an ultrasonic level meter and a single point high level alarm and automatic influent shut-off. The secondary containment system is sloped to a sump which is equipped with a single point high level alarm and automatic influent shut-off. In accordance with the interim discharge permit, liquid in the tank is discharged to the sanitary sewer inlet by manually opening a discharge valve on the bottom of the tank. Per the interim permit, discharge to the sewer is limited to 1,000 gallons per day.

  B. Management of the hazardous waste liquid and tank system includes:

  Management of the hazardous waste liquid and hazardous waste storage tank currently includes the following:

  - Manual bi-weekly pumping of water in the leak detection vaults into the leachate sumps.
  - Automatic monitoring of liquid levels in the aboveground tank with high level alarm/automatic shutoff capability, underground pipeline leak detection system, power failure detection, power surge protection, and automatic alarm detection of releases to the secondary containment system (including automatic influent pump shut-off). The alarm systems are connected to a remote telemetry system programmed to call a 24-hour manned security company. The telemetry system includes a call-in feature to allow the responder to evaluate

the alarm conditions. A response to an alarm is completed within eight hours by a qualified GM/REALM contractor.

- Monthly written reports to the MDEQ which report the volumes of liquids removed from the leak detection vaults and leachate sumps, the volumes discharged to the sewer district, and operation and maintenance issues addressed for that month.
- Documenting analytical results of the leak detection water and leachate with annual reporting to the MDEQ;
- Documenting volumes and dates of liquid discharged to the sanitary sewer, sampling analysis prior to discharge, and periodic discharge reporting to the City of Flint;
- Bi-weekly inspections of the storage tank system and secondary containment system. Inspections have typically been performed more frequently than every other week while on-site during a response to an alarm condition or at other times while on-site performing other activities.

3. MDEQ Comment - GM/REALM should promptly submit documentation of compliance with the generator requirements in 40 CFR 265, Subpart J, including tank labeling, inspection records, and new hazardous waste tank certification by an independent, qualified, registered professional engineer.

Response – Documentation of compliance with 40 CFR 265, Subpart J for the hazardous waste storage tank system is outlined below:

- 265.191 Assessment of existing tank system's integrity – Not applicable to new tank systems.
- 265.192 Design and installation of new tank systems or components – GM/REALM has received certification by an independent, qualified, registered professional engineer in accordance with 270.11 (d) that the system has sufficient structural integrity and is acceptable for storing hazardous waste. Attached is a copy of the certification for your information.
- 265.193 Containment and detection of releases – The storage tank and piping conveyance system includes required secondary containment and leak detection systems in accordance with this Section.
- 265.194 General operating requirements – The system includes appropriate controls to prevent spills and overflows from the tank and secondary containment systems.
- 265.195 Inspections – Inspections as required by this section are being performed bi-weekly in accordance with the frequency outlined in the approved Post-Closure Care Plan which was adopted in the O&M Plan for the new storage tank system. The frequency of inspections listed as, "once each operating day" in Section 265.195 is interpreted by the USEPA to apply when manufacturing operations are being conducted. As GM/REALM no longer conducts manufacturing operations at this site, the "once each operating day" frequency for inspections does not apply to this site but instead this site is managed under the Post-Closure Care Plan and O&M Plan. Copies of the inspection documentation from mid-April 1998 to September 1999 are attached for your information.
- 265.196 Response to leaks or spills and disposition of leaking or unfit-for-use tank systems – The O&M Plan requires removal of liquid from the secondary containment system within 24 hours. Notifications and/or reports will be submitted as appropriate pursuant to the requirements of this Section.
- 265.197 Closure and post-closure care – The approved Closure and Post-Closure Care Plan for this site complies with this Section.

- 265.198, 199, and 200 – Not applicable to the liquid waste being generated.
- 265.201 Special requirements for generators of between 100 and 1,000 kg/mo. that accumulate hazardous waste in tanks – Not Applicable as GM/REALM may from time-to-time exceed the upper limit.
- 265.202 Air emission standards – Not applicable as there are no emissions associated with this liquid waste.
- Part 111, Rule 299.9615(5) labeling-The storage tank and containment wall are labeled with placards conforming to NFPA standard no. 704. (photographic documentation of labeling is attached).

If you have any questions or would like additional information, please contact Bob Metcalf, GM/REALM at (810)236-0300 or me at (248) 426-8970.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Scott L. Cormier, P.E.
Managing Engineer

Enclosure

cc: Mr. Robert S. Metcalf, P.E. – GM/REALM, Flint, MI
Mr. Sean E. Bartolucci – O'Brien & Gere, Novi, MI
Mr. Warren van Dongen – O'Brien & Gere, Novi, MI

bcc: Michelle Fisher Esq. – GM Legal, Detroit, MI 48208
Jean Caufield – GM Remediation Team, Detroit, MI 480202
Anthony J. Finch – OBG, Novi, MI 48377

APPENDIX U

Post-Closure Care Plan, September 2000

FINAL

Post-Closure Care Plan

Remediation and Liability Management Company, Inc.
Coldwater Road Facility
Flint, Michigan
(ID No. MID 005356860)

November 2000

Post Closure Care Plan

Remediation and Liability Management Company, Inc. Coldwater Road Facility Flint, Michigan (ID No. MID 005356860)

Remediation and Liability Management Company, Inc.
Detroit, Michigan

Scott L. Cormier, P.E.
Senior Manager

November 2000

O'BRIEN & GERE ENGINEERS, INC.

39830 Grand River Avenue
Suite B-2
Novi, Michigan 48375

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D Performance Guarantee Bond

1. Introduction

Remediation and Liability Management Company, Inc. (REALM), a wholly-owned subsidiary of General Motors Corporation (GM), will be responsible for future Post-Closure Care efforts at the Coldwater Road site. The former address, 1245 East Coldwater Road, was associated with the manufacturing plant which was formerly owned by Peregrine U.S., Inc. (Peregrine). The new Coldwater Road REALM property address is 6220 Horton Street, Flint, Michigan. The Site Location Map, Figure 1 identifies the location of the REALM Coldwater Road facility. The approximate property line of the REALM Coldwater Road facility is shown on the Site Plan Figure 2.

This Plan describes the post-closure activities to be followed by REALM subsequent to closure of the on-site hazardous waste landfill, Resource Conservation and Recovery Act units, solid waste management units, and other corrective action areas, referred to as "units" at the Coldwater Road facility. A Site Layout Plan identifying the former locations of these closed units is provided as Figure 3.

This report amends the MDEQ-approved August 24, 1994 Post-Closure Care Plan (Plan) by adding information regarding the operation of the new leachate accumulation facility, conditions of the landfill, and certified closed units at the site. Upon approval of this revised Plan by the MDEQ, this document will be filed on-site.

The post-closure care requirements were initiated on March 15, 1995 (MDEQ approval date of the August 24, 1994 Plan) and will be conducted for 30 yr from that date.

1.1. Post-closure contact (40 CFR 264.1118(b)(3) and R299.9613(1))

Mr. Robert S. Metcalf, P.E. is the REALM contact during the post-closure period. Mr. Metcalf's work and home address and phone numbers are:

Work: General Motors Corporation - Remediation Team
Flint Project Manager: Robert S. Metcalf, P.E.
NAO Flint Operations
902 East Hamilton Avenue, Mail Code:485-185-020
Flint, MI 48550-8502
Phone: (810) 236-0300, fax: (810) 236-7391

Home: 10201 West Stanley Road
Flushing, MI 48433
Phone: (810) 487-0425

2. Post-closure security (40 CFR 264.117(b)(1) and (2) and R299.9613(1))

A security company (Pinkerton) has been retained by REALM to perform daily inspections on the locked gates at the REALM Coldwater Road facility. The REALM Coldwater Road facility is enclosed within a locked chain link fence (see Figure 2) and access may only be gained by entering the locked gate at the corner of Morris Hills Parkway and Horton Street or from Stanley Road.

3. Landfill system design description (40 CFR 264.118(a) and 299.9619(6)(c))

The landfill incorporates the following design features:

- The landfill is situated on a minimum of 10 ft of clay soil having a minimum permeability of 10^{-6}.

- The bottom liner system consists of two, 60 mil HDPE liners, separated by 5 ft of compacted clay having a minimum permeability of 10^{-7} cm/sec. Each liner consists of a 60 mil HDPE layer, a geonet layer, and a filter fabric layer.

- The cap system consists of 3 ft of 10^{-7} minimum permeability clay, a 60 mil HDPE liner, a geonet, and filter fabric layer. The side slopes contain a bonded geonet and textured HDPE liner, while the top consists of smooth HDPE and separate geonet and filter fabric. The entire cap is covered by 18 inches of class II sand and 6 inches of topsoil planted with grass.

- The landfill contains six cells, (A) through (F) as shown on Figure 4. Each of the landfill cells has a leak detection vault and a leachate collection vault. The leachate collection vaults are equipped with a pump and a leak detection system for the connecting pipes which convey leachate to the on-site leachate accumulation building.

- The leak detection alarm system is included in an auto-dial system with automatic notification to Pinkerton Security and the appropriate chain-of-command. The landfill and force main leak detection system control panel was transferred to the new building.

- A leachate accumulation facility was constructed to temporarily store landfill leachate and water removed from the leak detection vaults (see Figure 5). Leachate and water from the leak detection vaults is removed every two weeks. Liquid from the leak detection vault is pumped to the leachate collection vault and then automatically pumped to the accumulation facility. Liquids stored in the leachate accumulation tank are directly discharged to the sanitary sewer in accordance with an interim sewer user permit (no. 6-08-04-04-GML1) issued by the Beecher Metropolitan District. REALM is in the process of applying for a permanent discharge permit from the City of Flint .

The expiration date of the current interim permit has passed, however, discharge of leachate is allowed when in compliance with the Interim Discharge Permit.

- The leachate accumulation tank is a 15,000 gallon aboveground, fiberglass tank contained within a concrete secondary containment unit, housed inside the heated leachate accumulation facility. The volume of liquid pumped to the tank is measured by a totalizing flow meter. The liquid level in the tank is monitored by an ultrasonic level meter and a single point high level alarm and automatic influent shut-off. The secondary containment system is sloped to a sump which is equipped with a single point high level alarm and automatic influent shut-off.

- Each time maintenance personnel are onsite, an inspection of the accumulation tank system and secondary containment system will be performed.

- A berm and ditch were designed and constructed around the perimeter of the southern and eastern sides of the landfill to prevent runoff onto adjacent property. Overland rain water flow is directed to a catch basin located at the north end of the landfill.

- Based on the runoff from the 1996 spring thaw eroding portions of the access road at the base of the landfill, six additional culverts were installed on the landfill to provide control of surface runoff as shown on Figure 4. The culverts are 18 inches in diameter and are approximately 22 to 32 ft in length. The culverts are placed at locations to provide for drainage directly away from the landfill on the east and west sides of the landfill.

- Site access is limited to authorized personnel by the installation of a chain-link fence surrounding the Coldwater Road facility and locked entry gates.

- In February of 2000, the former (Quincy) air compressor was replaced with an oilless Becker Rotary Vane air compressor and an air dryer. The new system provides a source of clean dry air to purge the force main interstitial space to keep the accumulation of condensation from causing an alarm condition.

- In February of 2000, cracks in the Leachate Accumulation building were discovered and observed to be leaking ground water into the containment area. The cracks were repaired by routing a notch to a minimum depth of 0.25 inch. The notches were filled with an epoxy gel and after curing were painted over with the same material used on the original wall.

The landfill contains approximately 530,000 yd^3 of stabilized F006 sludges and contaminated soil. Approximately 486,000 yd^3 were treated with lime and fly ash while 34,000 yd^3 were treated with portland cement and activated carbon.

A gas venting system was not installed as part of closure activities for the hazardous waste landfill. The wastes land filled are predominantly inorganic and are not biodegradable.

Remaining Materials Area (RMA) design description

- The final grade design for the Remaining Materials Area (RMA), see Figure 6, included the installation of 6 inches of topsoil over this area seeded with grass.

- A sediment pond was constructed to collect overland rain water runoff and allow time for particulate settling to minimize potential erosion into the wetlands.

- Overflow from the sediment pond discharges to a rock-lined drainage swale (shown on Figure 6) and then to the wetlands.

4. Inspection plan (40 CFR 264.118(a), 264.228(b), 264.228(c)(1)(ii), 264.258(b), 264.258(c)(1)(ii), 264.310(b), and R299.9613(1))

Inspection of the closed hazardous waste landfill and the RMA will be performed qurterly, by qualified REALM personnel and/or a designee. A thorough walking inspection will be made over each landfill cell (A-F) and the RMA. The potential areas of concern (erosion, depressions, cracks, burrowing animals, etc.) for the landfill cap and RMA will be marked if identified during the walking inspection. The Coldwater Road monitoring well network, described in Chapter 5, will be inspected during quarterly well sampling activities.

Quarterly inspections of the closed landfill and RMA will be sufficient due to routine surveillance of the entire facility by security personnel and monthly caretaking activities discussed in Section 4.3. At the time of the Quarterly landfill and RMA inspection, a record will be made in an inspection log which is contained in Appendix A. Recorded information includes: date and time of inspection, item inspected, notation of observations made, and signature of inspector. Problems observed during the inspection will be recorded and brought to the attention of the post-closure contact. Also, an inspection of potential damage to the landfill or RMA caused by burrowing animals will be performed during each inspection and animal control will be performed on an "as needed" basis. Copies of inspection logs will be kept on file for 3 yr from the date of inspection.

The conditions of the drainage swale cleanout and culverts around the landfill will be inspected and noted on the inspection log and the potential need for the grass on the landfill to be mowed.

Inspections of the landfill leachate accumulation tank will be performed while personnel are on-site during a response to an alarm condition or at other times while on-site performing other activities.

Results of the quarterly inspections will be presented annually in the Landfill Inspection Summary Report.

4.1. Leak detection system inspections

Also included in the quarterly landfill inspection will be elements of the leak detection monitoring system and secondary containment sumps. The leak detection system operates using pulsed cable-radar technology to detect leaks. The system sends low voltage pulses on a cable and monitors reflections received at the panel. It then electronically divides the cable into short increments and measures the reflections from each. It stores the measured values in memory during the reference procedure in a permanent record called the master map. When in monitor mode it compares the current condition with the master map. Significant changes from the master, for instance when the cable gets wet, cause the system to enter the alarm mode. There are three essential inspections which will be performed under post-closure care: alarm test, cable test, and battery test.

The alarm will be tested by disconnecting the sensor cable. The system should show a fault in the cable and activate the alarm. The cable can be reconnected and the alarm will reset after several seconds. This procedure can be repeated for each cable.

The cable test consists of wetting a short length of cable to activate the alarm. This test can be accomplished by wetting a section of the cable stored in the pull ports. The cable will be dried after the test.

The system requires no maintenance other than replacing the battery for the clock. The battery runs the clock up to 1 yr when the power fails. To check the condition of the battery, the power will be turned off, the processor card removed, and the battery jumper removed (the battery jumper plug connects the battery to the clock). If the voltage across the terminals is less than 3.6VDC, the battery will be replaced.

The auto-dial system will be tested at the unit by pressing the "test" button on the unit. A positive test will be indicated by hearing the dialing and pickup of the security company, at which point you may answer the line and confirm the test.

4.2. Operations and maintenance plan

An Operation and Maintenance (O&M) Plan for the leachate accumulation facility was prepared by O'Brien & Gere in August 1998 and was revised in October 1999 to assist caretaking personnel with troubleshooting the system and includes manufacturer's instructions/cut sheets on several pieces of equipment. A copy of the O&M Plan is maintained on file inside the leachate accumulation building. The O&M Plan also outlines the scheduled maintenance of the system and inspections which are to be performed on the leachate tank and system and the tests performed to assess the integrity of the system and tank.

4.3. Leak detection and leachate vault pumping

The leak detection vaults will be pumped monthly or less frequently as necessary by using a portable trash pump (changes to this schedule will be approved by the MDEQ). Decontamination procedures will be utilized to minimize potential cross contamination of individual vaults. The liquids will be pumped into the leachate collection sumps from which they are pumped to the on-site accumulation/control building. Also, at this time the inspector(s) will note whether restrictions in the lines were found and make necessary notes. The estimated quantities of liquids pumped from the leak detection vaults will also be noted. A table showing previous volumes of leak detection water and landfill leachate removed is included as Table 1.

It is anticipated that the leak detection vaults will contain liquids for an extended period of time. The leak detection system provided by Perm-Alert contains probes that are intended to indicate when liquids are present in the sumps. However, these probes were not installed since liquids will be present in the sumps for an extended period of time and will therefore require pumping. It is anticipated that the probes would become damaged during the routine pumping activities. When the sumps consistently do not require pumping the probes may be installed.

4.4. Wetlands inspections

In accordance with the consent order, REALM subcontracted a wetlands consultant to perform bi-annual inspections and annual reporting to the MDEQ of the new wetlands along the northern property boundary through the year 1999. The inspections consisted of a survey and sampling of flora and fauna species, approximate numbers, surface water elevations and general quality, and other issues potentially effecting the future of the wetlands area. The fifth and final Wetland Mitigation Monitoring Report was submitted to the MDEQ on December 20, 1999.

5. Post-closure ground water monitoring plan

A post-closure ground water monitoring program will be conducted at the site to monitor the effectiveness of the landfill closure. The landfill monitoring program will meet the requirements of Michigan's Hazardous Waste Regulations (R299.9612).

This Chapter outlines the same procedures for post-closure ground water monitoring as provided in the August 24, 1994 Post-Closure Care Plan, as modified by:

- The modifications to the August 24, 1994 Post-Closure Care Plan as listed in the MDEQ March 15, 1995 approval letter have been incorporated into this Plan.
- A discussion regarding the decommissioning of the two wells associated with the RMA.
- Well decommissioning procedures have been added.

5.1. Monitoring well network

As required by 40 CFR Section 264.95 and the Michigan Hazardous Waste Regulations, a detection monitoring program must focus on the uppermost aquifer. The uppermost aquifer at the Coldwater Road facility has been defined in previous studies as the "drift aquifer" (Hydro-Search, 1991). In addition, detection monitoring must include any other saturated zone that represents a potential pathway for contaminant migration which may provide for early warning of failure of the leachate containment system.

Previous studies have also identified a perched water zone immediately northwest of the landfill. Therefore, the detection monitoring program must also include monitoring of the perched zone in addition to the drift aquifer. Since ground water flow directions in the perched zone are different from that of the drift aquifer, the proposed monitoring well network will be discussed separately for each.

5.1.1. Perched zone monitoring network

Ground water within the perched zone has been shown in previous annual ground water monitoring reports to flow in a westerly direction. To monitor this zone, a total of six monitoring wells will be used. Specifically, existing well B-9 will be used as the background monitoring point and existing wells B-7, B-14, B-18A, B-19A, and B-24 will be monitored (see Figure 7 for well locations). The perched zone monitoring network provides adequate aerial coverage and will provide the data necessary for detection monitoring and reporting requirements.

5.1.2. Drift aquifer monitoring network

Ground water flow within the drift aquifer has been shown to be toward the south-southeast. To monitor the drift aquifer, a total of five monitoring wells will be used. Specifically, well B-2D will be used as the upgradient monitoring point and wells B-20D, B-21D, B-22D, and B-23D will be used as downgradient monitoring points (see Figure 7). The drift aquifer monitoring well network provides adequate aerial coverage and the data necessary for detection monitoring and reporting requirements.

5.1.3. RMA monitoring wells

Monitoring wells MW-25 and MW-26 were installed to monitor ground water downgradient of the RMA. The wells were monitored for four quarters as requested by the MDEQ and have been decommissioned. The wells were decommissioned in accordance with Section 5.1.5.

5.1.4. Monitoring well installation specifications

If required to install additional wells at the Coldwater Road facility in the future, these well installation protocols will be used.

Prior to drilling a well, the drill rig, and drillers tools will be thoroughly decontaminated using a portable steam cleaner. Drilling and sampling will be completed utilizing the hollow stem auger drilling method. Soil samples will be collected using either a split spoon sampler at 2-ft intervals or a 5-ft continuous core split barrel. The soils will be visually logged using the USCS soil classification system. Cuttings will be spread on the ground around the well.

Monitoring wells will be constructed using 2-inch diameter, flush-threaded PVC casing. The screen length will be up to 5 ft with continuous slot openings of 0.010 inches and a PVC plug on the bottom of the screen. The annular space around the screen will be back-filled with silt free silica sand (WB 40 grade) to a height no more than 2 ft above the top of the screen. A minimum 2 ft thick seal of hydrated bentonite will be placed above the sand pack. The remaining annular space will be filled with a cement bentonite grout placed with a tremie pipe. The PVC riser will be covered with a lockable, watertight PVC cap. A 4-inch diameter galvanized steel, locking, protective casing will be installed at the surface with a concrete anchor and runoff diversion apron.

Once installed, the grout will be allowed a minimum of 24 hr to cure after which time the well will be developed. Well development will be performed using the pump and surge method. A minimum of five casing volumes will be removed from the well or until the well is pumped to dryness.

5.1.5. Monitoring well decommissioning procedures

This procedure will be used for decommissioning of monitoring wells at the Coldwater Road facility. The wells will be decommissioned in accordance with Michigan Department of Public Health (MDPH) procedures as outlined in Part 127 of Public Health Code Act 368, 1978, as amended. Two methods may be used in accordance with this Act to decommission a well. The first method involves over drilling and removal of the well materials and pressure backfilling the open hole with a cement/bentonite grout. The second method involves using a tremie pipe to pressure inject the cement/bentonite grout mixture into the well with the well materials left in place.

The preferred method for decommissioning deep double-cased wells is to leave the well materials in place, except for the above ground riser and protective casing, and pressure grouting the well from the bottom to ground surface. The method for decommissioning shallow wells will be determined by a geologist. The geologist will review monitoring well construction details and soil boring logs to assess whether the well intersects more than one water bearing unit. The well will either be over drilled, well materials removed and filled with a cement bentonite grout or filled in place with a cement bentonite grout. Above ground materials (riser and protective casing) will be removed to approximately 2 ft below grade.

These procedures were implemented to decommission two wells (B-25 and B-26) at the conclusion of four quarters of sampling in which analytical data indicated four quarters of results below the ground water/ surface water interface criteria. The MDEQ issued a letter dated September 7, 1999, approving the termination of ground water sampling of these wells and approved the decommissioning of these wells. The wells were decommissioned in accordance with the above discussion for shallow wells by removing well materials and cement/grouting the hole.

5.2. Analytical procedures and sampling frequency

Semi-annual ground water sampling will be conducted. Ground water samples will be analyzed for pH, specific conductivity, total organic carbon (TOC), total organic halogen (TOH), and dissolved copper, nickel, zinc, and chromium. In addition, one set of samples per year will also be analyzed for the standard list of parameters specified in 40 CFR Part 265, which includes; chloride, sodium, dissolved iron and manganese, phenols, sulfate, cyanide, and volatile organic compounds. Analytical methods and sampling frequencies are provided in Table 2.

5.3. Ground water sampling procedures

5.3.1. Ground water sampling

Samples will be collected after each well has been purged and field parameters measured. Water sample portions will be filtered and/or preserved in accordance with 40 CFR 136 as promulgated by EPA on October 26, 1984. The filtered sample portions will be filtered through a disposable 0.45 micron filter. Preservative (HNO_3), where applicable, will be added immediately after the unfiltered samples are bottled, and after the filtered samples are filtered and bottled. Otherwise the samples will be filtered by the analytical laboratory. Purging, field parameter measurements, and sampling procedures are described in detail in the following sections.

5.3.2. Well purging

The water standing in a well prior to sampling may not be representative of in-situ ground water quality. The standing water in the well will be removed which will allow representative water from the formation to replace the

standing water. Prior to sampling, at least three well casing volumes will be removed by bailing with a disposable polyethylene or stainless steel bailer. After purging, specific conductivity, pH and temperature measurements will be recorded in quadruplicate to document stable conditions. If a well bails dry before three casing volumes of water are removed, the well will be allowed to recharge. As a sufficient volume of water enters the well, field parameter measurements will be collected in quadruplicate and sampling will continue.

5.3.3. Field parameter measurement

Analyses for pH, temperature and specific conductivity will be completed in the field upon completion of purging and prior to sampling of the well.

1. Field meters to be used during sampling (pH and specific conductance meters) will be checked for proper calibration and precision using appropriate buffer solutions. The preparation date of standard solutions will be clearly marked on each of the containers to be taken into the field. Calibration records for each meter will be recorded in the dedicated field notebook to be kept at the facility. Entries will include problems potentially experienced with the meter, corrective measures taken, battery replacement dates, when the meter was used and the operator.

2. The pH meter will be calibrated prior to use at each well using pH 4 and 7 buffer solutions. The probe will be thoroughly rinsed between buffer measurements with distilled water and again after calibration is completed. Calibration records will be kept in a dedicated field notebook.

3. The specific conductance meter requires daily "red lining" and calibration tests using a solution of know conductivity, which should be chosen to be within the expected conductivity range of 500 to 3500. Specific conductance is temperature-dependent and, therefore, the meter readings must be corrected to 25°C based upon the temperature of the standard solution. Temperature of the standard solution (and sample) should be measured with a thermometer to confirm temperatures displayed by the meter. Thoroughly rinse the probe with distilled water after immersing in the standard solution.

5.3.4. Procedures for sampling wells

1. Sampling equipment will first be decontaminated prior to each use by the following protocol:

   - Scrub equipment thoroughly in a low-sudsing detergent solution (e.g., Alconox)
   - Distilled water rinse

- Wrap equipment in plastic for handling and/or storage until next use
- Decontamination of disposable bailers, if used, will not be necessary.

2. An electric water level probe will be used to measure the depth from the top of the casing to the top of water to the nearest 0.01-ft. The measurement will be recorded in a dedicated field notebook.

3. Measure the depth from the top of casing to the bottom of the well (total depth of cased hold) for the initial sampling event.

4. Subtract the depth to top of the water from the depth to the bottom (TD) of the casing to determine the height of standing water in the casing. Calculate the volume of water standing in the well casing (purge volume) using the following formula:

   Purge Vol. = $\pi r^2 h$ in ft^3, for gal multiply by 7.481

   where:

   r = radius of well casing in ft, and
   h = height of water column in ft.

5. Remove a quantity of water from the well not less than three times the calculated purge volume.

6. If the well goes dry during purging, allow the well to recover sufficiently to permit extraction of adequate sample.

7. Perform quadruplicate field parameter measurements using procedures described in Section 5.3.3.

8. Obtain a sample for chemical analyses immediately upon completion of field parameter measurements. In case a well is pumped or bailed dry, obtain a sample as soon as possible after the well has sufficiently recovered. Field filter the sample for dissolved metals using a 0.45 micron filter prior to preserving with acid. Samples are to be collected in the order of volatility as follows: TOC/TOX (or VOCs) and dissolved metals.

Either a decontaminated teflon or PVC bailer or a disposable PVC bailer will be used for purging and bailing operations in each well. New braided nylon rope should be used to support the bailer for each sampling event. The rope should be disposed of following each sampling event. Sampling equipment

must be protected from the ground surface by a clean plastic sheet laid around the work area. Water from purging will not be containerized.

5.4. Sample preservation

Sample bottles will be labeled with sample identification, collection date and time, filtration/preservative status. Sample bottles will be filled and capped securely and immediately preserved (if required) and stored at 4°C in a cooler.

The cooler and samples will be prepared for shipment or transport by the following procedure:

1. Prepare cooler(s) for shipment.

   - Tape drain(s) of cooler shut
   - Place mailing label with laboratory address on top of cooler(s).

2. Arrange sample containers in a manner to prevent potential sample container breakage.

3. Confirm the bottle labels are completed correctly. Place clear tape over bottle labels to prevent moisture accumulation from causing the label to peel off.

4. Seal sample containers within plastic zip-lock bags to prevent packing material from contacting samples.

5. Place packing material at the bottom of the cooler to act as a cushion for the sample containers.

6. Fill remaining spaces with packing material.

7. Confirm containers are firmly packed in cooler.

8. If ice is required to preserve the samples, cubes should be repackaged in double zip-lock bags, and placed on top of the packing material.

9. Sign chain-of-custody (COC) form (or obtain signature) and indicate the time and date it was relinquished to Federal Express or other carrier, as appropriate.

10. Separate copies of COC forms. Seal proper copies within a large zip-lock bag and tape to inside lid of cooler. Retain copies of forms in-house.

11. Close lid and latch.

12. Tape cooler shut on both ends, making several complete revolutions with strapping tape.

13. Relinquish to Federal Express or other courier service. Retain airbill receipt for project records (Note: Samples will be shipped for "NEXT DAY" delivery).

If samples are delivered directly to the laboratory by the sampling team, the packaging/shipping requirements may be omitted. COC procedures, however, must be strictly maintained.

5.5. Sample management and chain-of-custody

COC procedures document the history of sample containers and samples from the time of preparation of sample containers through sample collection, shipment, and analysis. A sample is considered in custody if:

- The sample is in the sampler's physical possession
- The sample is secured by the sampler to prevent tampering
- The sample is secured by the sampler employee in an area that is restricted to authorized personnel.

To maintain a record of sample collection, transfer between personnel, shipment, and receipt by the laboratory, a COC record will be completed for each sample at each sampling location. Each time the samples are transferred, signatures of the person relinquishing and receiving the samples, as well as the date and time, will be documented. An example COC record is provided in Appendix B.

Parallel field notebook and COC records will be maintained. Recorded information will include:

- Sampling Location
- Time and Date

- Sampling Method
- Method of Preservation.

Additionally, the field notebook will also include information on weather conditions, depth to water, TD of the well, field parameter and instrument calibration records and other useful or pertinent information. The notebook will be kept at the facility or with their designated contractor.

5.6. Quality assurance/quality control (QA/QC) measures

Field QA/QC procedures will consist of collecting one field blank and one duplicate sample (one additional sample from one of the wells) for each sampling event. The duplicate and field blank samples will be assigned a separate sample identification and submitted to the laboratory "blind".

5.7. Reporting requirements

5.7.1. Submittals

A semi-annual and annual report will be issued summarizing the monitoring data. Each submittal will consist of:

- Preparation of a potentiometric surface contour map based on representative ground water surface elevations from each well
- Confirmation of ground water flow direction(s) from that map
- Documentation of sampling and procedures
- Analytical results from laboratory analyses and field measurements
- Statistical testing of pH and specific conductance and dissolved metals as compared with historical measurements.

The annual report will be submitted to the MDEQ no later than March 1st of the following year.

5.7.2. Statistical evaluations

Standard RCRA requirements include performing a statistical evaluation of indicator parameters for each round of sampling to determine if there has been a statistically significant increase (or pH decrease) over background.

Statistical evaluations used at this site included both the CABF t-test and the Average Replicate t-test for evaluating changes in indicator parameters. During the interim status detection monitoring, a number of indicator parameters consistently tested positive (i.e., a statistically significant increase over background) for various wells including the background well. Subsequent ground water quality assessment work showed that the standard statistical evaluation approaches are not appropriate for site conditions, therefore, resulting in a high number of false positives.

To mitigate this problem during post-closure monitoring, REALM will use control charts to analyze the detection monitoring ground water quality data. The use of control charts for RCRA monitoring is an approved alternative by EPA (USEPA, 1992). Parameters to undergo statistical analysis will be pH, specific conductance and dissolved copper, nickel, chromium, and zinc.

REALM proposes to use the methodology discussed and recommended in the paper by Sparks and Flatman (1991) to set up and operate the control charts. Their recommended procedures involve the simultaneous use of Shewhart and CUSUM charts. Shewhart charts are used to detect large shifts in the mean of a random Gaussian process. CUSUM charts are used to detect small to medium shifts in the mean of a Gaussian process. Their combination allows the detection of changes in indicator parameters that is tailored to the individual differences seen in each parameter at each well.

Shewhart charts are fairly robust with respect to the assumption of normality (Gaussian distribution) if the data comes from sampling a random quantity which has a symmetric distribution. CUSUM charts are highly robust against non-normality (as a consequence of the Central Limit Theorem) in any case but especially when the data comes from a symmetric distribution.

For the in-control (no leakage) situation, the variables which REALM will use for control charting, the downgradient minus upgradient differences will have a fairly symmetric distribution, much more symmetric than the distributions of the original variables. Therefore, use of a symmetrizing transformation, such as the log or square root, on the original data is unnecessary.

As recommended in the EPA guidance, the Shewhart charts will use 4.5 δ limits and the two-in-a-row rule. The limits for pH differences will be two-sided; all other parameters will have one-sided limits. The two-in-a-row rule used in this application specifies that if a chart control limit is exceeded, the well in question will be resampled. A critical accedence will be deemed to have occurred if the 4.5 δ limit is also exceeded on the resample. This is also consistent with requirements using the standard statistical evaluation methods. This provides reasonable protection against outliers due to trace level

analytical chemistry errors. Occasional large errors in trace level analysis of environmental samples are always to be expected.

The CUSUM charts will follow the rules of construction and operation recommended in the paper by Sparks and Flatman (1991), which also appear in the USEPA training manual. Specifically, both charts will use the same estimates for μ and δ, the CUSUM decision threshold (decision boundary) parameter h will be set at 5, and the standard error shift detection parameter k will be set to 1. As recommended (and in accordance with standard practice for the combined use of Shewhart and CUSUM charts), the Shewhart charts will use only the limit exceedance rules, not the runs rules.

Both Shewhart and CUSUM charts have well-documented implementation in the statistical computing package S-PLUS, by Statistical Sciences of Seattle, Washington. REALM will use this software to perform the computations and to produce the plots. Each plot will include a print out of all chart parameters used in its construction and will both highlight and list any points which trigger an out-of-control indication.

6. Maintenance plan (40CFR 264.228(b), 264.228(c)(1)(ii), 264.258(b), 264.258(c)(1)(ii), 264.

A grass cover will be maintained on the closed landfill site to maintain the integrity of the final cover. Reseeding, fertilization, and mowing will be performed periodically or when routine inspections indicate the need for such maintenance. There is no need to maintain the RMA vegetative cover; therefore, future maintenance is not planned for the RMA.

The leak detection system will be monitored as stated in Section 4 of this Plan. Malfunctions will be noted on the inspection log sheet and communicated to the post-closure contact who will dispatch the required personnel for repairs.

Maintenance activities, if necessary, performed to correct erosion damage, cover settlement, and run-on/run-off structures would be certified by a licensed Professional Engineer. These activities would be performed by either REALM or contracted personnel. The Professional Engineer would prepare a report detailing the corrective action, and this report would be included with the Coldwater Road facility annual report sent to the MDEQ.

7. Personnel training (40 CFR 270.14(b)(12) and R299.9613(1))

Inspection and routine maintenance procedures will be carried out by qualified personnel.

Ground water sampling and final cover maintenance will be performed by qualified REALM and/or contractor personnel. It is currently anticipated that post-closure activities will be handled by contract personnel. Required training for contracted personnel will depend upon the activities performed. Personnel which may potentially come in contact with landfill materials or landfill leachate will be required to meet the training requirements of 29 CFR 1910.120 (e) for safety and health at hazardous waste operations.

8. Post-closure cost estimate (40 CFR 264.144 and R299.9702)

The Post-Closure cost estimate for the landfill is presented on Table 3. This cost estimate has been calculated for a period of 25 yr based on post-closure care being initiated in 1995 based on the August 31, 1994 Post-Closure Care Plan approval from the MDEQ (formerly MDNR) dictating implementation of this plan at that time. The current Post-Closure cost estimate was derived by multiplying the annual total on Table 3 by 25 yr and applying the Bureau of Economic Analysis Implicit Price Deflator for services for the second quarter of 2000 (most recent) of 2%. The cost estimate has been prepared assuming activities will be performed by contracted personnel and a reduction in the scope of work over the 25 yr peioid. The post-closure cost estimate will be updated annually until closure is completed to reflect the effects on inflation in accordance with 40 CFR 264.144(b) and R299.9702(1). This adjustment will be made using the US Department of Commerce Annual Implicit Price Deflator, as published in their monthly "Survey of Current Business." In addition, the post-closure cost estimate will be revised whenever a change in the Plan significantly increases the cost of post-closure per 40 CFR 264.144(c) and R299.9702(1). The REALM contact will maintain a copy of the latest post-closure cost estimate on file.

9. Surrounding land use

Attached as Figure 8 is a copy of the zoning map for the surrounding property.

10. Climate and precipitation

Attached is a copy of the wind rose (Figure 9) for Genesee County as well as average monthly precipitation levels and average monthly temperatures (Table 4).

11. Post-closure property use (40 CFR 265.117, R299.9601.3)

REALM will place a notification on the deed of the property that informs future landowners of conditions or considerations of soil restrictions or soil relocation. Such a notification is identified in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, as a "Notice of Approved Environmental Remediation." This notification is not a restrictive covenant, however, it is a mechanism that identifies potential site restrictions. This mechanism will be filed with the local zoning agency following the MDEQ's approval of this mechanism. Based on the requirements of the approved Closure Plan, a "Declaration of Restrictive Covenant" will be filed with the Genessee County Register of Deeds. This covenant will be filed with the deed for the purpose of protecting public health, safety and welfare and the environment. A draft copy of the Notice of Approved Environmental Remediation form and Declaration of Restrictive Covenant form is included as Appendix C.

12. Amendment of post-closure care plan (40 CFR 265.188(d))

In the event site conditions differ substantially from those anticipated or if other unforeseen circumstances warrant, this Plan will be modified according to the section of RCRA referenced above.

13. Financial assurance mechanism for post-closure (40 CFR 264.145, 264.151, R299.9703, and R299.9709)

REALM does not meet the RCRA financial test and therefore, cannot use this method to demonstrate financial assurance. Therefore, as required in the regulations, REALM is providing the following alternate method of financial assurance:

- A Performance Guarantee Bond and Standby Trust Agreement for closure and post-closure cost estimates.

The Performance Guarantee Bond is included in Appendix D. Presently this Bond is being updated to reflect the post closure care costs shown on Table 3. This update is anticipated to be completed by the end of January 2001.

Table 1
GM Coldwater Road Landfill Leachate/Leak Detection Monthly Volume Data

Date	GALLONS LEAK DET A	GALLONS LEAK DET B	GALLONS LEAK DET C	GALLONS LEAK DET D	GALLONS LEAK DET E	GALLONS LEAK DET F	TOTAL RINSE	TOTAL LEAK GALLONS	GALLONS WASTE METER	GALLONS WASTE FLOW	LEAK DET FLOW	TOTAL SUMP FLOW	HOURS SUMP A	HOURS SUMP B	HOURS SUMP C	HOURS SUMP D	HOURS SUMP E	HOURS SUMP F	TOTAL RUNTIME MIN	DISPOSED OFF SITE GAL	NOTE	RAINFALL PREVIOUS PERIOD
7/19/95	67	142	190	263	429	572	?	1,663														
8/1/95	55	100	125	155	310	417	?	1,162	52,360				7.3	9.2	285.9	36.5	18.7	47.55				
TOTAL	122	242	315	418	739	989	?	2,825			2,825											
8/14/95	70	112	141	177	289	440	?	1,229														0.87
8/24/95	47	90	103	106	195	315	?	856														3.96
9/1/95									58,670	6,310	2,085	4,225	7.6	9.5	286.2	36.8	18.9	47.8	99			
TOTAL	117	202	244	283	484	755	?	2,085														
9/7/95	87	116	131	153	278	430	150	1,345														0.24
9/19/95	63	90	106	138	223	332	141	1,093														0.11
10/1/95								-	63,200	4,530	2,147	2,383	7.7	9.6	286.4	37.1	19.1	48	66			
TOTAL	150	206	237	291	501	762	291	2,438														
10/5/95	73	68	110	160	255	355	126	1,167														0.46
10/17/95	54	61	80	117	180	225	153	870														0.85
10/31/95	50	65	80	124	184	223	149	875														1.28
11/1/95								-	68,510	5,310	2,484	2,826	7.9	9.9	286.7	37.4	19.3	48.1	84			
TOTAL	177	214	270	401	619	803	428	2,912														
11/16/95	62	228	77	117	195	220	150	1,049														3.15
11/29/95	44	861	58	115	175	186	168	1,607														1.15
11/30/95		180					25	205														
12/1/95								-	73,230	4,720	2,518	2,202	8	10.3	286.9	37.6	19.4	48.2	66			
TOTAL	106	1,269	135	232	370	406	343	2,861														
12/4/95		366					24	390														0
12/7/95		270					24	294														0
12/13/95				98	181	143	71	493														0.12
12/14/95	91	489	60				85	725														0.23
12/20/95		469					25	494														0.39
1/2/96								-	78,840	5,610	2,167	3,443	8.1	11.1	287.1	37.8	19.4	48.3	84			
TOTAL	91	1,594	60	98	181	143	229	2,396														
1/2/98	80	687	60				82	909														0.29
1/3/98				108	242	198	75	823														0
1/10/96		414					26	440														0.12
1/17/96	81	165	55				77	358														0.02
1/18/96				89	169	134	80	472														0.34
1/29/96				72	132	101	79	384														1.57
1/30/96	24	716	48				81	869														0.02
1/31/96								-	82,240	3,400	3,555	(155)	8.2	11.6	287.3	38.0	19.6	48.3	72			
TOTAL	185	1,982	163	269	543	433	500	4,055														
2/15/96	35	308	58				87	488														0.59
2/16/96				76	169	121	81	447														0.03
2/28/96				33	47	102	80	262														0.58
2/29/96	31	60	54				81	226														0
3/1/96								-	85,209	2,969	1,094	1,875	47	11.8	287.4	38.2	19.7	48.4	2370		1	
TOTAL	66	368	112	109	216	223	329	1,423														
3/14/96				61	146	75	77	359														0.69
3/28/96				62			20	82														1.1
4/1/96					176	107	52	335														0.07
4/2/96	35	332	82				79	528														0
4/3/96								-	87,920	2,711	1,076	1,635	47.05	12	287.6	38.45	19.8	48.5	54			
TOTAL	35	332	82	123	322	182	228	1,304														
4/18/96	49	1,134	307				78	1,568														1.31
4/19/96				81	177	98	76	432														0
5/2/96								-	91,190	3,270	1,846	1,424	47.1	12.4	287.8	38.5	19.8	48.5	42			
TOTAL	49	1,134	307	81	177	98	154	2,000														
5/13/96	29	1,171	1,318				78	2,596														3
5/14/96				327	143	68	73	611														0
5/30/96				795	184	66	76	1,121														1.86
5/31/96	66	1,180	1,519				80	2,845	103,790	12,600	6,866	5,734	47.2	13.7	289.1	38.9	20	48.6	204			
TOTAL	95	2,351	2,837	1,122	327	134	307	7,173														
6/13/96	40	1,142	1,075				75	2,332														1.75
6/14/96				216	165	75	75	531														0.01
6/27/96				123	195	89	78	485														2.14
6/28/96	95	1,148	1,424				75	2,742	111,630	7,840	5,787	2,053	47.3	14.6	289.8	39.1	20.1	48.6	120			
TOTAL	135	2,290	2,499	339	360	164	303	6,090														
7/11/96	70	564	647				71	1,352														0.73
7/12/96				125	193	157	76	551														0
7/25/96					176	216	50	442														0.76
7/26/96	47	174	193	92			104	610														0

Table 1
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Date	GALLONS LEAK DET A	GALLONS LEAK DET B	GALLONS LEAK DET C	GALLONS LEAK DET D	GALLONS LEAK DET E	GALLONS LEAK DET F	TOTAL RINSE	TOTAL LEAK GALLONS	GALLONS WASTE METER	GALLONS WASTE FLOW	LEAK DET FLOW	TOTAL SUMP FLOW	HOURS SUMP A	HOURS SUMP B	HOURS SUMP C	HOURS SUMP D	HOURS SUMP E	HOURS SUMP F	TOTAL RUNTIME MIN	DISPOSED OFF SITE GAL	NOTE	RAINFALL PREVIOUS PERIOD
8/1/96									115,980	4,350	2,654	1,696	47.4	14.9	290.2	39.3	20.2	48.7	72		2	
TOTAL	117	738	840	217	369	373	301	2,955														
8/8/96	50	82	119				76	329														0.45
8/9/96				81	181	262	81	605														0
8/22/96				80	157	237	75	549														0.18
8/23/96	80	88	105				75	348														0.37
9/3/96									118,870	2,890	1,522	1,368	47.5	15	290.4	39.4	20.3	48.8	42			
TOTAL	130	170	224	161	338	499	309	1,831														
9/11/96	84	111	138				75	408														0.77
9/13/96				147	249	403	75	874														0.07
9/26/96				100	152	223	75	550														1.3
9/27/96	86	88	111				75	360														0.21
10/1/96									122,650	3,780	1,892	1,888	47.6	15.2	290.8	39.6	20.4	48.9	54			
TOTAL	170	199	249	247	401	626	300	2,192														
10/10/96	47	60	73				75	255														1.23
10/11/96				83	147	185	75	490														0.06
10/25/96				82	130	135	68	415														1.09
10/29/96	61	701	83				65	910														0
11/1/96									125,930	3,280	1,787	1,493	47.7	15.5	290.7	39.7	20.5	49	48			
TOTAL	108	761	156	165	277	320	283	2,070														
11/13/96				130	138	140	71	479														2.38
11/14/96	60	1,144	1,445				77	2,726														0
11/25/96				160	93	96	76	425														0.22
11/26/96	45	1,170	1,470				75	2,760														0
12/2/96									133,220	7,290	6,091	1,199	47.8	16.2	291.6	39.9	20.5	49.1	120			
TOTAL	105	2,314	2,915	290	231	236	299	6,390														
12/5/96	74	1,202	1,352				72	2,700														0.42
12/6/96				170	83	81	66	400														0.03
12/17/96	85	1,350	1,400				75	2,910														0.46
12/18/96				485	115	87	63	730														0.27
1/2/97									141,280	8,060	6,464	1,596	N/A	N/A	N/A	N/A	N/A	N/A	N/A		3	
TOTAL	159	2,552	2,752	655	198	148	276	6,740														
1/14/97	100	1,339	1,499	2,377	1,001	-	326	6,642														1.3
1/30/97	-	1,138	1,502	691	990	54	181	4,556	153,810	12,530	10,691	1,839	48	18	293.3	41	21.1	49.2	330		4	0.57
TOTAL	100	2,477	3,001	3,068	1,991	54	507	11,198														
2/12/97	-	1,169	1,406	119	269	80	144	3,187														0.47
2/27/97	124	1,229	1,615	256	65	52	146	3,487	161,190	7,380	6,384	996	48	18.5	294.2	41.1	21.1	49.2	90			2.39
TOTAL	124	2,398	3,021	375	334	132	290	6,674														
3/15/97	86	1,239	1,548	626	250	0	136	3,885														1.34
3/27/97	66	1,226	1,455	143	131	88	144	3,253	168,610	7,420	6,858	562	48.1	19.5	295.1	41.4	21.2	49.2	144			0.44
TOTAL	152	2,465	3,003	769	381	88	280	7,138														
4/11/97	82	1,127	1,594	549	222	43	145	3,762														1.39
4/25/97	45	1,394	1,529	162	175	37	165	3,507														0.52
5/2/97									177,290	8,680	6,959	1,721	48.2	20.4	296	41.7	21.4	49.3	150			0.41
TOTAL	127	2,521	3,123	711	397	80	310	7,269														
5/9/97	109	1,180	847	2	124	0	150	2,412														0.92
5/23/97	124	1,206	734	101	118	74	151	2,508														1.51
6/4/97									182,840	5,550	4,619	931	48.4	21.2	296.6	41.8	21.4	49.3	102			0.73
TOTAL	233	2,386	1,581	103	242	74	301	4,920														
6/6/97	112	928	235	63	106	-	150	1,594														0
6/30/97	179	362	183	56	130	48	151	1,089	186,190	3,350	2,382	968	48.5	21.6	296.7	41.9	21.5	49.3	108			1.46
TOTAL	291	1,290	398	119	236	48	301	2,683														
7/17/97	42	218	119	62	3	10	161	615														1.02
7/31/97	47	81	105	58	54	2	157	504	188,420	2,230	801	1,429	48.8	21.8	296.9	42.0	21.6	49.3	114			1.68
TOTAL	89	299	224	120	57	12	318	1,119														
8/12/97	54	67	86	55	130	138	160	690														1.03
8/29/97	73	81	105	88	144	252	158	901	190,840	2,420	1,273	1,147	48.9	22.0	297.0	42.1	21.6	49.5	42			1.58
TOTAL	127	148	191	143	274	390	318	1,591														
9/15/97	62	83	-	89	6	197	157	594														2.74
9/30/97	41	-	149	1	3	144	159	497	192,410	1,570	775	795	48.9	22.0	297.2	42.2	21.6	49.6	24		5	1.68
TOTAL	103	83	149	90	9	341	316	1,091														
10/13/97	53	1,094	641	-	2	115	161	2,066														0.75
10/31/97	42	686	112	112	169	398	157	1,676	196,630	4,220	3,424	796	48.9	22.6	297.5	42.3	21.8	49.6	72			0.8
TOTAL	95	1,780	753	112	171	513	318	3,742														
11/15/97	40	974	51	68	117	85	150	1,485														0.63
11/25/97	30	668	38	-	71	43	161	1,011	199,170	2,540	2,185	355	48.9	23.1	297.6	42.3	21.8	49.6	36			0.06
TOTAL	70	1,642	89	68	188	128	311	2,496														
12/15/97	47	1,153	464	79	93	65	159	2,060														0.64

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12/31/97	45	1,118	383	5	-	52	150	1,753	203,570	4,400	3,504	896	48.9	23.8	297.9	42.4	21.8	49.6	66			0.49
TOTAL	92	2,271	847	84	93	117	309	3,813														
1/13/98	100	1,149	1,107	171	184	143	148	3,002													6	
1/30/98	69	1,018	532	66	112	1	155	1,953	210,140	6,570	4,652	1,918	50.8	24.5	298.4	42.5	21.9	49.7	204			
TOTAL	169	2,167	1,639	237	296	144	303	4,955														
2/9/98	39	1,225	249	74	184	57	150	1,978														
2/24/98	109	1,051	1,288	93	142	37	150	2,870	210,320													
2/27/98									2,705	2,885	4,548	(1,663)	50.8	24.5	298.4	42.5	21.9	49.7	0		7	
TOTAL	148	2,276	1,537	167	326	94	300	4,848												2,705		
3/17/98	227	1,179	1,455	2	-	42	158	3,063	2,415												7	
3/30/98	200	1,171	1,360	5	172	27	150	3,085	2,774	5,189	5,840	(651)	121.8	34.4	306.9	44.5	23.1	49.7	5,556		7	
TOTAL	427	2,350	2,815	7	172	69	308	6,148												5,189		
4/14/98	163	817	612	358	47	35	150	2,182														
4/28/98	60	427	854	816	140	25	150	2,272					122.1	34.7	307.0	44.5	23.1	49.7	42			
4/30/98									214,620	4,300	4,154	146									8	
TOTAL	223	1,244	1,466	974	187	60	300	4,454														
5/14/98	135	1,105	826	108	111	54	150	2,289														
5/28/98	69	81	158	49	103	23	150	633	223,590	8,970	2,622	6,348	125.4	37.1	309.2	45.5	23.5	49.7	558		8	
TOTAL	204	1,186	784	157	214	77	300	2,922												8,788		
6/12/98	30	313	101	43	76	40	150	753														
6/29/98	63	90	103	46	79	13	150	544	227,010	3,420	997	2,423	125.9	37.5	309.5	45.6	23.5	49.7	78			
TOTAL	93	403	204	89	155	53	300	1,297														
7/10/98	39	69	80	45	69	174	150	626														
7/31/98	119	116	142	79	154	306	152	1,068	229,830	2,820	1,392	1,428	126.1	37.8	309.6	45.7	23.6	49.8	54			
TOTAL	158	185	222	124	223	480	302	1,694												3,252		
8/14/98	75	91	118	66	117	176	150	793														
8/28/98	71	90	109	10	116	221	149	766	232,180	2,350	1,260	1,090	126.4	38.9	309.8	48.5	23.6	50.0	276			
TOTAL	146	181	227	76	233	397	299	1,559														
9/18/98	5	109	126	121	161	307	150	979														
9/30/98	14	55	78	65	87	130	150	579	234,690	2,510	1,258	1,252	126.6	39.1	310.0	48.5	23.7	50.1	48			
TOTAL	19	164	204	186	248	437	300	1,558												4,700		
10/16/98	186	61	78	71	106	178	151	831														
10/30/98	38	32	40	42	63	89	150	454	237,000	2,310	984	1,326	127.1	39.1	310.1	48.5	23.8	50.1	42			
TOTAL	224	93	118	113	169	267	301	1,285												3,981		
11/13/98	31	129	38	39	-	80	150	477														
11/30/98	32	37	48	42	95	40	150	444	238,830	1,830	621	1,209	130	39.1	310.1	48.5	23.8	50.2	180			
TOTAL	63	166	86	81	95	130	300	921														
12/10/98	14	20	27	36	42	33	150	322														
12/29/98	23	33	38	15	48	54	150	361	240,130	1,300	383	917	133.3	39.1	310.2	48.5	23.8	50.2	204			
TOTAL	37	53	65	51	90	87	300	683														
1/15/99	26	29	39	38	42	42	150	366														
1/29/99	12	28	21	77	33	32	150	353	240,770	640	419	221	133.8	39.1	310.3	49.1	23.8	50.2	72			
TOTAL	38	57	60	115	75	74	300	719														
2/8/99	19	164	28	45	22	23	150	451														
2/24/99	18	368	23	33	32	38	175	687	241,940	1,170	813	357	135.9	39.1	310.3	49.1	23.9	50.2	132			
TOTAL	37	532	51	78	54	61	325	1,138												3,656		
3/6/99	7	279	25	35	25	25	175	571														
3/19/99	14	482	22	34	63	18	300	933	243,020	1,080	1,029	51	136.3	39.1	310.4	49.1	23.9	50.3	36			
TOTAL	21	761	47	69	88	43	475	1,504														

NOTE

1 - Stuck float in leachate sump "A" results in long runtime.
2 - Total sump flow (1,696 gal) includes 115 gal of city water added to leachate sump "F" to check float operation.
3 - Employees failed to take hour meter readings
4 - Run times for two months (December 1996 & January 1997)
5 - Cell A pump removed for repair on 9/23/1997
6 - Cell A pump reinstalled on 1/13/98
7 - Leachate pumped to tanker truck for off-site disposal
8 - Leachate sumps pumped by manual control to storage tank

TOTAL DISPOSED OFF SITE - 32,271

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1/5/00	11	71	23	35	10	21	150	321														
1/19/00	25	403	27	30	32	22	155	694	267,090	970	710	260	207.3	42.6	311.8	49.1	24.5	50.8	18	0		
TOTAL	36	474	50	65	42	43	305	1,015														
2/2/00	19	187	19	26	25	24	185	485														
2/16/00	5	125	10	25	25	25	135	350														
2/29/00	25	790	55	100	56	20	125	1,171	268,540	1,450	1,561	(111)	207.5	42.9	311.8	47.0	24.5	50.8	24	0	9	
TOTAL	49	1,102	84	151	106	69	445	2,006														
3/14/00	40	1,100	215	80	65	20	130	1,650														
3/29/00	52	1,122	502	92	75	19	186	2,048	273,800	5,260	3,698	1,562	207.5	42.9	311.8	47.0	24.5	50.8	0	6,000		
TOTAL	141	2,222	717	172	140	39	316	3,698														
4/11/00	49	1,110	168	58	65	17	188	1,655														
4/26/00	110	1,135	254	123	101	19	160	1,902	278,870	5,070	3,557	1,513	207.6	44.5	312.3	47.2	24.6	51.0	162	0		
TOTAL	159	2,245	422	181	166	36	348	3,557														
5/9/00	100	1,125	595	70	75	20	140	2,125														
5/24/00	179	1,154	1,358	117	109	18	159	3,094	284,690	5,820	5,219	601	207.9	45.4	312.9	47.3	24.7	51.0	120	2,000		
TOTAL	279	2,279	1,953	187	184	38	299	5,219														
6/12/00	185	1,043	807	67	93	21	177	2,393														
6/20/00	58	263	275	42	34	12	169	853	288,500	3,810	3,246	564	208.2	46.3	313.6	47.4	24.7	51.0	120	11,745		
TOTAL	243	1,306	1,082	109	127	33	346	3,246														
7/5/00	28	96	96	38	58	39	159	514														
7/19/00	29	68	73	42	55	66	175	508	290,110	1,610	1,022	588	208.3	46.4	313.8	47.4	24.8	51.1	36	0		
TOTAL	57	164	169	80	113	105	334	1,022														
NOTE	1 -	Stuck float in leachate sump "A" results in long runtime.															TOTAL DISPOSED OFF SITE -			19,745		
	2 -	Total sump flow (1,696 gal) includes 115 gal of city water added to leachate sump "F" to check float operation.																				
	3 -	Employees failed to take hour meter readings																				
	4 -	Run times for two months (December 1996 & January 1997)																				
	5 -	Cell A pump removed for repair on 9/23/1997																				
	6 -	Cell A pump reinstalled on 1/13/98																				
	7 -	Leachate pumped to tanker truck for off-site disposal																				
	8 -	Leachate sumps pumped by manual control to storage tank																				
	9 -	Hour meter for cell D had been set back two hours as a demonstration at the time OBG took over caretaking responsibility, the previous operator had been adding two hours to the actual reading the formula has been modified to make this correction.																				

Table 2
Post-Closure Monitoring Program- Sampling Parameters
REALM
Coldwater Road facility
Flint, Michigan

Parameter	Analytical Method	Sampling Schedule
pH	150.1	S
specific conductivity	EPA 120.1	S
Total Organic carbon	EPA 9060	S
Total Organic Halogen	EPA 9020	S
Copper (dissolved)	EPA 200.8	S
Nickel (dissolved)	EPA 200.8	S
Zinc (dissolved)	EPA 200.8	S
Chromium (dissolved)	EPA 200.8	S
Chloride	EPA 325	A
Sodium	EPA 273.1	A
Iron (dissolved)	EPA 236.1	A
Phenols	EPA 420.2	A
Sulfate	EPA 375.4	A
Manganese (dissolved	EPA 243.1	A
Cyanide	EPA 335.2	A
Volatile Organic Compounds	EPA 8260	A

Notes:
S denotes semiannual sampling schedule
A denotes annual sampling schedule
Method Detection Limits per MERA memo No. 6

i/novi/project/4144007/4_notes/pcgwm.wb2

Table 3
REALM
Coldwater Road facility
Flint, Michigan
Post Closure Cost Estimate

Year No.	Budget	Year No.	Budget	Year No.	Budget
5	$83,000.00	15	$101,176.54	25	$123,333.63
6	$84,660.00	16	$103,200.07	26	$130,800.31
7	$86,353.20	17	$110,264.07	27	$128,316.31
8	$93,080.26	18	$107,369.35	28	$130,882.64
9	$89,841.87	19	$109,516.74	29	$138,500.29
10	$91,638.71	20	$116,707.07	30	$136,170.30
11	$98,471.48	21	$113,941.21		
12	$95,340.91	22	$116,220.04		
13	$97,247.73	23	$123,544.44		
14	$104,192.68	24	$120,915.33		
				Total Cost	$2,834,685.17

1. Based on 25 year monitoring program with a U.S. Department of Commerce Bureau Of Economic Analysis Implicit Price Deflator used for the most recent period (second quarter 2000) of 2.0 % per yr (post-closure care began in 1995).

Additional costs for pump replacement are estimated to be every third yr at a cost of approximately $5,000.

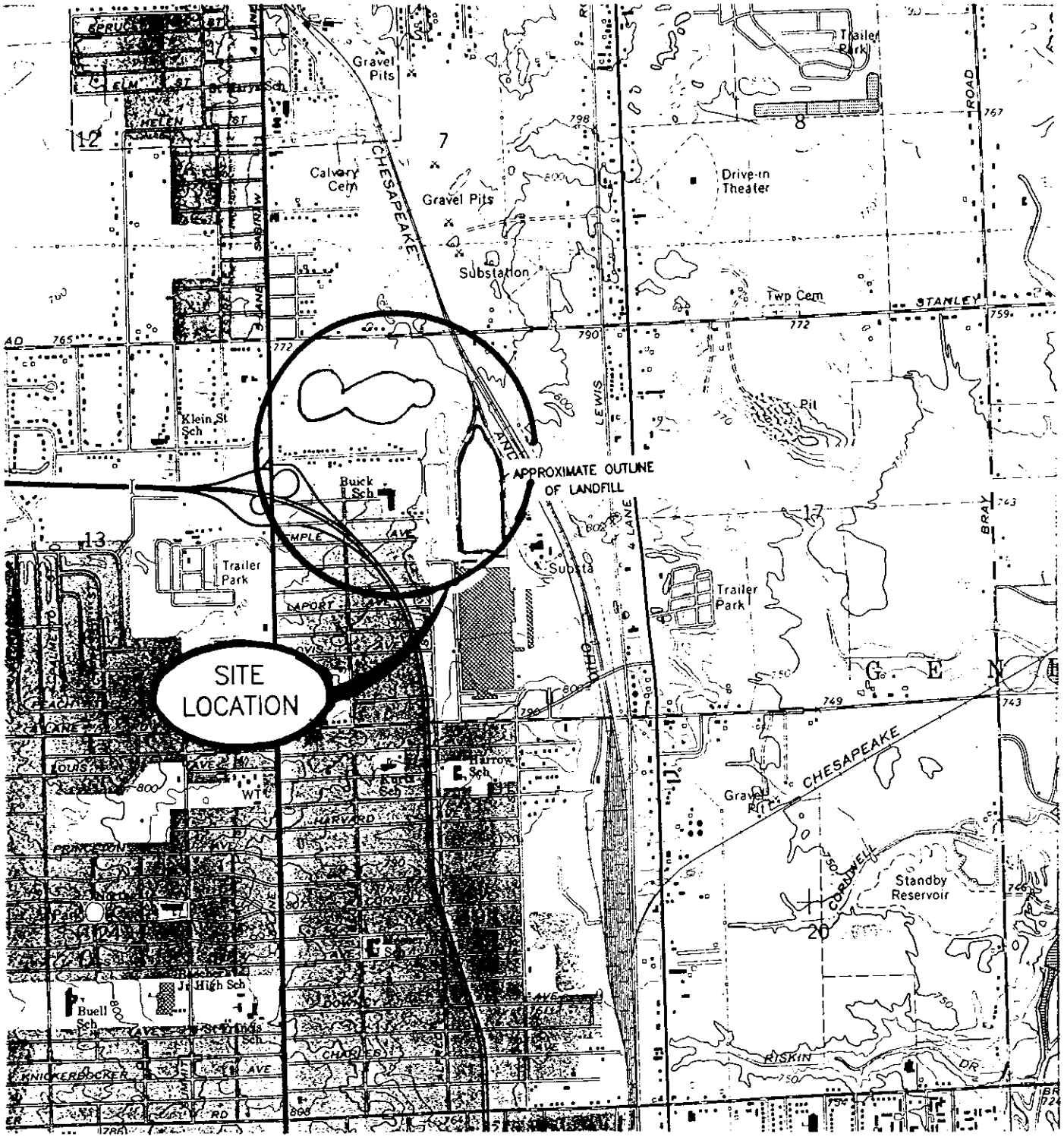
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1968	1.54	2.12	1.61	1.68	3.51	5.40	2.73	5.35	2.21	1.51	3.86	2.38	33.90
1969	1.86	0.17	1.31	4.25	4.64	3.29	5.92	0.45	0.33	2.96	2.96	0.44	28.58
1970	0.78	0.56	2.30	2.69	2.55	3.23	3.85	2.36	4.03	3.19	2.90	1.24	29.68
1971	0.46	2.32	1.85	1.62	1.98	2.43	3.90	1.62	2.10	2.12	1.46	4.66	26.52
1972	1.21	0.81	2.69	3.82	3.36	3.10	3.86	4.57	4.54	3.73	2.33	4.01	38.03
1973	1.38	1.20	4.20	2.84	3.74	3.24	1.78	1.76	2.80	2.73	4.93	2.78	33.38
1974	2.61	2.16	3.60	3.35	5.50	1.93	1.72	2.75	2.20	1.44	2.78	2.35	32.39
1975	2.89	2.01	2.78	4.31	3.70	4.68	1.92	11.04	3.48	1.37	3.17	4.03	45.38
1976	1.53	2.27	3.66	5.59	4.24	4.11	1.98	0.81	2.66	3.17	1.22	0.92	32.16
1977	0.57	0.70	2.78	3.28	0.95	4.70	1.91	3.15	4.59	2.09	2.67	1.47	28.86
1978	2.02	0.51	1.99	1.03	2.97	1.66	0.73	2.62	4.57	1.51	1.44	2.64	23.69
1979	1.78	0.34	1.58	2.33	1.58	3.96	2.96	2.53	0.32	1.90	3.64	2.30	25.22
1980	1.25	0.88	2.20	3.40	2.35	2.38	5.61	3.28	4.75	2.17	0.66	2.95	31.88
1981	0.59	1.83	0.76	4.32	3.07	2.95	3.93	3.22	7.65	3.09	1.41	1.24	34.06
1982	1.57	0.66	2.49	1.23	2.15	3.24	3.06	3.24	2.76	0.57	4.76	2.75	28.48
1983	1.01	0.91	2.40	3.63	3.76	3.94	2.24	2.26	4.06	2.62	3.46	1.85	32.14
1984	0.56	0.52	2.83	2.85	3.54	0.92	3.48	3.66	2.77	2.61	2.65	3.76	30.15
1985	2.06	3.01	4.00	3.60	2.81	1.54	2.99	4.33	8.29	3.45	3.16	1.38	40.62
1986	0.70	2.10	1.44	2.68	1.61	5.13	3.12	5.29	10.86	1.96	0.94	1.71	37.54
1987	1.16	0.42	1.45	1.80	2.28	1.60	2.20	5.03	5.57	1.90	3.29	2.54	29.24
1988	1.27	1.52	1.45	2.69	0.34	0.63	3.74	4.00	3.03	2.76	4.94	1.27	27.64
1989	1.31	0.52	2.11	1.50	3.93	4.90	2.65	5.56	4.33	1.67	2.86	3.00	32.34
1990	1.84	2.59	1.45	2.10	3.26	3.77	1.60	2.37	3.06	4.06	4.29	2.49	33.08
1991	1.49	0.68	2.87	4.07	3.23	2.93	3.76	3.33	0.65	3.52	3.01	2.15	31.69
1992	1.15	1.59	2.56	3.80	1.64	2.26	9.35	3.50	2.50	2.46	4.05	2.01	36.87
1993	2.80	1.16	1.21	4.55	1.68	5.23	2.32	3.37	4.66	2.21	1.32	0.51	31.02
1994	1.91	0.93	1.70	5.01	0.79	6.52	2.84	3.39	2.81	2.70	3.51	1.75	33.86
1995	2.08	0.72	1.24	2.76	2.23	0.72	2.64	4.29	1.05	2.60	4.22	1.15	25.70
1996	2.07	1.20	1.86	3.15	3.02	3.90	1.94	0.68	2.82	2.79	1.66	2.05	27.14
1997	0.98	3.12	2.39	1.21	3.33	1.57	2.70	2.72	4.31	1.55	1.05	0.77	25.70
POR= 56 YRS	1.61	1.49	2.20	2.98	2.94	3.30	2.97	3.34	3.11	2.20	2.45	1.88	30.47

WBAN : 14826

AVERAGE TEMPERATURE (°F) 1997 FLINT, MI (FNT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1968	21.1	20.8	36.4	48.9	52.9	65.3	68.6	68.9	62.3	50.9	38.0	26.3	46.7
1969	22.6	26.1	31.1	47.1	54.2	60.1	69.0	70.1	62.5	49.2	36.9	25.5	46.2
1970	15.1	23.5	30.1	47.2	58.3	65.7	70.3	68.9	61.7	52.1	39.4	26.8	46.6
1971	19.6	26.3	29.7	43.3	54.6	69.5	67.5	67.4	64.8	57.6	38.8	32.4	47.6
1972	21.8	22.5	30.9	42.5	59.1	62.5	70.0	67.7	61.1	46.2	36.9	28.8	45.8
1973	28.8	24.3	41.3	46.8	52.7	67.4	70.4	71.0	62.6	55.3	40.3	28.2	49.1
1974	24.8	20.9	34.9	48.1	53.9	64.9	71.3	69.7	58.9	48.1	40.2	29.2	47.1
1975	28.0	27.2	30.6	40.3	61.8	67.2	70.5	69.9	57.4	53.6	47.3	28.8	48.6
1976	18.1	31.1	38.7	48.2	54.5	69.4	71.1	68.2	60.6	46.8	33.3	17.4	46.5
1977	10.9	22.4	39.2	49.5	62.6	63.1	73.8	68.2	63.6	48.8	41.3	25.8	47.4
1978	18.2	13.4	26.7	43.8	58.7	65.1	69.6	70.0	65.4	50.3	40.6	26.5	45.7
1979	15.9	12.8	38.1	44.6	56.8	66.7	69.9	66.8	62.7	49.9	39.6	32.1	46.3
1980	23.4	20.3	29.9	44.6	57.7	61.6	70.5	70.5	60.5	44.3	36.2	24.4	45.3
1981	18.1	28.3	35.6	48.2	54.2	65.9	70.7	69.0	57.7	44.7	38.7	26.1	46.4
1982	16.4	20.2	32.7	43.3	65.0	62.9	71.3	66.6	61.0	52.5	41.4	37.2	47.5
1983	27.7	31.8	37.8	43.7	53.5	67.3	74.0	73.3	64.8	51.5	41.1	20.1	48.9
1984	14.4	31.2	26.8	45.3	51.5	69.3	70.0	71.8	60.7	54.0	39.4	33.4	47.3
1985	19.8	22.7	37.0	51.8	59.3	62.5	70.4	67.2	63.3	51.4	39.8	21.3	47.2
1986	21.7	21.1	35.8	49.4	58.9	64.9	72.2	66.3	63.0	50.5	35.5	29.9	47.4
1987	24.7	28.7	38.1	49.9	62.8	70.3	75.6	69.3	62.6	45.2	41.6	32.2	50.1
1988	22.0	20.1	34.1	46.5	60.3	67.7	75.2	72.6	61.2	44.8	41.4	27.3	47.8
1989	30.9	20.8	32.7	44.0	56.2	66.2	71.3	68.0	59.6	51.2	35.9	16.1	46.1
1990	31.8	26.9	38.1	48.4	55.3	66.8	70.0	69.4	61.5	49.9	42.4	29.8	49.2
1991	21.2	29.3	37.7	50.2	64.2	69.7	71.7	70.0	59.6	52.8	36.2	29.4	49.3
1992	25.8	29.4	32.9	43.6	57.3	64.2	66.9	65.2	60.2	48.1	38.3	31.5	47.0
1993	26.2	20.5	32.2	45.3	56.0	65.6	72.9	70.4	56.3	47.3	36.8	27.6	46.0
1994	13.8	18.4	33.5	47.6	55.0	67.9	70.6	69.9	62.7	51.6	42.5	33.0	46.8
1995	25.4	20.6	36.1	42.6	56.9	66.4	72.4	70.3	58.5	52.1	39.6	29.9	46.9
1996	21.9	23.7	28.1	42.4	54.8	68.5	69.6	70.1	61.6	50.1	38.7	26.8	45.9
1997	21.3	27.1	34.0	42.9	48.6	67.1	69.5	69.0	59.8	48.3	35.5	29.9	45.8
POR= 55 YRS	22.3	24.1	32.8	45.6	56.7	66.4	70.4	68.9	61.8	51.1	39.6	28.0	47.3

FIGURE 1



MICHIGAN

QUADRANGLE LOCATION

FLINT NORTH, MICH.

N4300—W8337.5/7.5

1969

PHOTOREVISED 1975

FILE NO. 4144/21487

REALM
COLDWATER ROAD FACILITY
FLINT, MICHIGAN

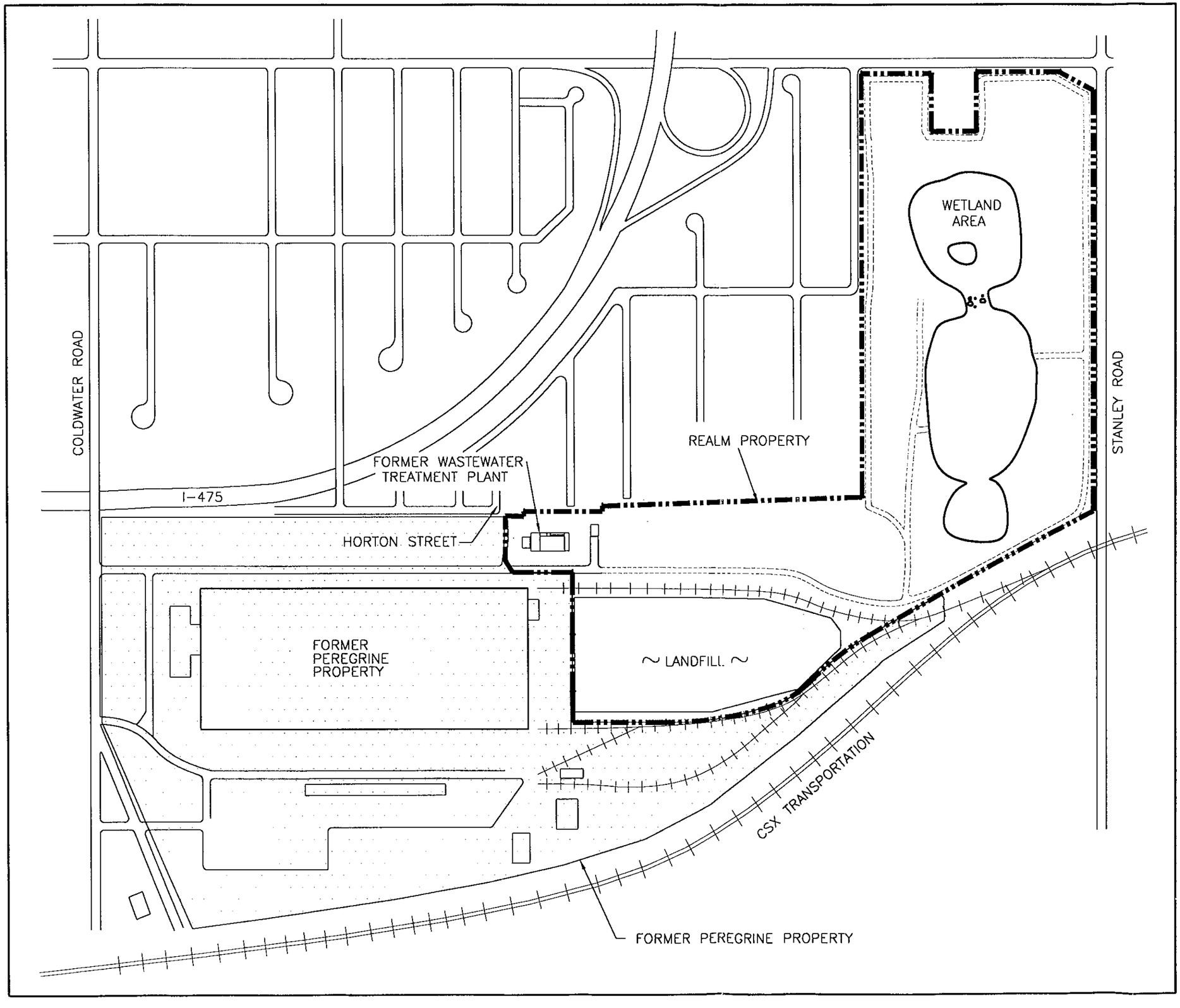
SITE LOCATION MAP

0 1000 2000 3000 4000

SCALE IN FEET

O'BRIEN & GERE
ENGINEERS, INC.

FIGURE 2



LEGEND

APPROXIMATE REALM PROPERTY LINE/ FENCE

APPROXIMATE LOCATION OF RAILROAD TRACKS

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

SITE PLAN

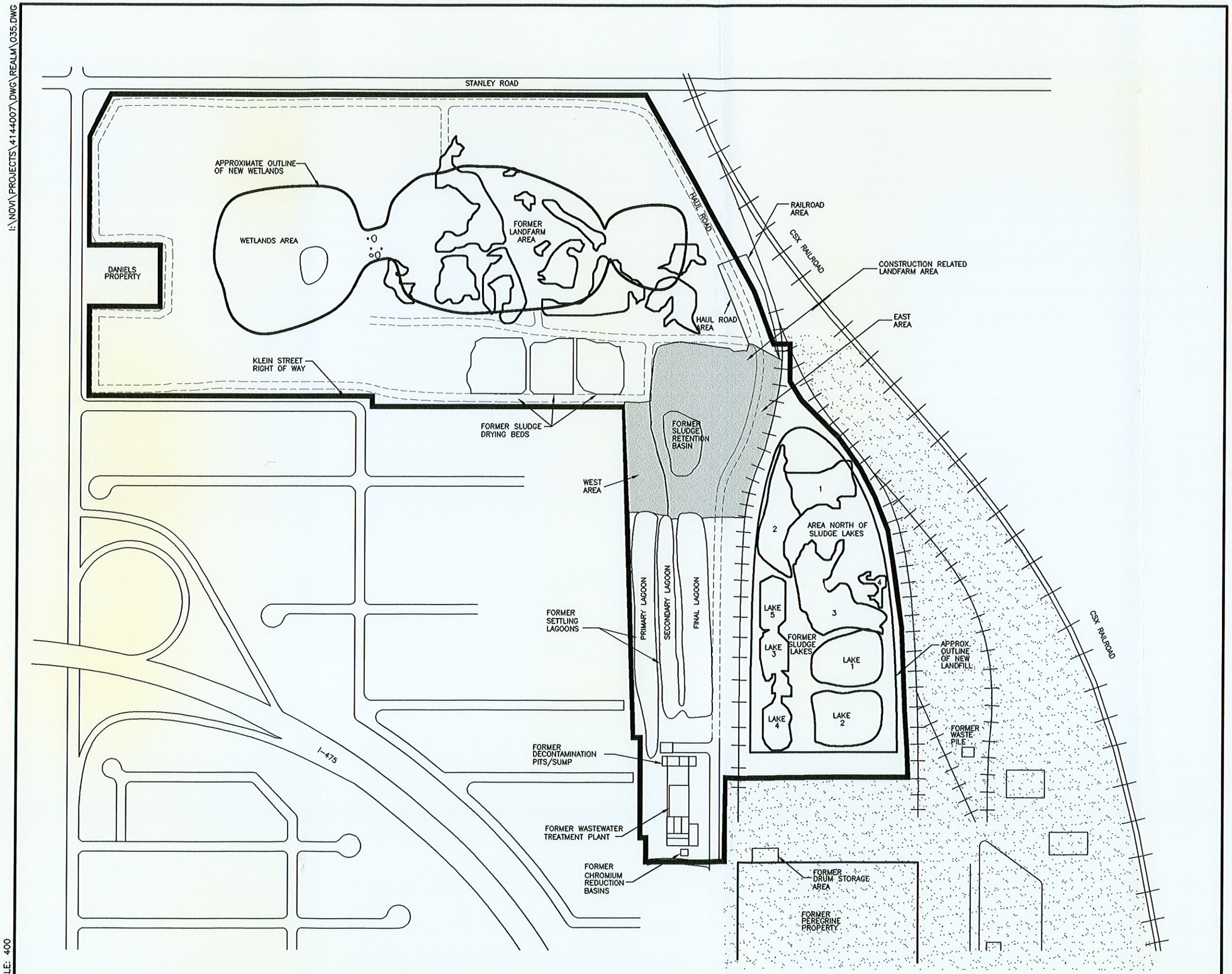
500 0 500

APPROXIMATE SCALE IN FEET

FILE NO. 4144-007-REALM-036

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 3



LEGEND

- REALM PROPERTY BOUNDARY
- FORMER PEREGRINE PROPERTY
- APPROXIMATE LOCATION OF RAILROAD TRACKS
- REMAINING MATERIALS AREA

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

SITE LAYOUT PLAN

400 0 400

APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.REALM.035

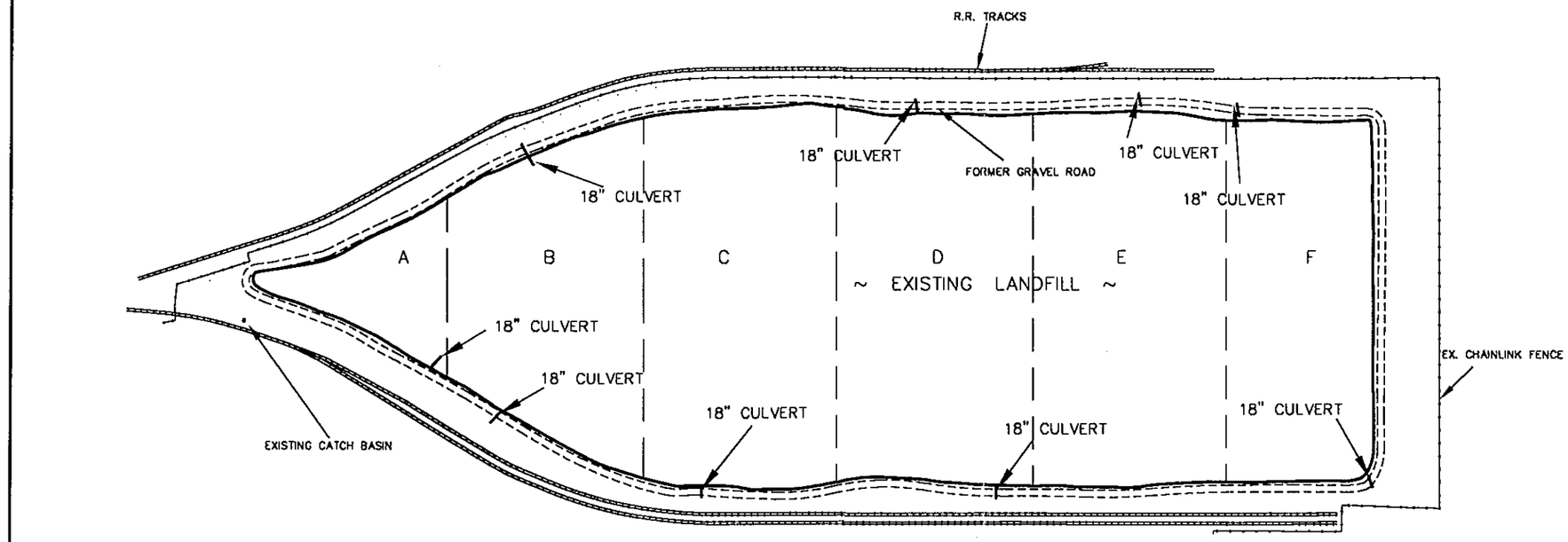
O'BRIEN & GERE ENGINEERS, INC.

I:\NOVI\PROJECTS\4144007\DWG\REALM\035.DWG

PLOT SCALE: 400

I:\NOV1\PROJECTS\4144007\DWG\041.DWG

FIGURE 4



LEGEND

A – LANDFILL CELL

REALM
COLDWATER ROAD
FACILITY
FLINT, MICHIGAN

LANDFILL
SITE PLAN

200 0 200

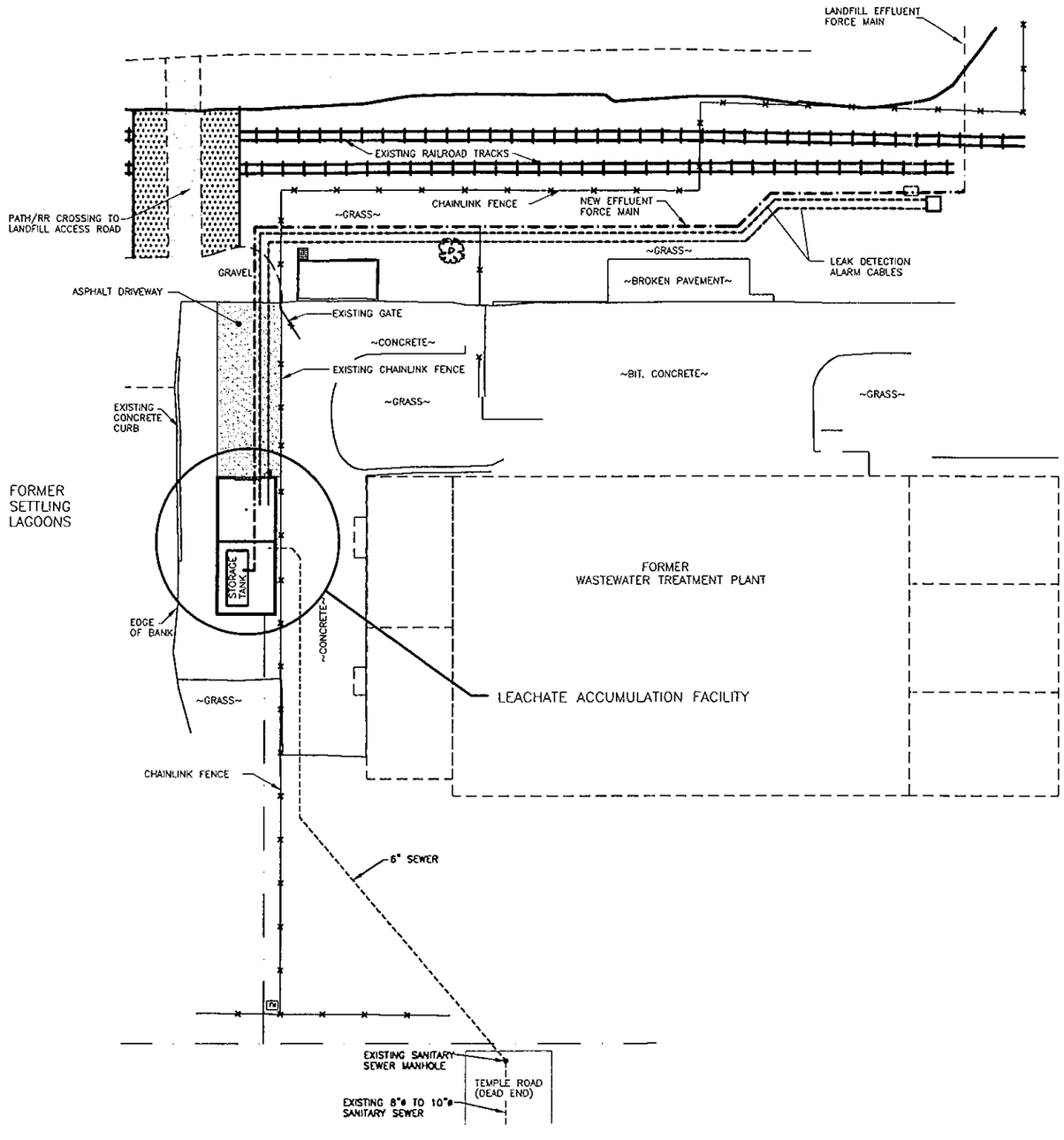
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FILE NO. 4144.007.REALM.041

O'BRIEN & GERE
ENGINEERS, INC.

PLOT SCALE: 200

I:\NDV\PROJECTS\4144007\DWG\REALM\044.DWG 660



SITE KEY

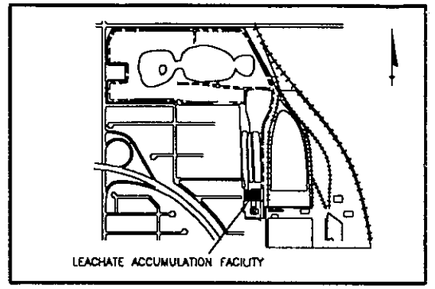


FIGURE 5

REALM COLDWATER ROAD FACILITY FLINT, MICHIGAN

LANDFILL LEACHATE ACCUMULATION SYSTEM

60 0 60

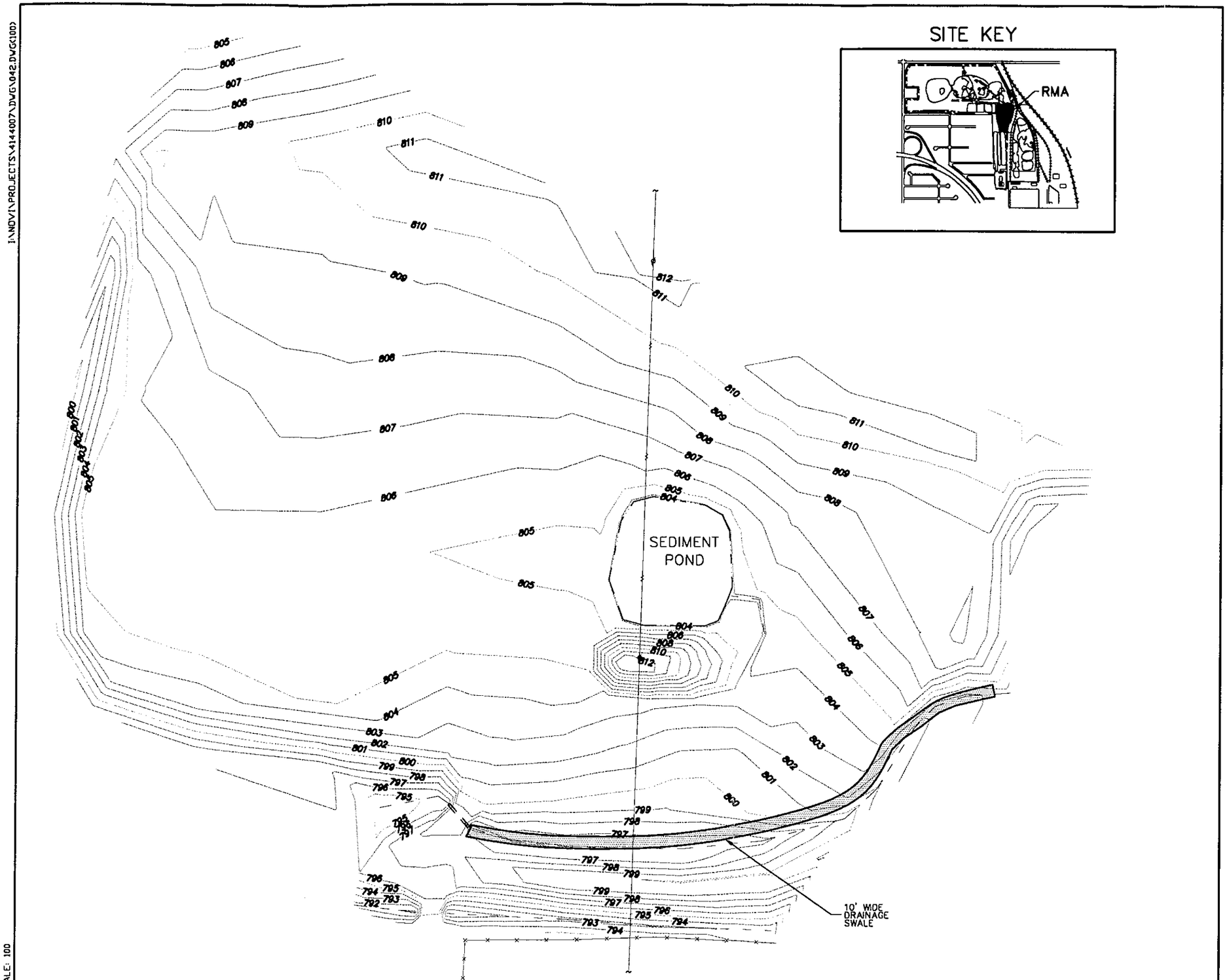
APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.REALM.044

O'BRIEN & GERE ENGINEERS, INC.

PLOT SCALE: 60

I:\NDV1\PROJECTS\4144007\DWG\042.DWG(100)



NOTE: TOPOGRAPHIC SURVEY PERFORMED BY BARTOW & KING ENGINEERS, INC. ON APRIL 5, 1997.

PLOT SCALE: 100

FIGURE 6

LEGEND

- ø TELEPHONE POLE
- OVERHEAD POWERLINE

REALM
COLDWATER ROAD
FACILITY
FLINT, MICHIGAN

FINAL SITE GRADE
RMA

80 0 80

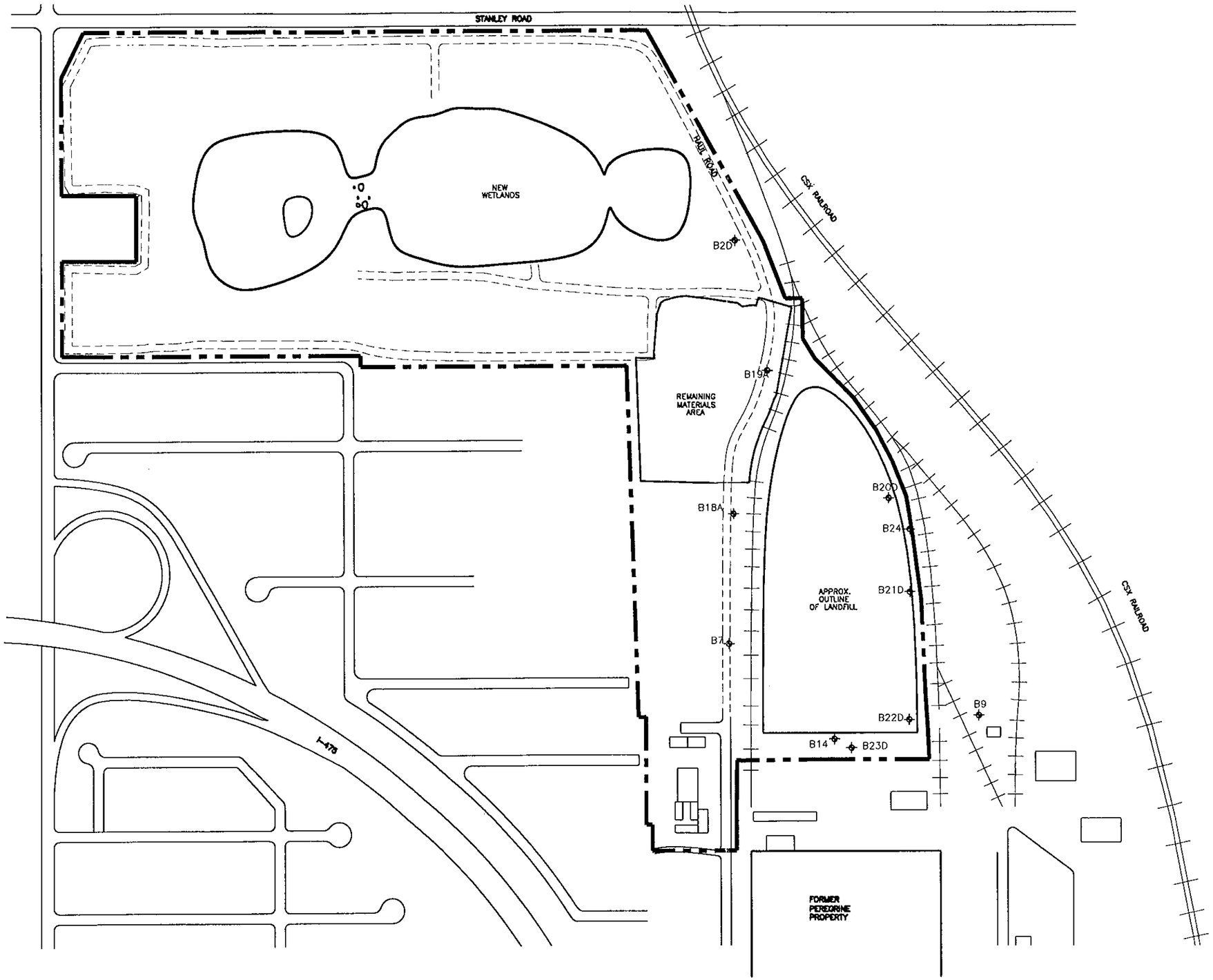
APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.REALM.043

O'BRIEN & GERE
ENGINEERS, INC.

I:\NOVI\PROJECTS\4144007\DWG\REALM\040.DWG

FIGURE 7



LEGEND

B14 MONITORING WELL LOCATION

PROPERTY LINE

REALM
COLDWATER ROAD
FACILITY
FLINT, MICHIGAN

MONITORING WELL
LOCATION PLAN

400 0 400

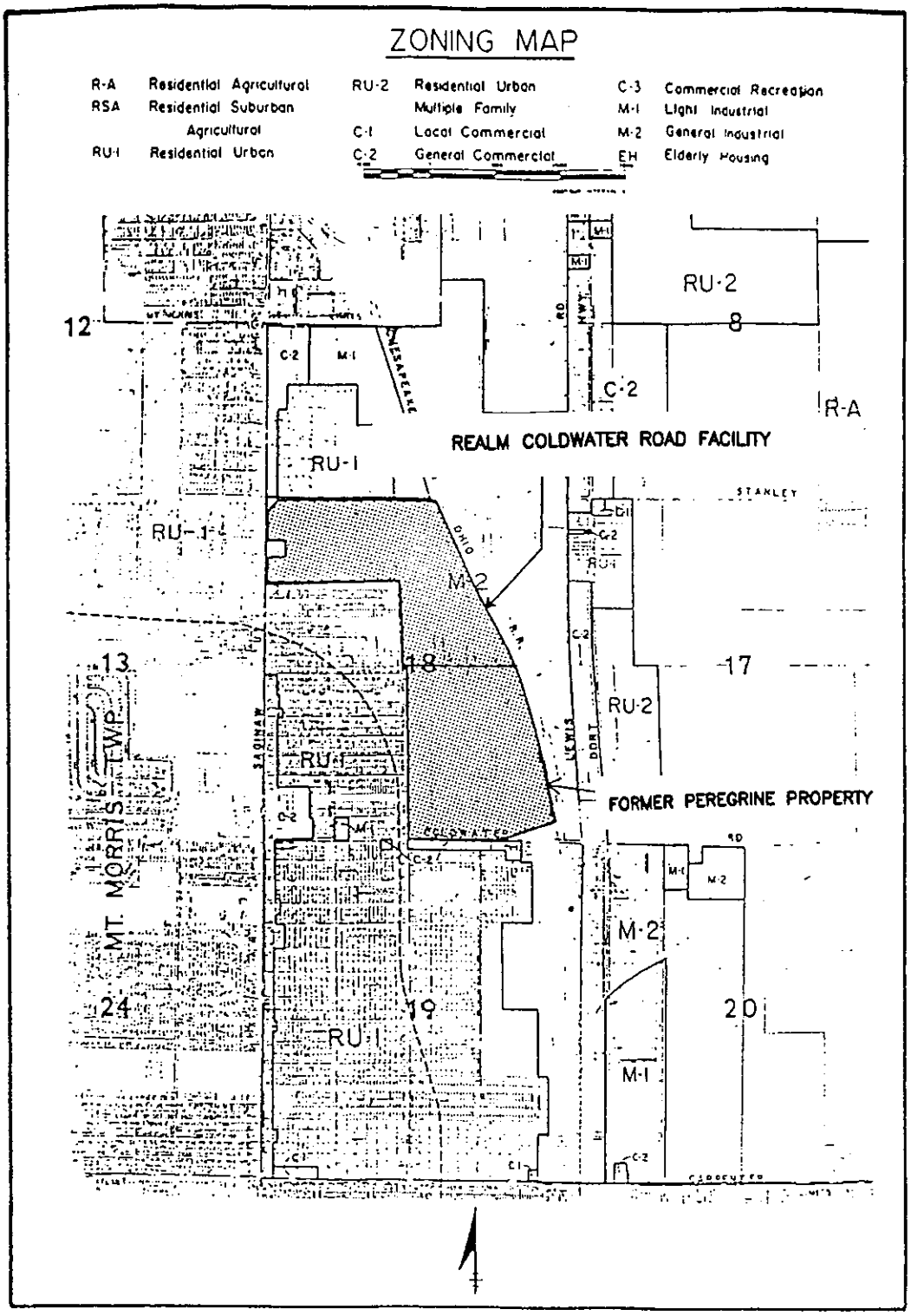
APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.REALM.040

O'BRIEN & GERE
ENGINEERS, INC.

PLOT SCALE: 400

FIGURE 8



REALM
COLDWATER ROAD FACILITY
FLINT, MICHIGAN
ZONING MAP

0 1000 2000 3000 4000

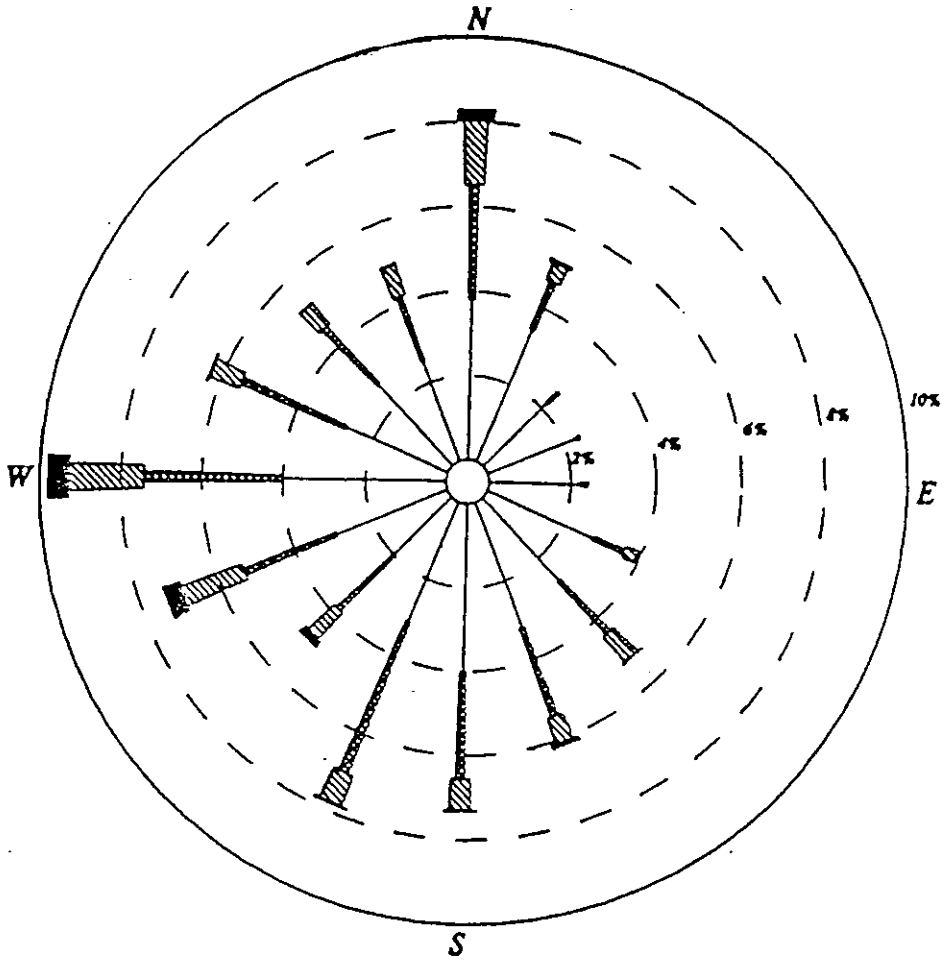
SCALE IN FEET

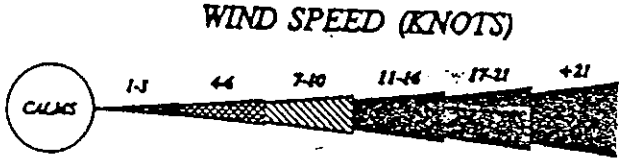
O'BRIEN & GERE
ENGINEERS, INC.

FILE NO. 4144.007-ZM.DWG

FLINT MONITOR

JANUARY 1–DECEMBER 31; MIDNIGHT –11PM





CALM WINDS 10.06%

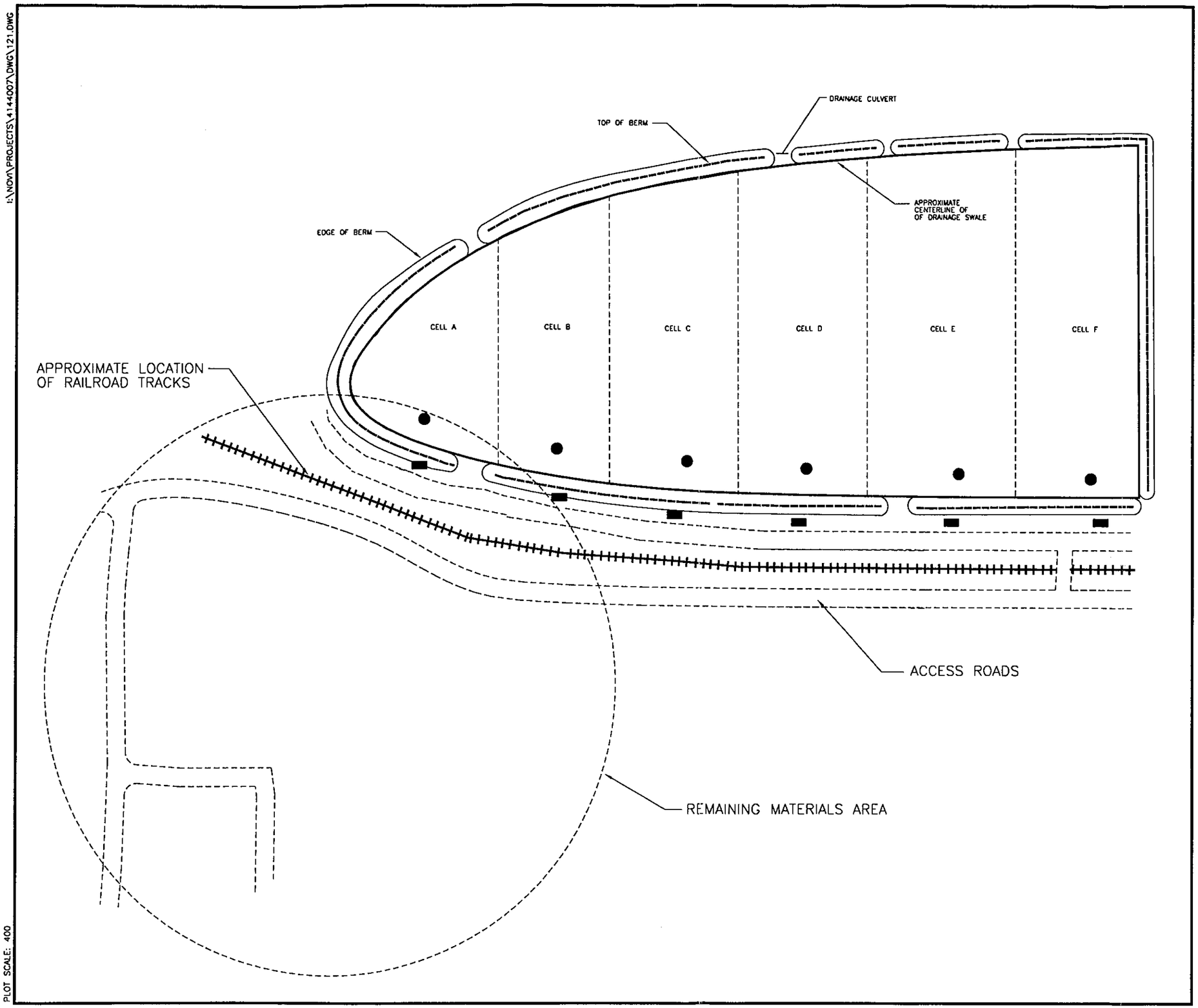
NOTE: FREQUENCIES INDICATE DIRECTIONS FROM WHICH THE WIND IS BLOWING.

REALM
COLDWATER ROAD FACILITY
FLINT, MICHIGAN
WIND ROSE DIAGRAM

O'BRIEN & GERE
ENGINEERS, INC.

FILE NO. 4144.007–WRD.DWG

I:\NOV\PROJECTS\4144007\DWG\121.DWG



PLOT SCALE: 400

FIGURE

LEGEND

- APPROXIMATE LOCATION OF EXISTING MANHOLE
- APPROXIMATE LOCATION OF ELECTRICAL BOXES

REALM
COLDWATER ROAD
FACILITY
FLINT, MICHIGAN

CAP INSPECTION FORM

400 0 400

APPROXIMATE SCALE IN FEET

FILE NO. 4144.007.035

OBRIEN&GERE
ENGINEERS, INC.

APPENDIX A

Inspection Log

REALM Coldwater Road Facility
Flint, Michigan
Quarterly Post Closure Inspection Log Sheet

Inspector's Name/Title _____

Inspector's Signature/Date _____

Cap and Berm
Inspect for deep root penetrations, burrowing animals, soil erosion and slope failures. Inspect for landfill cap and berms ponding and/or washouts.
Observations _____
_____

Mark location on attached drawing.
Corrective Action _____
_____

Spill Control
Inspect for presence of drums, sandbags, shovels at each leachate tank storage location.
Observations _____
_____

Corrective Action _____
_____

Vegetation
Inspect for proper vegetation height (max. 6") and solid growth.
Observation _____
_____

Corrective Action _____
_____

Access Roads
Inspect for sufficient gravel and proper drainage.
Observation _____
_____

Corrective Action _____
_____

Site Perimeter Fence
Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs.
Observation _____
_____

Corrective Action _____
_____

Leachate Collection System

Conduct the alarm test, cable test, and battery tests as outlined in Section 4 of the post Closure Care Plan. Note any observations. inspect the system panel boxes for visible signs of damage.

Observations _____

_____

Corrective Actions _____

_____

Secondary Containment

Check the sumps for the presence of liquids by extending pumps down the riser pipes. Note approximate volume of liquid removed. Also note any obstructions encountered in the riser pipes and check for presence of end caps on risers when pumping is complete.

Observations _____

_____

Corrective Actions _____

_____

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding water and slope failures.

Observations _____

_____

Corrective Actions _____

_____

APPENDIX B

Chain-of-Custody

O'BRIEN & GERE ENGINEERS, INC.

Job No. _____

Sheet ____ of ____

Office: _____

Address: _____

Phone: _____

CHAIN OF CUSTODY

CLIENT: LOCATION:			COLLECTED BY: (Signature)			
SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time
Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time
Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: _____ of: _____	Date	Time	Courier Name: _____ *Attach delivery/courier receipt to Chain of Custody	Date	Time
Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time

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APPENDIX C

Notice of Approved Remediation and Declaration of Restrictive Covenant forms

DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-ERD-*[YR]-[#]*

This Restrictive Covenant has been recorded with the Genesee County Register of Deeds for the purpose of protecting public health, safety and welfare and the environment.

Remediation and Liability Management, Inc. (REALM), a subsidiary of General Motors Corporation has received notice of approval from the Michigan Department of Environmental Quality (MDEQ) dated ***[date],*** for the closure under Corrective Action Consent Order WMD No. 64-05-92 (Consent Order) that includes land use-based cleanup criteria as defined and set forth in Section 201201a(1)(h) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.20101 et seq, for the environmental remediation associated with the property located in the City of Flint, County of Genesee, (Property) more particularly described as:

See Attachment A for legal description of Property

See Attachment B for a survey of the property subject to land-use restrictions

Property Tax ID Number of Property: _____

As used herein, the term "Owner" shall mean at any given time the then current title holder of the Property.

NOW REALM, pursuant to Section 20120b(4) of NREPA and the Limited Land Use-Based Remedy Agreement entered by and between REALM and the MDEQ (LANDUSE-ERD-97-#) hereby imposes restrictions on the Property and covenants and agrees that:

1. The Owner shall restrict the uses of the Facility (Attachment B) to those uses compatible with the Limited Industrial land use category as defined in Section 20120a(1) of Part 201 of NREPA, as amended in June 1995, or other use that is consistent with the assumptions and basis for the cleanup criteria established pursuant to Section 20120a(1)(h). The site specific Remedial Action Plan (RAP) is herein defined as the Closure Plan and Post Closure Plan, dated August 1989, as amended. Cleanup criteria for land use-based remedial action plans are located in the Government Documents section of the State of Michigan Library. See Attachment C for a description of the land and resource restrictions.

2. The Owner shall restrict activities at the Facility that may interfere with a remedial action, operation and maintenance, monitoring, or other measures necessary to assure the effectiveness and integrity of the remedial action.

3. The Owner shall restrict activities at the Facility that may result in exposures to soil and groundwater beneath the soil cover. These activities are specified in Attachment C.

4. The Owner shall provide notice to the MDEQ of the Owner's intent to convey any interest in the Facility 14 days prior to consummating the conveyance. A conveyance of title, an easement, or other interest in the Facility shall not be consummated by the Facility owner without adequate and complete provision for compliance with the terms and conditions of this Covenant.

5. The Owner shall grant to the MDEQ and its designated representatives the right to enter the Facility at reasonable times for the purpose of determining and monitoring compliance with the RAP, including the right to take samples, inspect the operation of the remedial action measures and inspect records.

The state may enforce the restrictions set forth in this Restrictive Covenant by legal action in a court of appropriate jurisdiction.

The restrictions shall run with the Property and shall be binding upon all future owners, successors, lessees or assigns and their authorized agents, employees, or persons acting under their direction and control, and shall continue until the MDEQ or its successor approves modifications or rescission of this Restrictive Covenant. A copy of this Restrictive Covenant shall be provided to all future owners, heirs, successors, lessees, assigns and transferees by the person transferring the interest.

If any provision of this Restrictive Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof. All such other provisions shall continue unimpaired in full force and effect.

The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

IN WITNESS WHEREOF, the said Owner of the above described Property has caused this Restrictive Covenant to be executed on this ___ day of _____, 19__.

_____
[Print or type property owner name) and address]

Signed in the presence of:

DRAFT

_____
Witness *[Print or type name]*

_____
Witness *[Print or type name]*

STATE OF MICHIGAN
COUNTY OF *[county where owner signs]*

The foregoing instrument was acknowledged before me this *[date]* by *[name of officer or agent, title of officer or agent]* of *[name of corporation/owner]*, a *[state or place of incorporation corporation]*, on behalf of the corporation.

_____
Notary Public
[Print or type name]
[Commissioned in] County, [State]

My Commission Expires: _____

Prepared by: *[Type name of preparer]*
[Title and address]

ATTACHMENT A

Legal Description of Property

ATTACHMENT B

Legal Description of Property Where Restrictions Apply

ATTACHMENT C

Land/Resource Restrictions

Land/Resource Restrictions

1. Land use for the portion of the property defined as a Facility pursuant to Part 201 (delineated in Attachment B) shall be restricted to Industrial uses, consistent with the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.20120a(1)(h) et seq.
2. Excavation or other soil disturbance activities which would significantly reduce the integrity of the soil cap are prohibited unless health and safety equipment and precautions are utilized and the cap is repaired in a manner consistent with the Michigan Department of Environmental Quality (MDEQ) approved design requirements or by an alternative method approved in writing by the MDEQ. Planned soil cap disturbance shall be performed only after written notification to the MDEQ.
3. Any contaminated soils generated by excavation shall be properly managed and disposed in a timely manner consistent with all state and federal laws and rules. Soils removed from areas below the soil cap must also be managed in accordance with the requirements of Section 20120c of NREPA and other applicable state and federal laws.
4. Groundwater in the water bearing zones beneath the Facility shall not be extracted and used for any purpose other than leak detection monitoring, unless alternate uses are approved in writing by the MDEQ.
5. Access to the entire site shall be limited by locked chain-link fence.

NOTICE OF APPROVED ENVIRONMENTAL REMEDIATION

MDEQ Reference No.: NAER-ERD-*[YR]-[#]*

This Notice of Approved Environmental Remediation (Notice) has been recorded with the Genesee County Register of Deeds for the purpose of protecting public health, safety and welfare and the environment by describing the land-use category that is consistent with the environmental conditions at the property.

Remediation and Liability Management, Inc. (REALM), a subsidiary of General Motors Corporation, has received notice of approval from the Michigan Department of Environmental Quality (MDEQ) dated ***[date],*** for the closure under Corrective Action Consent Order WMD No. 64-05-92, that includes land use-based cleanup criteria as defined and set forth in Section 20120a(1)(b) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.20101 et seq for the environmental remediation associated with the property located in the City of Flint, County of Genesee, (the "Property") more particularly described as:

See Attachment A for legal description of Property

Property Tax ID Number of Property:

As used herein, the term "owner" shall mean at any given time the then current title holder of the Property.

Use of the Property described above is restricted to the Industrial land-use category as defined in Section 20120a(1) of Part 201 of NREPA, as amended in June 1995, and MDEQ Environmental Response Division Operational Memorandum #14, Revision 2, dated June 6, 1995 or other use that is consistent with the assumptions and basis for the cleanup criteria established pursuant to Section 20120a(1)(b). Cleanup criteria and associated land-use descriptions are located in the Government Documents section of the State of Michigan Library.

See Attachment B for a description of the Industrial land-use category.

The restrictions shall run with the Property and shall be binding upon all future owners, successors, lessees or assigns and their authorized agents, employees, or persons acting under their direction and control, and shall continue until the MDEQ or its successor approves modifications or rescission of this Notice. A copy of this Notice shall be provided to all future owners, heirs, successors, lessees, assigns and transferees by the person transferring the interest.

The Owner also acknowledges that groundwater in the water bearing zones under the Property shall not be used for any purpose other than leak detection monitoring unless alternate uses are approved in writing by the MDEQ.

The undersigned person executing this Notice is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Notice.

IN WITNESS WHEREOF, the said Owner of the above-described Property has caused this Notice to be executed on this ___ day of _____, 19__.

_____

[Print or type property owner name and address]

Signed in the presence of:

DRAFT

_____ _____

Witness ***[Print or type name]*** Witness ***[Print or type name]***

STATE OF MICHIGAN
COUNTY OF WAYNE

The foregoing instrument was acknowledged before me this ***[date]*** by ***[name of officer or agent, title of officer or agent]*** of ***[name of corporation/owner]***, a ***[state or place of incorporation corporation]***, on behalf of the corporation.

_____

Notary Public
[Print or type name]

Commissioned in Wayne County, Michigan

My Commission Expires: _____

Prepared by: ***[Type name of preparer]***
[Title and address]

ATTACHMENT A

Legal Description of Property

ATTACHMENT B

Description of Allowable Industrial Land Use Categories

APPENDIX D

Performance Guarantee Bond



General Motors Corporation
Global Headquarters

March 30, 2000

Letter from Chief Financial Officer

Director
Department of Environmental Quality
c/o Waste Management Division
Hazardous Waste Program Section
P.O. Box 30241
Lansing, Michigan 48909

Dear Mr. Harding:

I am the Chief Financial Officer of General Motors Corporation, GM Global Headquarters, 100 Renaissance Center, P. O. Box 431301, Detroit, Michigan 48243-7301. This letter is in support of the firm's use of the financial test to demonstrate financial capability as specified in R 299.9701 through R 299.9713 of the Michigan Administrative Code.

1. This firm owns or operates the following facilities for which financial responsibility for liability coverage is being demonstrated through the financial test specified in R 299.9710: See Attachment MI.

2. This firm guarantees, through the corporate guarantee specified in R 299.9710, liability coverage for the following facilities owned or operated by its subsidiaries: None.

3. This firm owns or operates the following facilities for which financial assurance for closure or post-closure is demonstrated through the financial test specified in R 299.9709. The current closure and/or post-closure cost estimates covered by the test are itemized separately for each facility: See Attachment MI.

4. This firm guarantees, through the corporate guarantee specified in R 299.9709, closure and post-closure of the following facilities owned or operated by its subsidiaries. The current cost estimates for closure and post-closure so guaranteed are itemized separately for each facility: None.

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5. In other states where EPA is not administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, demonstrates financial assurance for the closure or post-closure of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Part 264. The current closure and/or post-closure estimates covered by such a test are itemized separately for each facility: See Attachment A.

6. In other states where EPA is not administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, demonstrates financial responsibility for liability coverage for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Part 264. The liability coverages covered by such a test are itemized separately for each facility: See Attachment A.

7. In states where EPA is administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, demonstrates financial assurance for the closure or post-closure of the following facilities through the use of the financial test specified in Subpart H of 40 CFR Part 264. The closure and/or post-closure cost estimates covered by this test are itemized separately for each facility: None.

8. In states where EPA is administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, is demonstrating financial responsibility for liability coverage for the following facilities through the use of the financial test specified in Subpart H of 40 CFR Part 264. The liability coverages covered by this test are shown for each facility: None.

9. This firm owns or operates the following hazardous waste management facilities for which financial capability is not demonstrated either to EPA or a state through the financial test or any other financial mechanism specified in Subpart H of 40 CFR Part 264 or equivalent or substantially equivalent state mechanisms. Both the liability coverages and current closure and/or post-closure cost estimate amounts not covered by such financial assurances are itemized separately for each facility: None.

Page 3 Oct-3-00 1:20PM; 8:02387391; Sent by: ARG MID KICHIGAN;

10. This firm owns or operates the following UIC facilities for which financial assurance for plugging and abandonment as required under 40 CFR Part 144 is demonstrated through the use of a financial test. The current plugging and abandonment cost estimates as required by 40 CFR 144.62 are itemized separately for each facility: None.

11. This firm, as owner or operator or guarantor of the following facilities, is demonstrating financial assurance for corrective action and remediation costs as required under R 299.5719, R 299.9713, and 40 CFR 264.101 or equivalent or substantially equivalent state regulations, through the use of a financial test. The current cost estimates for corrective action and remediation are itemized separately for each facility: None.

This firm is required to file a Form 10-K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk (*) are derived from this firm's independently audited, year-end financial statements for the latest fiscal year, ended December 31, 1999.

Alternative II

			($ Millions)
1.	Sum of current closure and post-closure cost estimates for Michigan facilities (total of all cost estimates listed in above paragraphs 3 and 4)	$	14.4
2.	Sum of current closure and post-closure cost estimates for non-Michigan facilities (total of all cost estimates listed in above paragraphs 5, 7, and 9)	$	64.0
3.	Sum of current plugging and abandonment cost estimates for all UIC facilities for which financial assurance is required under 40 CFR Part 144 (total of paragraph 10)	$	0.0
4.	Sum of current corrective action and remediation cost estimates (total of paragraph 11)	$	0.0

Page 4 8102387391 OCT-3-00 1:21PM; Sec. 1/: MFG MID MICHIGAN;

5.	Amount of annual aggregate liability coverage (maximum aggregate for facilities listed in above paragraphs 1, 2, 6, 8, and 9)	$	11.0
6.	Sum of lines 1, 2, 3, 4, and 5	$	89.4
7.	Current bond rating of most recent issuance and name of rating service ..... Standard & Poor's		A
8.	Date of issuance of bond		April 29, 1998
9.	Date of maturity of bond		May 1, 2028
*10.	Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line)	$	9,217.0
*11.	Total assets in the U.S.	$	20,634.0[1]
12.	Total assets in Michigan excluding the value of land used for hazardous waste disposal	$	9,568.1
13.	Total assets in Michigan including the value of land used for hazardous waste disposal	$	9,569.1

		Yes	No
14.	Is line 10 at least $10 million?	X	
15.	Is line 10 at least 6 times line 6?	X	
*16.	Are at least 90% of firm's assets located in the U.S.? If not, complete line 17		X
17.	Is line 11 at least 6 times line 6?	X	
18.	Is line 12 at least $50 million?	X	
19.	Is line 13 at least 6 times line 1?	X	

[1] Represents net plant, property & equipment in the United States from GM's audited financial statements.

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I hereby certify that the wording of this letter is identical to the wording in the letter specified by the Director for the financial test as such letter was specified on the date shown immediately below.

J. M. Losh
Executive Vice President
and Chief Financial Officer
March 30, 2000

Attachments
c: P. R. Bible
J. N. Braun
J. M. Cox
W. W. Creek
F. A. Fromm, Jr.
W. R. Kager
T. O. Kay
W. J. McFarland
D. R. Minano
K. W. Mohrmann
J. A. Niszczak
J. A. Rousseau

mi.doc

ATTACHMENT MI *

* Liability coverage for each of the following facilities is 2.0 million (for sudden accidental occurrences) unless otherwise indicated.

Sent by: MFG MID MICHIGAN; 8:C2387391; Oct-3-00 1:22PM; Page 7/10

U.S. EPA REGION V

MICHIGAN

EPA ID: MID005356712
Facility Name: CADILLAC / LUXURY CAR ENGINEERING AND MANUFACTURING
DIVISION: FLINT OPERATIONS
Mailing Address: 902 E. HAMILTON
FLINT, MI 48550
Facility Location: 902 EAST HAMILTON, County: GENESEE
Current closure cost estimate: $1,388,544
Sudden Annual Aggregate Liability Coverage: $2,000,000
Nonsudden Annual Aggregate Liability Coverage $6,000,000

EPA ID: MID000718544
Facility Name: CADILLAC / LUXURY CAR ENGINEERING AND MANUFACTURING
DIVISION: LAKE ORION
Mailing Address: P.O. BOX 1001
LAKE ORION, MI 48361
Facility Location: 4555 GIDDINGS ROAD, County: OAKLAND
Current closure cost estimate: $257,746
Current post-closure cost estimate: $73,258

EPA ID: MID005356886
Facility Name: CADILLAC / LUXURY CAR ENGINEERING AND MANUFACTURING
DIVISION: PONTIAC
Mailing Address: ONE PONTIAC PLAZA
PONTIAC, MI 48053
Facility Location: ONE PONTIAC PLAZA, County: OAKLAND
Current closure cost estimate: $103,226

EPA ID: MID005356910
Facility Name: CADILLAC / LUXURY CAR ENGINEERING AND MANUFACTURING
DIVISION: PONTIAC FIERO ASSEMBLY
Mailing Address: 900 BALDWIN AVE.
PONTIAC, MI 48058
Facility Location: 900 BALDWIN AVENUE, County: OAKLAND
Current closure cost estimate: $129,668

EPA ID: MID005356621
Facility Name: WORLDWIDE FACILITIES GROUP - LIVONIA
FORMER DELPHI CHASSIS SYSTEMS: LIVONIA
Mailing Address: 13000 ECKLES RD.
LIVONIA, MI 48151
Facility Location: 13000 ECKLES ROAD, County: WAYNE
Current closure cost estimate: $352,283

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U.S. EPA REGION V

MICHIGAN

EPA ID: MID005356860
Facility Name: WORLDWIDE FACILITIES GROUP – COLDWATER RD.
Mailing Address: c/o Robert Metcalf, GM WFG Remediation,
902 E. Hamilton Ave.
M/C 485-185-020 1245 E. COLDWATER RD
FLINT, MI 48550-8502
Facility Location: 6220 HORTON ST., County: GENESEE
Current closure cost estimate: $9,779,085
Current post-closure cost estimate: $1,679,691
Sudden Annual Aggregate Liability Coverage: $2,000,000
Nonsudden Annual Aggregate Liability Coverage: $6,000,000

EPA ID: MID050615996
Facility Name: GMC GM TECHNICAL CENTER: WARREN
Mailing Address: 6250 CHICAGO RD.
WARREN, MI 48090-9005
Facility Location: 29999 VAN DYKE, County: MACOMB
Current closure cost estimate: $511,851

EPA ID: MID041793340
Facility Name: GM POWERTRAIN GROUP: SAGINAW GREY IRON & NODULAR
Mailing Address: 1629 NORTH WASHINGTON AVENUE
SAGINAW, MI 48605-5073
Facility Location: 2100 VETERANS MEMORIAL PARKWAY, County: SAGINAW
Current closure cost estimate: $49,839
Current post-closure cost estimate: $61,032
Sudden Annual Aggregate Liability Coverage: $2,000,000
Nonsudden Annual Aggregate Liability Coverage: $6,000,000

Page 9/10 OCT-3-00 1:22PM; 8102387391; Sent by: MID MICHIGAN;

Deloitte & Touche

Deloitte & Touche LLP
Suite 800
600 Renaissance Center
Detroit, Michigan 48243-1704

Telephone: (313) 396-3000

INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

General Motors Corporation:

We have performed the procedures included in the Code of Federal Regulations (CFR) Title 40, Part 264, Section 143 (40 CFR 264.143), which were agreed to by the Environmental Protection Agency, the Michigan Department of Environmental Quality and General Motors Corporation, solely to assist the specified parties in evaluating management's assertion about General Motors Corporation's compliance with the financial test option as of December 31, 1999, included in the accompanying letter dated March 30, 2000 from Mr. J. M. Losh, Executive Vice President and Chief Financial Officer of General Motors Corporation. This agreed-upon procedures engagement was performed in accordance with standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of the specified parties. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures that we performed and related findings are as follows:

1. We compared the amount included in item 11 under the caption Alternative II in the letter referred to above with the corresponding amount in the audited consolidated financial statements of General Motors Corporation as of and for the year ended December 31, 1999, on which we have issued our report dated January 20, 2000 (March 7, 2000 as to Note 27), and noted that such amounts were in agreement.

2. We recomputed from, or reconciled to, the audited consolidated financial statements referred to in procedure 1, the information included in items 10 and 16 under the caption Alternative II in the letter referred to above and noted no differences.

We were not engaged to, and did not, perform an examination, the objective of which would be the expression of an opinion on the accompanying letter dated March 30, 2000. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Board of Directors and management of General Motors Corporation and the specified parties listed in the first paragraph, and is not intended to be and should not be used by anyone other than these specified parties.

Deloitte & Touche LLP

March 30, 2000

Deloitte Touche Tohmatsu