ARCADIS
Infrastructure, environment, buildings

April 29, 2010 BN015317.0011

Robert W. Hare, P.E., CHMM
Director, Environmental
Motors Liquidation Company
500 Renaissance Drive, Suite 1400
Detroit, Michigan 48243

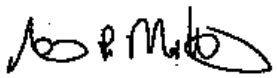
Subject: Phase I Environmental Site Assessment
MLC ID 1295
GMNA Buick City
902 East Hamilton Avenue
Flint, Michigan 48550

Dear Mr. Hare:

Attached is the Phase I Environmental Site Assessment (ESA) report for the above-referenced property. The conclusions presented in this report are based on the results of a reconnaissance-level site visit conducted by ARCADIS U.S., Inc. (ARCADIS) personnel and a review of available and pertinent background information.

ARCADIS appreciates this opportunity to provide our environmental consulting services to you. Should you have any questions concerning this project, please contact me at 781.356.7300 x 248.

Sincerely,



Stephen P. McCarthy
Senior Environmental Scientist

Attachments

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Infrastructure, environment, buildings

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MLC ID 1295
GMNA Buick City
902 East Hamilton Avenue
Flint, Michigan 48550

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ARCADIS Project No. BN015317.0011

Prepared for
Motors Liquidation Company
500 Renaissance Drive, Suite 1400
Detroit, Michigan 48243

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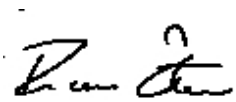
The environmental assessment described herein was conducted by the undersigned, of ARCADIS U.S., Inc. ARCADIS' investigation consisted solely of the activities described in the Introduction of this report, in accordance with Proposal No. P10-05008-09-718, and is subject to the Terms and Conditions of the Standard Consulting Services Agreement signed prior to initiation of the assessment.

Report Prepared By:



Sean D. Drain
Environmental Scientist 1

Report Reviewed By:



Richard Stromberg
Principle Geologist

EXECUTIVE SUMMARY

ARCADIS U. S. Inc., (ARCADIS) performed a Phase I Environmental Site Assessment (ESA) of the property located at 902 East Hamilton Avenue, Flint, Genesee County, Michigan (the Site), also known as 902 East Leith Street. The Site consists of approximately 452 acres of land that is improved with approximately 15 buildings and factories covering 4.45 million-square-foot. According to historical resources reviewed, GMNA Buick City began operations as an automobile parts producer in 1903, under the Buick Motor Company.

Effective July 10, 2009, General Motors Corporation (GMC) was renamed Motors Liquidation Company (MLC). On the same day some of the operating assets of GMC were sold to a newly formed company, "General Motors Company". General Motors Company changed its name to General Motors LLC (GM LLC) on October 16, 2009. Assets not sold to GM LLC remain the property of the MLC, in its capacity as a debtor-in-possession in the bankruptcy case. Currently, GM LLC manufactures automotive components at the Site under a lease with MLC, who owns the property. .

The area north of Leith Street (Northend) is comprised of 194 acres of partially active and partially inactive areas. Site activities included machining of ferrous and nonferrous metals, maintenance painting, torque converter manufacturing and assembly, and transmission manufacturing and assembly.

The portion of the Site that remains in operation today is referred to as the Powertrain Flint North Facility.

The area south of Leith Street (Southend) is comprised of 258 acres. Production at the Southend ceased in 1999. Manufacturing processes that occurred on the Southend included machining of ferrous and nonferrous metals, plating, painting, plastic injection molding, V-6 engine and vehicle engineering and testing, and vehicle assembly.

Portions of the Site were originally developed in the late 1800s to produce the "horseless carriage." In 1898, Billy Durant and J. Dallas Dort purchased the Imperial Wheel Company, making it a subsidiary of the Durant/Dort Carriage Company. After Durant/Dort Carriage Company purchased the Imperial Wheel Company, manufacturing operations were relocated to the intersection of Hamilton Avenue and St. John Street (currently James P. Cole Boulevard). The Buick Motor Company was first established in Flint when Flint Wagon Works purchased the company from David Buick in September 1903. In 1903, the Buick Motor Company was relocated from Detroit to the Site, on Hamilton Avenue between Industrial Avenue and St. John Street (now James P. Cole Boulevard).

In addition to the manufacturing of automobiles, in response to World War I, the Buick Motor Company began producing the Liberty Aircraft engine in 1918. Similarly, in response to World War II, the production of automobiles was stopped in 1942, and the Buick complex was converted for the production of military equipment. The portion of the Site that remains in operation today is referred to as the Powertrain Flint North Facility. Current Site operations include machining of ferrous and nonferrous metals, torque converter manufacturing, transmission components manufacturing and assembly, and industrial wastewater treatment.

The purpose of the Phase I ESA is to identify, to the extent feasible pursuant to the processes prescribed in the American Society for Testing and Materials (ASTM) document E 1527-05, recognized environmental conditions (RECs) in connection with the Site. A summary of our key findings is provided below:

Various Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) efforts have been undertaken at the Site since 2000. Most recently the July 2006 RFI , the December 2006Corrective Measures Proposal (CMP) in, a May 2008 Revised CMP and an October 15, 2009 Addendum No. 1 to the Revised CMP were submitted to USEPA to address numerous areas of concern on the Site. The following areas of concern have been identified with general response actions:

Fifteen areas at the Site were found to contain subsurface conditions of free-phase petroleum products (e.g., gasoline, cutting/honing oil, etc.). There are also areas of light non-aqueous phase liquid (LNAPL) infiltration into the storm sewer along a complex sewer system. These LNAPL areas are planned to be addressed using various methods such as multi-phase extraction (MPE), vacuum enhanced extraction, or passive recovery. Additionally, oil-water separators (OWSs) are planned to be installed for dry-weather /first flush flow in two main storm sewer lines..

Sixty-three discrete areas of dissolved-constituent impact to groundwater were found (primarily chlorinated solvents, gasoline, and/or metals). These conditions will be addressed with restrictive covenants to be established, limiting on-site land uses to industrial/commercial uses, prohibiting any on-site groundwater use, and prohibiting groundwater use for some off-site locations. The dissolved-constituent plumes primarily associated with LNAPL gasoline source areas will also be addressed as part of the MPE planned for that area.

Nine areas of “dry-soil” impacts were found (primarily petroleum products, lead, or manganese). These areas will also be addressed with restrictive covenants to be established, calling for additional conditions to be met for conducting excavations, and the maintenance of surface covering.

One “Hot-spot” area of lead-impacted soil was identified at AOI 09-A located South of Hamilton Avenue.

Conclusion

ARCADIS performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 of the property located at 902 East Hamilton Avenue, Flint, Genesee County, Michigan. Any exceptions to, or deletions from, this practice are described in Section 9 of this report.

The Revised CMP proposed corrective measures at the Site for each of the areas of interest (AOIs) identified during the RFI activities as either: 1) LNAPL in which TSCA-regulated levels of PCBs were detected; or 2) estimated risks higher than USEPA's acceptable risk limits via exposure to hazardous constituents in soil, groundwater, or LNAPL. Each of these AOIs has been identified as a REC. In addition, as part of negotiations with the USEPA, remedial actions (LNAPL removal) will be implemented at several additional AOIs. These AOIs have also been identified as RECs. There are also 10 hazardous waste management units located at the site, which have been identified as RECs.

This assessment has revealed evidence of individual recognized environmental condition (RECs) in connection with the Site which include the following:

- **AOI 3-1 -** consists of the overall area of the Factory 03 building complex, including various quenching and cooling oil systems used for various metal forging, quenching, and cooling operations. A quench oil plume has been identified in this area. Historically, a roof drain/storm sewer sump located in the southern portion of Building 30A accumulated free product, determined to be S-7 quench oil. As a result, the sump was converted to a collection sump with belt skimmer to recover this oil. This recovery system was successful in recovering free-phase LNAPL proximate to the recovery sump; hence operation of this system has been discontinued. Residual LNAPL, believe to be related to this release, is present immediately downgradient at monitoring well 03-03 and in known as the AOI 3-1 quench oil plume. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. Monitoring well 03-03 was monitored and manually bailed as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 03-1 indicate that screening criteria were exceeded for benzo(a)pyrene and manganese. The RFI groundwater data from AOI 03-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 3-1 documented in the RFI Phase II Report, estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 3-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 05-1**- consists of the basement area along the southeast portion of Building 43, and is associated with a former metal machining chip processing operation. The RFI soil data from AOI 05-1 indicate that screening criteria were exceeded for lead and manganese, and the RFI groundwater data indicate that no screening criteria were exceeded. LNAPL has been detected during RFI activities in this area and the physical extent of LNAPL has been defined. Investigations performed in 1994 in response to suspected oil releases in Building 43 (Factory 05 Area) detected LNAPL on the water table along the southeast side of Building 43. To address the LNAPL, three recovery trenches were installed in the Building 43 area in early 1995. These recovery trenches are each approximately 14 feet deep, 3 feet wide, 100 feet long, and backfilled with gravel. LNAPL is recovered from these trenches via 30-inch-diameter recovery wells installed near the midpoint of each recovery trench. Automated belt skimming devices in the recovery wells collect LNAPL from the recovery trenches (with approximately 60% groundwater and 40% LNAPL) and transfer it to a temporary storage tote. Recovered water s periodically allowed to flow back into the recovery well and the recovered LNAPL is later drummed for disposal. The current belt skimming system is inefficient in removing LNAPL from the recovery wells. Based on the human health risk assessment for AOI 05-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to soil or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in samples of LNAPL collected from the recovery trench system mentioned above at concentrations up to 111 ppm. The presence of PCBs at this concentration requires application of toxic substances control act (TSCA) regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-1 is to remove LNAPL to the extent practicable.
- **AOI 05-5** - is in the northern and east-central portion of Building 43, and consists of active process machinery, collection trenches, and sumps for both "wet" and "dry" operations. The RFI soil data from AOI 05-5 indicate that no screening criteria were exceeded, and the RFI groundwater data indicate that screening criteria were exceeded for arsenic and nickel. A release of an estimated 4,000 gallons of cutting oil was identified in April 1997. Three 4-inch-diameter groundwater monitoring wells were installed to the east of the tank from which the release was thought to have occurred. Product was identified in two monitoring wells. Two pneumatic free-product recovery pumps were installed as IMs in the wells. The recovered total fluids were later piped to two product storage tanks located within Building 43. The LNAPL later caused malfunction of the recovery pumps. As such, the system is currently not operating. Based on the human health risk assessment for AOI 05-5 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from well RFI-05-11 at a concentration of 160 ppm and from well RW-05-East at a concentration of 130 ppm.

The presence of PCBs at this AOI at these concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-5 is to remove LNAPL to the extent practicable.

- **AOI 10-1/10-4** – AOI 10-1 consists of the overall area of Building 20, including its basement area, manufacturing operations, external areas, and several tanks. AOI 10-4 consists of the scrapyard area immediately south of Building 20 and was used for scrap material storage, vehicle dismantling, and vehicle equipment storage. In 1991, free product was detected on the water table beneath and south of Building 20 within the Factory 10 Area. Fractions of this product included both water-soluble and insoluble phases of oil containing PCBs. In May 1997, GMC installed a groundwater collection and treatment system designed to collect and treat soluble product and affected groundwater from this area. Treated groundwater is discharged to the Site storm sewer system under a National Pollutant Discharge Elimination System (NPDES) permit. Subsurface investigations performed in and around the scrapyard area south of Factory 10 identified the presence of free product containing PCBs on the surface of groundwater outside the southeastern corner of Factory 10 and in the adjacent scrapyard area to the south, outside the influence of the LNAPL collection system installed in 1997. As a result, a second product recovery system consisting of a recovery trench, four manholes, and pumps for both product recovery and groundwater drawdown has been constructed further downgradient to recover the PCB-containing LNAPL and create hydraulic control at the downgradient plume edge. The collection trench, sumps, manholes, and product piping of the second IM were installed in January and February 2003. The recovery trench associated with this system is composed of two segments: one segment is approximately 30 feet long and the other is approximately 210 feet long. Both trench segments are approximately 20 feet deep and 1.5 feet wide, and contain a perforated pipe lateral and pea stone backfill. Product and groundwater are pumped from four 4-foot diameter recovery manholes equally spaced along the trench. Collected groundwater and product are treated in the groundwater treatment system in Building 20, because of its PCB handling capability. The RFI soil data from AOI 10-1 indicated screening criteria were exceeded for arsenic, chromium, lead, and manganese, while the RFI soil data from AOI 10-4 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 10-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, while the RFI groundwater data from AOI 10-4 indicate that screening criteria were exceeded for benzene and vinyl chloride. Based on the human health risk assessment for AOIs 10-1/10-4 documented in the RFI Phase II Report these areas do not require further action; however, the remedial goal established for the AOIs 10-1/10-4 is to remove LNAPL to the extent practicable.

- **AOI 36-1 Gasoline Plume –** AOI 36-1 is located in the northern and central portions of Building 36, and is associated with engine manufacturing and metal machining processes. A gasoline LNAPL plume has been identified to be present in this area, presumably due to historical releases associated with engine testing. This plume is located at the interior of Building 36, and is approximately 75 feet in diameter. The RFI soil data from AOI 36-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 36-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure for construction workers who could contact the gasoline LNAPL plume exceed USEPA's cumulative cancer risk and HI limits. In addition, potential exposure of routine workers to vapors from soil and LNAPL via vapor intrusion exceeds USEPA's cumulative cancer risk and HI limits under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). These risk estimates are primarily attributed to the concentrations of the constituents present in the gasoline plume. Conditions within the current building do meet current OSHA standards related to vapor concentrations in indoor air as discussed in the RFI Phase II Report. Therefore, the remedial goal for LNAPL at this AOI is to address the potential exposure to construction and routine workers to VOCs from the gasoline plume and soil.
- **AOI 36-1 Mineral Seal/Hydraulic Oil LNAPL Plume –**A mineral seal/hydraulic oil LNAPL plume has also been identified at AOI 36-1. There are approximately 150 to 200 underground sumps, tanks, and floor trenches in the area. This plume is located at the interior of Building 36, and is approximately 500 feet in diameter. As discussed above, based on the human health risk assessment for AOI 36-1, the risk estimates are primarily attributed to the concentrations of the constituents present in the AOI 36-1 gasoline plume. The remedial goal for AOI 36-1 mineral seal/hydraulic oil LNAPL plume at this AOI is to remove LNAPL to the extent practicable.

- **AOI 36-2** - consists of the basement area located along the eastern side of the central portion of Building 36 and is associated with metal chip processing. A mineral seal/hydraulic oil plume has been identified to be present in this area. The plume is located directly downgradient of the basement and is 375 feet long by 175 feet wide. The RFI soil data from AOI 36-2 indicated that total chromium in soils exceeded screening criteria for hexavalent chromium. However additional analysis indicated that hexavalent chromium concentrations in soils at this AOI were less than the screening criterion. The RFI groundwater data from AOI 36-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. A groundwater and LNAPL recovery system has been constructed along the east side of Building 36 as an interim measure (IM) and was placed into operation in 2005.

The purpose of this IM is to control potential offsite migration of LNAPL and Site-related constituents and to collect free-phase LNAPL. This system consists of three 12-inch diameter wells (installed in 24-inch diameter boreholes) and pumps for both product recovery and groundwater drawdown. The recovery wells are approximately 20 feet deep. Product and groundwater are recovered from the wells via product recovery pump(s) and groundwater submersible pump(s), respectively. Collected fluids are transferred to a new treatment system that is housed in an enclosure located in the area of the wells and ultimately discharged to the Site storm sewer system (Outfall 002) under an NPDES permit. Based on the human health risk assessment for AOI 36-2 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-2 mineral seal/hydraulic oil LNAPL plume is to remove LNAPL to the extent practicable.

- **AOI 36-5** – is located immediately south of Building 36 and is associated with a former UST farm (also known as former Tank Farm 37) and an active contained AST farm. Both the ASTs and USTs contained gasoline, motor oil, hydraulic oil, and other oil products. A fuel oil plume has been identified to be present in this area, presumably from a UST leak. The plume is located beneath and to the northwest of the current AST farm and is approximately 75 feet in diameter. The RFI soil data from AOI 36-5 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 36-5 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Groundwater and free-product recovery trenches were installed along the east and south sides of the excavation area as part of initial abatement measures in February 1990. These trenches are 3 feet wide and filled with gravel from approximately 2 feet bgs to approximately 14 feet bgs and are sloped toward a 26-inch-diameter recovery well/sump located along the south side of the excavation area. This recovery well/sump is installed to a depth of 17 feet bgs with screen placement at 6 to 13 feet bgs. In addition, a second sump was installed south of the newly constructed tank farm and is approximately a 26-inch-diameter and is constructed to 14 feet bgs. Collected fluids are routed to the Site's industrial wastewater treatment facility. Both recovery sumps are being operated based on water levels in the sump, which is at about the same elevation as the LNAPL. Five wells 20-100, 20-501, 20-506, RFI-36-13, and RFI-36-14 are being monitored as part of the annual Sitewide Groundwater Monitoring Program. Based on the human health risk assessment for AOI 36-5 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-5 is to remove LNAPL to the extent practicable.

- **AOI 81-1** consists of the basement area beneath the southern and central portions of Building 71B, and is associated with three metal machining chip/cooling and cutting oil filtration/processing operations, as well as an inactive hydraulic elevator, several process waste sumps and tanks, a drum storage area, and a 90-day hazardous waste accumulation area (inactive). The RFI soil data from AOI 81-1 indicate that screening criteria were exceeded for lead. Based on the human health risk assessment for AOI 81-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in deep (depth-averaged) soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead in soil greater than 900 mg/kg.
- **AOI 81-2 SOIL** - consists of active metal welding and machining, and torque converter assembly operations performed in Buildings 70, 70B, 71, 71A, 72, 73, 73A, 73B, and 74. The RFI soil data from AOI 81-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for lead and manganese. It should be noted that the compounds exceeding screening criteria at soil boring RFI-81-38 were found to be associated with fill material used to fill a former process pit structure. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure of routine workers to soil via direct contact in this area exceeds the USEPA HI limit. In addition, estimates of potential exposure of routine workers to vapors from soil via vapor intrusion exceeds USEPA's HI limit under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). Conditions within the current building do meet current OSHA standards related to vapor intrusion as discussed in the RFI Phase II Report. The remedial goal for soil at this AOI is to address potentially significant exposures to concentrations of certain VOCs in soil in a near-surface soil sample at the RFI-81-38.
- **AOI 81-2 LNAPL –** The portion of AOI 81-2 associated with LNAPL impacts was used for storage of foundry sand and steel from the manufacturing process. Subsequent subsurface investigations in this area indicated the presence of LNAPL containing PCBs. An LNAPL recovery trench was installed as an IM in the area in 1996. This recovery trench is approximately 9 feet deep, 3 feet wide, 200 feet long, and includes perforated pipes and gravel backfill. LNAPL is recovered from the trenches via a 4-foot-diameter recovery well installed near the midpoint of the recovery trench. An automated belt skimming device in the recovery well collects product from the recovery trench and transfers it to a temporary storage tank. This system has become ineffective in removing significant quantities of LNAPL due to the lack of recoverable LNAPL within the capture zone of the system.

A portion of this LNAPL plume exists outside the area of influence of the existing LNAPL recovery system. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs have been detected in LNAPL at this AOI at concentrations of 200 ppm. The presence of PCBs at this AOI at such concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 81-2 is to remove LNAPL to the extent practicable.

- **AOI 83/84-2 Soil** is located in the currently inactive Factory 83/84 area, and consists of areas of various former and existing machining operations in Building 32 (including two basements), including both "wet" and "dry" operations. The RFI soil data from AOI 83/84-2 indicate that industrial screening criteria were exceeded for several PAHs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 83/34-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in deep soil (up to 9 feet bgs) exceed 900 mg/kg (i.e., MDEQ industrial direct contract criterion). Therefore, the remedial goal for soil at this AOI is to address the lead concentrations in soil greater than 900 mg/kg.
- **AOI 83/84-2 LNAPL** - LNAPL has been observed floating on the surface of groundwater at select monitoring well locations. The physical extent of LNAPL has been defined to be approximately 150 feet in diameter. Based on the human health risk assessment for AOI 83/84-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from monitoring wells RFI-83/84-06 and RFI-83/84-49 at concentrations as high as 62 mg/kg. The presence of PCBs at this concentration requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA.
- **AOI 83/84-3** consists of areas of various former and existing machining operations in Buildings 66A/66D (both "wet" and "dry" operations). The RFI soil data from AOI 83/84-3 indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for beryllium and lead. Based on the human health risk assessment for AOI 83/84-3 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in surface and depth-averaged soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 83/84-4 -** consists of four former "wet" metal machining operations in the central portion of Building 66, including three process oil collection/recirculation sumps, and an inactive rail loading area (including associated sumps along the north side of Building 66C). A cutting oil plume has been identified in this area. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. The RFI soil data from AOI 83/84-4 indicate that no screening criteria were exceeded. The RFI groundwater data indicate that screening criteria were exceeded for arsenic, beryllium, and lead. LNAPL was removed from monitoring wells RFI-83/84-07 and RFI-83/84-45 during the Sitewide LNAPL Monitoring Program conducted from 2001 through 2004. Based on the human health risk assessment for AOI 83/84-4 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 83/84-3 cutting oil plume is to remove LNAPL to the extent practicable.

- **AOI 86-1** - includes the overall area of Building 86 and areas immediately southeast and west of Building 86, collectively associated with a hazardous waste drum accumulation area, a process waste pumping station, a waste transport vehicle storage area, and a former UST farm. Historically a product plume was identified that was thought to be associated with the former UST farm, located south of Buildings 86/86A. Two product recovery wells were installed in an attempt to eliminate the migration of product into a catch basin connecting to Storm Sewer Outfall 005. These recovery wells were installed adjacent to the Leith Street overpass retaining wall. Recovered product was collected in an oil/water separator and discharged to the Site's industrial wastewater treatment system. This system was successful in recovering free-phase LNAPL in this area, hence operation was discontinued. However, during 2003, LNAPL was observed at two monitoring wells (RFI-86-02 and RFI-86-03) located east of the AOI. This area is identified as the AOI 86-1 Fuel Oil Plume. Monitoring wells associated with this plume have been monitored as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 86-1 indicate that screening criteria were exceeded for arsenic and manganese. The RFI groundwater data from AOI 86-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 86-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 86-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 02-B** – This AOI is associated with former Building 02 and relates to a pit for an elevator. A cutting oil plume has been identified to be present in this area. The physical extent of LNAPL has been defined to be approximately 100 feet in diameter. The RFI soil data from AOI 02-B indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 02-B indicate that the screening criteria for acetone and manganese were exceeded. Based on the human health risk assessment for AOI 2-B documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 02-B is to remove LNAPL to the extent practicable.

- **AOI 02-C** - is associated with the former Building 02, and relates to a former sump in the former Materials Laboratory. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in near-surface soil sample results from soil boring RFI-02-03. Based on the human health risk assessment for AOI 02-C documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in surface soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 09-A –** is related to the former Building 09, and involves a floor trench/UST that discharged to the process wastewater system, floor trenches over a holding tank in the "vehicle wash area", concrete containment for a former AST, and a former UST. The RFI soil data from AOI Group 09-A indicate that screening criteria were exceeded for benzo(a)pyrene, dibenzo(a,h)anthracene, lead, and manganese, and the RFI groundwater data indicate that screening criteria were exceeded for trichloroethene, vinyl chloride, antimony, and lead. Based on the human health risk assessment for AOI Group 09-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, concentrations of lead in soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Notably, this area includes a rather localized area, centralized around offsite soil boring RFI-09-01, which contained lead at a concentration of 120,000 mg/kg. This soil boring is located on property owned by CSX Transportation, Inc. (CSX), immediately east of the Site. In addition, an offsite soil sample collected from soil boring RFI-09-03 exhibited a concentration of benzo(a)pyrene that exceeds USEPA's risk limits for residential exposure. This boring is also located on CSX property, immediately east of the Site. Therefore, the remedial goal for this area is to address the potential exposure to soil with elevated lead and benzo(a)pyrene concentrations.

- **AOI 09-B Soil –** is associated with the Former Building 31/Hamilton Avenue Tank Farm. An LNAPL plume consisting primarily of gasoline has been identified and delineated in this area and is approximately 75 feet in diameter. The RFI soil data from AOI Group 09-B indicate that industrial screening criteria were exceeded for benzo(a)pyrene and lead, and the RFI groundwater data indicate that industrial screening criteria were exceeded for several VOCs, total PCBs, and several inorganic constituents. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, potential exposure to near-surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 09-B LNAPL –** is an LNAPL plume associated with the Former Hamilton Avenue Tank Farm. The AOI 09-B plume is composed of gasoline and is approximately 75 feet in diameter. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure for future redevelopment construction workers to gasoline LNAPL in this area exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for LNAPL at this AOI is to address the potential exposure of construction workers to LNAPL.
- **AOI 12-A Soil –** is associated with the former Building 12, and relates primarily to several press pits and associated sumps, pits, trenches, and traps. The RFI soil data from these AOIs indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for tetrachloroethene, vinyl chloride, and lead. Based on the human health risk assessment for AOI Group 12-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface groundwater. However, lead concentrations in surface and deep soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal is to address lead concentrations in soil greater than 900 mg/kg.

  AOI 12-A, B &C LNAPL - This AOI group is associated with former Building 12 and relates to: several press pits and associated sumps, pits, trenches, traps, and floor staining (12-A); to a drain within a truck loading dock, and leading to a sump that discharged to the process wastewater system (12-B); and to a sump that collected runoff from a battery charging area, a deep steam pipe, and an old utility pit with oil and water present (12-C). Three LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 12-A have been defined as approximately 50 feet by 100 feet and 150 feet by 250 feet. The third plume, associated with AOI 12-C, has been defined as approximately 175 feet by 400 feet. Historically, LNAPL bailing activities were conducted as part of the Sitewide LNAPL monitoring program. In addition, two stand-alone LNAPL collection systems were installed in July 2003 at wells RFI-12-02 and RFI-12-11D for the purpose of controlling the migration of potential LNAPL in this area.

These systems consisted of a pneumatic product skimming pump powered by nitrogen supplied in liquid nitrogen tanks and a battery-powered, solar-charged controller. Collected product was stored in tanks located at each well head. Due to the high viscosity of the LNAPL in this area, these systems failed to collect any reasonable amount of LNAPL. As such, they have been terminated and dismantled.

Based on the human health risk assessment for AOIs 12-A, -B, and -C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 12-A, -B and -C Hydraulic Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 29-A –** is associated with the former Building 29, and relates to a pit for a cable-operated elevator and former work pads with oil staining. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in surface soil. Based on the human health risk assessment for AOI Group 29-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, potential exposure to surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 40-A,-B and 16-C –** AOI 40A is associated with former Building 40 and relates to a former UST farm located between Buildings 02 and 40. A prior release from this area has been documented. One soil boring/temporary well was installed to further assess the downgradient extent of residual contamination in this area. AOI 40-B is associated with former Building 40 and relates to a pit for an elevator. AOI 16-C is associated with former Building 16 and relates to hydraulic oil with external AST that was used for hydraulic lift to a Dumpster and former USTs located along the side of former Building 16. Following initial investigation activities, a confirmed release notice was submitted, detailing a release from USTs 113, 114, and 115 and their removal was conducted under Parts 211 and 213 of NREPA.

  Four LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 40-A have been defined as approximately 30 feet by 60 feet and 50 feet by 120 feet. The third plume, associated with AOI 40-B, has been defined as approximately 30 feet in diameter. The fourth plume, associated with AOI 16-C, has been defined as approximately 50 feet by 120 feet.

The RFI soil data from AOI 40-A indicate that screening criteria were exceeded for benzo(a)pyrene. The RFI soil data from AOI 40-B and AOI 16-C indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 40-A indicate that screening criteria were exceeded for several VOCs and inorganic constituents. The RFI groundwater data from AOI 40-B indicate screening criteria were exceeded for several VOCs. The RFI groundwater data from AOI 16-C indicate that screening criteria were exceeded for benzene, beryllium, and selenium.

Based on the human health risk assessment for AOIs 40-A, -B, and 16-C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 40-A, -B and 16-C Fuel Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 40-D –**The Former Building 40 tunnel conveyed materials, personnel, and equipment between former Building 40 and former Building 06/16 assembly areas. The tunnel was oriented in the east-west direction and was approximately 260 feet long by 15 feet wide and 8.5 feet high. An L-shaped basement area, approximately 1,900 square feet in size, was located above a portion of the tunnel, and the ceiling of the basement was removed and the area is surrounded by a chain link fence. The top of the tunnel roof (basement floor) was approximately 12 feet below grade. The tunnel was completely flooded with water, and the water level was approximately 4 feet above the floor of the basement. The basement floor was cleaned in August 1992 using a foam-applied aqueous-based solvent to extract PCBs from the concrete floor and the lower 2 feet of the basement walls. Other activities since then have included removal of small quantities (less than 1 quart) of floating oil from the tunnel and basement.

  The *Cleanup and Disposal of PCB Remediation Waste, Building 40 Tunnel and Basement* (BBL, 2004) (Building 40 Trench/Basement Remediation Report) report describes work completed to investigate the tunnel and presents a plan for remediation. This report was submitted to the USEPA on January 7, 2004, and conditionally approved by USEPA via letter dated September 13, 2005. The basement and tunnel area were filled in accordance with the remediation plan in May 2006. The only remaining actions planned to address this area include the implementation of institutional controls (e.g., deed restriction).

- **Outfall 002 Storm Sewer -** As discussed in Sections 3.3.1 and 4.1 of Appendix I of the RFI Phase II Report, evidence of historical groundwater infiltration into Outfall 002 storm sewers has been observed as mineral deposits at pipe joints during video inspection of proposed stretches of the pipe system. Also, the portion of the Outfall 002 storm sewer system between manholes 2-20 and 2-22 runs underneath Stewart Ave. and through an LNAPL area associated with the former Tank Farm 37 UST system (AOI 36-5). Based on the RFI risk assessment, no unacceptable human health risks were identified for this area. However, certain VOCs were detected in storm sewer water samples collected from manholes 2-19 and 2-20. The detected VOCs were similar to those detected in groundwater samples surrounding the Outfall 002 storm sewer system in this area. These results suggest that some infiltration of contaminated groundwater is likely occurring. A dissolved groundwater plume containing concentrations of trichloroethene (TCE), and vinyl chloride, as well as LNAPL, exist in the area just upstream of manhole 2-20, and may be the source of the VOCs detected in the sewer. An inspection of the sewer system revealed no evidence of LNAPL infiltration in the area. Oil sheens are observed at Outfall 002.Booms are located at Outfall 002 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 002 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System. Further corrective measures for addressing this potential LNAPL infiltration to this sewer system in the area of the former Tank Farm UST system will be evaluated following the planned demolition of Factory 36**.**
- **Outfall 003 Storm Sewer -** As described in Section 5.7 of the *Description of Current Conditions for Areas North of Leith Street (BBL, 2000)*, this storm sewer system consists of two oil/water separators configured to mitigate sheens at Outfall 003 to the Flint River. Additionally, booms are located at Outfall 003 to contain sheens that are not completely contained by the Outfall 003 system oil/water separators. Oil sheens contained by the booms at Outfall 003 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 004 Storm Sewer -** Booms are located at Outfall 004 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 004 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 005 -** Visible sheens have previously been observed at Outfall 005. Inspections of the Outfall 005 storm sewer system revealed that the likely source of the sheens was infiltration into the system near French drain manholes located near the Leith Street underpass. P-traps were installed in two French drain manholes between September and December 2004, and the p-traps have been successful in controlling sheens at Outfall 005. Booms are located at Outfall 005 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 005 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.

- **Hazardous Waste Management Units (WMU) -** In February 1985 GMC submitted a RCRA Part B Permit Application to USEPA which listed 10 hazardous waste management units at the Site. In November 1987, GMC retracted its RCRA Part B applications and converted the Site to less than 90-day generator status, and has been operating as such since that time. In 1988 EDI Engineering & Science prepared a Closure Report which provided the basis and context to proceed with closure of WMUs identified at the Site. Section I of the 1988 Closure Report provided the relevant background that supports the current list of WMUs to be closed.

  As part of converting the Site to less than 90-day generator status, GMC was to close its WMUs identified in its RCRA Part B Permit application. The intent of the 1988 Closure Report was to organize GMC's closure of these WMUs. The 1988 Closure Report inventoried 10 WMUs as follows:

  - Division 29, Building 23 Tool Manufacturing Cyanide Storage Area
  - Division 25, East of Factory 10 Outside Waste Thinner Tank Area
  - Factory 86, Building 04 Assembly Plant Waste Storage Tanks
  - Building 41A, Assembly Plant Waste Tank Area
  - Factory 10, Building 20 Transmission Plant Tank Area
  - Building 02 Container Storage Area
  - Factory 36, Building 36 Engine Plant Northeast Dock
  - Factory 31, Building 32 Axle Plant North Dock
  - Factory 10, Salvage Yard Container Storage Area
  - Factory 10, Salvage Yard Tank Storage Area

  In general, while select WMUs have undergone partial closure, with a few limited exceptions (e.g., Tool Manufacturing Cyanide Storage Area [Division 29, Building 23]), no formal document submittals to the USEPA, MDNR, or Michigan Department of Environmental Quality (MDEQ) can be located. Closure activities are currently ongoing for these WMU.

The following future remedial activities are planned at the Site:

- Address fifteen areas of subsurface LNAPL, using various methods such as MPE, vacuum enhanced extraction, or passive recovery
- Install and operate oil recovery systems for the Outfall 003 and Outfall 004 Storm Sewer Systems, primarily including:
  - OWSs and debris removal systems
  - Diversion lines and associated manholes
- Evaluate options to address sheens at Outfall 002 and infiltration into the Outfall 002 storm sewer near the former Tank Farm 37UST system at AOI 36-05.

- Investigate the Outfall 005 Storm Sewer system to confirm that no on-site oil infiltration is occurring (i.e., boom survey).
- Maintain booms on Outfalls 002, 003, 004, and 005 until these storm sewer systems are addressed as above.
- Investigate potential sources of groundwater infiltration into the storm sewers and take appropriate corrective actions, if necessary. Remove and dispose of approximately 1,800 cubic yards of lead-impacted soil.
- Maintain surface cover in select areas where slab or pavement exists, where subsurface impacts have been identified.
- Perform long-term annual groundwater monitoring program.
- Establish Restrictive Covenants for groundwater and soil impacts at the Site and downgradient properties, as appropriate.
- Abandonment of approximately 300 groundwater monitoring wells, which will no longer be needed.
- Close RCRA hazardous waste management units.
- Negotiate final remedy with USEPA and Michigan Department of Natural Resources and Environment (MDNRE).
- Handle TSCA LNAPL issues via risk-based closure mechanisms.

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1.0 INTRODUCTION

ARCADIS U.S., Inc. (ARCADIS) performed a Phase I Environmental Site Assessment (ESA) of the property located at 902 East Hamilton Avenue, Flint, Genesee County, Michigan (the "Site"). The Site consists of approximately 452 acres of land. It is generally bounded to the north by Stewart Avenue and Pierson Road, to the south by Harriet Street, to the east by James P. Cole Boulevard and CSX Railroad, and to the west by Industrial Avenue and North Street. Current operations are all conducted in the portion of the property located north of Leith Street that is referred to as the "Northend". Building demolition has been completed in the portion of the property located south of Leith Street which is referred to as the "Southend", and has been performed in portions of the Northend.

Effective July 10, 2009, General Motors Corporation (GMC) was renamed Motors Liquidation Company (MLC). On the same day some of the operating assets of GMC were sold to a newly formed company, "General Motors Company". General Motors Company changed its name to General Motors LLC (GM LLC) on October 16, 2009. Assets not sold to GM LLC remain the property of the MLC, in its capacity as a debtor-in-possession in the bankruptcy case. Currently, GM LLC manufactures automotive components at the Site under a lease with MLC.

1.1 Purpose

Motors Liquidation Company (the Client) requested that ARCADIS conduct a Phase I ESA of the Site. The objective of the ESA was to identify RECs in connection with the property, to the extent feasible pursuant to the processes prescribed in American Society for Testing and Materials (ASTM) E 1527-05 guidelines. The term "REC" as defined by the ASTM is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimus conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Phase I ESA includes information gathered from federal, state, and local agencies; personal interviews with people familiar with the Site and surrounding properties; and a Site visit conducted by an ARCADIS representative.

1.2 Detailed Scope of Services

The Phase I ESA conducted by ARCADIS included, but was not limited to, the following services:

- a reconnaissance-level visit of the Site to look for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for on-site releases of hazardous materials and petroleum products
- drive-by observations of adjacent properties and the site vicinity
- interviews with people familiar with the Site, as available
- review of regulatory and local agency files, as necessary
- review of historical documents, as available
- preparation of a report presenting our findings, including a summary of conclusions and recommendations

1.3 Significant Assumptions

The purpose of this Phase I ESA is to provide appropriate inquiry into the previous ownership and use of the Site consistent with good commercial and customary practice in an effort to minimize liability. ARCADIS also assumes that the information provided by the Client, the regulatory database provider, and regulatory agencies is true and reliable.

1.4 Limitations and Exceptions

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS and the original party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. Only the party for whom this report was originally prepared, its lenders, insurers and professionals, and other specifically named parties, may make use of and rely upon the information in this report, in its entirety, for a period not to exceed 180 days in accordance with the American Society for Testing and Materials (ASTM's) "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" ASTM Designation E 1527-00 dated May 10, 2000, ASTM's "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" ASTM Designation E 1527-05 dated November 1, 2005, and/or the Code of Federal Regulations (CFR) 40 CFR Part 312 "Standards and Practices for All Appropriate Inquiries: Final Rule" dated November 1, 2005.

After 180 days and prior to using the information contained herein, the report should be updated in accordance with ASTM Standards and Federal regulations.

The findings presented in this report apply solely to Site conditions existing at the time when ARCADIS's assessment was performed. It must be recognized, however, that an ESA is intended for the purpose of evaluating the potential for contamination through limited research and investigative activities and in no way represents a conclusive or complete site characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. ARCADIS's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100% confidence in ESA conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications, or warranties (express or implied) that a property is free from environmental contamination. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and all applicable laws, codes, regulations, or standards.

1.5 User Reliance

This report is for the exclusive use of Motors Liquidation Company. Use of this report by any other party shall be at such party's sole risk.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Site is located at 902 East Hamilton Avenue, Flint, Genesee County, Michigan. It is generally bounded to the north by Stewart Avenue and Pierson Road, to the south by Harriet Street, to the east by James P. Cole Boulevard and CSX Railroad, and to the west by Industrial Avenue and North Street.

Refer to Figure 1 for the location of the Site.

2.2 Site and Vicinity General Characteristics

The Site is a generally rectangular-shaped tract of land that is situated in a mixed industrial/commercial/residential area in the northern portion of the City of Flint. The Site is located in Genesee County and is within the city limits of Flint. A mix of Industrial and vacant land is located to the north of the Site. Residential and commercial properties are located to the south. A mix of commercial and industrial properties are located to the east, as well as the Flint River. A mix of commercial and residential properties are located to the west of the Site.

2.3 Current Use of the Site

Current operations are all conducted in the portion of the property located north of Leith Street that is referred to as the Northend. Building demolition has been completed in the portion of the property located south of Leith Street which is referred to as the Southend, and has been performed in portions of the Northend. Current Site operations include machining ferrous and nonferrous metals, V-6 engine manufacturing, torque converter manufacturing, transmission components manufacturing, engine assembly, and industrial wastewater treatment.

2.4 Descriptions of Structures, Roads, and Other Improvements on the Site

The current configuration of the Site includes approximately 3.3 million square-feet of manufacturing buildings on 452 acres of land. The area South of Leith Street (Southend) is comprised of 258 acres. Production at the Southend ceased in 1999 and all buildings located at the Southend, with the exception of Building 18, have since been demolished to grade. The portion of the Site located North of Leith Street (Northend) is comprised of 194 acres of partially active and partially inactive areas. The following provides a summary of each of the currently existing buildings at the Site and Other Site improvements.

Factory 5 (Building 43 – PT Transmission Components)

Building 43 is a single-story structure constructed in 1952 and comprises approximately 650,000 SF. This building is utilized for the manufacturing of transmission components, including the machining and heat treating of vehicle shafts and gear carriers. Existing manufacturing operations include the use of several underground process tanks and trenches utilized to hold and convey metal cuttings, machining oils, water-soluble oils, semi-synthetic oils, material seal, and synthetic oils.

Factory 10 (Building 20 – PT Transmission Components)

Building 20 is a single-story structure constructed in 1942 during World War II and comprises approximately 700,000 SF. The building also contains a large basement area on the western side of the building and a small basement in the southeast corner. Historical operations have included producing aluminum cylinder heads for aircraft and manufacturing of the Dyna-Flow transmission. Current operations within Building 20 include metal cutting and shaping operations for the production of transmission and engine components.

Building 18 (Personnel)

Building 18 is a two-story structure constructed in 1975 and comprises approximately 56,000 SF. Since the building's construction in 1975, it has been utilized for personnel, security (currently provided by Pinkerton), medical services, and the site fire department.

Building 21 (Machine Tool Division)

Building 21 was constructed in 1920 with two subsequent additions in 1923 and 1926 as well as a major renovation in 1981. The building presently comprises approximately 45,000 SF. Historical operations at Building 21 have included foundry sand storage, machine chip recycling, locomotive repair, brake drum cleaning, storage, and tool grinding operations. The building also included welding and heat treatment laboratories.

Building 22 (Compressor Building)

Building 22 is a single-story structure constructed in 1942 and comprises approximately of 14,000 SF. This building is utilized as a compressor station. This building was historically used as a steam generation building.

Building 24 (North Fire Protection House)

Building 24 is a single-story structure constructed in 1970 and comprises approximately 1,000 SF. An approximate 30,000-gallon AST is located on the northern side of the building, and an approximately 200-gallon AST is located on the western side of the building which is contained within a concrete secondary containment structure. According to site personnel, the 30,000-gallon AST is used for the storage of water and the 200-gallon AST is used for the storage of diesel fuel for the operation of pumps.

Buildings 55, 55A, and 55B (Wastewater Treatment Plant)

Buildings 55, 55A, and 55B are associated with WWTP and comprise approximately 20,200 SF and were constructed in 1953, 1955, and 1972 respectively. This system consists of several above ground and below grade storage tanks that are components of the various treatment processes.

The major components of the WWTP includes: two 900,000 gallon raw waste tanks, two 100,000 gallon primary clarifiers, two 200,000 gallon secondary clarifiers, two 100,000 gallon sludge treatment tanks, four 60,000 gallon lagoons, two 450,000 gallon raw waste tanks (temporary storage only used when influent exceeds capacity of the 900,000 gallon raw waste tanks), one oil treatment tank, and several small chemical feed tanks (chemical feed tanks contain lime, iron sulfate, alum, and acid).

Process wastes are conveyed to the WWTP from the manufacturing facilities through several thousand feet of above ground and below ground process waste piping. Process wastes are pumped through process waste pump stations (waste stations #1-5). The potential process waste received includes: wastewater, soluble oils, machining oils, hydraulic fluids, waste solvents, and waste paint by-products.

Building 65 (Compressor Station)

Building 65 was constructed in 1957 and comprises approximately 9,000 SF. This building is currently utilized as an air compressor station for site operations and a process waste pump station (waste station #5).

Building 99

Building 99 was constructed in 1985 and comprises approximately 10,000 SF. This building and the fenced area immediately surrounding the building are utilized for storing construction materials.

Factory 81 (Buildings 69, 69A, 69B, 69C, 70, 70A, 70B, 71, 71A, 71B, 72, 73, 73A. 73B, and 74 – PT Transmission Components)

Factory 81 is comprised of Buildings 69, 69A, 69B, 69C, 70, 70A, 70B, 71, 71A, 71B, 72, 73, 73A, 73B, and 74. These buildings comprise approximately 675,000 SF. Historically the facility was used as a gray iron foundry. Basic gray iron foundry operations within these buildings included the fabrication of wooden patterns, the mixing of core oil with sand for the fabrication of sand cores, the fabrication of sand molds, the heating of iron and scrap metals in gas fired cupolas, the removal of sand core materials from the iron castings, and the cooling and cleaning of iron castings. Current facility operations include the welding, machining, and assembly of torque converters.

Factory 3 (Buildings 30, 30A, 30B, 30C, 30D, 30E, 30F – Delphi Chassis Spring)

Historically, Factory 3 was comprised of Buildings 30, 30A, 30B, 30C, 30D, 30E, and 30F. With the exception of Building 30C, these buildings have been demolished (only the structural steel remains). Building 30C is still in use at the Site as an auditorium.

Factory 83/84 (Buildings 11, 32, 66, 66A, 66C, 66D, 83, 83A – PT Transmission Components) - Idled

Factory 83/84 is comprised of Buildings 11, 32, 66, 66A, 66C, 66D, 83, and 83A. The total area of Factory 83/84 is approximately 950,000 SF. Historical operations at the Factory 83/84 complex included the manufacturing of automobile rear axles. The complex was renovated in 1981 for use in the manufacturing of white metal components including pistons, water pumps, manifolds, etc. These buildings are currently idled.

Building 38 (Manufacturing Warehouse) - Idled

Building 38 is a single-story structure which was constructed in 1964 and is comprised of approximately 200,000 SF. Historical activities performed in this building included warehousing vehicle engines and engine parts and performing new car conditioning (detergent washing and vehicle waxing) and light vehicle repair. The area immediately surrounding the exterior of the building is predominantly paved with asphalt. The south side of this building has a concrete loading dock along its entire length. This building is currently idled.

Factory 36 (Building 36 – PT Engine) - Idled

Building 36 was constructed in 1952, with the exception of Bays 31 and 32 and Bay 33, which were additions to the building in 1965, and 1976, respectively. Building 36 is comprised of approximately 1.1 million SF and is predominantly a single-story building with the exception of the northeastern portion, which has a second-story office mezzanine. Historical operations performed in Building 36 include machining, assembly, and testing of vehicle engines and engine components. These operations required the use of machining fluids that include water soluble petroleum, mineral sealants, and miscellaneous paints, greases, and solvents. This building is currently idled.

Building 97 (Fire Department) - Idled

Building 97 was constructed in 1943 and comprises approximately 3,600 SF. Building 97 is located adjacent to the south side of Building 21. The building housed the site fire department and emergency response equipment. This building is currently idled.

Wastewater Aeration Lagoons -Inactive

Historically, two wastewater aeration lagoons (now inactive) were located between James P. Cole Boulevard and the former St. John Street on the eastern perimeter of the site north of Leith Street. Created in 1976, the lagoons treated wastewater from the site WWTP. The wastewater aeration lagoons were taken off-line in 1988. The western lagoon was filled in with crushed concrete from the demolition of facility buildings in 2003, and therefore, only one lagoon remains today. The future use of the remaining lagoon, which had been considered for use as a stormwater retention pond in the Outfall 003 stormwater diversion construction project, is currently undetermined.

Buildings 86, 86A (Site Maintenance) - Idled

Buildings 86 and 86A were constructed in 1937 and 1952, respectively, and together comprise approximately 21,000 SF. Historical operations at Building 86 include the collection, consolidation, and storage of small containers and drummed hazardous wastes. Historical operations at Building 86A include the collection and storage of returnable drums, a paint booth area for facility maintenance, storage of facility maintenance equipment (e.g., hand mowers, riding mowers, etc.) and material storage (e.g., cases of housekeeping cleaning products, floor tile etc.). These buildings are currently idled.

Other Improvements

A railroad line runs along the eastern property boundary in the northernmost portion of the Site and then continues through the eastern portion of the Site in the central and southern portions of the Site. The northernmost portions of the railroad lines located south of Leith Street are still in use by the railroad company used for railroad car marshalling. The southernmost portions of the railroad tracks located south of Leith Street are not currently in use.

Primary driving access to the Site is via main entrances located at Stewart Ave at the northwestern border of the Site and at Leith Street at the east-central border of the Site. Access to the Site is restricted by a chain link fence, and guard booths exist at each entrance.

The Site is connected to the municipal sewer and water utilities as well as Consumers Energy for gas and electric.

Refer to Figure 2-1 and 2-2 for a plan depicting the layout of the Site along with other environmental information.

2.4.1 Source of Potable Water

The City of Flint provides drinking water to the Site.

2.4.2 Sewage Disposal System

The industrial process wastewater treatment facilities at the Site consist of Buildings 55, 55A, and 55B and related facilities which were constructed in 1953, 1955, and 1972, respectively. The major components of the Site's industrial process wastewater treatment facilities includes raw waste tanks, clarifiers, sludge treatment tanks, mixing tanks, oil storage facilities, dissolved-air flotation equipment and sludge processing facilities. Process wastes are conveyed to the Site's industrial process wastewater treatment facilities from the manufacturing facilities throughout the Site via pump stations and force mains. Process wastes received primarily include industrial wastewater, machining oils, hydraulic fluids, waste solvents, and waste paint by-products. Treated wastewater is discharged to the Flint POTW.

Historically, there were two 6 million gallon wastewater aeration lagoons present at the Site. The lagoons were constructed in 1976 to provide tertiary treatment of industrial wastewater from the Site's wastewater treatment facility. The wastewater aeration lagoons were taken off-line in 1988. When in operation, the lagoons' primary function was to reduce the biochemical oxygen demand and chemical oxygen demand of process water in preparation for discharge to the Flint River, and later to the City of Flint sanitary sewer system.

One of the former lagoons, the west lagoon, was filled in with crushed concrete from the demolition of facility buildings in 2003, and therefore, only one lagoon remains today. The future use of the remaining lagoon, which had been considered for use as a stormwater retention pond in the Outfall 003 stormwater diversion construction project, is currently undetermined

2.4.3 Heating/Cooling Systems

ARCADIS has requested information on the heating and cooling systems for the Site. As of the date of this draft, ARCADIS has not reviewed such information. Pertinent information will be included in the Final Draft.

2.4.4 Solid Waste Disposal

ACRADIS has requested solid waste disposal information from the Site contact. Please refer to Appendix E for a copy of the Solid Waste Disposition Summary.

2.5 Current Uses of Adjoining Properties

The use of the adjoining properties at the time of ARCADIS's investigation is summarized as follows:

- The Site is abutted to the north by East Pierson Road beyond which is vacant land and Interstate-475.
- The Site is abutted to the east by railroad tracks beyond which are commercial and industrial properties, including: Lockhart Chemical; Universal Systems; Consumers Substation; Genesee Valley Windows; P.P.G. Coatings and Resins; Bells Produce; URF Inc; United Plastics; ITC; Riverview Industrial Park; the Flint River; and, James P. Cole Boulevard.
- The Site is abutted to the south by residential properties and commercial properties.
- The Site is abutted to the west by a mix of residential, commercial and community properties.

3.0 USER-PROVIDED INFORMATION

The following items regarding the Site were requested by ARCADIS to the Client's representative. Mr. Robert Hare, Environmental Project Manager for MLC, completed a questionnaire for the Site property.

3.1 Title Records

ARCADIS has requested Title records from the Site contact. Title records were not available for review.

3.2 Environmental Liens or Activity and Use Limitations

Mr. Hare was asked the following questions as part of the assessment:

- Is the client aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law? **Answer: Unknown**
- Is the client aware of any activity or land use limitations, such as engineering controls, land use restrictions, or institutional controls, that are in place at the Site and/or have been filed or recorded in a registry under federal, tribal, state, or local law? **Answer: Yes, Various Deed notices filed, or to be filed**.

3.3 Specialized Knowledge

Mr. Hare was asked the following questions as part of the assessment:

- Do they have any specialized knowledge or experience related to the property or nearby properties? For example, are they involved in the same line of business as the current or former occupants of the property or an adjoining property so that they would have specialized knowledge of the chemicals and processes used by this type of business? **Answer: Yes, Currently Project Manager for remediation at the site.**
- Are they aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases?
    - Do they know the past uses of the property? **Answer: Yes, Past uses of the site available in provided Corrective Action documentation.**
    - Do they know of specific chemicals that are present or once were present at the property? **Answer: Unknown**
    - Do they know of spills or other chemical releases that have taken place at the property? **Answer: Yes, refer to Corrective action documentation**
    - Do they know of any environmental cleanups that have taken place at the property? **Answer: Yes, refer to prior reports**

  - Do they know if any fill materials have been imported to the Site? **Answer**: **Unknown**

- Do they know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property? **Answer: Unknown**
- Do they know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property? **Answer: Yes, Corrective Action agreement available**
- Do they know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? **Answer: Yes, see historical documentation available for the site.**

3.4 Commonly Known or Reasonably Ascertainable Information

Mr. Hare was asked the following question as part of the assessment:

- Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property? **Answer: Yes, see available Corrective Action documents**

3.5 Valuation Reduction for Environmental Issues

- Does the Site's purchase price reasonably reflect the fair market value of the property? **Answer: Unknown**

3.6 Owner, Property Manager, and Occupant Information

According to the City of Flint Assessor's Office, the Site is owned by General Motors Company. Effective July 10, 2009, General Motors Corporation (GMC) was renamed Motors Liquidation Company (MLC). On the same day some of the operating assets of GMC were sold to a newly formed company, "General Motors Company". General Motors Company changed its name to General Motors LLC (GM LLC) on October 16, 2009. Assets not sold to GM LLC remain the property of the MLC, in its capacity as a debtor-in-possession in the bankruptcy case. Currently, GM LLC manufactures automotive components at the Site under a lease with MLC.

3.7 Reason for Performing Phase I

The purpose of this Phase I ESA is to provide appropriate inquiry into the previous ownership and use of the Site consistent with good commercial and customary practice in an effort to minimize liability.

4.0 RECORDS REVIEW

The following sections provide information regarding the regulatory status and history of the Site and vicinity developed from information available from local, state and federal agencies and ASTM Standard Historical Sources. It also provides topographic, hydrologic and soil conditions in the area of the Site.

4.1 Historical Use Information

4.1.1 Previous Environmental Reports

Remediation Cost Estimate Summary

Numerous historical investigations have been performed at the Site over the years on behalf of GMC by various environmental consultants. Several of these investigations involved the assessment of potential soil and/or groundwater contamination either within various regions of the property or along its perimeter (i.e., focusing on relatively large areas of the Site), while the remaining investigations involved more focused assessments of specific area (e.g., underground storage tank [UST] areas, process areas) where constituents of interest were identified as being potentially released into the environment (e.g., UST releases). The perimeter and/or regional Site investigations included the following:

- Storm Sewer Outfall 003 Investigation;
- Site Investigation (Pierson Road to Leith Street);
- Fenceline Investigation; and
- Groundwater Investigations.

The investigations involving specific, more focused areas of interest include the following areas:

- Factory 36 Area;
- Building 38 Area;
- Building 55, 55A, and 55B Area;
- Factory 05 Area;
- Former Factory 03 Area;
- Factory 10 Area;
- Scrapyard Area:
- Factory 81 Area;
- Factory 83/84 Area;

- Building 86 Area/Leith Street Overpass;
- Former Building 07 Area;
- Building 09 Area;
- Inactive Wastewater Aeration Lagoons Area;
- Building 40 Basements;
- Former Building 01 Area;
- Former Building 02 Area and USTs;
- Former Building 04 Area and USTs;
- Former Building 12 Area;
- Former Building 23 Utility Tunnels;
- Former Building 40 Area and USTs;
- Former Building 84 Area;
- Former Tank Farm 94;
- Former Hamilton Avenue Tank Farm;
- Former Harriet Street UST Farm;
- Site Storm Sewers; and
- Flint River Sediments.

In early 2000, GMC embarked on an accelerated investigation and cleanup program at the Site. In March 2000, GMC signed an Administrative Oder on Consent (Consent Order) with the United States Environmental Protection Agency (USEPA), which formalized the requirements of GMC's accelerated investigation and cleanup program for the Site. This Consent Order served to address the corrective action requirements of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous Solid Waste Amendments of 1984 (RCRA).

In general, the Consent Order required GMC to complete a comprehensive investigation of the Site. This investigation, referred to as a RCRA Facility Investigation (RFI), was performed for the purpose of determining the nature and extent of releases of hazardous waste and/or hazardous constituents at or from the Site, including the assessment of risk to human health and the environment. Upon completion of the RFI, the Consent Order required GMC to propose corrective measures for any releases posing unacceptable risks to human health and/or the environment.

Highlights of RFI Activities include the following:

- Description of Current Conditions for Areas South of Leith Street was submitted to USEPA on May 30, 2000.
- Description of Current Conditions for Areas North of Leith Street was submitted on November 26, 2000.
- RFI Work Plan was submitted to USEPA on March 30, 2001 (and modified via letter dated July 5, 2001).
- Approximately 80 Areas of Interest (AOIs) were identified as potential release area subject to investigation.
- RFI activities commenced May 7, 2001 (select RFI activities completed in December 2000, January 2001, and March 2001 due to logistical opportunities).
- Nearly 500 soil borings were installed, with more than 200 completed as groundwater monitoring wells.
- Collected and analyzed approximately: 1,500 soil samples, 100 grab groundwater samples, 1,500 monitoring well groundwater samples, 100 storm sewer grab samples, 50 subsurface petroleum product samples (e.g., gasoline, cutting/honing oil, etc.).
- Generated and validated over 250,000 analytical data points for use in risk assessment.
- RFI Phase I Report was submitted to USEPA on June 30, 2002.
- RFI Phase II Report was submitted to USEPA on March 31, 2004, and was subsequently revised and resubmitted on July 31, 2006.
- RCRA Corrective Measures Proposal (CMP) was submitted to USEPA on December 22, 2006.
- Final errata material for the RFI Phase II Report was submitted to USEPA on July 6, 2007.
- Response to USEPA Comments on the CMP was submitted on October 10, 2007.
- A meeting with USEPA to discuss status of Site was held on December 13, 2007.
- An Interim Measure Work Plan for Stormwater Diversion and Treatment Systems for Outfalls 003 & 004 was submitted to USEPA on February 12, 2008, was approved by USEPA on March 14, 2008, and construction has commenced.
- A revised RCRA CMP (Revised CMP) was submitted to USEPA on May 1, 2008, and associated remedy negotiations have recently begun.
- Addendum 1- Revised CMP was submitted to USEPA on October 15, 2009.

RCRA Revised Corrective Measures Proposal

On March 2, 2000 (modified November 8, 2001), the USEPA and GMC entered into a RCRA Section 3008(h) Administrative Order on Consent (AOC) R8H-5-00-02 for the North American Operations (NAO) Flint Operations Site located in Flint, Michigan. The AOC instructs GMC to investigate and, as necessary, stabilize and remediate releases of hazardous waste or hazardous constituents at or from the Site in accordance with the RCRA and relevant USEPA corrective action guidance documentation.

This *Resource Conservation and Recovery Act (RCRA) Revised Corrective Measures Proposal* dated May 2008 (Revised CMP) was prepared by ARCADIS on behalf of GMC, and it supersedes the previous CMP prepared by Blasland, Bouck & Lee, Inc., an ARCADIS Company (BBL), and submitted to the USEPA on December 22, 2006 (December 2006 CMP). This Revised CMP summarizes interim measures (IMs) initiated at the Site prior to and since the effective date of the AOC, describes proposed final corrective measures for AOIs identified in the RCRARFI Phase I and II Reports, and discusses the rationale for the selection of those corrective measures.

The December 2006 CMP was submitted to fulfill conditions set forth under Section VI.3 of the AOC. The USEPA provided GMC via letter dated April 17, 2007 comments on the December 2006 CMP. GMC responded to USEPA's comments via letter dated October 10, 2007. This Revised CMP incorporates GM's October 10, 2007 responses to USEPA's April 17, 2007 comments on the December 2006 CMP, as well as information discussed with USEPA during a project status meeting held at USEPA's offices in Chicago, Illinois on December 13, 2007, with representatives from USEPA, GMC, ARCADIS, and ENVIRON attending (minutes dated January 10, 2008). Addendum 1 – Revised CMP was submitted to USEPA on October 15, 2009.

This Revised CMP also provides the final Closure Plans for areas identified during the RFI to contain the presence of polychlorinated biphenyls (PCBs) at levels that are subject to regulation under the Toxic Substances Control Act (TSCA).

The following are Site-wide Use Restrictions also proposed:

- A Deed restriction that would prohibit the use of groundwater for any purpose, beyond sampling and other related investigatory testing.
- Limit the future use of the Site to Industrial/Commercial II, III, and IV activities only.
- A Deed restriction for downgradient offsite property that will prohibit the use of corresponding groundwater for potable uses

The following are remedial actions proposed in the Revised CMP:

- **AOI 05-1-** consists of the basement area along the southeast portion of Building 43, and is associated with a former metal machining chip processing operation. The RFI soil data from AOI 05-1 indicate that screening criteria were exceeded for lead and manganese, and the RFI groundwater data indicate that no screening criteria were exceeded. LNAPL has been detected during RFI activities in this area and the physical extent of LNAPL has been defined. Investigations performed in 1994 in response to suspected oil releases in Building 43 (Factory 05 Area) detected LNAPL on the water table along the southeast side of Building 43. To address the LNAPL, three recovery trenches were installed in the Building 43 area in early 1995. These recovery trenches are each approximately 14 feet deep, 3 feet wide, 100 feet long, and backfilled with gravel. LNAPL is recovered from these trenches via 30-inch-diameter recovery wells installed near the midpoint of each recovery trench. Automated belt skimming devices in the recovery wells collect LNAPL from the recovery trenches (with approximately 60% groundwater and 40% LNAPL) and transfer it to a temporary storage tote. Recovered water s periodically allowed to flow back into the recovery well and the recovered LNAPL is later drummed for disposal. The current belt skimming system is inefficient in removing LNAPL from the recovery wells. Based on the human health risk assessment for AOI 05-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to soil or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in samples of LNAPL collected from the recovery trench system mentioned above at concentrations up to 111 ppm. The presence of PCBs at this concentration requires application of toxic substances control act (TSCA) regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-1 is to remove LNAPL to the extent practicable.
- **AOI 05-5 -** is in the northern and east-central portion of Building 43, and consists of active process machinery, collection trenches, and sumps for both "wet" and "dry" operations. The RFI soil data from AOI 05-5 indicate that no screening criteria were exceeded, and the RFI groundwater data indicate that screening criteria were exceeded for arsenic and nickel. A release of an estimated 4,000 gallons of cutting oil was identified in April 1997. Three 4-inch-diameter groundwater monitoring wells were installed to the east of the tank from which the release was thought to have occurred. Product was identified in two monitoring wells. Two pneumatic free-product recovery pumps were installed as IMs in the wells. The recovered total fluids were later piped to two product storage tanks located within Building 43. The LNAPL later caused malfunction of the recovery pumps. As such, the system is currently not operating. Based on the human health risk assessment for AOI 05-5 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from well RFI-05-11 at a concentration of 160 ppm and from well RW-05-East at a concentration of 130 ppm.

The presence of PCBs at this AOI at these concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-5 is to remove LNAPL to the extent practicable.

- **AOI 36-1 Gasoline Plume –** AOI 36-1 is located in the northern and central portions of Building 36, and is associated with engine manufacturing and metal machining processes. A gasoline LNAPL plume has been identified to be present in this area, presumably due to historical releases associated with engine testing. This plume is located at the interior of Building 36, and is approximately 75 feet in diameter. The RFI soil data from AOI 36-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 36-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure for construction workers who could contact the gasoline LNAPL plume exceed USEPA's cumulative cancer risk and HI limits. In addition, potential exposure of routine workers to vapors from soil and LNAPL via vapor intrusion exceeds USEPA's cumulative cancer risk and HI limits under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). These risk estimates are primarily attributed to the concentrations of the constituents present in the gasoline plume. Conditions within the current building do meet current OSHA standards related to vapor concentrations in indoor air as discussed in the RFI Phase II Report. Therefore, the remedial goal for LNAPL at this AOI is to address the potential exposure to construction and routine workers to VOCs from the gasoline plume and soil.
- **AOI 81-1** consists of the basement area beneath the southern and central portions of Building 71B, and is associated with three metal machining chip/cooling and cutting oil filtration/processing operations, as well as an inactive hydraulic elevator, several process waste sumps and tanks, a drum storage area, and a 90-day hazardous waste accumulation area (inactive). The RFI soil data from AOI 81-1 indicate that screening criteria were exceeded for lead. Based on the human health risk assessment for AOI 81-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in deep (depth-averaged) soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead in soil greater than 900 mg/kg.

- **AOI 81-2 SOIL -** consists of active metal welding and machining, and torque converter assembly operations performed in Buildings 70, 70B, 71, 71A, 72, 73, 73A, 73B, and 74. The RFI soil data from AOI 81-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for lead and manganese. It should be noted that the compounds exceeding screening criteria at soil boring RFI-81-38 were found to be associated with fill material used to fill a former process pit structure. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure of routine workers to soil via direct contact in this area exceeds the USEPA HI limit. In addition, estimates of potential exposure of routine workers to vapors from soil via vapor intrusion exceeds USEPA's HI limit under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). Conditions within the current building do meet current OSHA standards related to vapor intrusion as discussed in the RFI Phase II Report. The remedial goal for soil at this AOI is to address potentially significant exposures to concentrations of certain VOCs in soil in a near-surface soil sample at the RFI-81-38.
- **AOI 81-2 LNAPL –** The portion of AOI 81-2 associated with LNAPL impacts was used for storage of foundry sand and steel from the manufacturing process. Subsequent subsurface investigations in this area indicated the presence of LNAPL containing PCBs. An LNAPL recovery trench was installed as an IM in the area in 1996. This recovery trench is approximately 9 feet deep, 3 feet wide, 200 feet long, and includes perforated pipes and gravel backfill. LNAPL is recovered from the trenches via a 4-foot-diameter recovery well installed near the midpoint of the recovery trench. An automated belt skimming device in the recovery well collects product from the recovery trench and transfers it to a temporary storage tank. This system has become ineffective in removing significant quantities of LNAPL due to the lack of recoverable LNAPL within the capture zone of the system. A portion of this LNAPL plume exists outside the area of influence of the existing LNAPL recovery system. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs have been detected in LNAPL at this AOI at concentrations of 200 ppm. The presence of PCBs at this AOI at such concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 81-2 is to remove LNAPL to the extent practicable.

- **AOI 83/84-2 Soil** is located in the currently inactive Factory 83/84 area, and consists of areas of various former and existing machining operations in Building 32 (including two basements), including both "wet" and "dry" operations. The RFI soil data from AOI 83/84-2 indicate that industrial screening criteria were exceeded for several PAHs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 83/34-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in deep soil (up to 9 feet bgs) exceed 900 mg/kg (i.e., MDEQ industrial direct contract criterion). Therefore, the remedial goal for soil at this AOI is to address the lead concentrations in soil greater than 900 mg/kg.
- **AOI 83/84-2 LNAPL** - LNAPL has been observed floating on the surface of groundwater at select monitoring well locations. The physical extent of LNAPL has been defined to be approximately 150 feet in diameter. Based on the human health risk assessment for AOI 83/84-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from monitoring wells RFI-83/84-06 and RFI-83/84-49 at concentrations as high as 62 mg/kg. The presence of PCBs at this concentration requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA.
- **AOI 83/84-3** - consists of areas of various former and existing machining operations in Buildings 66A/66D (both "wet" and "dry" operations). The RFI soil data from AOI 83/84-3 indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for beryllium and lead. Based on the human health risk assessment for AOI 83/84-3 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in surface and depth-averaged soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.
- **AOI 02-C** - is associated with the former Building 02, and relates to a former sump in the former Materials Laboratory. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in near-surface soil sample results from soil boring RFI-02-03. Based on the human health risk assessment for AOI 02-C documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in surface soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 09-A –** is related to the former Building 09, and involves a floor trench/UST that discharged to the process wastewater system, floor trenches over a holding tank in the "vehicle wash area", concrete containment for a former AST, and a former UST. The RFI soil data from AOI Group 09-A indicate that screening criteria were exceeded for benzo(a)pyrene, dibenzo(a,h)anthracene, lead, and manganese, and the RFI groundwater data indicate that screening criteria were exceeded for trichloroethene, vinyl chloride, antimony, and lead. Based on the human health risk assessment for AOI Group 09-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, concentrations of lead in soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Notably, this area includes a rather localized area, centralized around offsite soil boring RFI-09-01, which contained lead at a concentration of 120,000 mg/kg. This soil boring is located on property owned by CSX Transportation, Inc. (CSX), immediately east of the Site. In addition, an offsite soil sample collected from soil boring RFI-09-03 exhibited a concentration of benzo(a)pyrene that exceeds USEPA's risk limits for residential exposure. This boring is also located on CSX property, immediately east of the Site. Therefore, the remedial goal for this area is to address the potential exposure to soil with elevated lead and benzo(a)pyrene concentrations.
- **AOI 09-B Soil –** is associated with the Former Building 31/Hamilton Avenue Tank Farm. An LNAPL plume consisting primarily of gasoline has been identified and delineated in this area and is approximately 75 feet in diameter. The RFI soil data from AOI Group 09-B indicate that industrial screening criteria were exceeded for benzo(a)pyrene and lead, and the RFI groundwater data indicate that industrial screening criteria were exceeded for several VOCs, total PCBs, and several inorganic constituents. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, potential exposure to near-surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 09-B LNAPL –** is an LNAPL plume associated with the Former Hamilton Avenue Tank Farm. The AOI 09-B plume is composed of gasoline and is approximately 75 feet in diameter. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure for future redevelopment construction workers to gasoline LNAPL in this area exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for LNAPL at this AOI is to address the potential exposure of construction workers to LNAPL.

- **AOI 12-A Soil –** is associated with the former Building 12, and relates primarily to several press pits and associated sumps, pits, trenches, and traps. The RFI soil data from these AOIs indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for tetrachloroethene, vinyl chloride, and lead. Based on the human health risk assessment for AOI Group 12-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface groundwater. However, lead concentrations in surface and deep soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal is to address lead concentrations in soil greater than 900 mg/kg.
- **AOI 29-A –** is associated with the former Building 29, and relates to a pit for a cable-operated elevator and former work pads with oil staining. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in surface soil. Based on the human health risk assessment for AOI Group 29-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, potential exposure to surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 40-D –**The Former Building 40 tunnel conveyed materials, personnel, and equipment between former Building 40 and former Building 06/16 assembly areas. The tunnel was oriented in the east-west direction and was approximately 260 feet long by 15 feet wide and 8.5 feet high. An L-shaped basement area, approximately 1,900 square feet in size, was located above a portion of the tunnel, and the ceiling of the basement was removed and the area is surrounded by a chain link fence. The top of the tunnel roof (basement floor) was approximately 12 feet below grade. The tunnel was completely flooded with water, and the water level was approximately 4 feet above the floor of the basement. The basement floor was cleaned in August 1992 using a foam-applied aqueous-based solvent to extract PCBs from the concrete floor and the lower 2 feet of the basement walls. Other activities since then have included removal of small quantities (less than 1 quart) of floating oil from the tunnel and basement.

  The *Cleanup and Disposal of PCB Remediation Waste, Building 40 Tunnel and Basement* (BBL, 2004) (Building 40 Trench/Basement Remediation Report) report describes work completed to investigate the tunnel and presents a plan for remediation. This report was submitted to the USEPA on January 7, 2004, and conditionally approved by USEPA via letter dated September 13, 2005. The basement and tunnel area were filled in accordance with the remediation plan in May 2006. The only remaining actions planned to address this area include the implementation of institutional controls (e.g., deed restriction).

- **Outfall 002 Storm Sewer -** As discussed in Sections 3.3.1 and 4.1 of Appendix I of the RFI Phase II Report, evidence of historical groundwater infiltration into Outfall 002 storm sewers has been observed as mineral deposits at pipe joints during video inspection of proposed stretches of the pipe system. Also, the portion of the Outfall 002 storm sewer system between manholes 2-20 and 2-22 runs underneath Stewart Ave. and through an LNAPL area associated with the former Tank Farm 37 UST system (AOI 36-5). Based on the RFI risk assessment, no unacceptable human health risks were identified for this area. However, certain VOCs were detected in water samples collected from manholes 2-19 and 2-20. The detected VOCs were similar to those detected in groundwater samples surrounding the Outfall 002 storm sewer system in this area. These results suggest that some infiltration of contaminated groundwater is likely occurring. A dissolved groundwater plume containing concentrations of trichloroethene (TCE), and vinyl chloride, as well as LNAPL, exist in the area just upstream of manhole 2-20, and may be the source of the VOCs detected in the sewer. An inspection of the sewer system revealed no evidence of LNAPL infiltration in the area. Oil sheens are observed at Outfall 002.Booms are located at Outfall 002 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 002 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System. Further corrective measures for addressing this potential LNAPL infiltration to this sewer system in the area of the former Tank Farm UST system will be evaluated following the planned demolition of Factory 36**.**
- **Outfall 003 Storm Sewer -** As described in Section 5.7 of the *Description of Current Conditions for Areas North of Leith Street (BBL, 2000)*, this overall system consists of two oil/water separators configured to mitigate sheens at Outfall 003 to the Flint River. Additionally, booms are located at Outfall 003 to contain sheens that are not completely contained by the Outfall 003 system oil/water separators. Oil sheens contained by the booms at Outfall 003 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 004 Storm Sewer -** Booms are located at Outfall 004 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 004 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 005 -** Visible sheens have previously been observed at Outfall 005. Inspections of the Outfall 005 storm sewer system revealed that the likely source of the sheens was infiltration into the system near French drain manholes located near the Leith Street underpass. P-traps were installed in two French drain manholes between September and December 2004, and the p-traps have been successful in controlling sheens at Outfall 005. Booms are located at Outfall 005 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 005 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.

Current Environmental Issues and Future Remedial Actions

Most recently, GMC completed the RFI in July 2006, submitted a CMP to USEPA in December 2006, submitted a Revised CMP to USEPA in May 2008, and submitted Addendum 1 – Revised CMP to USEPA on October 15, 2009.

A detailed description of the environmental areas of concern identified for further action, in addition to those discussed in the Revised CMP, is provided below:

- **AOI 3-1** - consists of the overall area of the Factory 03 building complex, including various quenching and cooling oil systems used for various metal forging, quenching, and cooling operations. A quench oil plume has been identified in this area. Historically, a roof drain/storm sewer sump located in the southern portion of Building 30A accumulated free product, determined to be S-7 quench oil. As a result, the sump was converted to a collection sump with belt skimmer to recover this oil. This recovery system was successful in recovering free-phase LNAPL proximate to the recovery sump, hence operation of this system has been discontinued. Residual LNAPL, believe to be related to this release, is present immediately downgradient at monitoring well 03-03 and in known as the AOI 3-1 quench oil plume. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. Monitoring well 03-03 was monitored and manually bailed as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 03-1 indicate that screening criteria were exceeded for benzo(a)pyrene and manganese. The RFI groundwater data from AOI 03-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 3-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 3-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 10-1/10-4** – AOI 10-1 consists of the overall area of Building 20, including its basement area, manufacturing operations, external areas, and several tanks. AOI 10-4 consists of the scrapyard area immediately south of Building 20 and was used for scrap material storage, vehicle dismantling, and vehicle equipment storage. In 1991, free product was detected on the water table beneath and south of Building 20 within the Factory 10 Area. Fractions of this product included both water-soluble and insoluble phases of oil containing PCBs. In May 1997, GM installed a groundwater collection and treatment system designed to collect and treat soluble product and affected groundwater from this area. Treated groundwater is discharged to the Site storm sewer system under a National Pollutant Discharge Elimination System (NPDES) permit.

Subsurface investigations performed in and around the scrapyard area south of Factory 10 identified the presence of free product containing PCBs on the surface of groundwater outside the southeastern corner of Factory 10 and in the adjacent scrapyard area to the south, outside the influence of the LNAPL collection system installed in 1997. As a result, a second product recovery system consisting of a recovery trench, four manholes, and pumps for both product recovery and groundwater drawdown has been constructed further downgradient to recover the PCB-containing LNAPL and create hydraulic control at the downgradient plume edge. The collection trench, sumps, manholes, and product piping of the second IM were installed in January and February 2003. The recovery trench associated with this system is composed of two segments: one segment is approximately 30 feet long and the other is approximately 210 feet long. Both trench segments are approximately 20 feet deep and 1.5 feet wide, and contain a perforated pipe lateral and pea stone backfill. Product and groundwater are pumped from four 4-foot diameter recovery manholes equally spaced along the trench. Collected groundwater and product are treated in the groundwater treatment system in Building 20, because of its PCB handling capability. The RFI soil data from AOI 10-1 indicated screening criteria were exceeded for arsenic, chromium, lead, and manganese, while the RFI soil data from AOI 10-4 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 10-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, while the RFI groundwater data from AOI 10-4 indicate that screening criteria were exceeded for benzene and vinyl chloride. Based on the human health risk assessment for AOIs 10-1/10-4 documented in the RFI Phase II Report these areas do not require further action; however, the remedial goal established for the AOIs 10-1/10-4 is to remove LNAPL to the extent practicable.

- **AOI 36-1 Mineral Seal/Hydraulic Oil LNAPL Plume –**A mineral seal/hydraulic oil LNAPL plume has also been identified at AOI 36-1. There are approximately 150 to 200 underground sumps, tanks, and floor trenches in the area. This plume is located at the interior of Building 36, and is approximately 500 feet in diameter. As discussed above, based on the human health risk assessment for AOI 36-1, the risk estimates are primarily attributed to the concentrations of the constituents present in the AOI 36-1 gasoline plume. The remedial goal for AOI 36-1 mineral seal/hydraulic oil LNAPL plume at this AOI is to remove LNAPL to the extent practicable.

- **AOI 36-2** - consists of the basement area located along the eastern side of the central portion of Building 36 and is associated with metal chip processing. A mineral seal/hydraulic oil plume has been identified to be present in this area. The plume is located directly downgradient of the basement and is 375 feet long by 175 feet wide. The RFI soil data from AOI 36-2 indicated that total chromium in soils exceeded screening criteria for hexavalent chromium. However additional analysis indicated that hexavalent chromium concentrations in soils at this AOI were less than the screening criterion. The RFI groundwater data from AOI 36-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. A groundwater and LNAPL recovery system has been constructed along the east side of Building 36, and was placed into operation in 2005. The purpose of this IM is to control potential offsite migration of LNAPL and Site-related constituents and to collect free-phase LNAPL. This system consists of three 12-inch diameter wells (installed in 24-inch diameter boreholes) and pumps for both product recovery and groundwater drawdown. The recovery wells are approximately 20 feet deep. Product and groundwater are recovered from the wells via product recovery pump(s) and groundwater submersible pump(s), respectively. Collected fluids are transferred to a new treatment system that is housed in an enclosure located in the area of the wells and ultimately discharged to the Site storm sewer system (Outfall 002) under an NPDES permit. Based on the human health risk assessment for AOI 36-2 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-2 mineral seal/hydraulic oil LNAPL plume is to remove LNAPL to the extent practicable.

- **AOI 36-5** – is located immediately south of Building 36 and is associated with a former UST farm (also known as former Tank Farm 37) and an active contained AST farm. Both the ASTs and USTs contained gasoline, motor oil, hydraulic oil, and other oil products. A fuel oil plume has been identified to be present in this area, presumably from a UST leak. The plume is located beneath and to the northwest of the current AST farm and is approximately 75 feet in diameter. The RFI soil data from AOI 36-5 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 36-5 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Groundwater and free-product recovery trenches were installed along the east and south sides of the excavation area as part of initial abatement measures in February 1990. These trenches are 3 feet wide and filled with gravel from approximately 2 feet bgs to approximately 14 feet bgs and are sloped toward a 26-inch-diameter recovery well/sump located along the south side of the excavation area. This recovery well/sump is installed to a depth of 17 feet bgs with screen placement at 6 to 13 feet bgs. In addition, a second sump was installed south of the newly constructed tank farm and is approximately a 26-inch-diameter and is constructed to 14 feet bgs. Collected fluids are routed to the Site's industrial wastewater treatment facility. Both recovery sumps are being operated based on water levels in the sump, which is at about the same elevation as the LNAPL.

Five wells 20-100, 20-501, 20-506, RFI-36-13, and RFI-36-14 are being monitored as part of the annual Sitewide Groundwater Monitoring Program. Based on the human health risk assessment for AOI 36-5 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-5 is to remove LNAPL to the extent practicable.

- **AOI 83/84-4 -** consists of four former "wet" metal machining operations in the central portion of Building 66, including three process oil collection/recirculation sumps, and an inactive rail loading area (including associated sumps along the north side of Building 66C). A cutting oil plume has been identified in this area. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. The RFI soil data from AOI 83/84-4 indicate that no screening criteria were exceeded. The RFI groundwater data indicate that screening criteria were exceeded for arsenic, beryllium, and lead. LNAPL was removed from monitoring wells RFI-83/84-07 and RFI-83/84-45 during the Sitewide LNAPL Monitoring Program conducted from 2001 through 2004. Based on the human health risk assessment for AOI 83/84-4 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 83/84-3 cutting oil plume is to remove LNAPL to the extent practicable.

- **AOI 86-1** - includes the overall area of Building 86 and areas immediately southeast and west of Building 86, collectively associated with a hazardous waste drum accumulation area, a process waste pumping station, a waste transport vehicle storage area, and a former UST farm. Historically a product plume was identified that was thought to be associated with the former UST farm, located south of Buildings 86/86A. Two product recovery wells were installed in an attempt to eliminate the migration of product into a catch basin connecting to Storm Sewer Outfall 005. These recovery wells were installed adjacent to the Leith Street overpass retaining wall. Recovered product was collected in an oil/water separator and discharged to the Site's industrial wastewater treatment system. This system was successful in recovering free-phase LNAPL in this area, hence operation was discontinued. However, during 2003, LNAPL was observed at two monitoring wells (RFI-86-02 and RFI-86-03) located east of the AOI. This area is identified as the AOI 86-1 Fuel Oil Plume. Monitoring wells associated with this plume have been monitored as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 86-1 indicate that screening criteria were exceeded for arsenic and manganese. The RFI groundwater data from AOI 86-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 86-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 86-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 02-B** – This AOI is associated with former Building 02 and relates to a pit for an elevator. A cutting oil plume has been identified to be present in this area. The physical extent of LNAPL has been defined to be approximately 100 feet in diameter. The RFI soil data from AOI 02-B indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 02-B indicate that the screening criteria for acetone and manganese were exceeded. Based on the human health risk assessment for AOI 2-B documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 02-B is to remove LNAPL to the extent practicable.

  AOI 12-A, B &C LNAPL - This AOI group is associated with former Building 12 and relates to: several press pits and associated sumps, pits, trenches, traps, and floor staining (12-A); to a drain within a truck loading dock, and leading to a sump that discharged to the process wastewater system (12-B); and to a sump that collected runoff from a battery charging area, a deep steam pipe, and an old utility pit with oil and water present (12-C). Three LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 12-A have been defined as approximately 50 feet by 100 feet and 150 feet by 250 feet. The third plume, associated with AOI 12-C, has been defined as approximately 175 feet by 400 feet. Historically, LNAPL bailing activities were conducted as part of the Sitewide LNAPL monitoring program. In addition, two stand-alone LNAPL collection systems were installed in July 2003 at wells RFI-12-02 and RFI-12-11D for the purpose of controlling the migration of potential LNAPL in this area. These systems consisted of a pneumatic product skimming pump powered by nitrogen supplied in liquid nitrogen tanks and a battery-powered, solar-charged controller. Collected product was stored in tanks located at each well head. Due to the high viscosity of the LNAPL in this area, these systems failed to collect any reasonable amount of LNAPL. As such, they have been terminated and dismantled.

  Based on the human health risk assessment for AOIs 12-A, -B, and -C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 12-A, -B and -C Hydraulic Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 40-A,-B and 16-C –** AOI 40A is associated with former Building 40 and relates to a former UST farm located between Buildings 02 and 40. A prior release from this area has been documented. One soil boring/temporary well was installed to further assess the downgradient extent of residual contamination in this area. AOI 40-B is associated with former Building 40 and relates to a pit for an elevator. AOI 16-C is associated with former Building 16 and relates to hydraulic oil with external AST that was used for hydraulic lift to a Dumpster and former USTs located along the side of former Building 16. Following initial investigation activities, a confirmed release notice was submitted, detailing a release from USTs 113, 114, and 115 and their removal was conducted under Parts 211 and 213 of NREPA.

  Four LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 40-A have been defined as approximately 30 feet by 60 feet and 50 feet by 120 feet. The third plume, associated with AOI 40-B, has been defined as approximately 30 feet in diameter. The fourth plume, associated with AOI 16-C, has been defined as approximately 50 feet by 120 feet.

  The RFI soil data from AOI 40-A indicate that screening criteria were exceeded for benzo(a)pyrene. The RFI soil data from AOI 40-B and AOI 16-C indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 40-A indicate that screening criteria were exceeded for several VOCs and inorganic constituents. The RFI groundwater data from AOI 40-B indicate screening criteria were exceeded for several VOCs. The RFI groundwater data from AOI 16-C indicate that screening criteria were exceeded for benzene, beryllium, and selenium.

- Based on the human health risk assessment for AOIs 40-A, -B, and 16-C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 40-A, -B and 16-C Fuel Oil Plumes is to remove LNAPL to the extent practicable. **Waste Management Units (WMU) -** In February 1985 GMC submitted a RCRA Part B Permit Application to USEPA which listed 10 waste management units at the Site. In November 1987, GMC retracted its RCRA Part B applications and converted the Site to less than 90-day generator status, and has been operating as such since that time. In 1988 EDI Engineering & Science prepared a Closure Report which provided the basis and context to proceed with closure of WMUs identified at the Site. Section I of the 1988 Closure Report provided the relevant background that supports the current list of WMUs to be closed.

As part of converting the Site to less than 90-day generator status, GMC was to close its WMUs identified in its RCRA Part B Permit application. The intent of the 1988 Closure Report was to organize GMC's closure of these WMUs. The 1988 Closure Report inventoried 10 WMUs as follows:

- Division 29, Building 23 Tool Manufacturing Cyanide Storage Area
- Division 25, East of Factory 10 Outside Waste Thinner Tank Area
- Factory 86, Building 04 Assembly Plant Waste Storage Tanks
- Building 41A, Assembly Plant Waste Tank Area
- Factory 10, Building 20 Transmission Plant Tank Area
- Building 02 Container Storage Area
- Factory 36, Building 36 Engine Plant Northeast Dock
- Factory 31, Building 32 Axle Plant North Dock
- Factory 10, Salvage Yard Container Storage Area
- Factory 10, Salvage Yard Tank Storage Area

In general, while select WMUs have undergone partial closure, with a few limited exceptions (e.g., Tool Manufacturing Cyanide Storage Area [Division 29, Building 23]), no formal document submittals to the USEPA, MDNR, or Michigan Department of Environmental Quality (MDEQ) can be located. Closure activities are currently ongoing for these WMU.

The following summarizes the general environmental issues and remedial actions planned for the Site:

- Fifteen areas at the Site were found to contain subsurface conditions of free-phase petroleum products (e.g., gasoline, cutting/honing oil, etc.). There are also areas of LNAPL infiltration into the storm sewer along a complex sewer system. These LNAPL areas are planned to be addressed using various methods such as multi-phase extraction, vacuum enhanced extraction, or passive recovery. Additionally, oil-water separators (OWSs) are planned to be installed for dry-weather flow/first flush in two main sewer lines. Sixty-three discrete areas of dissolved-constituent impact to groundwater were found (primarily chlorinated solvents, gasoline, and/or metals). These conditions will be addressed with restrictive covenants to be established, limiting on-site land uses to industrial/commercial uses, prohibiting any on-site groundwater use, and prohibiting groundwater use for drinking for some off-site locations. The dissolved-constituent plumes primarily associated with LNAPL gasoline source areas will also be addressed as part of the multi-phase extraction planned for that area.

- Nine areas of "dry-soil" impacts were found (primarily petroleum products, lead, or manganese). These areas will also be addressed with restrictive covenants to be established, calling for additional conditions to be met for conducting excavations, and the maintenance of surface covering.

- One “Hot-spot” area of lead-impacted soil was identified at AOI 09-A located South of Hamilton Avenue.

Current Status of the Site

The following future remedial activities are planned at the Site:

- Address fifteen areas of subsurface LNAPL, using various methods such as multi-phase extractions, vacuum enhanced extraction, or passive recovery
- Install and operate oil recovery systems for the Outfall 003 and Outfall 004 Storm Sewer Systems, primarily including:
  - OWSs and debris removal systems
  - Diversion lines and associated manholes
- Evaluate options to address sheens at Outfall 002 and infiltration into the Outfall 002 storm sewer near the former Tank Farm 37UST system at AOI 36-05.
- Investigate the Outfall 005 Storm Sewer system to confirm that no on-site oil infiltration is occurring (i.e., boom survey).
- Maintain booms on Outfalls 002, 003, 004, and 005 until these storm sewer systems are addressed as above.
- Investigate potential sources of groundwater infiltration into the storm sewers and take appropriate corrective actions, if necessary. Remove and dispose of approximately 1,800 cubic yards of lead-impacted soil
- Maintain surface cover in select areas where slab or pavement exists, where subsurface impacts have been identified.
- Perform long-term annual groundwater monitoring program.
- Establish Restrictive Covenants for groundwater and soil impacts at the Site and downgradient properties, as appropriate.
- Abandonment of approximately 300 groundwater monitoring wells, which will no longer be needed.
- Close RCRA hazardous waste management units.
- Negotiate final remedy with USEPA and MDNRE.
- Handle TSCA LNAPL issues via risk-based closure mechanisms.

4.1.2 Historic Map Review

ARCADIS reviewed historical Sanborn Fire Insurance Maps (Sanborns) provided by EDR for the years 1902, 1909, 1914, 1928, 1950, and 1967. The following summarizes our review of these maps.

The 1902 Sanborn map does not depict the entire Site. This map depicts The W.F. Stewart Company (manufacturers of vehicle bodies and gear woods) occupying land at the intersection of the southern side of Hamilton Street and eastern side of Industrial Avenue. Two buildings associated with this company were identified as a dry kiln structure and a three-story wood working machinery (body gluing and sanding) building. Labeling indicates that the facility was heated with a steam system fueled by "waste". Additionally, this map depicts The Imperial Wheel Company (manufacturer of high grade vehicle wheels) occupying land on the northern side of Hamilton Street and eastern side of St. John's Avenue (presently James P. Cove Boulevard). Several buildings associated with this company were identified as storage of hubs, wheel painting, stock rooms, machine rooms, coal bins, a water reservoir tank, and "gasoline eng." Labeling indicates that the facility was heated with a steam system fueled by "waste" and coal. The Durant-Dort Carriage Company (Plant No. 5) improves the portion of the Site located at the intersection of Hamilton Avenue and St. John Street. Railroad tracks appear on the central portion of the Site. This map depicts two facilities adjoining the southeastern corner of the Site. These facilities are identified as J.B. Armstrong Manufacturing Co. (manufacturers of carriage and wagon springs) and the Durant-Dort Carriage Company (varnish factory).

The 1909 Sanborn map does not depict the entire Site. This map depicts the Buick Motor Company occupying the southern portion of the Site (south of Leith Street). Several buildings associated with the motor company are identified as factory numbers. Factory #1 is identified as a machine shop, paint shop, body finishing, upholstering, stock room, and office. This building is located just north of Hamilton Avenue. Factory #3 is identified as a machine shop, brass foundry, and drop forge works. Factory #4 is identified as machine room, wood working, stock room, glue room, and office. This building is located just south of Hamilton Avenue. The Buick Motor Company Lumber Yard (with several dry kiln buildings and open sheds) is located south of Factory #4. Factory #6 is identified as machine shop and stock rooms with paint shop, wheel ware house, and varnishing. Factory #7 is identified as stock rooms with painting and body finishing (with oil and paint storage). Factory #7 is identified as stock rooms with painting and body finishing (with oil and paint storage). Factory #9 is identified as automobile ware house. Factory #10 is identified as assembling shop. Factory #11 is identified as "to be machine shop" with gasoline engines to be manufactured. Factory #15 is located on the eastern side of Industrial Avenue. The Michigan Motor Casting Company is identified a manufacturer of automobile castings and located south of Factory #15. The Weston Mott Company is identified as a manufacture of automobile running gears and located west of Factory #1 and #10. The Oak Park Power Company is located between Factory #1 and #10. This building is labeled as machine shop, boiler room, power room, stock room. A 100,000 gallon water tank is located adjacent to this building.

The Imperial Wheel Company is located on the western side of St. John Street and north of Hamilton Avenue. Several buildings associated with this company were identified as storage of hubs, wheel painting, stock rooms, machine rooms, coal bins, a water reservoir tank, "gasoline eng.", dry kiln, rim factory, machine shop, coal, underground cistern, spoke mill, and unfinished stock house. Labeling indicates that the facility was heated with a steam system fueled by "waste" and coal. The W.F. Stewart Company (manufacturers of vehicle bodies and gear woods) occupies land at the intersection of the southern side of Hamilton Street and eastern side of Industrial Avenue. Two buildings associated with this company were identified as a dry kiln structure and a three-story wood working machinery (body gluing and sanding) building. Labeling indicates that the facility was heated with a steam system fueled by "waste". Several additional buildings on-Site include residences along Industrial Avenue. Railroad tracks appear on the central portion of the Site and run in a north-to-south direction. Abutting properties include the Flint Axle Works and Flint Varnish Works buildings located at the intersection of Hamilton Avenue and St. John Street. These buildings are identified as machine shop (with coke and coal heating source), oil room, finishing room, and storage. The J.B. Armstrong Manufacturing Co. (manufacturers of carriage and wagon springs) is located on the eastern side of St. John Street.

The 1914 Sanborn map does not depict the entire Site. This map depicts the Buick Motor Company occupying the majority of the Site. The Site appears similar to the 1909 map. However, several additional factory buildings have been added to the motor company. These buildings include more machine shops, engine assembly, storage areas, and a testing track. A small portion of the southeastern corner of the Site is improved with the Chevrolet Motor Company (formerly the Imperial Wheel Works Company). The buildings are identified as wheel painting, upholstering, machine shop, assembly and storage, drying rooms, testing room, cutting and sewing, rubbing and painting, and storage of parts.

The 1928 map does not depict the entire Site. This map depicts the Buick Motor Company occupying the majority of the Site with several pockets of densely residential properties located on the eastern and western Site boundaries. The Site depicts the same buildings improving the Site as described in the 1914 map. However, additional buildings have been constructed. A heat treating building (Building 55) improves the Site located between Buildings 12 and 29 (south side of Leith Street), a heat treating building (Building 23) improves the Site located at the northeast corner of Building 11 (north side of Leith Street), a sand storage house (Building 21) improves the Site located at the north side of Leith Street, and a sand shed (Building 45) and heating plant (Building 44) improve the Site located south of Building 30 (the brass and aluminum foundry), a storage building (Building 79) and a pump station (Building 60) were constructed at the south end of the Site on the east side of St. John Street. Several buildings were constructed within the main portion of the Site between Hamilton Avenue and Leith Street, including an assembly and paint facility (Building 62), a die storage building (Building 80), a pickling building (Building 64), a large spray pond (located south of Building 14), and a concrete oil pit (located on the south side of Leith Street).

Several buildings were constructed north of Leith Street, between Leith Street and Stewart Avenue, including a dining facility (Building 61), two additions to the sand house (Building 21), a machine shop and pattern shop (Building 69, located north of Building 20), an expansion/addition to the north end of Building 11, a machine shop (Building 66), and a general storage building and heating plant (Buildings 58 and 59). A large foundry facility was constructed within the area between Leith Street and Stewart Street (between Buildings 20 and 30). The foundry consisted of several buildings, including a foundry (Building 70), cleaning building (Building 71), sand bin (Building 72), stock building (Building 73), sand dryer (Building 74), knockout building (Building 76), and a laboratory building (Building 77). Abutting properties included the A. C. Spark Plug Company (Division of General Motors Corporation); the Flint Screw Products Company; the E. I. DuPont De Nemours and Company, Incorporated; the Marvel Carburetor Company; the Consumer Power Company; the Flint Paint & Varnish Company; the Armstrong Spring Company (Division of General Motors Company); the Flint Brass Works; two fueling stations; and, an auto repair and battery repair facility.

The 1950 map does not depict the entire Site. This map depicts the Site and vicinity as similar to the 1928 map. This map depicts the Buick Motor Company occupying the majority of the Site with several pockets of densely residential properties located on the eastern and western Site boundaries. However, several buildings, including buildings associated with the former Chevrolet Motor Company were demolished and replaced with new buildings identified as a service stock and machine shop (Building 84), a facility building (Building 94), and a receiving dock (Building 27A). Several buildings had been constructed between Hamilton Avenue and Leith Street, including a heat treating building and pickling building. Several buildings were demolished in the northern portion of the Site including a gray iron foundry (Building 20), the central store (Building 16), a heating plant and sand shed (Buildings 44 and 45), the Liberty Motor Plant (Building 27), and the four housing units (Housing Units 2, 3, 4, and 27, located in close proximity to the former Building 27 and Building 30). In addition, the brass and aluminum foundry (Building 30) was no longer depicted and labeled as machinery storage and a salvage department. Buildings constructed in the northern portion of the Site included a factory engineering building (Building 85), a stock building (Building 86), and machine shop (Building 66A and Building 66). Abutting properties included areas of dense residential areas, and commercial business that included filling stations, automotive repair garages, restaurants, hotels, churches, a paper and rag recycling facility.

The 1967 map does not depict the entire Site. This map depicts the Buick Motor Division (a General Motors Corporation) occupying the majority of the Site with several pockets of densely populated residential properties located on the eastern and western Site boundaries. The buildings appear similar to the 1950 map. However, a few buildings located north of Stewart Street and east of Newman Street appear to have been demolished. Several residential buildings located in this area have been demolished and replaced with another Buick Motors factory building.

4.1.3 Aerial Photograph Review

ARCADIS reviewed historical aerial photographs provided by EDR for the years 1937, 1941, 1950, 1964, 1972, 1982, 1993, and 2005. Please note: northern and southern portions of the Site beyond Stewart Street and East Hamilton Street are not depicted on these photographs.

The 1937 photograph depicts the northern portion of the Site (north of Leith Street) as heavily improved with several large industrial-type buildings. Additionally, a circular roadway, possibly a test track, appears just south of Stewart Street. Portions of the northern part of the Site are also unimproved. The southern part of the Site (south of Leith Street) is heavily improved with several large industrial-type buildings. The central eastern and western sides of the Site are improved with small residential-type buildings. Railroad tracks appear to run in a north-south direction along the eastern portion of the Site. Additionally, railroad spurs break off from the main rail line and disperse to several Site buildings north of Leith Street. The Site's vicinity appears to be improved with small residential-type buildings. A river appears approximately 500 feet east of the Site and abuts two areas of the eastern portion of the Site (near Leith Street and near East Hamilton Street).

The 1941 photograph depicts the Site similar to the 1937 photograph; however, the circular roadway no longer appears south of Stewart Street. Additionally, a new large building appears on the southeastern Site boundary (along the river bend).

The 1950 photograph depicts the Site similar to the 1941 photograph; however, a new large building appears south of Stewart Street.

The 1964 photograph depicts the Site similar to the 1950 photograph; however, a new large building appears north of Stewart Street along the eastern side of North Street. The Site's vicinity appears to be improved with small residential-type buildings.

The 1972 photograph depicts the northern portion of the Site (north of Leith Street) as heavily improved with several large industrial-type buildings and several large parking lots. The southern part of the Site (south of Leith Street) is heavily improved with several large industrial-type buildings. The central eastern and western sides of the Site are improved with small residential-type buildings and large parking lots. Railroad tracks run in a north-south direction along the eastern portion of the Site. Additionally, railroad spurs break off from the main rail line and disperse to several Site buildings north of Leith Street. The Site's vicinity appears similar to the 1964 photograph.

The 1982 photograph depicts the Site and vicinity similar to the 1972 photograph. However, the residential-type buildings no longer appear on-Site. These areas appear to be improved with large commercial-type buildings, parking lots, or appear to be unimproved. Additionally, aeration lagoons appear on the eastern-central portion of the Site (north of Leith Street). Additionally, a small chemical facility (currently known as Lockhart Chemical) and a facility (currently known as Universal Systems) were constructed at the north end of the Site, east of the railroad tracks, between Stewart Avenue and Pierson Road.

The 1993 photograph depicts the Site and vicinity similar to the 1982 photograph.

The 2005 aerial photograph depicts the northern portion of the Site as improved with several industrial-type buildings, paved parking lots, and railroad tracks. One aeration lagoon on the eastern-central portion of the Site appears to remain and one appears to be filled-in (and unimproved). The southern portion of the Site appears to be mostly unimproved. Many of the former Site buildings appear to have been demolished sometime between 1993 and 2005. Several of these areas appear to be paved parking lots and improved with some smaller-type buildings. Small residential-type buildings appear west of the Site. Large and medium sized commercial- or industrial-type buildings appear east of the Site.

Copies of the above-referenced aerial photographs are included in Appendix B.

4.1.4 City Directories

ARCADIS contracted EDR to conduct a city directory search for the Site and surrounding area. EDR provided a City Directory Abstract for the Site (addressed as 902 East Hamilton Avenue) for the years 1916 through 2008 in five year intervals, as available. The city directory identified the Site as residential from 1916 through 1958.

The 1963 directory identified the Site as Buick Motor Co. parking lot. The 1963 directory also identified the Site (at 832 East Hamilton Avenue) as Buick Motor (parking lot).

The 1968 through 1995 directories identified the Site as Buick Motors Division General Motors Corp.

The 2000 directory identified the Site as the following:

- Electronic Data Systems, Inc.;
- General Motors Corp. Buick Div. Headquarters;
- General Motors Corp. Cadillac Luxury Car Div.;
- General Motors Corp. Chassis Div.;
- General Motors Corp. Machine Tool Div.;
- GM Powertrain V-6 Plant (auto parts & supplies mfrs);

- Morrison-Knudsen (elec. work);
- Pinkerton's (armored car service);
- PPG Industries (paints allied products);
- Seagull Entertainment (mgmt. consulting services);
- Total Travel Management (travel agency).

The 2004 directory identified the Site as Buick Motor (marketing program & services) and as GM Powertrain (auto parts & supplies mfrs.).

The 2009 directory identified the Site as GM Powertrain (auto parts & supplies mfrs.).

The City Directory Abstract provided information for properties along East Hamilton Avenue. Many of these listings were identified as residential properties with some commercial use (i.e., hotels, restaurants, banks, and churches). However, one address of concern is listed below.

822 East Hamilton Avenue (to the southeast of the Site):

- 1921: O.I. Nielson (garage)
- 1926: Marius Nielson (radiator repair)
- 1931; Flint Metal Bumping & Radiator Shop
- 1936: Flint Metal Bumping & Radiator Shop
- 1941: Flint Metal Bumping & Radiator Shop (auto repair)
- 1945: Flint Metal Bumping & Welding Co.
- 1958: Sampson Rogers (auto repair)

The EDR City Directory Abstract is included in Appendix B.

4.1.5 Historical Topographic Maps

Topographic maps were obtained from EDR for the years 1922, 1969, and 1975.

The 1922 map depicts the Site as improved with at least fourteen large industrial-type buildings. A railroad track appears along the eastern Site boundary. A river is located just east of the southern portion of the Site. Small residential-type buildings appear along abutting/adjacent properties along the entire Site boundary.

The 1969 map depicts the Site as developed with fifteen large structure and several smaller structures. Two water tanks are located on-Site. A railroad track appears along the eastern Site boundary. A river is located just east of the southern portion of the Site. Small residential-type buildings appear along abutting/adjacent properties along the entire Site boundary.

Additionally, several schools, churches, parks, a fire station, a hospital appear along the Site's boundary. A large commercial- industrial-type property appears on the southeastern corner of the Site.

The 1975 map depicts the Site and the surrounding area similar to the 1969 map.

The EDR Topographic Map report is included in Appendix B.

4.1.6 Building/Planning Departments

ARCADIS contacted the Genesee County Real Estate Department to review available records on file for the Site. The representative from the department provided ARCADIS with Property Record Card showing indicating general information about the site.

4.1.7 Historical Buildings

Historical Buildings		
Building Number	**Description**	**Year Built**
1	Transmission Plant	1906
01	Administration	1968
02	Former Plastics Plant	1917
02A	Material Handling Storage	1943
02C	Material Handling Storage	1979
3	Drop Forge	1908
03	Car Loading/Rail Shipping	1965
4	Body Plant	Before 1906
04	Buick City Assembly	1947
5	Enameling	1914
6	Assembly	1907
7	Main Office and Administration	1917
07	Steam Generating Plant	1973
07A	Steam Generating Plant Addition	1983
8	Laboratory and Garage	1908
08	Buick City Final Assembly	1972
9	Fueling Station	1919
09	Facilities Engineering	1977
10	Assembly	1909
10	Car Marshalling-Repair & Shipping	1978
12	Buick City Final Assembly	1910

Historical Buildings		
Building Number	**Description**	**Year Built**
12A	Buick City Final Assembly	1938
12C	Buick City Final Assembly	1965
12E	Buick City Final Assembly	1985
12F	Buick City Final Assembly-Receiving Dock	1984
12G	Buick City Final Assembly-Body Fabrication	1984
14	Central Power House	1920
15	Facilities Engineering	1919
16	Buick City Final Assembly	1946
16A	Buick City Final Assembly	1972
16B	Buick City Final Assembly	1985
16	Central Stores	1909
17	Storage	1919
18	Parts Department and Paint	Before 1902
J2 (18)	Store Shed	Before 1921
19	Housing	1919
20	Iron Foundry	1916
22	Pyralin Storage	1919
23	Former Tool Making & Heat Treat	1945
23	Heat Treat	Between 1916-1920
24	Motor Block Test	1920
25	Transformer House	1920
26	Boiler and Gas House	Between 1907-1913
27	Liberty Engine Plant	1919
28	Powertrain Facility Support	1918
29	Former Tool Manufacturing	1918
30 *	Spring Plant	1918
30A *	Spring Plant Addition	1946
30B *	Spring Plant Addition	1954
30D *	Spring Plant Addition	1965
30E *	Spring Plant Addition	1967
30F *	Spring Plant Addition	1972
31	Axle Assembly Plant	1906
32	Axle Plant	1907
33	Housing	1919

Historical Buildings		
Building Number	**Description**	**Year Built**
34	Axle Plant	1909
35	Axle Plant	1909
36	Power House	1909
37	Axle Plant	1909
38	Axle Plant	1908
39	Receiving Shed for Axle Plant	Est. 1909
40	Buick City Final Assembly	1920
42	Transformer House	1920
43	Kitchen	1920
44	Buick City Final Assembly Paint Shop	1977
44	Auxiliary Power Plant	Between 1912-1919
45	Sand Storage	Between 1912-1919
46	Parts Storage/Auxiliary Power Plant	Before 1919
47	Sprinkler Valve House	Before 1921
48	Parts Storage	Before 1921
49	Former Sawdust Vault	Before 1921
50	Dry Kiln	Between 1906-1916
51	Bending Storage & Welding	Before 1912
53	Transformer House	1918
54	Housing	1919
55	Heat Treat	Between 1912-1919
57	Housing	1919
58	Record Storage	Between 1922-1927
59	Auxiliary Power Plant	Between 1922-1927
60	Main Pump Station	1913
61	Facilities Engineering	1923
61A	Facilities Engineering	1944
62	Assembly & Paint	1923
63	Dry Kiln	1916
64	Pickling Room	1924
65	Personnel	1921
66	Crankshaft Machine Shop	1926
67	Transformer House	1923
68	Transformer House	1926
76	Core Sand Knockout Building	Between 1926-1927

Historical Buildings		
Building Number	**Description**	**Year Built**
77	Laboratory	Between 1926-1927
78	Engineering & Experimental	1927
79	Storage	Between 1922-1927
80	Die Storage	1928
84	Powertrain Components	1939
84A	Powertrain Components	1978
84B	Powertrain Components	1981
85	Facilities Engineering	1937
94	Truck Repair Garage	1941
94A	Export Processing	1945

* - Building has been demolished; however, support steel remains in place.

4.1.8 Existing Buildings

List of Existing Buildings			
Building Number	**Description**	**Year Built**	**Status**
Idled			
5	South Primary Substation	1967	Unknown
11	Powertrain Components	1909	
21	Central Tool Grinding & Heat Treat	1917	Idled by February 2010
32	Powertrain Components	1966	
36	Engine Plant	1952	Idled - Scheduled for Demo
38	New Car Conditioning & Delivery	1964	Idled – Scheduled for Demo
66	Powertrain Components	1926	
66A	Powertrain Components	1940	
66B	Powertrain Components	1940	
66C	Powertrain Components	1954	
66D	Powertrain Components	1966	
83	Powertrain Components	1936	
83A	Powertrain Components	1954	
97	Fire Department	1943	

List of Existing Buildings			
Building Number	**Description**	**Year Built**	**Status**
Idled			
Operational			
6	North Primary Substation	1967	
18	Personnel	1975	
20	Transmission Machining & Sub-Assemblies	1942	
22	Compressor Station	1942	
24	North Fire Protection Pump House	1970	
30C	Spring Plant Addition	1964	
43	Transmission Plant	1952	
55	Waste Treatment	1953	
55A	Waste Treatment	1955	
55B	Waste Treatment	1972	
65	Compressor Station	1957	Active Process Waste Pump
69	Torque Converter Plant	1927	
69A	Electrical Substation	1949	
69B	Compressor Station	1951	
69C	Torque Converter Plant	1954	
70	Torque Converter Plant	1927	
70A	Torque Converter Plant	1945	
70B	Torque Converter Plant	1954	
70C	Torque Converter Plant	1980	
71	Torque Converter Plant	1926	
71A	Torque Converter Plant	1944	
71B	Torque Converter Plant	1952	
72	Torque Converter Plant	1927	
73	Torque Converter Plant	1927	
73A	Torque Converter Plant	1945	
73B	Torque Converter Plant	1955	
74	Torque Converter Plant	1927	
86	Facilities Engineering	1937	
86A	Facilities Engineering	1952	
99	Construction Material Storage	1985	

4.1.9 Additional Record Sources

No additional record sources were reviewed in the course of this assessment.

4.1.10 Summary of Historical Information

Portions of the Site were originally developed in the late 1800s to produce the "horseless carriage." In 1898, Billy Durant and J. Dallas Dort purchased the Imperial Wheel Company, making it a subsidiary of the Durant/Dort Carriage Company. After Durant/Dort Carriage Company purchased the Imperial Wheel Company, manufacturing operations were relocated to the intersection of Hamilton Avenue and St. John Street (currently James P. Cole Boulevard). The Buick Motor Company was first established in Flint when Flint Wagon Works purchased the company from David Buick in September 1903. In 1903, the Buick Motor Company was relocated from Detroit to the Site, on Hamilton Avenue between Industrial Avenue and St. John Street (now James P. Cole Boulevard).

In addition to the manufacturing of automobiles, in response to World War I, the Buick Motor Company began producing the Liberty Aircraft engine in 1918. Similarly, in response to World War II, the production of automobiles was stopped in 1942, and the Buick complex was converted for the production of military equipment. Current Site operations include machining of ferrous and nonferrous metals, V-6 engine manufacturing, torque converter manufacturing, transmission components manufacturing, engine assembly, and industrial wastewater treatment.

4.2 Historical Use Information on Adjoining Properties

A review of select city directories covering the period 1976 to 2008 and aerial photographs and topographic maps covering the period 1943 to 2006 identified that the adjoining properties have been used for a mixture of agricultural, residential and commercial purposes. Various commercial businesses have occupied the adjoining properties to the north during from 1989. The adjoining properties to the southeast and northeast have been occupied mainly by residential homes. The adjacent property to the east across Tidewater Trail has been used by the Flint Country Club for a golf course. The adjacent property to the west was the Flint-Genesee National Military Park.

4.3 Physical Setting

4.3.1 Geology

4.3.1.1 Surface Features

Information regarding the regional and Site specific geology was obtained from EDR and prior Site investigations.

According to the EDR topographic information (Flint North, MI USGS Quadrangle Map), the Site elevation is approximately 742-feet. Topography at the Site is fairly flat. Regional topography slopes to the east-southeast towards the Flint River. The ground surface elevation drops approximately 35 feet between Industrial Avenue at the western property boundary and James P. Cole Boulevard at the eastern property boundary, in close proximity to the Flint River. The river is approximately 100 feet east of the Southend of the Site and approximately 3,000 feet east of the Northend of the Site.

4.3.1.2 Subsurface Features

According to the RCRA Revised CMP report, the subsurface deposits at the Site have been grouped into the following units: fill material, silty sand, silty clay, and bedrock. Each of these units is described below.

- Fill Material - is present beneath most areas of the Site due to various construction activities, such as existing or former buildings, loading docks, manufacturing facilities, and material storage areas. Fill material typically consists of sandy deposits. In some areas, the sandy fill material contains other debris, including coal chips, slag fragments, and metal shavings. The fill material is thickest (up to approximately 15 feet) in the vicinity of boring 20-169 (Building 20) on the Northend of the Site. The fill material is thin (approximately 1.5 feet) in the vicinity of boring SBFL3-23 (near Building 02) on the Southend of the Site, and is absent entirely in scattered areas of limited extent.

- Silty Sand - In the Northend of the Site, a silty sand unit of variable thickness is present beneath the fill material. Interbedded with the silty sand unit are discontinuous layers of silt and clay. This silty sand unit generally thins toward the south and is absent in some portions of the Site south of Leith Street. Where present, this unit ranges in thickness from 5 to 25 feet.

- Silty Clay - A dense silty clay glacial till deposit underlies the silty sand at the Site. The silty clay till grades to clayey silt in some areas and contains discontinuous sand seams and lenses. The estimated thickness of the glacial till in the Flint area ranges from 50 to 100 feet (Humphrys, 1960).

- Bedrock - consisting of sandstone, sandy shale, shale, coal, and limestone (Saginaw Formation) is reported to be present beneath the Site at depths of approximately 60 to 80 feet bgs. Bedrock was not encountered in the soil borings completed for the RFI. Sandstone bedrock was encountered at about 60 feet bgs at boring OW-4 (GM-4) near the west side of the Aeration Lagoons (G&M, 1986).

The geology of central Genesee County is dominated by two primary stratigraphic units consisting of unconsolidated glacial deposits of Pleistocene age, underlain by sandstone bedrock. The surficial glacial deposits are composed of a sequence of moraines, outwash and glacial channels, lake bed sediments, and till plains. These deposits are underlain by glacial drift or till consisting primarily of clay with lesser amounts of sand and silt. These overburden materials are underlain by bedrock of the Saginaw Formation, consisting of Pennsylvania age sandstones and limestones.

4.3.2 Hydrology

4.3.2.1 Surface Water

Surface water drainage patterns at the Site are generally east and southeast, toward the Flint River, which is the nearest surface water body. Paved surfaces, parking lots, and structures cover more than 80% of the Site. The Site operates under the requirements of its National Pollutant Discharge Elimination System (NPDES) Permit (No. MI0001597), which regulates surface water discharges. The Site is drained by 15 storm sewers. Of these, the following 7 outfalls have limitations and monitoring requirements as defined by the NPDES permit: Outfalls 002, 003, 008, 010, 011, 012, and 100. In addition, discharges from Outfalls 002, 003, and 100 include non-Site drainage flow from other portions of the City of Flint, both upstream and downstream of the Site's storm sewer system. Outfalls 002, 003, 004, and 005 are also observed as required in the SWPPP.

4.3.2.2 Groundwater

Based on information from previous investigations, groundwater was encountered typically ranging from approximately 6 to 16 feet below ground surface (bgs). Groundwater at the Site generally flows in an easterly direction, toward the Flint River.

4.4 Standard Environmental Record Sources – Federal and State

ARCADIS contracted with EDR to conduct a search of state and federal regulatory databases to identify recorded concerns for the Site and surrounding properties. The databases were searched to the approximate minimum search distances as specified in ASTM Standard Practice E 1527-05, "Phase I Environmental Site Assessment Process." The database search is provided as Appendix C.

Review of the EDR report revealed the following pertinent information.

Database	Search Radius	Site	Adjacent	0 – 1/8 mile	1/8 – ¼ mile	¼ - ½ mile	½ - 1 mile
NPL	1 mile	No	0	0	0	0	0
Delisted NPL	1 mile	No	0	0	0	0	0
CERCLIS	0.50 mile	Yes	0	0	0	1	-
CERCLIS-NFRAP	0.50 mile	No	0	0	0	0	-
RCRA CORRACTS	1 mile	Yes	0	0	0	1	0
RCRA TSD	0.50 mile	Yes	0	0	0	0	-
RCRA Generators	Site & adjacent	Yes	1	-	-	-	-
ERNS Site	Site	Yes	-	-	-	-	-
FINDS	Site	Yes					
US IC/EC Registries	Site	Yes	-	-	-	-	-
SHWS	1 mile	No	0	0	1	1	3
State & Tribal SWF/LF	0.50 mile	No	0	0	0	0	-
State & Tribal LUST	0.50 mile	Yes	0	0	6	5	10
State & Tribal USTs	Site & adjacent	Yes	0	-	-	-	-
State ASTs	Site & adjacent	No	0	-	-	-	-
State IC/EC Registry	Site	No	-	-	-	-	-
State Brownfields	0.50 mile	No	0	0	0	2	-
State & Tribal VCP	0.50 mile	No	0	0	0	0	-
PADS	Site	Yes	0	0	0	0	
Spills	Site	Yes	-	-	-	-	-
Manifest	Site	Yes	-	-	-	-	-
Drycleaners	0.25 mile	No	0	0	0	-	-

4.4.1 Site

The Site was identified on the following databases searched by EDR: Resource Conservation and Recovery Act (RCRA) hazardous waste generator, a RCRA Corrective Action (RCRA CORRACTS) facility, a RCRA Treatment, Storage, and Disposal (RCRA TSD) facility, an Emergency Response Notification System (ERNS) site, a Facility Index System (FINDS) site, an Integrated Compliance Information System (ICIS) site, a registered Underground Storage Tank (UST) facility, a leaking UST (LUST) facility, an Aboveground Storage Tank (AST) facility, PCB Activity Database System (PADS), Toxic Chemical Release Inventory System (TRIS), Spills, and MANIFEST. Information was taken from a previous investigation of the Site and information provided by EDR.

GMC BOC Flint Automotive Division (the Site) is listed at 902 East Hamilton Street. The Site is listed as a RCRA TSD, RCRA CORRACTS, a RCRA large quantity generator, a TRIS, a PADS, a FINDS, and a Manifest. The Site is a large quantity generator of hazardous waste, indicating that the Site generates more than 1,000 kilograms of hazardous waste per month (EPA identification number MID005356712). The RCRA TSD listing indicates that the Site is "engaged in the treatment, storage or disposal of hazardous waste." The Site was listed as a RCRA TSD facility operator since 1980. Hazardous waste stored on-Site included arsenic, barium, cadmium, chromium, lead, mercury, silver, benzene, methyl ethyl ketone (MEK), tetrachloroethene, and trichloroethylene. The Site was also listed as a RCRA CORRACTS facility, indicating that corrective actions have been conducted at the Site. The Site was assigned a "high" corrective action priority as of 1988. In 1998, contaminated groundwater was under control and groundwater monitoring would be conducted to assess the contamination. The Site had received 24 notices of hazardous waste violations on record from 1983 to 2006. These violations were issued due to "used oil generators, ground water monitoring, and generator transport, general oversight and record keeping requirements." Compliance was achieved for 23 hazardous waste violations during the same time frame. The 2006 violation has not achieved compliance. Listing on the PADS database indicates PCB activity at the Site, which is related to the generation and off-site shipment of PCB-containing wastes. Manifest records were listed on the NY MANIFEST database for barium, PCB waste, and petroleum oil. Container types used for transfer were metal drums and barrels. One hundred and three (103) separate listings were given for the ERNS database. These releases included spills of PCBs, test dye, hydraulic oil, misc. oil, paint pigment and solvents, fly ash, gasoline, waste thinner, and chromic anhydride.

General Motors Corporation (the Site) is listed at 902 East Hamilton Street. The Site is listed as a RCRA Non-Generator facility, indicating that the Site no longer generates hazardous waste. The Site was listed as a RCRA operator since January 1970 and as a Non-Gen since August 1980. Hazardous waste formerly generated at the Site included: devices containing elemental mercury, mercury thermometers, mercury switches, batteries, lamps, and pesticides. No violations have been found.

General Motors – NAO Flint Operations (the Site) is listed at 902 East Hamilton Street. The Site is listed as an FINDS due to its listing on the US Facility Response Plan (FRP). The FRP contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

GM Powertrain Flint North (the Site) is listed at 902 East Leith Street. The database indicates that the following ASTs are currently in-use: three 15,000-gallon ASTs containing "compartment"; a 10,000-gallon AST containing flammable liquid; a 2,500-gallon AST containing flammable liquid. The following ASTs have been removed: a 5,000-gallon AST containing "compartment"; five 15,000-gallon AST containing flammable liquids; three 20,000-gallon AST containing flammable liquid; a 7,500-gallon AST containing liquid propane; and, ten 20,000-gallon ASTs containing flammable liquid.

The Site is listed at 902 East Hamilton Street as a Spill facility. The database indicates that a process waste line broke underground and approximately 300 gallons of waste water was discharged in July 2000.

Building 16 (the Site) is listed at 902 East Hamilton Street. The Site is listed as a LUST and registered UST facility. The database identified eighteen Leak Numbers associated with the Site. Six of these listings have a "case closed" status. The following summarizes the "open" LUST listings.

Leak Number	Release Date	Substance Released
C-0282-90	February 16, 1990	Not reported
C-0320-01	June 8, 2001	Not reported
C-0324-89	June 12, 1989	Not reported
C-0375-01	June 6, 2001	Not reported
C-0434-97	December 13, 1988	Not reported
C-0470-97	September 5, 1985	Gasoline
C-0471-97	January 2, 1987	Hazardous Substance
C-0633-91	April 11, 1991	Unknown
C-0921-91	February 2, 1990	Not reported
C-0922-91	May 10, 1991	Not reported
C-0924-91	May 10, 1991	Not reported
C-1160-90	December 13, 1988	Not reported

The Site is listed as a registered UST facility. The following summarizes the USTs that are/were located on-Site.

Tank ID Number	Installation Date	Product Stored	Tank Capacity	Tank Status
059/86	1964	Gasoline	6,000-gallon	Removed (1988)
123/38	1980			Removed (1990)
094/84	1972			Removed (1991)
095/84	1972			Removed (1991)
097/84	1971			Removed (1991)
110/36	1980	Gasoline	12,000-gallon	Removed (1990)
111/36	1980			Removed (1990)
066/02	1954			Removed (1986)
004/37	1950			Removed (1991
086/31T	1960			Removed (1986)
049/43	1936			Removed (1988)
005/37	1950			Removed (1991)
081/31T	1960			Removed (1986)
082/31T	1960			Removed (1986)
002/38	1936	Gasoline	3,000-gallon	Removed (1989)
058/88	1964			Removed (1988)
103/84	1954	Gasoline	15,000-gallon	Removed (1991)
101/84	1954			Removed (1991)
102/84	1954			Removed (1991)
100/84	1966	Gasoline	Unknown	Removed (1991)
096/84	1972	Gasoline/waste	6,000-gallon	Removed (1991)
054/88	1936	Used oil	12,000-gallon	Closed in-place (1989)
1001	1941	Used oil	20,000-gallon	Removed (1990)
024/20E	1942	Used oil	200,000-gallon	Removed (1986)
148/60	1955	Used oil	100,000-gallon	Closed in-place (1991)
147/60	1955	Used Oil	100,000-gallon	Closed in-ground (1991)
099/84	1971	Used oil	15,000-gallon	Removed (1991)

Tank ID Number	Installation Date	Product Stored	Tank Capacity	Tank Status
073/40#N	1946	Waste solvent	10,000-gallon	Removed (1986)
072/40N	1946	Waste solvent	10,000-gallon	Removed (1990)
197/36	1971	Waste water	3,000-gallon	Currently in-use
195/36	1978	Waste water	12,000-gallon	Currently in-use
196/36	1978	Waste water	12,000-gallon	Currently in-use
100-3	1950	Water	580-gallon	Removed (2000)
100-1	1950	Water	580-gallon	Removed (2000)
100-2	1950	Water	320-gallon	Removed (2000)
098/84	1971	Hazardous substance	6,000-gallon	Removed (1991)
016/37	1950	Hazardous substances	12,000-gallon	Removed (1991)
019/37	1950			Removed (1991)
017/37	1950			Removed (1991)
051/88	1936			Removed (1989)
053/88	1936			Closed in-ground (1989)
055/88	1936			Removed (1989)
014/37	1954			Removed (1991)
027/43	1956			Removed (1989)
032/43	1956			Removed (1989)
035/30	1945			Removed (1989)
037/30	1945			Removed (1989)
052/88	1936			Removed (1989)
083/31T	1960			Removed (1986)
085/31T	1960			Removed (1986)
029/43	1956			Removed (1989)
036/30	1945			Removed (1989)
013/37	1954			Removed (1991)
028/43	1956			Removed (1989)
050/88	1936			Closed in-place (1989)
057/88	1936			Removed (1989)

Tank ID Number	Installation Date	Product Stored	Tank Capacity	Tank Status
030/43	1956	Hazardous substances	12,000-gallon	Removed (1989)
033/43	1956			Removed (1989)
056/88	1936			Removed (1989)
031/43	1956			Removed (1989)
088/31T	1960			Removed (1986)
084/31T	1960			Removed (1986)
087/31T	1960			Removed (1986)
009/37	1950	Motor oil	12,000-gallon	Removed (1991)
010/37	1950			Removed (1950)
018/37	1950			Removed (1991)
008/37	1950			Removed (1991)
012/37	1954			Removed (1991)
011/37	1954			Removed (1991)
114	1946	Gear oil	10,000-gallon	Removed (1982)
015/37	1954	P47/Way Oil	12,000-gallone	Removed (1991)
025/20E	1942	Diesel	200,000-gallon	Removed (1986)
001/38	1971		500-gallon	Removed (1988)
133/31	1979		12,000-gallon	Removed (1990)
132/31	1979		12,000-gallon	Removed (1990)
003/37	1950	Thinner	12,000-gallon	Removed (1991)
091/31T	1960	93 PS Thinner	12,000-gallon	Removed (1986)
089/31T	1960	55 PS Thinner	12,000-gallon	Removed (1986)
090/31T	1960	106 PS Thinner	12,000-gallon	Removed (1986)
006/37	1950	Hydraulic	12,000-gallon	Removed (1991)
007/37				Removed (1991)
071/40N	1946	Transmission oil	10,000-gallon	Closed in-place (1986)
113	1946	Transmission fluid	10,000-gallon	Removed (1982)
074/40N	1946	Unknown	12,000-gallon	Removed (1986)
115	1946		10,000-gallon	Removed (2002)

Tank ID Number	Installation Date	Product Stored	Tank Capacity	Tank Status
75	1953	Unknown	900-gallon	Removed (1982)
H1	1986		5,000-gallon	Removed (2001)
H5	1986		5,000-gallon	Removed (2001)
H2	1986		5,000-gallon	Removed (2001)
H3	1986		5,000-gallon	Removed (1986)
H4	1986		5,000-gallon	Removed (2001)
073/40N	Unknown		Unknown	Currently in-use
NRT16-1003	Unknown		260-gallon	Removed (1994)

4.4.2 Federal Environmental Record Sources

EDR identified four facilities within the applicable radius for the Federal databases searched. The databases identified: one CERCLIS-NFRAP, one RCRA CORRACTS, and one RCRA-LQG. Information in this section was obtained from EDR and previous investigations.

Flint Industrial Plating at 1109 East Stewart Avenue is located on a north adjacent property across East Stewart Avenue and identified as a CERCLIS facility as a release was discovered in April 1987. The facility was assessed in 1988 and it was determined that a No Further Remedial Action Planned (NFRAP) status was applicable. The facility was archived in 1999; however, in 2005, the facility was "unarchived" because further assessment was needed. Clean up activities were conducted in 2005 and the facility was "cleaned up."

Estech Oil Company at 4701 Thetford is located approximately 2,862 feet north-northeast of the Site and identified as a CERCLIS-NFRAP facility. The CERCLIS-NFRAP database indicates that no further corrective action was required for this facility after the discovery process and preliminary assessment was completed. This facility was discovered in 1981 and archived in 1987.

Ei Dupont Flint Site at 1555 James P. Cole Boulevard is located approximately 3,415 feet south of the Site and identified as a RCRA CORRACTS facility. The CORRACTS listing states that the EPA identification number for the facility is MID005512066. The facility was listed on the CORRACTS database dated March 31, 1992, as being a facility or area that was assigned a low corrective action priority.

PPG Industries Inc. at 3601 James P. Cole Boulevard is located approximately 517 feet north of the Site and identified as a RCRA LQG. The EPA identification number for the facility is MID980995096. The facility generates waste such as devices containing elemental mercury, mercury thermometers, mercury switches, batteries, lamps, pesticides, thermostats, and lamps. This facility was not identified as a known release site.

Based on their location and regulatory status, these properties are not expected to adversely affect the environmental condition of the Site. A compilation of Federal database listings is provided in the EDR Radius Map Report provided in Appendix C.

4.4.3 State and Tribal Environmental Record Sources

EDR identified 28 facilities within the applicable radius for the State and Tribal databases searched. The databases identified: five State Hazardous Waste Sites (SHWS), 21 LUST facilities, and two Brownfield facilities. Information in this section was obtained from EDR and previous investigations.

The five SHWS facilities are identified as 4302 James P. Cole Boulevard, 2601-2603 Richfield Road, Lockhart Chemical Warehouse at 1620 Industrial Drive, and Phil Flint Oil Co at 909 East Kearsley Park Boulevard. Each of these facilities is located over 0.25 miles of the Site and are not expected to adversely affect the environmental condition of the Site.

Twenty-one LUST facilities are located within the applicable radius. Eighteen of these facilities are located over 0.25 miles of the Site and/or have a “closed” listing. Three of the LUST facilities located within 0.25 miles of the Site with an “open” status are identified as: Former Auto Repair at 2918 North Saginaw Street (release of unknown substance in 2004), Balal South Inc. at 2805 North Saginaw Street (release of gasoline in 1996), and Gannett at 2711 North Saginaw Street (release of unknown substance in 1991). Based on their close proximity to the Site and their regulatory status (open), these three facilities may impact groundwater conditions at the Site.

The two Brownfield facilities are identified as City of Flint Fire Department at 1818 North Saginaw Street and 1527 Industrial Drive. Both of these facilities is located over 0.25 miles of the Site and are not expected to adversely affect the environmental condition of the Site.

Based on their location and regulatory status, these properties are not expected to adversely affect the environmental condition of the Site. A compilation of State and Tribal database listings is provided in the EDR Radius Map Report provided in Appendix C.

A compilation of the State and Tribal database listings is provided in the EDR Radius Map Report provided in Appendix C.

4.4.4 Orphan Summary

LFR reviewed the "Orphan Summary" section of the EDR Radius Map report, which is a list of sites that could not be properly located due to inadequate or incorrect information provided by the reporting agency. The forty-two facilities listed in the Orphan summary do not appear to be located within the Approximate Minimum Search Distance for the above-referenced Federal and State regulatory databases.

4.5 Additional Environmental Records Sources

4.5.1 Fire Department

ARCADIS left messages for both the Flint Volunteer Fire Company and the Genesee County Fire Department. Following receipt, pertinent information for the Site will be included in an addendum to this report.

4.5.2 Health Department

ARCADIS contacted the Genesee County Health Department, Water Pollution, Drinking Water and Waste Division and Air Division who are currently investigating records on file for the Site pertaining to ASTs, USTs or the storage or releases of OHM. Following receipt, pertinent information for the Site will be included in an addendum to this report.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

ARCADIS personnel (Ms. Micki Maki) conducted Site visits on November 24, 2009, December 11, 2009, December 16, 2009 and December 22, 2009. The portion of the Site located South of Leith Street was visited on November 24, 2009. The weather at the time of this site visit was overcast with a temperature of approximately 45 degrees Fahrenheit. The exterior portion of the Site North of Leith Street was visited on December 11, 2009. The weather at the time of this site visit was snow with a temperature of approximately 20 degrees Fahrenheit and the ground had a light covering of snow. The active Site buildings were visited on December 16, 2009. The weather at the time of this visit was overcast with a temperature of approximately 15 degrees Fahrenheit. The inactive Site buildings were visited December 22, 2009. The weather at the time of this visit was overcast with a temperature of approximately 25 degrees Fahrenheit.

ARCADIS inspected accessible areas of the Site buildings and the exterior grounds. At the time of the site visits the power was shut off in Building 38, Factory 86, Factory 83/84 and the basement of Factory 10, which greatly limited visibility in large portions of the buildings. In Factory 36 limited areas of the plant had lighting; however, large portions of the plant were completely dark. The basement located in the southeastern portion of Factory 36 had filled with several feet of water and was not able to be accessed. Building 24, the north fire protection pump house, was locked at the time of inspections and was not able to be accessed. In Factory 10 the paint storage room was locked and unable to be accessed.

Photos taken during the Site walk are presented in the Photo log which is located in Appendix D

5.2 Current Site Use

The current configuration of the Site includes approximately 3.3 million square-feet of manufacturing buildings on 452 acres of land. The portion of the Site located North of Leith Street (Northend) is comprised of 194 acres of partially active and inactive areas. Manufacturing processes include: machining of ferrous and nonferrous metals; painting; torque converter manufacturing and assembly; and transmission manufacturing and assembly. The area South of Leith Street (Southend) is comprised of 258 acres. Production at the Southend ceased in 1999. All buildings located at the Southend, with the exception of Building 18, have since been demolished.

Section 2.4 presents a summary of active and idled buildings located at the Site.

GM currently operates several buildings in the Northend which they are leasing from MLC until the end of 2010.

There are 17 stormwater outfalls (001, 002, 003, 004, 004A, 005, 005A, 006, 007, 007A, 008, 009, 010, 011, 012, 013, and 100) located at the Site. Outfall 008 has been bulkheaded and Outfall 100 is not in use. The majority of the site (approximately 364 acres) drains directly to one of the Site's 15 active stormwater outfalls. Approximately 58 acres of the site have no direct storm drainage and approximately 2.5 acres drain directly to process waste.

A wastewater treatment plant is located on Site to pre-treat wastewater prior to discharging to the local publicly owned treatment works (POTW).

5.3 Site Observations

5.3.1 Underground Storage Tanks (USTs)

ARCADIS did not observe fill pipes, vent pipes or other evidence of USTs on the Site; however USTs were formally located at several locations at the Site. The following text provides a summary of the investigations completed at each of the former UST areas.

AOI 36-3 (Engine Assembly, Waste Oil Collection and Processing, Former USTs - These former USTs were located in the basement in the southeast corner of Building 36. This AOI was investigated during RFI Phase II activities. Impacts were identified in groundwater and the basement water grab samples during RFI Phase II investigation activities. The physical extent of groundwater impacts has been delineated.

AOI 36-5 (Former UST Farm and Active AST Farm) - The AOI 36-5 Former UST Farm was located immediately south of Building 36 and is associated with an active contained AST farm. An IM is currently in operation in this location, as described in Section 2.4 of the RFI Phase I Report. Additional investigations were completed at this AOI as part of the RFI Phase II activities. Groundwater and LNAPL impacts were identified during RFI Phase II investigation activities. The physical extent of groundwater and LNAPL impacts in this area has been defined.

AOI 83/84-7 (Underground Storage Tanks) - This AOI consists of Tanks 50 through 58 identified on the 1973 Site Drawing as described in the RFI Phase I Report and Tanks 88-1 through 88-4, and 88-11 identified on the 1991 Site Drawing as described in the RFI Phase I Report. A prior release(s) from these tanks has been documented. Additional investigations were completed at this AOI as part of the RFI Phase II activities. Groundwater impacts were identified during RFI Phase II investigation activities. The physical extent of groundwater impacts in this area has been defined.

AOI 86-1 (Hazardous Waste Drum Accumulation Area, Process Waste Sump and Pump Station, Waste Transport Vehicle Storage Area, and Former USTs) – An IM was formerly operated in AOI 86-1 to address a free product release from the former UST farm – as documented in Section 2.4 of the RFI Phase I Report. This system was successful in recovering free-phase LNAPL in this area, hence operation has been discontinued. However, during 2003, LNAPL was observed at two monitoring wells (RFI-86-02 and RFI-86-03) located east of the AOI. Additional investigations were completed at this AOI as part of the RFI Phase II activities. Soil and groundwater impacts were identified during the RFI Phase II investigation activities. The physical extent of soil, groundwater and LNAPL impacts in this area has been defined.

AOI Group 84-D (Former UST Farm, an AST Farm, and Drum Storage Area - AOI Group 84-D Former UST Farm is located immediately north of former Building 84. A prior release from this area has been documented. An IM consisting of soil excavation was performed in this area to address the prior release, as described in Section 2.4 of the RFI Phase I Report. Additional investigations were completed at this AOI as part of the RFI Phase II activities. Groundwater impacts were identified during the RFI Phase II investigation activities. The physical extent of groundwater impacts in this area has been defined.

AOI Group 02-E (Former UST) – This area was investigated during the RFI Phase II activities. The soil and groundwater data from AOI 02-E indicate that no screening criteria were exceeded.

AOI Group 04-D (Former USTs) - This AOI group is associated with former Building 04 and relates to former USTs located immediately south of Building 04. An IM was implemented in this area to address a release of oil, as described in Section 2.4 of the RFI Phase I Report. Additional investigations were completed at this AOI as part of the RFI Phase II activities. The groundwater data collected during the Phase II investigation indicated that no screening criteria were exceeded.

AOI Group 16-C (Hydraulic Oil, Former AST, and Former USTs) – The AOI 16-C former USTs are located along the side of former Building 16. Two soil boring/temporary wells and one monitoring were initially installed in this area. Following these initial investigation activities, a confirmed release notice was submitted, detailing a release from USTs 113 114, and 115. Additional investigations were completed at this AOI as part of the RFI Phase II activities. LNAPL was detected in this AOI during investigation activities. This LNAPL was determined to be associated with several USTs identified in this area. A confirmed release was documented for these USTs, and their removal was conducted under Parts 211 and 213 of NREPA. Groundwater impacts were also identified during Phase II activities. The physical extent of groundwater and LNAPL impacts in this area has been defined.

AOI Group 16-D (Former UST and Process Wastewater Sump) -This AOI group is associated with former Building 16 and relates to a former UST and a sump that discharged to the process wastewater system. This AOI was investigated during RFI Phase II activities. No impacts were identified in this area during RFI Phase II investigation activities.

AOI Group 40-A (Former UST Farm) - This AOI group is associated with former Building 40 and relates to a former UST farm located between Buildings 02 and 40. A prior release from this area has been documented. This AOI was investigated during RFI Phase II activities. Soil, groundwater and LNAPL impacts were identified during RFI Phase II investigation activities in this area. The physical extent of soil, groundwater and LNAPL impacts has been defined.

AOI Group 09-A (Former USTs, Floor Trenches, and Former AST) - This AOI group is related to a floor trench/UST that discharged to the process wastewater system, floor trenches over a holding tank in the "vehicle wash area," a concrete containment for a former AST, and a former UST, all located in or near former Building 09. This AOI was investigated during RFI Phase II activities. Soil and groundwater impacts were identified in this area during RFI Phase II investigation activities. The physical extent of impacts has been delineated.

AOI Group 09-B (Hamilton Avenue Tank Farm) - This AOI Group is associated with the Former Building 31/Hamilton Avenue Tank Farm. This AOI was investigated during RFI Phase II activities. Soil, groundwater and LNAPL impacts were identified in this area during RFI Phase II investigation activities. The physical extent of impacts has been delineated.

Harriet Street Area USTs - This AOI consists of a 2.3-acre fenced, vacant lot at the southwestern corner of Harriet Street and Industrial Avenue. As part of an investigation related to potential property transfer, several USTs were discovered on the property. The activities associated with the investigation, and the removal of the USTs, are described in a document entitled *Underground Storage Tank Closure Report Harriet Street Property* (BBL, December 2001). Additional investigations were completed in this area during the RFI Phase II activities. The RFI groundwater data from the Harriet Street Property Area indicate that screening criteria were exceeded for benzene; however, activities related to this exceedance have been conducted as part of the UST removals in the report described above.

Former Administration Building Area (Transformer Yard, Soil Stockpile Area, and Former USTs) - During a review of the property for potential property transfer, three potential areas of concern (PAOC) were identified. PAOC 1 was identified as a transformer yard. PAOC 2 was identified on the basis of a currently disturbed area of soil and historical VOC detections from a soil stockpile; the soil was excavated during underground utility installation activities. Additionally, there is an underground tunnel that connected a gasoline pump on the Administration Building property to the Hamilton Avenue Tank Farm. PAOC 3 was identified because of the presence of a former commercial, non-GM filling station with two gasoline tanks. Because of the potential presence of the two gasoline tanks at PAOC 3, a geophysical survey was completed in November 2001. The geophysical survey identified an anomaly that may be the two underground storage tanks. A test pitting program was implemented to determine the source of the geophysical anomaly and USTs were not found. Additional investigations were completed in this area during the RFI Phase II activities. Groundwater impacts were identified in this area during RFI Phase II investigation activities. The physical extent of impacts has been delineated.

5.3.2 Aboveground Storage Tanks (ASTs)

The following table provides a list of ASTs observed at the Site.

Maximum Capacity (gallons)	Facility ID Tank ID	Tank Description	Contents
Factory 05 (Building 43)			
11,650	43-1	Bulk Oil Storage (indoors)	Low Temp New Oil
6,750	43-2	Bulk Oil Storage (indoors)	High Temp Used Oil
6,750	43-3	Bulk Oil Storage (indoors)	Low Temp Used Oil
11,650	43-4	Bulk Oil Storage (indoors)	High Temp New Oil
6,750	43-5	Bulk Oil Storage (indoors)	Cold Header
unknown	43-09	Storage Tank (indoors)	Anhydrous Ammonia
10,000	43-10	Storage Tank (indoors)	Methanol
NA	43-11	Storage Tank	Nitrogen
4,000	43-13	Oil Storage Tank (Oil Room - indoors)	Hydraulic Oil
4,000	43-14	Oil Storage Tank (Oil Room - indoors)	Hydraulic Oil
4,000	43-15	Oil Storage Tank (Oil Room - indoors)	Hydraulic Oil
NA	43-17	Storage Tank	Helium
500	NA	Storage Tank (indoors) – Oil Crib	Lubricant
500	NA	Storage Tank (indoors) – Oil Crib	Lubricant
500	NA	Storage Tank (indoors) – Oil Crib	Lubricant
500	NA	Storage Tank (indoors) – Oil Crib	Lubricant
Maximum Capacity (gallons)	**Facility ID Tank ID**	**Tank Description**	**Contents**
Factory 10 (Building 20)			
15,000	20-10 (20-E)	Bulk Oil Storage (indoors)	Synthetic Coolant
15,000	20-11 (20-F)	Bulk Oil Storage (indoors)	Synthetic Hydraulic Fluid
9,000	20-12 (20-L)	Bulk Oil Storage (indoors)	Waylube Oil
9,000	20-13 (20-K)	Bulk Oil Storage (indoors)	Spindle Oil
9,000	20-14 (20-J)	Bulk Oil Storage (indoors)	Cleaner- Cerfa Clean
9,000	20-15 (20-I)	Bulk Oil Storage (indoors)	Cutting Oil
15,000	20-16 (20-H)	Bulk Oil Storage (indoors)	LCO-224 (Cutting Oil)
15,000	20-17 (20-G)	Bulk Oil Storage (indoors)	LCO-200 (Cutting Oil)
15,000	20-6 (20-B)	Bulk Oil Storage (indoors)	Hydraulic Oil
15,000	20-7 (20-A)	Bulk Oil Storage (indoors)	Synthetic Coolant
15,000	20-8 (20-D)	Bulk Oil Storage (indoors)	Synthetic Coolant
15,000	20-9 (20-C)	Bulk Oil Storage (indoors)	Lap Oil
330	NA	Oil Storage Area (indoors)	Hydraulic Oil
330	NA	Oil Storage Area (indoors)	Transmission Fluid
330	NA	Oil Storage Area (indoors)	Motor Oil

Maximum Capacity (gallons)	Facility ID Tank ID	Tank Description	Contents
330	NA	Oil Storage Area (indoors)	Gear Oil
500	NA	Oil Storage Area (indoors)	Hydraulic Oil
500	NA	Oil Storage Area (indoors)	Lube Oil
4,000	INF-1	PCB Remediation System	Influent Make-Up Tank
Unknown	ST-1	PCB Remediation System	Sludge Thickener
4,000	T-1	PCB Remediation System	pH adjustment
Unknown	T-2	PCB Remediation System	Magnesium Hydroxide
475	T-3	PCB Remediation System	Clarifier Overflow Tank
500	T-4	PCB Remediation System	Oil Water Separator Overflow
4,000	T-5	PCB Remediation System	Oil Holding Tank
Factory 81			
20,000	69A-1	Bulk Oil Storage (outdoors)	Automatic Transmission Fluid
20,000	69A-2	Bulk Oil Storage (outdoors)	Automatic Transmission Fluid
20,000	69A-3	Bulk Oil Storage (outdoors)	Automatic Transmission Fluid
20,000	69A-4	Bulk Oil Storage (outdoors)	Automatic Transmission Fluid
NA	70-4	Storage Tank	Nitrogen
NA	70-5	Storage Tank (cylinders)	Helium
NA	70-6	Storage Tank (cylinders)	Helium
Factory 14 (Building 22)			
400,000	24-1	Storage Tank	Fire Water
250	24-2	Storage Tank	Diesel
Building 18			
4 ton	18-1	Fire Suppression System	Carbon Dioxide
Factory 09 (Building 21)			
NA	97-2	Storage Tank	Helium
NA	97-4	Storage Tank	Argon
Maximum Capacity (gallons)	**Facility ID Tank ID**	**Tank Description**	**Contents**
Factory 31 - abandoned, scheduled for demolition			
4,000	32-1	Oil Storage Tank (indoors, inactive)	Hydraulic Oil
Factory 36			
4,000	NA	Storage Tank	NA
15,500	T37-1	Bulk Oil Storage (outdoors)	Hydraulic Oil
15,500	T37-2	Bulk Oil Storage (outdoors)	Hydraulic Oil
15,500	T37-3	Bulk Oil Storage (outdoors)	Motor Oil (10W-30)
15,500	T37-4	Bulk Oil Storage (outdoors)	Motor Oil
7,500	T37-5A	Bulk Oil Storage (outdoors)	Empty (Spare Gasoline)
7,500	T37-5B	Bulk Oil Storage (outdoors)	Empty (Clear Gasoline)
7,500	T37-6A	Bulk Oil Storage (outdoors)	Regular Gasoline
7,500	T37-6B	Bulk Oil Storage (outdoors)	Regular Gasoline
7,500	T37-7A	Bulk Oil Storage (outdoors)	Premium Unleaded Gasoline
7,500	T37-7B	Bulk Oil Storage (outdoors)	Empty (Spare Gasoline)

Maximum Capacity (gallons)	Facility ID Tank ID	Tank Description	Contents
500	T37-8	Storage Tank	Aqueous film-forming foam, alcohol type-concentrate
1,550	T-700	Oil Storage Tank (indoors)	Recovered Oil
Building 86			
350	86-2	Oil Storage Tank (indoors)	Oil
350	86-3	Oil Storage Tank (indoors)	Oil
350	86-4	Oil Storage Tank (indoors)	Oil
Facility 60 (IWTP)			
20,000	55-1 (East)	Oil Storage (outdoors)	Skim Oil
20,000	55-2 (West)	Oil Storage (outdoors)	Skim Oil
60,000	55-3 (North)	Oil Storage (outdoors)	Skim Oil
5,000	55A-11	Chemical Storage Tank	Caustic (Sodium Hydroxide)
40,000	55A-22	Chemical Storage Tank	Dry Alum (empty)
10,000	55A-23	Chemical Storage Tank	Empty
40,000	55A-24	Chemical Storage Tank	Lime
10,000	55A-25	Chemical Storage Tank	Empty
40,000	55A-26	Chemical Storage Tank	Lime
200,000	55A-28	South Sludge Bed (inactive)	Empty
50,000	55A-29	Sludge Bed (inactive)	Empty
5,000	55A-30	Chemical Storage Tank (closed)	Empty
100,000	55A-31	Sludge Bed (inactive)	Empty
450,000	55A-33	Process Tank	Wastewater Overflow
450,000	55A-34	Process Tank	Wastewater Overflow
60,000	55A-1	Northeast Sludge Bed (inactive)	Empty
60,000	55A-2	North Center Sludge Bed (inactive)	Empty
200,000	55A-3	North Sludge Bed (inactive)	wastewater/sludge
4,000	55A-5	Chemical Storage Tank	Liquid Alum
40,000	55A-6	Chemical Storage Tank	Empty
10,000	55A-7	Chemical Storage Tank	Empty
Maximum Capacity (gallons)	**Facility ID Tank ID**	**Tank Description**	**Contents**
Facility 60 (IWTP)			
40,000	55A-8	Chemical Storage Tank	Empty
10,000	55A-9	Chemical Storage Tank	Empty
40,000	55A-10	Chemical Storage Tank	Empty
34,000	55A-DAF1	Dissolved Air Floatation Unit (55B)	Oily Wastewater
34,000	55A-DAF2	Dissolved Air Floatation Unit (55B)	Oily Wastewater
34,000	55A-DAF3	Dissolved Air Floatation Unit (55B)	Oily Wastewater
Unknown	CPI	Process (Oil Interceptor)	Oily Wastewater
Unknown	Vortimix	Process Tank	Oily Wastewater
200,000	55A-4	North Secondary Clarifier (inactive)	Oily Wastewater
200,000	55A-27	South Secondary Clarifier	Oily Wastewater
100,000	55A-16	North Primary Clarifier	Oily Wastewater

Maximum Capacity (gallons)	Facility ID Tank ID	Tank Description	Contents
100,000	55A-21	South Primary Clarifier	Oily Wastewater
750,000	55A-17	North Influent Tank	Oily Wastewater
750,000	55A-20	South Influent Tank (Inactive)	Oily Wastewater
2,000	55A-14	North Vortimix Sump	Oily Wastewater
2,000	55A-15	South Vortimix Sump	Oily Wastewater
500,000		High Pressure Water Tank	Water
2,300	NA	Air scrubber tank	Sodium Hypochlorite Solution (Bleach)
2,300	NA	Air scrubber tank	Sodium Hypochlorite Solution (Bleach)
NA	NA	Storage Tank	Argon
Stormwater Treatment Building (Inactive)			
2,000	Wastewater tank 1	Oil-Water Separator Tank	Wastewater, stormwater
2,000	Wastewater tank 2	Oil-Water Separator Tank	Wastewater, stormwater
5,500	Wastewater tank 3	Settling Tank	Wastewater, stormwater
4,000	Wastewater tank 4	Settling Tank	Wastewater, stormwater
Stormwater Treatment Building (Active)			
1,000	NA	Storage Tank	Waste Oil
Salvage yard Tank Storage Area			
7,500	1	Storage Tank	Trichloroethylene
7,500	2	Storage Tank	1,1,1 Trichloroethane
7.500	3	Storage Tank	Misc Oil for Reuse (Inactive)
7,500	4	Storage Tank	Hazardous Liquid Waste for Disposal (Inactive)
7,500	5	Storage Tank	Waste Paint and Solvent (Inactive)
7,500	6	Storage Tank	Waste Paint and Solvent (Inactive)

Three tanks (86-1, 36-14, and 36-15) that were previously identified in the 2007 Comprehensive Environmental Plan (CEP) (ARCADIS, 2007) were not located during the Site walk and their locations could not be found on available site maps. AST 86-1 was identified in the CEP as a 4,500 gallon outdoor, horizontal, elevated diesel fuel tank . AST 36-14 was identified in the CEP as a coolant tank located indoors. AST 36-15 was identified in the CEP as a 4-ton carbon dioxide storage tank. ASTs 36-14 and 36-15 were associated with Factory 36 which is now inactive.

Investigations have been completed at several active and former AST areas at the Site. The investigations of ASTs associated with AOI 36-5, AOI Group 84-D, AOI Group 16-C, and AOI Group 09-A are associated with former UST areas and are discussed in Section 5.3.1 above. A summary of the investigations completed at AST areas is provided below.

AOI 10-1 (Manufacturing Operations and Several Tanks) - This AOI consists of the overall area of Building 20, including its basement area, manufacturing operations, external areas, and several tanks. LNAPL has historically been detected in this area, and an IM consisting of a groundwater and LNAPL recovery and treatment system is in operation in this area, as described in Section 2.4 of the RFI Phase I Report and Section 5.3 of the RFI Phase II Report. Additional investigation activities were completed at this AOI during RFI Phase II activities. Soil, groundwater and LNAPL impacts were identified during RFI Phase II investigation activities in this area. The physical extent of soil, groundwater and LNAPL impacts has been defined.

AOI 10-2 (Solid Waste Transfer Area and Former ASTs) - This AOI of a solid waste transfer area and former ASTs containing process waste oils and No. 2 fuel oil, and is located east of Building 20 and south of Buildings 22 and 24. Investigation activities were completed at this AOI during RFI Phase II activities. Soil and groundwater impacts were identified during RFI Phase II investigation activities in this area. The physical extent of soil and groundwater impacts has been defined. However, higher concentrations of select VOCs at wells RFI-10- 5 and RFI-10-32, relative to upgradient wells, suggest an offsite source.

AOI 81-1 (Metal Machining, Chip, Cooling, and Cutting Oil Filtration and Processing, a Hydraulic Elevator, Process Waste Sumps and Tanks, a Drum Storage Area, and an Active Hazardous Waste Accumulation Area) - This AOI consists of the basement area beneath the southern and central portions of Building 71B and is associated with three metal machining chip/cooling and cutting oil filtration/processing operations, as well as an inactive hydraulic elevator, several process waste sumps and tanks, a drum storage area, and an active hazardous waste accumulation area. Investigation activities were completed at this AOI during RFI Phase II activities. Soil and groundwater impacts were identified during RFI Phase II investigation activities in this area. The physical extent of soil and groundwater impacts has been defined.

AOI 81-5 (Existing and Former ASTs) - This AOI consists of a containment area for several existing and former ASTs which contain(ed) diesel fuel and automatic transmission fluid. Investigation activities were completed at this AOI during RFI Phase II activities. No soil and groundwater impacts were identified during RFI Phase II investigation activities in this area.

AOI 07-3 (Two Elevator Pits and a Bulk Acid AST) - This AOI consists of two elevator pits in the north-central and south-central portions of Building 07 and a bulk acid AST located in the southeast corner of Building 07. Investigation activities were completed at this AOI during RFI Phase II activities. Groundwater impacts were identified during RFI Phase II investigation activities in this area. The physical extent of groundwater impacts has been defined.

AOI Group 02-F (Hydraulic Oil AST and Pump) - This AOI group is associated with former Building 02 and relates to a hydraulic oil AST and a pump used for the operation of the "Hydraulic Anchor Pac Area". Investigation activities were completed at this AOI during RFI Phase II activities. Groundwater impacts were identified during RFI Phase II investigation activities in this area. The physical extent of groundwater impacts has been defined.

AOI Group 44-A (Sumps, Pits, Trenches, Drains, Floor Stains and ASTs) - This AOI group is associated with former Buildings 44, 04, and 08 and relates to several sumps, pits, trenches, drains, stains, ASTs and other observed areas. Investigation activities were completed at this AOI during RFI Phase II activities. Soil and groundwater impacts were identified during RFI Phase II investigation activities in this area. Attempts were made to define the physical extents of the soil exceedance; however due to pervasive subsurface concrete, soil samples could not be collected at the necessary intervals. The physical extent of groundwater impacts has been defined.

5.3.3 Hazardous Substance and Petroleum Use

ARCADIS observed several bulk storage areas at the Site containing petroleum products and chemicals. Petroleum products and chemicals observed at the Site in ASTs are listed in the above table of ASTs. The table below lists petroleum products and chemicals contained in drums, totes or small (~ 50 gallon) tanks located in bulk storage areas in the factories. The table also indicated the approximate quantities and types of products stored in each area at the time of the Site walk.

Factory-Building	Location	Drums (55 gal) Qty – Contents	Totes/Tanks Qty –Size - Contents
Factory 5- Building 43	East central portion of building near Dept 35	15 - lithium solvent 10 - lubricant	11 – 300 gallon totes containing coolant
Factory 5- Building 43	North/South Oil Crib in the eastern central portion of building 43	12 – oils and lubricants	NA
Factory 5 – Building 43 (Outside)	East side of Building – LNAPL Recovery Systems	NA	3 – 350 gallon totes recovered oil 3 – 100 gallon tanks recovered oil

Factory-Building	Location	Drums (55 gal) Qty – Contents	Totes/Tanks Qty –Size - Contents
Factory 9 –Building 21	Northwest corner of building	17 - oils and lubricants.	16 - 50 gallon tanks, containing oils and lubricants
Factory 9 –Building 21	Northwest corner of building	4 - oils and lubricants.	2 - 350 gallon totes containing oils and lubricants
Factory 10 - Building 20	South loading dock	2– oils 6 – HCl	13 – 300 gallon totes containing chemicals, lubricants, and solvents
Factory 10 - Building 20	Vehicle Service Area	26 - motor oil, transmission fluid, antifreeze, and coolant	NA
Factory 10 - Building 20	Oil Storage Area	14 – oils and lubricants	NA
Factory 81	Northeastern Storage Area	15 – oils, solvents, lubricants and coolants	8 – 220 gallon totes containing lubricants 5 – 200gallon totes of coolants
Factory 81 (Outside)	Northeast side of Building – LNAPL Recovery System	NA	1 – 350 gallon tote of recovered oil

The facility is currently listed as RCRA small quantity generator. Please refer to Appendix E for a list of the chemical storage inventory for the Site.

5.3.4 Unlabeled Drums/Containers

ARCADIS observed several unmarked totes in the basement of Factory 10. Approximately two - 1,000 gallon totes, three – 750 gallon totes, and four – 350 gallon totes were noted. The totes appeared to contain various oils and fluids. Saturated absorbent material was noted around several of the totes. Groundwater and LNAPL is actively infiltrating into the basement. A series of trenches and pumps are used in the basement to contain the oil and pump the oil and groundwater to the Factory 10 Treatment System.

ARCADIS also observed unlabeled 55-gallon drums in two areas of Factory 5 – Building 43. One unlabeled drum was located in the north-central portion of Factory 5 – Building 43. Several unlabeled 55-gallon drums on the plant floor near a floor trench drain located in the north central portion of the building west of the Tin Shop.

ARCADIS did not observe unlabeled drums or containers in any other portions of the Site.

5.3.5 Stained Soil or Pavement

ARCADIS noted rust staining at the Tin Pad Storage area located on the east side of Factory 10. This area is used to store wood debris, empty pallets and various roll-off boxes.

5.3.6 Stains or Corrosion

ARCADIS noted the following areas of staining during the Site walk.

Factory 5 – Building 43

Staining was noted on the concrete floor located beneath the dispensers in the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion. The dispenser area and nearby ASTs are bounded by a trench. The concrete floor in the area was observed to be in good condition and no significant cracks were observed.

Staining was noted surrounding a floor trench drain that also had absorbent material surrounding the drain. The trench was located in the northwestern portion of the plant in Dept 11.

Minor staining was noted at the drum storage area near the south loading dock. One of the drums appeared to be leaking.

Staining was noted on the floor in the North/South Oil Crib located in the eastern central portion of the building. The North/South Oil Crib contained new oil and lubricants along with a satellite area for waste oil. Absorbent materials were also noted on the floor.

Factory 9 – Building 21

Staining was noted on the concrete floor in the bulk storage area located in the northwest corner of the building. The bulk storage area contains a drainage trench which runs the length of the room which appears to drain to the sump in the corner of the room.

Factory 81

ARCADIS noted equipment leaking oil and floor staining in the eastern portion of Dept 81-18. Absorbent materials were also noted on the floor.

Staining was noted on the floor in the 90-Day Flammable Liquid Waste Storage Area. Two trench drains run the length of the storage area.

Staining was noted on the floor of the chip dock located in the located in the northwestern corner of the building.

Factory 10 – Building 20

ARCADIS noted equipment leaking oil in the Dept 24 Reaction Carrier Area located in the eastern portion of the building.

Staining was noted on the floor of the Bulk Storage ASTs room located in the eastern portion of the building.

Staining was noted in the Oil Storage Area located in the northern portion of the building. The Oil Storage Room has a trench approximately 12" x 6" x 60' which leads to a sump.

Staining was noted on the floors in the basement of Factory 10. There are no current manufacturing operations in the basement. The floor of the basement was covered with a thin layer of water and oil which apparently seeps in through the concrete flooring. There are pumps and hoses placed in collection trenches throughout the basement and the oil/water collected is pumped to the Factory 10 remediation system for treatment. In addition the floor is ”squeegeed” each week in order to push the oil and water on the floor into the collection trenches.

Factory 36 - Building 36

Staining was noted on the floor in the former hazardous materials storage area. Factory 36 has been idled, no operation are currently ongoing in this area.

Factory 83/84(Factory 31)

Staining and oil was noted on the floor and in the floor trenches around several pieces of equipment located in the Building 11 portion of the factory at Column E23.

Staining and oil was noted on the concrete and woodblock floor located in the Building 11 portion of the factory at column K30. The wood block flooring had ”popped up” in four mounds (each about 3 feet in diameter) located in a straight line running east west. There also appeared to be oil underneath the mounded wood block flooring.

Division 25 – Building 86

Staining was noted on the floor in the oil storage area located in the northeastern portion of the building. ARCADIS did not observe significant cracks in the concrete floor in this area.

5.3.7 Stressed Vegetation

ARCADIS did not observe stressed vegetation at the Site. Approximately 90% of the Site is covered with asphalt and concrete. Additionally, snow covered portions of the Site, which limited exterior observations.

5.3.8 Polychlorinated Biphenyls (PCBs)

ARCADIS observed several PCB ballast accumulation areas during the Site walk. Ms. Stacey Helton, GM Plant Environmental Engineer indicated that the transformers at the Site do not contain PCBs.

5.3.9 Solid Waste/Dumping

ARCADIS did not observe evidence of dumping of solid waste at the Site. Several solid waste storage areas were noted during the Site walk. The Tin Pad Area, located east of Factory 10, stores wood debris, empty pallets and various roll-off boxes. The Chip Dock, located in the northwestern corner of Factory 81, stores oily metal shavings in roll-off boxes. A non-hazardous waste storage area was located in the southeast corner of Factory 10.

The Site receives monthly pickups of their two-yard municipal waste dumpster through Waste Management. Hazardous, Non-Hazardous, Waste Oil and Universal waste are disposed of through Safety Kleen on an as needed basis.

5.3.10 Site Drainage

The Site operates under the requirements of its National Pollutant Discharge Elimination System (NPDES) permit No. MI0001597, which regulates surface water discharges. The Site storm sewer system includes over 20 miles of onsite storm sewers, which provide drainage across the Site and discharges into the nearby Flint River through 17 outfalls (Outfalls 001 through 013, 004A, 005A, 007A, and 100). In addition, these discharges include non-GM drainage flow from other portions of the City of Flint, both upstream and downstream of certain portions of the Site storm sewer system.

The Site maintains a Stormwater Pollution Prevention Plan (SWPPP) and PCB Minimization Plan (PMP) to mitigate risks associated with stormwater. Site personnel sample the stormwater from Monitoring Points 002B, 003A, and 003B as required in the NPDES permit. Monitoring Point 002B is associated with the Factory 36 treatment system. Samples collected from Monitoring Point 002B are analyzed for the following constituents: total suspended solids (weekly- effluent), total arsenic (weekly - effluent), oil and grease (weekly - effluent), 1,1,-Trichloroethane (weekly - effluent), benzene (weekly – influent, midfluent and effluent) ethylbenzene (weekly - effluent), toluene (weekly –influent, midfluent, and effluent), xylene (weekly - effluent), and flow is recorded daily. Samples collected from Monitoring Point 003A are analyzed for PCBs (weekly) and flow is recorded daily. Monitoring Point 003B is associated with the Factory 10 treatment system. Samples collected from Monitoring Point 003B are analyzed for the following constituents: PCBs (weekly – midfluent and effluent; monthly - influent) and flow is recorded daily. Although Outfall 100 is permitted under the NPDES permit, this outfall is not used and therefore no sampling is completed. The Site submits Discharge Monitoring Reports (DMRs) to the MDEQ on a monthly basis.

The NPDES permit also requires annual sampling from Outfall 003 (total PCBs), Outfall 010 (total mercury), Outfall 011 (total copper), and Outfall 012 (total copper). The NPDES permit also requires annual sampling of Outfall 008 for total mercury; however, this outfall has been bulkheaded, therefore no sample is collected.

Dissolved-phase constituents have been detected at select outfalls (based on analytical testing). Additionally, visible sheens have been observed at Outfalls 002 through 006. Oil sheens are successfully controlled using floating oil booms. Outfalls 002 through 005 are inspected daily (when the plant is operating) and the sheens behind the booms are periodically collected using a vacuum truck. The storm sewer networks associated with Outfalls 002 through 006 and Outfall 011 have been investigated as part of work performed over the past several years and are summarized in the RFI Phase II Report. The remaining Site storm sewer networks, 001, 004A, 005A, 007, 007A, 008, 009, 010, 012, 013, and 100, have not exhibited any Site-related effects warranting investigation.

5.3.11 Pits, Ponds, Lagoons and Pools of Liquid

ARCADIS did not observe pits, ponds, lagoons or pools of liquid on the Site with the exception of a former aeration lagoon. Historically, there were two 6 million gallon wastewater aeration lagoons present at the Site. The lagoons were constructed in 1976 to provide tertiary treatment of industrial wastewater from the Site's wastewater treatment facility. The wastewater aeration lagoons were taken off-line in 1988. When in operation, the lagoons' primary function was to reduce the biochemical oxygen demand and chemical oxygen demand of process water in preparation for discharge to the Flint River, and later to the City of Flint sanitary sewer system.

One of the former lagoons, the west lagoon, was filled in with crushed concrete from the demolition of facility buildings in 2003, and therefore, only one lagoon remains today. Currently, the remaining lagoon is being refurbished for use as a stormwater retention pond in the Outfall 003 stormwater diversion construction project.

5.3.12 Wastewater

The industrial process wastewater treatment facilities at the Site consist of buildings 55, 55A, and 55B and related facilities which were constructed in 1953, 1955, and 1972, respectively. The major components of the Site's industrial process wastewater treatment facilities includes raw waste tanks, clarifiers, sludge treatment tanks, mixing tanks, oil storage facilities, dissolved-air flotation equipment and sludge processing facilities. Process wastes are conveyed to the Site's industrial process wastewater treatment facilities from the manufacturing facilities throughout the Site via pump stations and force mains. Process wastes received primarily include industrial wastewater, machining oils, hydraulic fluids, waste solvents, and waste paint by-products. Treated wastewater is discharged to the Flint POTW. The discharge permit requires that discharge to the POTW must be sampled on a quarterly basis for BOD, total phosphorus, total suspended solids, ammonia-nitrogen, total chromium, total nickel, total zinc, hexane-extractable material, pH, benzene, ethylbenzene, toluene, xylene, and flow volume.

The area around the Site's industrial wastewater treatment facilities (Buildings 55, 55A, and 55B) was identified as AOI 55-1 and investigated during the RFI Phase II activities. The RFI Phase II investigation activities included the installation of monitoring wells within Stewart Avenue, adjacent to the former Pro-Met property, which is located at the northwest corner of the intersection of Stewart Avenue and Andrews Street. Data obtained through a Freedom of Information Act (FOIA) request indicated that plating operations were conducted at the former Pro-Met property beginning in 1958, and that prior investigations indicated impacts to soil and groundwater by both metals and organic compounds associated with plating operations.

Groundwater samples collected from two monitoring wells installed within Stewart Avenue indicated concentrations exceeding the Michigan Part 201 Generic Industrial Screening Criteria for select VOCs, SVOCs, and inorganics. These analytical results suggest that groundwater flowing to the Site is impacted by a source area located on the former Pro-Met property.

5.3.13 Wells

ARCADIS did not observe dry wells, irrigation wells, or injection wells at the Site. During Site investigation activities approximately 576 monitoring and recovery wells have been installed at the site. The Site's current groundwater monitoring plan requires annual sampling of 17 monitoring wells and collecting water and product levels at 37 monitoring wells.

5.3.14 Septic Systems

ARCADIS did not observe evidence of septic systems or cesspools at the Site.

5.3.15 Odors

ARCADIS did not note readily noticeable strong, pungent, or noxious odors at the time of the site visit.

5.3.16 Other Observations

ARCADIS noted these additional observations during the Site walk.

Metal storage areas are located: north of the northeast corner of Factory 36; east of Building 99, and south of Building 86.

A salt storage area is located east of Factory 10.

No other significant Site observations were noted at the time of the visit.

6.0 INTERVIEWS

6.1 Interview with Owner/Key Site Manager

ARCADIS did not interview Key Site Personnel during the Site inspection.

6.2 Site Occupants

Portions of the Site were occupied by GM at the time of the Site visit. Mrs. Stacey Helton, Site Environmental Engineer for GM was interviewed at the time of the inspection.

6.3 Interviews with Local Regulatory Agencies

Research conducted at local regulatory offices has been summarized in Sections 4.5. No additional interviews with local regulatory agencies were conducted.

6.4 Interviews with Others

No additional interviews were conducted as part of this assessment.

7.0 FINDINGS/OPINION

This section identifies known or suspect environmental concerns, historical environmental concerns, and *de minimus* conditions obtained during the ESA.

7.1 Known or Suspect Environmental Concerns

In the Revised CMP, corrective measures were proposed at the Site for each of the AOIs identified during the RFI activities when the following conditions existed: 1) LNAPL where TSCA-regulated levels of PCBs were detected; or 2) estimated risks were higher than USEPA's acceptable risk limits via exposure to hazardous constituents in soil, groundwater, or LNAPL. Each of these AOIs has been identified as a REC. In addition, as part of negotiations with the USEPA since the submittal of the Revised CMP, remedial actions (LNAPL removal) will be implemented at several additional AOIs. These AOIs have also been identified as RECs. There are also 10 hazardous waste management units located at the site, which have been identified as RECs.
The individual RECs in connection with the Site include the following:

- **AOI 3-1 -** consists of the overall area of the Factory 03 building complex, including various quenching and cooling oil systems used for various metal forging, quenching, and cooling operations. A quench oil plume has been identified in this area. Historically, a roof drain/storm sewer sump located in the southern portion of Building 30A accumulated free product, determined to be S-7 quench oil. As a result, the sump was converted to a collection sump with belt skimmer to recover this oil. This recovery system was successful in recovering free-phase LNAPL proximate to the recovery sump, hence operation of this system has been discontinued. Residual LNAPL, believe to be related to this release, is present immediately downgradient at monitoring well 03-03 and in known as the AOI 3-1 quench oil plume. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. Monitoring well 03-03 was monitored and manually bailed as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 03-1 indicate that screening criteria were exceeded for benzo(a)pyrene and manganese. The RFI groundwater data from AOI 03-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 3-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 3-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 05-1**- consists of the basement area along the southeast portion of Building 43, and is associated with a former metal machining chip processing operation. The RFI soil data from AOI 05-1 indicate that screening criteria were exceeded for lead and manganese, and the RFI groundwater data indicate that no screening criteria were exceeded. LNAPL has been detected during RFI activities in this area and the physical extent of LNAPL has been defined. Investigations performed in 1994 in response to suspected oil releases in Building 43 (Factory 05 Area) detected LNAPL on the water table along the southeast side of Building 43. To address the LNAPL, three recovery trenches were installed in the Building 43 area in early 1995. These recovery trenches are each approximately 14 feet deep, 3 feet wide, 100 feet long, and backfilled with gravel. LNAPL is recovered from these trenches via 30-inch-diameter recovery wells installed near the midpoint of each recovery trench. Automated belt skimming devices in the recovery wells collect LNAPL from the recovery trenches (with approximately 60% groundwater and 40% LNAPL) and transfer it to a temporary storage tote. Recovered water s periodically allowed to flow back into the recovery well and the recovered LNAPL is later drummed for disposal. The current belt skimming system is inefficient in removing LNAPL from the recovery wells. Based on the human health risk assessment for AOI 05-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to soil or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in samples of LNAPL collected from the recovery trench system mentioned above at concentrations up to 111 ppm. The presence of PCBs at this concentration requires application of toxic substances control act (TSCA) regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-1 is to remove LNAPL to the extent practicable.
- **AOI 05-5** - is in the northern and east-central portion of Building 43, and consists of active process machinery, collection trenches, and sumps for both "wet" and "dry" operations. The RFI soil data from AOI 05-5 indicate that no screening criteria were exceeded, and the RFI groundwater data indicate that screening criteria were exceeded for arsenic and nickel. A release of an estimated 4,000 gallons of cutting oil was identified in April 1997. Three 4-inch-diameter groundwater monitoring wells were installed to the east of the tank from which the release was thought to have occurred. Product was identified in two monitoring wells. Two pneumatic free-product recovery pumps were installed as IMs in the wells. The recovered total fluids were later piped to two product storage tanks located within Building 43. The LNAPL later caused malfunction of the recovery pumps. As such, the system is currently not operating. Based on the human health risk assessment for AOI 05-5 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from well RFI-05-11 at a concentration of 160 ppm and from well RW-05-East at a concentration of 130 ppm.

The presence of PCBs at this AOI at these concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-5 is to remove LNAPL to the extent practicable.

- **AOI 10-1/10-4** – AOI 10-1 consists of the overall area of Building 20, including its basement area, manufacturing operations, external areas, and several tanks. AOI 10-4 consists of the scrapyard area immediately south of Building 20 and was used for scrap material storage, vehicle dismantling, and vehicle equipment storage. In 1991, free product was detected on the water table beneath and south of Building 20 within the Factory 10 Area. Fractions of this product included both water-soluble and insoluble phases of oil containing PCBs. In May 1997, GM installed a groundwater collection and treatment system designed to collect and treat soluble product and affected groundwater from this area. Treated groundwater is discharged to the Site storm sewer system under a National Pollutant Discharge Elimination System (NPDES) permit. Subsurface investigations performed in and around the scrapyard area south of Factory 10 identified the presence of free product containing PCBs on the surface of groundwater outside the southeastern corner of Factory 10 and in the adjacent scrapyard area to the south, outside the influence of the LNAPL collection system installed in 1997. As a result, a second product recovery system consisting of a recovery trench, four manholes, and pumps for both product recovery and groundwater drawdown has been constructed further downgradient to recover the PCB-containing LNAPL and create hydraulic control at the downgradient plume edge. The collection trench, sumps, manholes, and product piping of the second IM were installed in January and February 2003. The recovery trench associated with this system is composed of two segments: one segment is approximately 30 feet long and the other is approximately 210 feet long. Both trench segments are approximately 20 feet deep and 1.5 feet wide, and contain a perforated pipe lateral and pea stone backfill. Product and groundwater are pumped from four 4-foot diameter recovery manholes equally spaced along the trench. Collected groundwater and product are treated in the groundwater treatment system in Building 20, because of its PCB handling capability. The RFI soil data from AOI 10-1 indicated screening criteria were exceeded for arsenic, chromium, lead, and manganese, while the RFI soil data from AOI 10-4 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 10-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, while the RFI groundwater data from AOI 10-4 indicate that screening criteria were exceeded for benzene and vinyl chloride. Based on the human health risk assessment for AOIs 10-1/10-4 documented in the RFI Phase II Report these areas do not require further action; however, the remedial goal established for the AOIs 10-1/10-4 is to remove LNAPL to the extent practicable.

- **AOI 36-1 Gasoline Plume –** AOI 36-1 is located in the northern and central portions of Building 36, and is associated with engine manufacturing and metal machining processes. A gasoline LNAPL plume has been identified to be present in this area, presumably due to historical releases associated with engine testing. This plume is located at the interior of Building 36, and is approximately 75 feet in diameter. The RFI soil data from AOI 36-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 36-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure for construction workers who could contact the gasoline LNAPL plume exceed USEPA's cumulative cancer risk and HI limits. In addition, potential exposure of routine workers to vapors from soil and LNAPL via vapor intrusion exceeds USEPA's cumulative cancer risk and HI limits under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). These risk estimates are primarily attributed to the concentrations of the constituents present in the gasoline plume. Conditions within the current building do meet current OSHA standards related to vapor concentrations in indoor air as discussed in the RFI Phase II Report. Therefore, the remedial goal for LNAPL at this AOI is to address the potential exposure to construction and routine workers to VOCs from the gasoline plume and soil.
- **AOI 36-1 Mineral Seal/Hydraulic Oil LNAPL Plume –**A mineral seal/hydraulic oil LNAPL plume has also been identified at AOI 36-1. There are approximately 150 to 200 underground sumps, tanks, and floor trenches in the area. This plume is located at the interior of Building 36, and is approximately 500 feet in diameter. As discussed above, based on the human health risk assessment for AOI 36-1, the risk estimates are primarily attributed to the concentrations of the constituents present in the AOI 36-1 gasoline plume. The remedial goal for AOI 36-1 mineral seal/hydraulic oil LNAPL plume at this AOI is to remove LNAPL to the extent practicable.

- **AOI 36-2** - consists of the basement area located along the eastern side of the central portion of Building 36 and is associated with metal chip processing. A mineral seal/hydraulic oil plume has been identified to be present in this area. The plume is located directly downgradient of the basement and is 375 feet long by 175 feet wide. The RFI soil data from AOI 36-2 indicated that total chromium in soils exceeded screening criteria for hexavalent chromium. However additional analysis indicated that hexavalent chromium concentrations in soils at this AOI were less than the screening criterion. The RFI groundwater data from AOI 36-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. A groundwater and LNAPL recovery system has been constructed along the east side of Building 36, and was placed into operation in 2005.

The purpose of this IM is to control potential offsite migration of LNAPL and Site-related constituents and to collect free-phase LNAPL. This system consists of three 12-inch diameter wells (installed in 24-inch diameter boreholes) and pumps for both product recovery and groundwater drawdown. The recovery wells are approximately 20 feet deep. Product and groundwater are recovered from the wells via product recovery pump(s) and groundwater submersible pump(s), respectively. Collected fluids are transferred to a new treatment system that is housed in an enclosure located in the area of the wells and ultimately discharged to the Site storm sewer system (Outfall 002) under an NPDES permit. Based on the human health risk assessment for AOI 36-2 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-2 mineral seal/hydraulic oil LNAPL plume is to remove LNAPL to the extent practicable.

- **AOI 36-5** – is located immediately south of Building 36 and is associated with a former UST farm (also known as former Tank Farm 37) and an active contained AST farm. Both the ASTs and USTs contained gasoline, motor oil, hydraulic oil, and other oil products. A fuel oil plume has been identified to be present in this area, presumably from a UST leak. The plume is located beneath and to the northwest of the current AST farm and is approximately 75 feet in diameter. The RFI soil data from AOI 36-5 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 36-5 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Groundwater and free-product recovery trenches were installed along the east and south sides of the excavation area as part of initial abatement measures in February 1990. These trenches are 3 feet wide and filled with gravel from approximately 2 feet bgs to approximately 14 feet bgs and are sloped toward a 26-inch-diameter recovery well/sump located along the south side of the excavation area. This recovery well/sump is installed to a depth of 17 feet bgs with screen placement at 6 to 13 feet bgs. In addition, a second sump was installed south of the newly constructed tank farm and is approximately a 26-inch-diameter and is constructed to 14 feet bgs. Collected fluids are routed to the Site's industrial wastewater treatment facility. Both recovery sumps are being operated based on water levels in the sump, which is at about the same elevation as the LNAPL. Five wells 20-100, 20-501, 20-506, RFI-36-13, and RFI-36-14 are being monitored as part of the annual Sitewide Groundwater Monitoring Program. Based on the human health risk assessment for AOI 36-5 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-5 is to remove LNAPL to the extent practicable.

- **AOI 81-1** consists of the basement area beneath the southern and central portions of Building 71B, and is associated with three metal machining chip/cooling and cutting oil filtration/processing operations, as well as an inactive hydraulic elevator, several process waste sumps and tanks, a drum storage area, and a 90-day hazardous waste accumulation area (inactive). The RFI soil data from AOI 81-1 indicate that screening criteria were exceeded for lead. Based on the human health risk assessment for AOI 81-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in deep (depth-averaged) soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead in soil greater than 900 mg/kg.
- **AOI 81-2 SOIL** - consists of active metal welding and machining, and torque converter assembly operations performed in Buildings 70, 70B, 71, 71A, 72, 73, 73A, 73B, and 74. The RFI soil data from AOI 81-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for lead and manganese. It should be noted that the compounds exceeding screening criteria at soil boring RFI-81-38 were found to be associated with fill material used to fill a former process pit structure. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure of routine workers to soil via direct contact in this area exceeds the USEPA HI limit. In addition, estimates of potential exposure of routine workers to vapors from soil via vapor intrusion exceeds USEPA's HI limit under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). Conditions within the current building do meet current OSHA standards related to vapor intrusion as discussed in the RFI Phase II Report. The remedial goal for soil at this AOI is to address potentially significant exposures to concentrations of certain VOCs in soil in a near-surface soil sample at the RFI-81-38.
- **AOI 81-2 LNAPL –** The portion of AOI 81-2 associated with LNAPL impacts was used for storage of foundry sand and steel from the manufacturing process. Subsequent subsurface investigations in this area indicated the presence of LNAPL containing PCBs. An LNAPL recovery trench was installed as an IM in the area in 1996. This recovery trench is approximately 9 feet deep, 3 feet wide, 200 feet long, and includes perforated pipes and gravel backfill. LNAPL is recovered from the trenches via a 4-foot-diameter recovery well installed near the midpoint of the recovery trench. An automated belt skimming device in the recovery well collects product from the recovery trench and transfers it to a temporary storage tank. This system has become ineffective in removing significant quantities of LNAPL due to the lack of recoverable LNAPL within the capture zone of the system. A portion of this LNAPL plume exists outside the area of influence of the existing LNAPL recovery system.

Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs have been detected in LNAPL at this AOI at concentrations of 200 ppm. The presence of PCBs at this AOI at such concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 81-2 is to remove LNAPL to the extent practicable.

- **AOI 83/84-2 Soil** is located in the currently inactive Factory 83/84 area, and consists of areas of various former and existing machining operations in Building 32 (including two basements), including both "wet" and "dry" operations. The RFI soil data from AOI 83/84-2 indicate that industrial screening criteria were exceeded for several PAHs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 83/34-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in deep soil (up to 9 feet bgs) exceed 900 mg/kg (i.e., MDEQ industrial direct contract criterion). Therefore, the remedial goal for soil at this AOI is to address the lead concentrations in soil greater than 900 mg/kg.
- **AOI 83/84-2 LNAPL** - LNAPL has been observed floating on the surface of groundwater at select monitoring well locations. The physical extent of LNAPL has been defined to be approximately 150 feet in diameter. Based on the human health risk assessment for AOI 83/84-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from monitoring wells RFI-83/84-06 and RFI-83/84-49 at concentrations as high as 62 mg/kg. The presence of PCBs at this concentration requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA.
- **AOI 83/84-3** consists of areas of various former and existing machining operations in Buildings 66A/66D (both "wet" and "dry" operations). The RFI soil data from AOI 83/84-3 indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for beryllium and lead. Based on the human health risk assessment for AOI 83/84-3 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in surface and depth-averaged soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 83/84-4 -** consists of four former "wet" metal machining operations in the central portion of Building 66, including three process oil collection/recirculation sumps, and an inactive rail loading area (including associated sumps along the north side of Building 66C). A cutting oil plume has been identified in this area. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. The RFI soil data from AOI 83/84-4 indicate that no screening criteria were exceeded. The RFI groundwater data indicate that screening criteria were exceeded for arsenic, beryllium, and lead. LNAPL was removed from monitoring wells RFI-83/84-07 and RFI-83/84-45 during the Sitewide LNAPL Monitoring Program conducted from 2001 through 2004. Based on the human health risk assessment for AOI 83/84-4 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 83/84-3 cutting oil plume is to remove LNAPL to the extent practicable.

- **AOI 86-1** - includes the overall area of Building 86 and areas immediately southeast and west of Building 86, collectively associated with a hazardous waste drum accumulation area, a process waste pumping station, a waste transport vehicle storage area, and a former UST farm. Historically a product plume was identified that was thought to be associated with the former UST farm, located south of Buildings 86/86A. Two product recovery wells were installed in an attempt to eliminate the migration of product into a catch basin connecting to Storm Sewer Outfall 005. These recovery wells were installed adjacent to the Leith Street overpass retaining wall. Recovered product was collected in an oil/water separator and discharged to the Site's industrial wastewater treatment system. This system was successful in recovering free-phase LNAPL in this area, hence operation was discontinued. However, during 2003, LNAPL was observed at two monitoring wells (RFI-86-02 and RFI-86-03) located east of the AOI. This area is identified as the AOI 86-1 Fuel Oil Plume. Monitoring wells associated with this plume have been monitored as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 86-1 indicate that screening criteria were exceeded for arsenic and manganese. The RFI groundwater data from AOI 86-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 86-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 86-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 02-B** – This AOI is associated with former Building 02 and relates to a pit for an elevator. A cutting oil plume has been identified to be present in this area. The physical extent of LNAPL has been defined to be approximately 100 feet in diameter. The RFI soil data from AOI 02-B indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 02-B indicate that the screening criteria for acetone and manganese were exceeded. Based on the human health risk assessment for AOI 2-B documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 02-B is to remove LNAPL to the extent practicable.

- **AOI 02-C** - is associated with the former Building 02, and relates to a former sump in the former Materials Laboratory. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in near-surface soil sample results from soil boring RFI-02-03. Based on the human health risk assessment for AOI 02-C documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in surface soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 09-A –** is related to the former Building 09, and involves a floor trench/UST that discharged to the process wastewater system, floor trenches over a holding tank in the "vehicle wash area", concrete containment for a former AST, and a former UST. The RFI soil data from AOI Group 09-A indicate that screening criteria were exceeded for benzo(a)pyrene, dibenzo(a,h)anthracene, lead, and manganese, and the RFI groundwater data indicate that screening criteria were exceeded for trichloroethene, vinyl chloride, antimony, and lead. Based on the human health risk assessment for AOI Group 09-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, concentrations of lead in soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Notably, this area includes a rather localized area, centralized around offsite soil boring RFI-09-01, which contained lead at a concentration of 120,000 mg/kg. This soil boring is located on property owned by CSX Transportation, Inc. (CSX), immediately east of the Site. In addition, an offsite soil sample collected from soil boring RFI-09-03 exhibited a concentration of benzo(a)pyrene that exceeds USEPA's risk limits for residential exposure. This boring is also located on CSX property, immediately east of the Site. Therefore, the remedial goal for this area is to address the potential exposure to soil with elevated lead and benzo(a)pyrene concentrations.

- **AOI 09-B Soil –** is associated with the Former Building 31/Hamilton Avenue Tank Farm. An LNAPL plume consisting primarily of gasoline has been identified and delineated in this area and is approximately 75 feet in diameter. The RFI soil data from AOI Group 09-B indicate that industrial screening criteria were exceeded for benzo(a)pyrene and lead, and the RFI groundwater data indicate that industrial screening criteria were exceeded for several VOCs, total PCBs, and several inorganic constituents. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, potential exposure to near-surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 09-B LNAPL –** is an LNAPL plume associated with the Former Hamilton Avenue Tank Farm. The AOI 09-B plume is composed of gasoline and is approximately 75 feet in diameter. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure for future redevelopment construction workers to gasoline LNAPL in this area exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for LNAPL at this AOI is to address the potential exposure of construction workers to LNAPL.
- **AOI 12-A Soil –** is associated with the former Building 12, and relates primarily to several press pits and associated sumps, pits, trenches, and traps. The RFI soil data from these AOIs indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for tetrachloroethene, vinyl chloride, and lead. Based on the human health risk assessment for AOI Group 12-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface groundwater. However, lead concentrations in surface and deep soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal is to address lead concentrations in soil greater than 900 mg/kg.

  AOI 12-A, B &C LNAPL - This AOI group is associated with former Building 12 and relates to: several press pits and associated sumps, pits, trenches, traps, and floor staining (12-A); to a drain within a truck loading dock, and leading to a sump that discharged to the process wastewater system (12-B); and to a sump that collected runoff from a battery charging area, a deep steam pipe, and an old utility pit with oil and water present (12-C). Three LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 12-A have been defined as approximately 50 feet by 100 feet and 150 feet by 250 feet. The third plume, associated with AOI 12-C, has been defined as approximately 175 feet by 400 feet. Historically, LNAPL bailing activities were conducted as part of the Sitewide LNAPL monitoring program. In addition, two stand-alone LNAPL collection systems were installed in July 2003 at wells RFI-12-02 and RFI-12-11D for the purpose of controlling the migration of potential LNAPL in this area.

These systems consisted of a pneumatic product skimming pump powered by nitrogen supplied in liquid nitrogen tanks and a battery-powered, solar-charged controller. Collected product was stored in tanks located at each well head. Due to the high viscosity of the LNAPL in this area, these systems failed to collect any reasonable amount of LNAPL. As such, they have been terminated and dismantled.

Based on the human health risk assessment for AOIs 12-A, -B, and -C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 12-A, -B and -C Hydraulic Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 29-A –** is associated with the former Building 29, and relates to a pit for a cable-operated elevator and former work pads with oil staining. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in surface soil. Based on the human health risk assessment for AOI Group 29-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, potential exposure to surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 40-A,-B and 16-C –** AOI 40A is associated with former Building 40 and relates to a former UST farm located between Buildings 02 and 40. A prior release from this area has been documented. One soil boring/temporary well was installed to further assess the downgradient extent of residual contamination in this area. AOI 40-B is associated with former Building 40 and relates to a pit for an elevator. AOI 16-C is associated with former Building 16 and relates to hydraulic oil with external AST that was used for hydraulic lift to a Dumpster and former USTs located along the side of former Building 16. Following initial investigation activities, a confirmed release notice was submitted, detailing a release from USTs 113, 114, and 115 and their removal was conducted under Parts 211 and 213 of NREPA.

  Four LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 40-A have been defined as approximately 30 feet by 60 feet and 50 feet by 120 feet. The third plume, associated with AOI 40-B, has been defined as approximately 30 feet in diameter. The fourth plume, associated with AOI 16-C, has been defined as approximately 50 feet by 120 feet.

The RFI soil data from AOI 40-A indicate that screening criteria were exceeded for benzo(a)pyrene. The RFI soil data from AOI 40-B and AOI 16-C indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 40-A indicate that screening criteria were exceeded for several VOCs and inorganic constituents. The RFI groundwater data from AOI 40-B indicate screening criteria were exceeded for several VOCs. The RFI groundwater data from AOI 16-C indicate that screening criteria were exceeded for benzene, beryllium, and selenium.

Based on the human health risk assessment for AOIs 40-A, -B, and 16-C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 40-A, -B and 16-C Fuel Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 40-D –**The Former Building 40 tunnel conveyed materials, personnel, and equipment between former Building 40 and former Building 06/16 assembly areas. The tunnel was oriented in the east-west direction and was approximately 260 feet long by 15 feet wide and 8.5 feet high. An L-shaped basement area, approximately 1,900 square feet in size, was located above a portion of the tunnel, and the ceiling of the basement was removed and the area is surrounded by a chain link fence. The top of the tunnel roof (basement floor) was approximately 12 feet below grade. The tunnel was completely flooded with water, and the water level was approximately 4 feet above the floor of the basement. The basement floor was cleaned in August 1992 using a foam-applied aqueous-based solvent to extract PCBs from the concrete floor and the lower 2 feet of the basement walls. Other activities since then have included removal of small quantities (less than 1 quart) of floating oil from the tunnel and basement.

  The *Cleanup and Disposal of PCB Remediation Waste, Building 40 Tunnel and Basement* (BBL, 2004) (Building 40 Trench/Basement Remediation Report) report describes work completed to investigate the tunnel and presents a plan for remediation. This report was submitted to the USEPA on January 7, 2004, and conditionally approved by USEPA via letter dated September 13, 2005. The basement and tunnel area were filled in accordance with the remediation plan in May 2006. The only remaining actions planned to address this area include the implementation of institutional controls (e.g., deed restriction).

- **Outfall 002 Storm Sewer -** As discussed in Sections 3.3.1 and 4.1 of Appendix I of the RFI Phase II Report, evidence of historical groundwater infiltration into Outfall 002 storm sewers has been observed as mineral deposits at pipe joints during video inspection of proposed stretches of the pipe system. Also, the portion of the Outfall 002 storm sewer system between manholes 2-20 and 2-22 runs underneath Stewart Ave. and through an LNAPL area associated with the former Tank Farm 37 UST system (AOI 36-5). Based on the RFI risk assessment, no unacceptable human health risks were identified for this area.

However, certain VOCs were detected in water samples collected from manholes 2-19 and 2-20. The detected VOCs were similar to those detected in groundwater samples surrounding the Outfall 002 storm sewer system in this area. These results suggest that some infiltration of contaminated groundwater is likely occurring. A dissolved groundwater plume containing concentrations of trichloroethene (TCE), and vinyl chloride, as well as LNAPL, exist in the area just upstream of manhole 2-20, and may be the source of the VOCs detected in the sewer. An inspection of the sewer system revealed no evidence of LNAPL infiltration in the area. Oil sheens are observed at Outfall 002.Booms are located at Outfall 002 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 002 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System. Further corrective measures for addressing this potential LNAPL infiltration to this sewer system in the area of the former Tank Farm UST system will be evaluated following the planned demolition of Factory 36**.**

- **Outfall 003 Storm Sewer -** As described in Section 5.7 of the *Description of Current Conditions for Areas North of Leith Street (BBL, 2000)*, this overall system consists of two oil/water separators configured to mitigate sheens at Outfall 003 to the Flint River. Additionally, booms are located at Outfall 003 to contain sheens that are not completely contained by the Outfall 003 system oil/water separators. Oil sheens contained by the booms at Outfall 003 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 004 Storm Sewer -** Booms are located at Outfall 004 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 004 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 005 -** Visible sheens have previously been observed at Outfall 005. Inspections of the Outfall 005 storm sewer system revealed that the likely source of the sheens was infiltration into the system near French drain manholes located near the Leith Street underpass. P-traps were installed in two French drain manholes between September and December 2004, and the p-traps have been successful in controlling sheens at Outfall 005. Booms are located at Outfall 005 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 005 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.

- **Hazardous Waste Management Units -** In February 1985 GMC submitted a RCRA Part B Permit Application to USEPA which listed 10 waste management units at the Site. In November 1987, GMC retracted its RCRA Part B applications and converted the Site to less than 90-day generator status, and has been operating as such since that time. In 1988 EDI Engineering & Science prepared a Closure Report which provided the basis and context to proceed with closure of WMUs identified at the Site. Section I of the 1988 Closure Report provided the relevant background that supports the current list of WMUs to be closed.

As part of converting the Site to less than 90-day generator status, GMC was to close its WMUs identified in its RCRA Part B Permit application. The intent of the 1988 Closure Report was to organize GMC's closure of these WMUs. The 1988 Closure Report inventoried 10 WMUs as follows:

- Division 29, Building 23 Tool Manufacturing Cyanide Storage Area
- Division 25, East of Factory 10 Outside Waste Thinner Tank Area
- Factory 86, Building 04 Assembly Plant Waste Storage Tanks
- Building 41A, Assembly Plant Waste Tank Area
- Factory 10, Building 20 Transmission Plant Tank Area
- Building 02 Container Storage Area
- Factory 36, Building 36 Engine Plant Northeast Dock
- Factory 31, Building 32 Axle Plant North Dock
- Factory 10, Salvage Yard Container Storage Area
- Factory 10, Salvage Yard Tank Storage Area

In general, while select WMUs have undergone partial closure, with a few limited exceptions (e.g., Tool Manufacturing Cyanide Storage Area [Division 29, Building 23]), no formal document submittals to the USEPA, MDNR, or Michigan Department of Environmental Quality (MDEQ) can be located. Closure activities are currently ongoing for these WMU.

In addition the following are Site-wide Use Restrictions also proposed:

- A Deed restriction that would prohibit the use of groundwater for any purpose, beyond sampling and other related investigatory testing.
- Limit the future use of the Site to Industrial/Commercial II, III, and IV activities only
- A deed restriction for downgradient offsite property that will prohibit the use of corresponding groundwater for potable uses.

7.2 Historical Recognized Environmental Conditions

No historical RECs were identified in the course of this investigation other than the AOIs and interim measures discussed in the *Description of Current Conditions Report for Areas South of Leith Street*, the *Description of Current Conditions Reports for Areas North of Leith Street, RFI Phase I Report, the RFI Phase II Report, and the Revised May 2008 CMP*.

7.3 De Minimus Conditions

De minimus environmental conditions at the Site include the following:

Factory 5 – Building 43

Staining was noted on the concrete floor located beneath the dispensers in the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion. The dispenser area and nearby ASTs are bound by a trench. The concrete floor in the area was observed to be in good condition, no significant cracks were observed.

Staining was noted surrounding a floor trench drain that also had absorbent material surrounding the drain. The trench was located in the northwestern portion of the plant in Dept 11.

Minor staining was noted at the drum storage area near the south loading dock. One of the drums appeared to be leaking.

Staining was noted on the floor in the North/South Oil Crib located in the eastern central portion of the building. The North/South Oil Crib contained new oil and lubricants along with a satellite area for waste oil. Absorbent materials were also noted on the floor.

Factory 9 – Building 21

Staining was noted on the concrete floor in the bulk storage area located in the northwest corner of the building. The bulk storage area contains a drainage trench which runs the length of the room which appears to drain to the sump in the corner of the room.

Factory 81

ARCADIS noted equipment leaking oil and floor staining in the eastern portion of Dept 81-18. Absorbent materials were also noted on the floor.

Staining was noted on the floor in the 90-Day Flammable Liquid Waste Storage Area. Two trench drains run the length of the storage area.

Staining was noted on the floor of the chip dock located in the located in the northwestern corner of the building.

Factory 10 – Building 20

ARCADIS noted equipment leaking oil in the Dept 24 Reaction Carrier Area located in the eastern portion of the building.

Staining was noted on the floor of the Bulk Storage ASTs room located in the eastern portion of the building.

Staining was noted in the Oil Storage Area located in the northern portion of the building. The Oil Storage Room has a trench approximately 12" x 6" x 60' which leads to a sump.

Staining was noted on the floors in the basement of Factory 10. There are no current manufacturing operations in the basement. The floor of the basement was covered with a thin layer of water and oil which apparently seeps in through the concrete flooring. There are pumps and hoses placed in collection trenches throughout the basement and the oil/water collected is pumped to the Factory 10 remediation system for treatment. In addition the floor is 'squeegeed' each week in order to push the oil and water on the floor into the collection trenches.

Factory 36 - Building 36

Staining was noted on the floor in the former hazardous materials storage area. Factory 36 has been idled, no operation are currently ongoing in this area.

Factory 83/84(Factory 31)

Staining and oil was noted on the floor and in the floor trenches around several pieces of equipment located in the Building 11 portion of the factory at Column E23.

Staining and oil was noted on the concrete and woodblock floor located in the Building 11 portion of the factory at column K30. The wood block flooring had 'popped up' in four mounds (each about 3 feet in diameter) located in a straight line running east west. There also appeared to be oil underneath the mounded wood block flooring.

Division 25 – Building 86

Staining was noted on the floor in the oil storage area located in the northeastern portion of the building. ARCADIS did not observe significant cracks in the concrete floor in this area.

8.0 CONCLUSIONS

ARCADIS performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 of the property located at 902 East Hamilton Avenue, Flint, Genesee County, Michigan. Any exceptions to or deletions from this practice are described in Section 9 of this report.

In the Revised CMP, corrective measures were proposed at the Site for each of the AOIs identified during the RFI activities when the following conditions existed: 1) LNAPL where TSCA-regulated levels of PCBs were detected; or 2) estimated risks were higher than USEPA's acceptable risk limits via exposure to hazardous constituents in soil, groundwater, or LNAPL. Each of these AOIs has been identified as a REC. In addition, as part of negotiations with the USEPA since the submittal of the Revised CMP, remedial actions (LNAPL removal) will be implemented at several additional AOIs. These AOIs have also been identified as RECs. There are also 10 hazardous waste management units located at the site, which have been identified as RECs.
This assessment has revealed evidence of individual RECs in connection with the Site, which include the following:

- **AOI 3-1 -** consists of the overall area of the Factory 03 building complex, including various quenching and cooling oil systems used for various metal forging, quenching, and cooling operations. A quench oil plume has been identified in this area. Historically, a roof drain/storm sewer sump located in the southern portion of Building 30A accumulated free product, determined to be S-7 quench oil. As a result, the sump was converted to a collection sump with belt skimmer to recover this oil. This recovery system was successful in recovering free-phase LNAPL proximate to the recovery sump, hence operation of this system has been discontinued. Residual LNAPL, believe to be related to this release, is present immediately downgradient at monitoring well 03-03 and in known as the AOI 3-1 quench oil plume. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. Monitoring well 03-03 was monitored and manually bailed as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 03-1 indicate that screening criteria were exceeded for benzo(a)pyrene and manganese. The RFI groundwater data from AOI 03-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 3-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 3-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 05-1**- consists of the basement area along the southeast portion of Building 43, and is associated with a former metal machining chip processing operation. The RFI soil data from AOI 05-1 indicate that screening criteria were exceeded for lead and manganese, and the RFI groundwater data indicate that no screening criteria were exceeded. LNAPL has been detected during RFI activities in this area and the physical extent of LNAPL has been defined. Investigations performed in 1994 in response to suspected oil releases in Building 43 (Factory 05 Area) detected LNAPL on the water table along the southeast side of Building 43. To address the LNAPL, three recovery trenches were installed in the Building 43 area in early 1995. These recovery trenches are each approximately 14 feet deep, 3 feet wide, 100 feet long, and backfilled with gravel. LNAPL is recovered from these trenches via 30-inch-diameter recovery wells installed near the midpoint of each recovery trench. Automated belt skimming devices in the recovery wells collect LNAPL from the recovery trenches (with approximately 60% groundwater and 40% LNAPL) and transfer it to a temporary storage tote. Recovered water s periodically allowed to flow back into the recovery well and the recovered LNAPL is later drummed for disposal. The current belt skimming system is inefficient in removing LNAPL from the recovery wells. Based on the human health risk assessment for AOI 05-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to soil or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in samples of LNAPL collected from the recovery trench system mentioned above at concentrations up to 111 ppm. The presence of PCBs at this concentration requires application of toxic substances control act (TSCA) regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-1 is to remove LNAPL to the extent practicable.
- **AOI 05-5** - is in the northern and east-central portion of Building 43, and consists of active process machinery, collection trenches, and sumps for both "wet" and "dry" operations. The RFI soil data from AOI 05-5 indicate that no screening criteria were exceeded, and the RFI groundwater data indicate that screening criteria were exceeded for arsenic and nickel. A release of an estimated 4,000 gallons of cutting oil was identified in April 1997. Three 4-inch-diameter groundwater monitoring wells were installed to the east of the tank from which the release was thought to have occurred. Product was identified in two monitoring wells. Two pneumatic free-product recovery pumps were installed as IMs in the wells. The recovered total fluids were later piped to two product storage tanks located within Building 43. The LNAPL later caused malfunction of the recovery pumps. As such, the system is currently not operating. Based on the human health risk assessment for AOI 05-5 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from well RFI-05-11 at a concentration of 160 ppm and from well RW-05-East at a concentration of 130 ppm.

The presence of PCBs at this AOI at these concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 05-5 is to remove LNAPL to the extent practicable.

- **AOI 10-1/10-4** – AOI 10-1 consists of the overall area of Building 20, including its basement area, manufacturing operations, external areas, and several tanks. AOI 10-4 consists of the scrapyard area immediately south of Building 20 and was used for scrap material storage, vehicle dismantling, and vehicle equipment storage. In 1991, free product was detected on the water table beneath and south of Building 20 within the Factory 10 Area. Fractions of this product included both water-soluble and insoluble phases of oil containing PCBs. In May 1997, GM installed a groundwater collection and treatment system designed to collect and treat soluble product and affected groundwater from this area. Treated groundwater is discharged to the Site storm sewer system under a National Pollutant Discharge Elimination System (NPDES) permit. Subsurface investigations performed in and around the scrapyard area south of Factory 10 identified the presence of free product containing PCBs on the surface of groundwater outside the southeastern corner of Factory 10 and in the adjacent scrapyard area to the south, outside the influence of the LNAPL collection system installed in 1997. As a result, a second product recovery system consisting of a recovery trench, four manholes, and pumps for both product recovery and groundwater drawdown has been constructed further downgradient to recover the PCB-containing LNAPL and create hydraulic control at the downgradient plume edge. The collection trench, sumps, manholes, and product piping of the second IM were installed in January and February 2003. The recovery trench associated with this system is composed of two segments: one segment is approximately 30 feet long and the other is approximately 210 feet long. Both trench segments are approximately 20 feet deep and 1.5 feet wide, and contain a perforated pipe lateral and pea stone backfill. Product and groundwater are pumped from four 4-foot diameter recovery manholes equally spaced along the trench. Collected groundwater and product are treated in the groundwater treatment system in Building 20, because of its PCB handling capability. The RFI soil data from AOI 10-1 indicated screening criteria were exceeded for arsenic, chromium, lead, and manganese, while the RFI soil data from AOI 10-4 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 10-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, while the RFI groundwater data from AOI 10-4 indicate that screening criteria were exceeded for benzene and vinyl chloride. Based on the human health risk assessment for AOIs 10-1/10-4 documented in the RFI Phase II Report these areas do not require further action; however, the remedial goal established for the AOIs 10-1/10-4 is to remove LNAPL to the extent practicable.

- **AOI 36-1 Gasoline Plume –** AOI 36-1 is located in the northern and central portions of Building 36, and is associated with engine manufacturing and metal machining processes. A gasoline LNAPL plume has been identified to be present in this area, presumably due to historical releases associated with engine testing. This plume is located at the interior of Building 36, and is approximately 75 feet in diameter. The RFI soil data from AOI 36-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 36-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure for construction workers who could contact the gasoline LNAPL plume exceed USEPA's cumulative cancer risk and HI limits. In addition, potential exposure of routine workers to vapors from soil and LNAPL via vapor intrusion exceeds USEPA's cumulative cancer risk and HI limits under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). These risk estimates are primarily attributed to the concentrations of the constituents present in the gasoline plume. Conditions within the current building do meet current OSHA standards related to vapor concentrations in indoor air as discussed in the RFI Phase II Report. Therefore, the remedial goal for LNAPL at this AOI is to address the potential exposure to construction and routine workers to VOCs from the gasoline plume and soil.
- **AOI 36-1 Mineral Seal/Hydraulic Oil LNAPL Plume –**A mineral seal/hydraulic oil LNAPL plume has also been identified at AOI 36-1. There are approximately 150 to 200 underground sumps, tanks, and floor trenches in the area. This plume is located at the interior of Building 36, and is approximately 500 feet in diameter. As discussed above, based on the human health risk assessment for AOI 36-1, the risk estimates are primarily attributed to the concentrations of the constituents present in the AOI 36-1 gasoline plume. The remedial goal for AOI 36-1 mineral seal/hydraulic oil LNAPL plume at this AOI is to remove LNAPL to the extent practicable.

- **AOI 36-2** - consists of the basement area located along the eastern side of the central portion of Building 36 and is associated with metal chip processing. A mineral seal/hydraulic oil plume has been identified to be present in this area. The plume is located directly downgradient of the basement and is 375 feet long by 175 feet wide. The RFI soil data from AOI 36-2 indicated that total chromium in soils exceeded screening criteria for hexavalent chromium. However additional analysis indicated that hexavalent chromium concentrations in soils at this AOI were less than the screening criterion. The RFI groundwater data from AOI 36-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. A groundwater and LNAPL recovery system has been constructed along the east side of Building 36, and was placed into operation in 2005.

The purpose of this IM is to control potential offsite migration of LNAPL and Site-related constituents and to collect free-phase LNAPL. This system consists of three 12-inch diameter wells (installed in 24-inch diameter boreholes) and pumps for both product recovery and groundwater drawdown. The recovery wells are approximately 20 feet deep. Product and groundwater are recovered from the wells via product recovery pump(s) and groundwater submersible pump(s), respectively. Collected fluids are transferred to a new treatment system that is housed in an enclosure located in the area of the wells and ultimately discharged to the Site storm sewer system (Outfall 002) under an NPDES permit. Based on the human health risk assessment for AOI 36-2 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-2 mineral seal/hydraulic oil LNAPL plume is to remove LNAPL to the extent practicable.

- **AOI 36-5** – is located immediately south of Building 36 and is associated with a former UST farm (also known as former Tank Farm 37) and an active contained AST farm. Both the ASTs and USTs contained gasoline, motor oil, hydraulic oil, and other oil products. A fuel oil plume has been identified to be present in this area, presumably from a UST leak. The plume is located beneath and to the northwest of the current AST farm and is approximately 75 feet in diameter. The RFI soil data from AOI 36-5 indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 36-5 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Groundwater and free-product recovery trenches were installed along the east and south sides of the excavation area as part of initial abatement measures in February 1990. These trenches are 3 feet wide and filled with gravel from approximately 2 feet bgs to approximately 14 feet bgs and are sloped toward a 26-inch-diameter recovery well/sump located along the south side of the excavation area. This recovery well/sump is installed to a depth of 17 feet bgs with screen placement at 6 to 13 feet bgs. In addition, a second sump was installed south of the newly constructed tank farm and is approximately a 26-inch-diameter and is constructed to 14 feet bgs. Collected fluids are routed to the Site's industrial wastewater treatment facility. Both recovery sumps are being operated based on water levels in the sump, which is at about the same elevation as the LNAPL. Five wells 20-100, 20-501, 20-506, RFI-36-13, and RFI-36-14 are being monitored as part of the annual Sitewide Groundwater Monitoring Program. Based on the human health risk assessment for AOI 36-5 documented in the RFI Phase II Report, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 36-5 is to remove LNAPL to the extent practicable.

- **AOI 81-1** consists of the basement area beneath the southern and central portions of Building 71B, and is associated with three metal machining chip/cooling and cutting oil filtration/processing operations, as well as an inactive hydraulic elevator, several process waste sumps and tanks, a drum storage area, and a 90-day hazardous waste accumulation area (inactive). The RFI soil data from AOI 81-1 indicate that screening criteria were exceeded for lead. Based on the human health risk assessment for AOI 81-1 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in deep (depth-averaged) soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead in soil greater than 900 mg/kg.
- **AOI 81-2 SOIL** - consists of active metal welding and machining, and torque converter assembly operations performed in Buildings 70, 70B, 71, 71A, 72, 73, 73A, 73B, and 74. The RFI soil data from AOI 81-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for lead and manganese. It should be noted that the compounds exceeding screening criteria at soil boring RFI-81-38 were found to be associated with fill material used to fill a former process pit structure. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure of routine workers to soil via direct contact in this area exceeds the USEPA HI limit. In addition, estimates of potential exposure of routine workers to vapors from soil via vapor intrusion exceeds USEPA's HI limit under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). Conditions within the current building do meet current OSHA standards related to vapor intrusion as discussed in the RFI Phase II Report. The remedial goal for soil at this AOI is to address potentially significant exposures to concentrations of certain VOCs in soil in a near-surface soil sample at the RFI-81-38.
- **AOI 81-2 LNAPL –** The portion of AOI 81-2 associated with LNAPL impacts was used for storage of foundry sand and steel from the manufacturing process. Subsequent subsurface investigations in this area indicated the presence of LNAPL containing PCBs. An LNAPL recovery trench was installed as an IM in the area in 1996. This recovery trench is approximately 9 feet deep, 3 feet wide, 200 feet long, and includes perforated pipes and gravel backfill. LNAPL is recovered from the trenches via a 4-foot-diameter recovery well installed near the midpoint of the recovery trench. An automated belt skimming device in the recovery well collects product from the recovery trench and transfers it to a temporary storage tank. This system has become ineffective in removing significant quantities of LNAPL due to the lack of recoverable LNAPL within the capture zone of the system.

A portion of this LNAPL plume exists outside the area of influence of the existing LNAPL recovery system. Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs have been detected in LNAPL at this AOI at concentrations of 200 ppm. The presence of PCBs at this AOI at such concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. The remedial goal for AOI 81-2 is to remove LNAPL to the extent practicable.

- **AOI 83/84-2 Soil** is located in the currently inactive Factory 83/84 area, and consists of areas of various former and existing machining operations in Building 32 (including two basements), including both "wet" and "dry" operations. The RFI soil data from AOI 83/84-2 indicate that industrial screening criteria were exceeded for several PAHs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 83/34-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in deep soil (up to 9 feet bgs) exceed 900 mg/kg (i.e., MDEQ industrial direct contract criterion). Therefore, the remedial goal for soil at this AOI is to address the lead concentrations in soil greater than 900 mg/kg.

- **AOI 83/84-2 LNAPL** - LNAPL has been observed floating on the surface of groundwater at select monitoring well locations. The physical extent of LNAPL has been defined to be approximately 150 feet in diameter. Based on the human health risk assessment for AOI 83/84-2 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from monitoring wells RFI-83/84-06 and RFI-83/84-49 at concentrations as high as 62 mg/kg. The presence of PCBs at this concentration requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA.

- **AOI 83/84-3** consists of areas of various former and existing machining operations in Buildings 66A/66D (both "wet" and "dry" operations). The RFI soil data from AOI 83/84-3 indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for beryllium and lead. Based on the human health risk assessment for AOI 83/84-3 documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in surface and depth-averaged soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 83/84-4 -** consists of four former "wet" metal machining operations in the central portion of Building 66, including three process oil collection/recirculation sumps, and an inactive rail loading area (including associated sumps along the north side of Building 66C). A cutting oil plume has been identified in this area. The physical extent of LNAPL has been defined to be approximately 50 feet in diameter. The RFI soil data from AOI 83/84-4 indicate that no screening criteria were exceeded. The RFI groundwater data indicate that screening criteria were exceeded for arsenic, beryllium, and lead. LNAPL was removed from monitoring wells RFI-83/84-07 and RFI-83/84-45 during the Sitewide LNAPL Monitoring Program conducted from 2001 through 2004. Based on the human health risk assessment for AOI 83/84-4 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 83/84-3 cutting oil plume is to remove LNAPL to the extent practicable.

- **AOI 86-1** - includes the overall area of Building 86 and areas immediately southeast and west of Building 86, collectively associated with a hazardous waste drum accumulation area, a process waste pumping station, a waste transport vehicle storage area, and a former UST farm. Historically a product plume was identified that was thought to be associated with the former UST farm, located south of Buildings 86/86A. Two product recovery wells were installed in an attempt to eliminate the migration of product into a catch basin connecting to Storm Sewer Outfall 005. These recovery wells were installed adjacent to the Leith Street overpass retaining wall. Recovered product was collected in an oil/water separator and discharged to the Site's industrial wastewater treatment system. This system was successful in recovering free-phase LNAPL in this area, hence operation was discontinued. However, during 2003, LNAPL was observed at two monitoring wells (RFI-86-02 and RFI-86-03) located east of the AOI. This area is identified as the AOI 86-1 Fuel Oil Plume. Monitoring wells associated with this plume have been monitored as part of the Sitewide LNAPL monitoring program from 2001 through 2005. The RFI soil data from AOI 86-1 indicate that screening criteria were exceeded for arsenic and manganese. The RFI groundwater data from AOI 86-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents. Based on the human health risk assessment for AOI 86-1 documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 86-1 quench oil plume is to remove LNAPL to the extent practicable.

- **AOI 02-B** – This AOI is associated with former Building 02 and relates to a pit for an elevator. A cutting oil plume has been identified to be present in this area. The physical extent of LNAPL has been defined to be approximately 100 feet in diameter. The RFI soil data from AOI 02-B indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 02-B indicate that the screening criteria for acetone and manganese were exceeded. Based on the human health risk assessment for AOI 2-B documented in the RFI Phase II Report estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for AOI 02-B is to remove LNAPL to the extent practicable.

- **AOI 02-C** - is associated with the former Building 02, and relates to a former sump in the former Materials Laboratory. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in near-surface soil sample results from soil boring RFI-02-03. Based on the human health risk assessment for AOI 02-C documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, mean lead concentrations in surface soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

- **AOI 09-A –** is related to the former Building 09, and involves a floor trench/UST that discharged to the process wastewater system, floor trenches over a holding tank in the "vehicle wash area", concrete containment for a former AST, and a former UST. The RFI soil data from AOI Group 09-A indicate that screening criteria were exceeded for benzo(a)pyrene, dibenzo(a,h)anthracene, lead, and manganese, and the RFI groundwater data indicate that screening criteria were exceeded for trichloroethene, vinyl chloride, antimony, and lead. Based on the human health risk assessment for AOI Group 09-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, concentrations of lead in soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Notably, this area includes a rather localized area, centralized around offsite soil boring RFI-09-01, which contained lead at a concentration of 120,000 mg/kg. This soil boring is located on property owned by CSX Transportation, Inc. (CSX), immediately east of the Site. In addition, an offsite soil sample collected from soil boring RFI-09-03 exhibited a concentration of benzo(a)pyrene that exceeds USEPA's risk limits for residential exposure. This boring is also located on CSX property, immediately east of the Site. Therefore, the remedial goal for this area is to address the potential exposure to soil with elevated lead and benzo(a)pyrene concentrations.

- **AOI 09-B Soil –** is associated with the Former Building 31/Hamilton Avenue Tank Farm. An LNAPL plume consisting primarily of gasoline has been identified and delineated in this area and is approximately 75 feet in diameter. The RFI soil data from AOI Group 09-B indicate that industrial screening criteria were exceeded for benzo(a)pyrene and lead, and the RFI groundwater data indicate that industrial screening criteria were exceeded for several VOCs, total PCBs, and several inorganic constituents. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, potential exposure to near-surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 09-B LNAPL –** is an LNAPL plume associated with the Former Hamilton Avenue Tank Farm. The AOI 09-B plume is composed of gasoline and is approximately 75 feet in diameter. Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure for future redevelopment construction workers to gasoline LNAPL in this area exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for LNAPL at this AOI is to address the potential exposure of construction workers to LNAPL.
- **AOI 12-A Soil –** is associated with the former Building 12, and relates primarily to several press pits and associated sumps, pits, trenches, and traps. The RFI soil data from these AOIs indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for tetrachloroethene, vinyl chloride, and lead. Based on the human health risk assessment for AOI Group 12-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, estimates of potential exposure to subsurface groundwater. However, lead concentrations in surface and deep soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal is to address lead concentrations in soil greater than 900 mg/kg.

  AOI 12-A, B &C LNAPL - This AOI group is associated with former Building 12 and relates to: several press pits and associated sumps, pits, trenches, traps, and floor staining (12-A); to a drain within a truck loading dock, and leading to a sump that discharged to the process wastewater system (12-B); and to a sump that collected runoff from a battery charging area, a deep steam pipe, and an old utility pit with oil and water present (12-C). Three LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 12-A have been defined as approximately 50 feet by 100 feet and 150 feet by 250 feet. The third plume, associated with AOI 12-C, has been defined as approximately 175 feet by 400 feet. Historically, LNAPL bailing activities were conducted as part of the Sitewide LNAPL monitoring program. In addition, two stand-alone LNAPL collection systems were installed in July 2003 at wells RFI-12-02 and RFI-12-11D for the purpose of controlling the migration of potential LNAPL in this area.

These systems consisted of a pneumatic product skimming pump powered by nitrogen supplied in liquid nitrogen tanks and a battery-powered, solar-charged controller. Collected product was stored in tanks located at each well head. Due to the high viscosity of the LNAPL in this area, these systems failed to collect any reasonable amount of LNAPL. As such, they have been terminated and dismantled.

Based on the human health risk assessment for AOIs 12-A, -B, and -C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 12-A, -B and -C Hydraulic Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 29-A –** is associated with the former Building 29, and relates to a pit for a cable-operated elevator and former work pads with oil staining. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in surface soil. Based on the human health risk assessment for AOI Group 29-A documented in the RFI Phase II Report and summarized in Section 3.2 of the Revised CMP, potential exposure to surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.
- **AOI 40-A,-B and 16-C –** AOI 40A is associated with former Building 40 and relates to a former UST farm located between Buildings 02 and 40. A prior release from this area has been documented. One soil boring/temporary well was installed to further assess the downgradient extent of residual contamination in this area. AOI 40-B is associated with former Building 40 and relates to a pit for an elevator. AOI 16-C is associated with former Building 16 and relates to hydraulic oil with external AST that was used for hydraulic lift to a Dumpster and former USTs located along the side of former Building 16. Following initial investigation activities, a confirmed release notice was submitted, detailing a release from USTs 113, 114, and 115 and their removal was conducted under Parts 211 and 213 of NREPA.

  Four LNAPL plumes have been identified in this area. The physical extent of the two LNAPL plumes associated with AOI 40-A have been defined as approximately 30 feet by 60 feet and 50 feet by 120 feet. The third plume, associated with AOI 40-B, has been defined as approximately 30 feet in diameter. The fourth plume, associated with AOI 16-C, has been defined as approximately 50 feet by 120 feet.

The RFI soil data from AOI 40-A indicate that screening criteria were exceeded for benzo(a)pyrene. The RFI soil data from AOI 40-B and AOI 16-C indicate that no screening criteria were exceeded. The RFI groundwater data from AOI 40-A indicate that screening criteria were exceeded for several VOCs and inorganic constituents. The RFI groundwater data from AOI 40-B indicate screening criteria were exceeded for several VOCs. The RFI groundwater data from AOI 16-C indicate that screening criteria were exceeded for benzene, beryllium, and selenium.

Based on the human health risk assessment for AOIs 40-A, -B, and 16-C documented in the RFI Phase II Report indicated that the LNAPL present in these areas do not require further action; however the remedial goal established for the AOI 40-A, -B and 16-C Fuel Oil Plumes is to remove LNAPL to the extent practicable.

- **AOI 40-D –**The Former Building 40 tunnel conveyed materials, personnel, and equipment between former Building 40 and former Building 06/16 assembly areas. The tunnel was oriented in the east-west direction and was approximately 260 feet long by 15 feet wide and 8.5 feet high. An L-shaped basement area, approximately 1,900 square feet in size, was located above a portion of the tunnel, and the ceiling of the basement was removed and the area is surrounded by a chain link fence. The top of the tunnel roof (basement floor) was approximately 12 feet below grade. The tunnel was completely flooded with water, and the water level was approximately 4 feet above the floor of the basement. The basement floor was cleaned in August 1992 using a foam-applied aqueous-based solvent to extract PCBs from the concrete floor and the lower 2 feet of the basement walls. Other activities since then have included removal of small quantities (less than 1 quart) of floating oil from the tunnel and basement.

  The *Cleanup and Disposal of PCB Remediation Waste, Building 40 Tunnel and Basement* (BBL, 2004) (Building 40 Trench/Basement Remediation Report) report describes work completed to investigate the tunnel and presents a plan for remediation. This report was submitted to the USEPA on January 7, 2004, and conditionally approved by USEPA via letter dated September 13, 2005. The basement and tunnel area were filled in accordance with the remediation plan in May 2006. The only remaining actions planned to address this area include the implementation of institutional controls (e.g., deed restriction).

- **Outfall 002 Storm Sewer -** As discussed in Sections 3.3.1 and 4.1 of Appendix I of the RFI Phase II Report, evidence of historical groundwater infiltration into Outfall 002 storm sewers has been observed as mineral deposits at pipe joints during video inspection of proposed stretches of the pipe system. Also, the portion of the Outfall 002 storm sewer system between manholes 2-20 and 2-22 runs underneath Stewart Ave. and through an LNAPL area associated with the former Tank Farm 37 UST system (AOI 36-5). Based on the RFI risk assessment, no unacceptable human health risks were identified for this area. However, certain VOCs were detected in water samples collected from manholes 2-19 and 2-20. The detected VOCs were similar to those detected in groundwater samples surrounding the Outfall 002 storm sewer system in this area. These results suggest that some infiltration of contaminated groundwater is likely occurring. A dissolved groundwater plume containing concentrations of trichloroethene (TCE), and vinyl chloride, as well as LNAPL, exist in the area just upstream of manhole 2-20, and may be the source of the VOCs detected in the sewer. An inspection of the sewer system revealed no evidence of LNAPL infiltration in the area. Oil sheens are observed at Outfall 002.Booms are located at Outfall 002 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 002 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System. Further corrective measures for addressing this potential LNAPL infiltration to this sewer system in the area of the former Tank Farm UST system will be evaluated following the planned demolition of Factory 36**.**
- **Outfall 003 Storm Sewer -** As described in Section 5.7 of the *Description of Current Conditions for Areas North of Leith Street (BBL, 2000)*, this overall system consists of two oil/water separators configured to mitigate sheens at Outfall 003 to the Flint River. Additionally, booms are located at Outfall 003 to contain sheens that are not completely contained by the Outfall 003 system oil/water separators. Oil sheens contained by the booms at Outfall 003 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 004 Storm Sewer -** Booms are located at Outfall 004 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 004 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.
- **Outfall 005 -** Visible sheens have previously been observed at Outfall 005. Inspections of the Outfall 005 storm sewer system revealed that the likely source of the sheens was infiltration into the system near French drain manholes located near the Leith Street underpass. P-traps were installed in two French drain manholes between September and December 2004, and the p-traps have been successful in controlling sheens at Outfall 005. Booms are located at Outfall 005 to contain sheens that reach the outfall. Oil sheens contained by the booms at Outfall 005 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.

- **Waste Management Units -** In February 1985 GMC submitted a RCRA Part B Permit Application to USEPA which listed 10 waste management units at the Site. In November 1987, GMC retracted its RCRA Part B applications and converted the Site to less than 90-day generator status, and has been operating as such since that time. In 1988 EDI Engineering & Science prepared a Closure Report which provided the basis and context to proceed with closure of WMUs identified at the Site. Section I of the 1988 Closure Report provided the relevant background that supports the current list of WMUs to be closed.

  As part of converting the Site to less than 90-day generator status, GMC was to close its WMUs identified in its RCRA Part B Permit application. The intent of the 1988 Closure Report was to organize GMC's closure of these WMUs. The 1988 Closure Report inventoried 10 WMUs as follows:

  - Division 29, Building 23 Tool Manufacturing Cyanide Storage Area
  - Division 25, East of Factory 10 Outside Waste Thinner Tank Area
  - Factory 86, Building 04 Assembly Plant Waste Storage Tanks
  - Building 41A, Assembly Plant Waste Tank Area
  - Factory 10, Building 20 Transmission Plant Tank Area
  - Building 02 Container Storage Area
  - Factory 36, Building 36 Engine Plant Northeast Dock
  - Factory 31, Building 32 Axle Plant North Dock
  - Factory 10, Salvage Yard Container Storage Area
  - Factory 10, Salvage Yard Tank Storage Area

  In general, while select WMUs have undergone partial closure, with a few limited exceptions (e.g., Tool Manufacturing Cyanide Storage Area [Division 29, Building 23]), no formal document submittals to the USEPA, MDNR, or Michigan Department of Environmental Quality (MDEQ) can be located. Closure activities are currently ongoing for these WMU.

ARCADIS noted the following areas of de minimus concern during the Site walk:

Factory 5 – Building 43

Staining was noted on the concrete floor located beneath the dispensers in the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion. The dispenser area and nearby ASTs are bound by a trench.

Staining was noted surrounding a floor trench drain that also had absorbent material surrounding the drain. The trench was located in the northwestern portion of the plant in Dept 11.

Minor staining was noted at the drum storage area near the south loading dock. One of the drums appeared to be leaking.

Staining was noted on the floor in the North/South Oil Crib located in the eastern central portion of the building. The North/South Oil Crib contained new oil and lubricants along with a satellite area for waste oil. Absorbent materials were also noted on the floor.

Factory 9 – Building 21

Staining was noted on the concrete floor in the bulk storage area located in the northwest corner of the building. The bulk storage area contains a drainage trench which runs the length of the room which appears to drain to the sump in the corner of the room.

Factory 81

ARCADIS noted equipment leaking oil and floor staining in the eastern portion of Dept 81-18. Absorbent materials were also noted on the floor.

Staining was noted on the floor in the 90-Day Flammable Liquid Waste Storage Area. Two trench drains run the length of the storage area.

Staining was noted on the floor of the chip dock located in the located in the northwestern corner of the building.

Factory 10 – Building 20

ARCADIS noted equipment leaking oil in the Dept 24 Reaction Carrier Area located in the eastern portion of the building.

Staining was noted on the floor of the Bulk Storage ASTs room located in the eastern portion of the building.

Staining was noted in the Oil Storage Area located in the northern portion of the building. The Oil Storage Room has a trench approximately 12" x 6" x 60' which leads to a sump.

Staining was noted on the floors in the basement of Factory 10. There are no current manufacturing operations in the basement. The floor of the basement was covered with a thin layer of water and oil which apparently seeps in through the concrete flooring. There are pumps and hoses placed in collection trenches throughout the basement and the oil/water collected is pumped to the Factory 10 remediation system for treatment. In addition the floor is ‘squeegeed’ each week in order to push the oil and water on the floor into the collection trenches.

Factory 36 - Building 36

Staining was noted on the floor in the former hazardous materials storage area. Factory 36 has been idled, no operation are currently ongoing in this area.

Factory 83/84(Factory 31)

Staining and oil was noted on the floor and in the floor trenches around several pieces of equipment located in the Building 11 portion of the factory at Column E23.

Staining and oil was noted on the concrete and woodblock floor located in the Building 11 portion of the factory at column K30. The wood block flooring had 'popped up' in four mounds (each about 3 feet in diameter) located in a straight line running east west. There also appeared to be oil underneath the mounded wood block flooring.

Division 25 – Building 86

Staining was noted on the floor in the oil storage area located in the northeastern portion of the building. ARCADIS did not observe significant cracks in the concrete floor in this area.

The following future remedial activities are planned at the Site:

- Fifteen areas at the Site were found to contain subsurface conditions of free-phase petroleum products (e.g., gasoline, cutting/honing oil, etc.). These LNAPL areas are planned to be addressed using various methods such as MPE, vacuum enhanced extraction, or passive recovery.

- Install and operate oil recovery systems for the Outfall 003 and Outfall 004 Storm Sewer Systems, primarily including:
  - OWSs to capture dry weather/first flush flow of oil and debris removal systems. Oil is currently infiltrating into these storm sewers.
  - Diversion lines and associated manholes
- Evaluate options to address sheens at Outfall 002 and infiltration into the Outfall 002 storm sewer near the former Tank Farm 37UST system at AOI 36-05. Investigate the Outfall 005 Storm Sewer system to determine the source of oil infiltration into the sewer (i.e., boom survey).
- Maintain booms on Outfalls 002, 003, 004, and 005 until these storm sewer systems are addressed as above.
- Investigate potential sources of groundwater infiltration into the storm sewers and take appropriate corrective actions, if necessary.

- Address the sixty-three discrete areas of dissolved-constituent impact to groundwater identified on-site(primarily chlorinated solvents, gasoline, and/or metals) with restrictive covenants to be established, limiting on-site land use to industrial/commercial uses, prohibiting any on-site groundwater use, and prohibiting groundwater use for some off-site locations. The dissolved-constituent plumes primarily associated with LNAPL gasoline source areas will also be addressed as part of the MPE planned for that area.
- Address the nine areas of dry-soil impacts on-site (primarily petroleum products, lead, or manganese) with restrictive covenants to be established, calling for additional conditions to be met for conducting excavations, and the maintenance of surface covering.
- Remove and dispose of approximately 1,800 cubic yards of lead-impacted soil.
- Maintain surface cover in select areas where slab or pavement exists, where subsurface impacts have been identified.
- Perform long-term annual groundwater monitoring program.
- Establish Restrictive Covenants for groundwater and soil impacts at downgradient properties, as appropriate.
- Abandon approximately 300 groundwater monitoring wells, which will no longer be needed.
- Close 10 RCRA hazardous waste management units.
- Negotiate final remedy with USEPA and MDNRE. Handle TSCA LNAPL issues via risk-based closure mechanisms.

The following are Site-wide Use Restrictions also proposed:

- A Deed restriction that would prohibit the use of groundwater for any purpose, beyond sampling and other related investigatory testing.
- Limit the future use of the Site to Industrial/Commercial II, III, and IV activities only
- A Deed restriction for downgradient offsite property that will prohibit the use of corresponding groundwater for potable uses.

9.0 DEVIATIONS/DATA GAPS

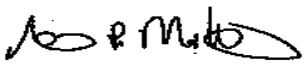
ARCADIS did not identify data gaps during the Site inspection.

10.0 ADDITIONAL SERVICES

No additional services were provided as part of the Phase I ESA.

11.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 C.F.R. 312. We, have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.



Stephen P. McCarthy
Senior Environmental Scientist



Sean D. Drain
Environmental Scientist 1

12.0 REFERENCES

City of Flint

- Fire Department
- Building Department

Genesee County

- Health Department
- Appraiser's Office

Commonwealth of Michigan

- Department of Environmental Quality

Reports, Plans and Other Documents Reviewed:

EDR:

- *The EDR Aerial Photo Decade Package,* Inquiry Number 2646762.5, December 1, 2009, Buick City, 902 East Hamilton Avenue, Flint, MI 48505.
- *The EDR Radius Map with GeoCheck,* Inquiry Number 2646762.2s, November 30, 2009, Buick City, 902 East Hamilton Avenue, Flint, MI 48505.
- *The EDR Sanborn Map Report*, Inquiry Number 2646762.3, December, 2009, Buick City, 902 East Hamilton Avenue, Flint, MI 48505.
- *The EDR Topographic Map Report*, Inquiry Number 2646762.4, November 25, 2009, Buick City, 902 East Hamilton Avenue, Flint, MI 48505.
- *The EDR City Directory Abstract*, Inquiry Number 2646762.6, December 1, 2009, Buick City, 902 East Hamilton Avenue, Flint, MI 48505.

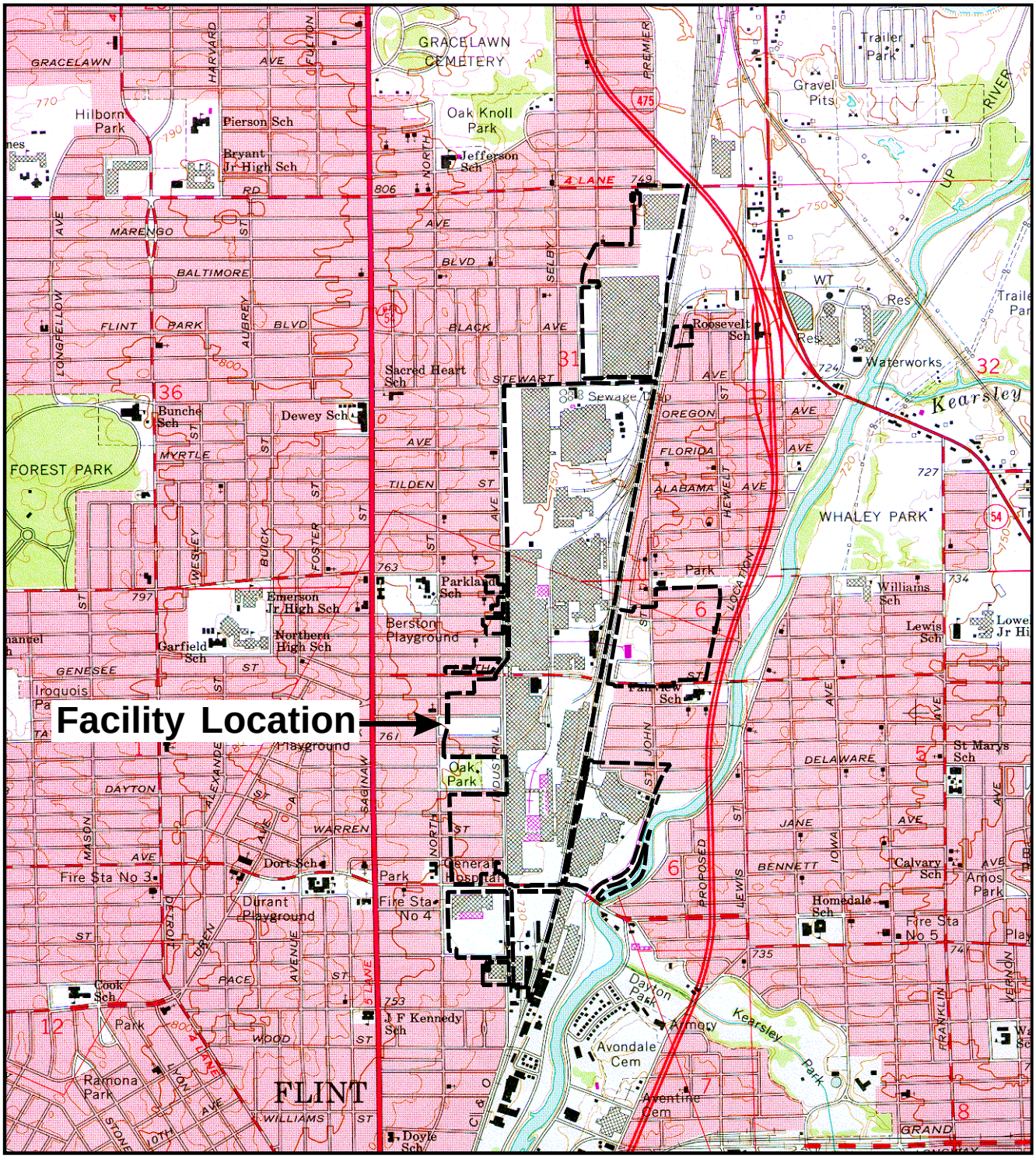
Prior Reports

RCRA-CMP ARCDAIS dated May 1, 2008

U.S. Geological Survey

- Topographic Map, 7.5 minute series; Flint North, MI-Quadrangle; scale - 1:24,000; U.S. Geological Survey; Denver, Colorado, 1975.

FIGURES



REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quad., Flint North, Mich. (1969, Photorevised 1975).

2000' 0 2000'

Approximate Scale: 1" = 2000'

Area Enlargement

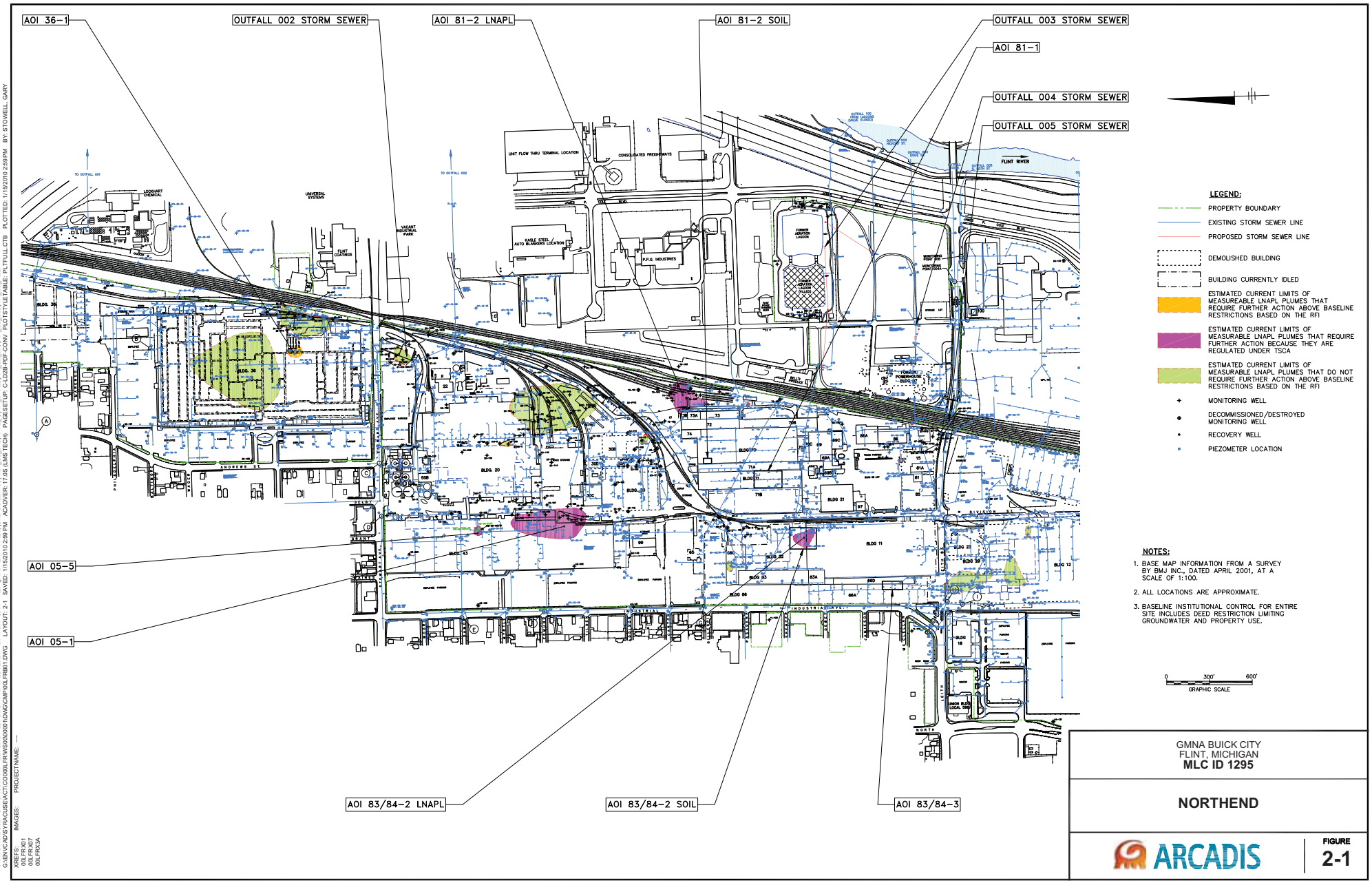
GMNA BUICK CITY
FLINT, MICHIGAN
MLC ID 1295

SITE LOCATION MAP

ARCADIS

FIGURE
1

01/15/2010 SYR-ENVCAD-DJHOWES, LJPOSENAUER
CO000LFRWS00000001\CDR\00LFRN01.CDR



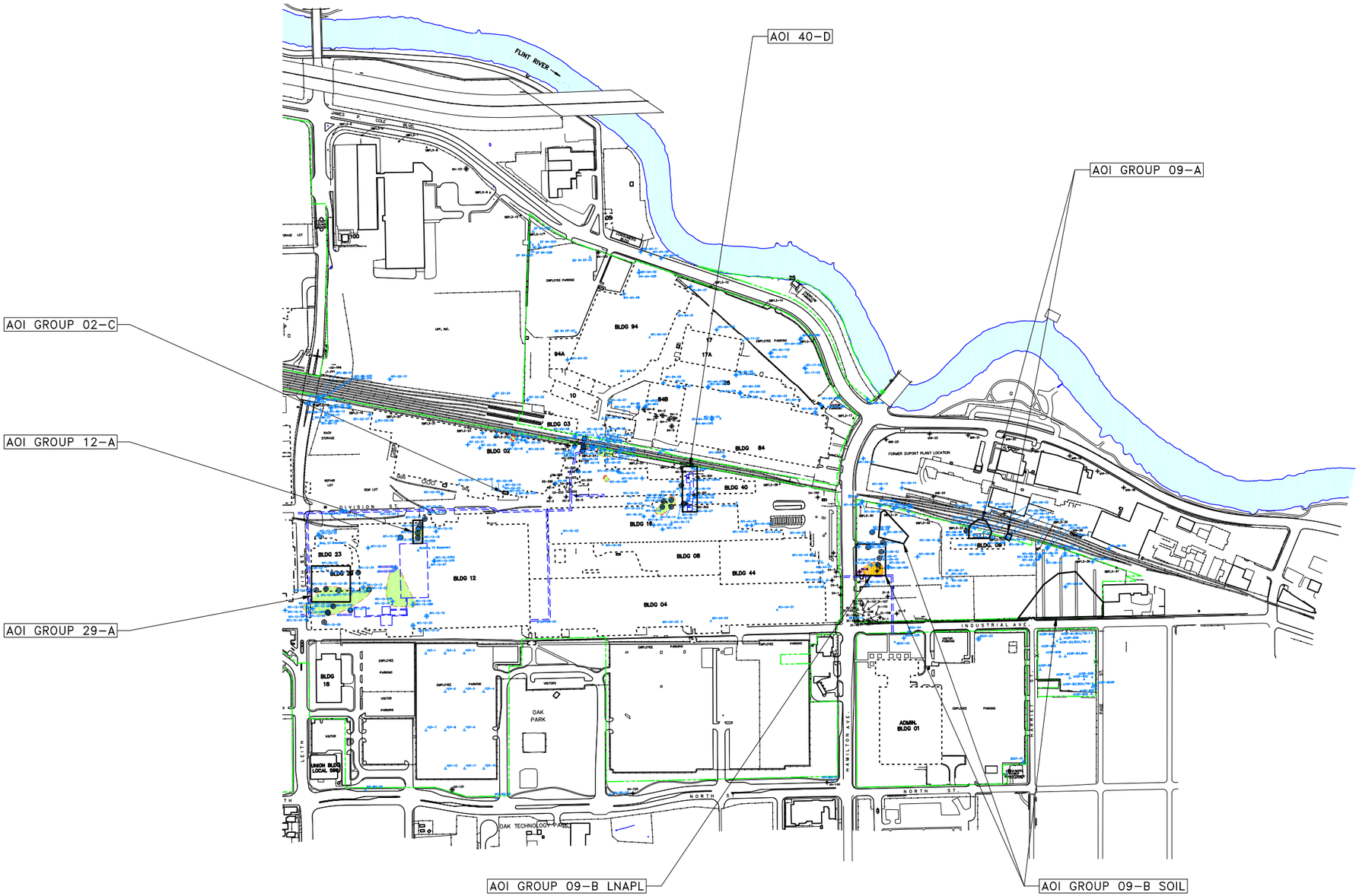
GMNA BUICK CITY
FLINT, MICHIGAN
MLC ID 1295

NORTHEND

ARCADIS

FIGURE
2-1

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM: M. LOVEJOY LYR:ON=*;OFF=*REF*;PROPERTY-PREV,SHD-BUILDING,HIST_SB_BH,LNAPL_*,RFI_GRAB,RFI_SB_BH,RFI_SB,RFI_SB,RFI_LSB_PIEZ
G:\ENV\CA\SYRACUSE\ACTIVE\GM001\PRV\600\600\01DWG\MPOL-PRB01.DWG LAYOUT: 2-1 SAVED: 1/15/2010 2:58 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: C-L-D28-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/15/2010 2:59 PM BY: STOWELL, GARY
XREFS:
05LFRX01
05LFRX07
05LFRX3A
IMAGES:
PROJECTNAME: ---



LEGEND:

- PROPERTY BOUNDARY
- DEMOLISHED BUILDING
- BUILDING CURRENTLY IDLED
- ESTIMATED CURRENT LIMITS OF MEASUREABLE LNAPL PLUMES THAT REQUIRE FURTHER ACTION ABOVE BASELINE RESTRICTIONS BASED ON THE RFI
- ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL PLUMES THAT DO NOT REQUIRE FURTHER ACTION ABOVE BASELINE RESTRICTIONS BASED ON THE RFI
- MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- RECOVERY WELL
- PIEZOMETER LOCATION

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.
3. BASELINE INSTITUTIONAL CONTROL FOR ENTIRE SITE INCLUDES DEED RESTRICTION LIMITING GROUNDWATER AND PROPERTY USE.

0 300' 600'
GRAPHIC SCALE

GMNA BUICK CITY
FLINT, MICHIGAN
MLC ID 1295

SOUTHEND

ARCADIS

FIGURE 2-2

CITY:: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM: M. LOVEJOY LYR: ON=*;OFF=*REF,|PROPERTY-PREV,|SHD-BUILDING,|NAPL_OBS
G:\ENVCAD\SYRACUSE\ACTIVE000LFRW\S00\00001\DWG\MP00LFRB02.DWG LAYOUT: 2-2 SAVED: 1/15/2010 3:26 PM ACADVER: 17.0S (LMS TECH) PAGESETUP:
XREFS: IMAGES: PROJECTNAME: ---
00LFRX01
00LFRX3A

CITY:BRIGHTON DIV/GROUP-141 DB:AFOX LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\ACT\b0064439\000\b0064439000601010.DWG 64439B03.DWG LAYOUT: 1SAVED: 11/5/2009 4:18 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/11/2009 9:31 AM BY: FOX, AARON
XREFS: IMAGES: PROJECTNAME: ---
64439X02 ASC1A8701ED.dib
64439X01
64439X03

3 inactive 15,000 gallon USTs. Each tank is split into two compartments. Tank 1 (labeled as #1 and #2 in field) formerly contained Trichloroethylene and 1,1,1-Trichloroethane. Tank 2 (labeled as #3 and #4) formerly contained misc oil for reuse and hazardous liquid waste for disposal. Tank3 (labeled as #5 and #6) formerly contained waste paint and solvents. See exterior photos 69 and 70.

LNAPL Recovery system - 350 gallon tote

Oil recovery - 750 gallon ASTs

3,500 Gallon Sulfuric Acid AST. See exterior photo 79.

Tanks 43-14 and 43-15 were tagged as no longer in use during 12/16/09 Site walk. See Building 43 photos 6 thru 13

LNAPL Recovery systems each contains an oil storage tote approximately 350 gallons each. See exterior photos 63 and 64.

FOR RELEASE IN THIS AREA, REFER TO SECTION 5.0B OF THE TEXT, GM NOTIFICATION, REPORTING AND RESPONSE, FOR A LIST OF CONTACTS. FOR A RELEASE ANYWHERE ELSE ON THE SITE, REFER TO SECTION 5.0A, MLC NOTIFICATION, REPORTING AND RESPONSE.

0 250' 500'
APPROXIMATE GRAPHIC SCALE

FACTORY 36 · FACTORY 03 · FACTORY 81 · FACTORY 05 · FACTORY 83/84

BLDG. 36 · BLDG. 38 · BLDG. 20 · BLDG. 30 · BLDG. 43 · BLDG. 71 · BLDG. 32 · BLDG. 83 · BLDG. 66 · BLDG. 11 · BLDG. 21 · BLDG. 18 · FORMER POWERHOUSE BLDG. 87

UNIVERSAL SYSTEMS · LOCKHART CHEMICAL · FLINT COATINGS · VACANT INDUSTRIAL PARK · UNIT FLOW THRU TERMINAL LOCATION · CONSOLIDATED FREIGHTWAYS · P.P.G. INDUSTRIES · FLINT POLICE TRAINING BLDG.

FORMER AERATION LAGOON (INACTIVE) · FORMER AERATION LAGOON (FILLED)

FROM LAGOONS (VALVE CLOSED) · FLINT RIVER · OUTLET OUTLET HICKORY STREET · OUTLET STATE ST. · OUTLET DOCK

PIERSON RD. · PHILADELPHIA · ANDREWS ST. · WAGER · SELBY · GRAND · MAINES · JAMES P. COLE BLVD. · INDUSTRIAL AVE. · SPRING · DAVEY · CLIFF · ADAMS · MC KINLEY · SMITH

(PAVED) · (GRASS) · (GRAVEL) · (GRAVEL & VEGETATION) · (CONCRETE)

MONITORING POINT 005 · MONITORING POINT 004A · INTERCEPTOR W/ SETTLING TANK & OIL WATER SEPARATOR TANKS · STORAGE LOT · TRUCK PARKING · EMPLOYEE PARKING · VISITOR PARKING

SECONDARY CONTAINMENT BERMED, 35,000 GALLONS (SEE NOTE 10) · SECONDARY CONTAINMENT BERMED, 40,000 GALLONS (SEE NOTE 11) · SECONDARY CONTAINMENT BERMED, 45,000 GALLONS (SEE NOTE 11)

CENTRAL WASTE STORAGE AREA
= HAZARDOUS WASTE (90-DAY)
= NON-HAZARDOUS WASTE
= UNIVERSAL WASTE

TANK SCHEDULE INDEX

TANK #	CONTENTS	CAPACITY
43-1*	LOW TEMP NEW OIL	11,650
43-2*	HIGH TEMP USED OIL	6,750
43-3*	LOW TEMP USED OIL	6,750
43-4*	HIGH TEMP NEW OIL	11,650
43-5*	COLD HEADER	6,750
43-9	ANHYDROUS AMMONIA	
43-10	METHANOL	10,000
43-11	NITROGEN	NA
43-13*	HYDRAULIC OIL	4,000
43-14*	HYDRAULIC OIL	4,000
43-15*	HYDRAULIC OIL	4,000
43-17	HELIUM	NA
20-10 (20-E)*	SYNTHETIC COOLANT	15,000
20-11 (20-F)*	SYNTHETIC HYDRAULIC FLUID	15,000
20-12 (20-L)*	WAYLUBE OIL	9,000
20-13 (20-K)*	SPINDLE OIL	9,000
20-14 (20-J)*	CLEANER - CERFA CLEAN	9,000
20-15 (20-I)*	CUTTING OIL	9,000
20-16 (20-H)*	LCO-224 (CUTTING OIL)	15,000
20-17 (20-G)*	LCO-200 (CUTTING OIL)	15,000
20-5 (20-B)*	HYDRAULIC OIL	15,000
20-7 (20-A)*	SYNTHETIC COOLANT	15,000
20-8 (20-D)*	SYNTHETIC COOLANT	15,000
20-9 (20-C)*	LAMP OIL	15,000
24-1	FIRE WATER	400,000
24-2	DIESEL TANK	250
INF-1	INFLUENT MAKE-UP TANK	4,000
ST-1	SLUDGE THICKENER	
T-1	pH ADJUSTMENT	4,000
T-2	MAGNESIUM HYDROXIDE	
T-3	CLARIFIER OVERFLOW TANK	475
T-4	OIL WATER SEPARATOR OVERFLOW	500
T-5*	OIL HOLDING TANK	4,000
10-1*	HYDRAULIC OIL	330
10-2*	TRANSMITION FLUID	330
10-3*	MOTOR OIL	330
10-4*	GEAR OIL	330
10-5*	HYDRAULIC OIL	?
10-6*	LUBE OIL	?
86-01*	DIESEL FUEL	4,500
69A-1*	AUTOMATIC TRANSMITION FLUID	20,000
69A-2*	AUTOMATIC TRANSMITION FLUID	20,000
69A-3*	AUTOMATIC TRANSMITION FLUID	20,000
69A-4*	AUTOMATIC TRANSMITION FLUID	20,000
18-1	CARBON DIOXIDE	4 TON
97-2	HELIUM	GAS
97-4	ARGON	GAS
32-1*	OIL (INACTIVE)	4,000
36-14*	COOLANT	UNKNOWN
36-15	CARBON DIOXIDE	4 TON
37-1 *	HYDRAULIC OIL	15,500
37-2*	HYDRAULIC OIL	15,500
37-3*	MOTOR OIL (10W-30)	15,500
37-4*	MOTOR OIL	15,500
37-5A*	EMPTY (SPARE GASOLINE)	7,500
37-5B*	EMPTY (CLEAR GASOLINE)	7,500
37-6A*	REGULAR GASOLINE	7,500
37-6B*	REGULAR GASOLINE	7,500
37-7A*	EMPTY (VAPOR RECOVERY)	7,500
37-7B*	EMPTY (SPARE GASOLINE)	7,500
37-8	FOAM	500
T-700*	RECOVERED OIL	1,550
55-1 (East)*	SKIM OIL	20,000
55-2 (West)*	SKIM OIL	20,000
55-3 (North)*	SKIM OIL	60,000
70-4	NITROGEN	Gas
70-5	HELIUM	Gas
70-6	HELIUM	Gas
86-2*	OIL	350
86-3*	OIL	350
86-4*	OIL	350

* DENOTES OIL STORAGE TANK

DEMOLISHED BUILDING
BUILDING SCHEDULED FOR DEMOLITION
FACTORY AREA
OIL LOAD/UNLOADING AREA
FENCE
RAILROAD
ABOVEGROUND STORAGE TANK AND NUMBER
VAULTED TANK AND NUMBER
LOADING/UNLOADING DOCK
SCRAP METAL ROLL OFF BOX
PILES OF DEMOLITION DEBRIS (CONCRETE, SOIL, PLASTIC)
GENERAL REFUSE & TRASH COMPACTOR
SCRAP TIRES
SPARE METAL PARTS STORED ON METAL RACKS
SPILL POTENTIAL DIRECTION
ABOVE GROUND OIL PIPING
UNDERGROUND OIL PIPING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. SCRAP METAL SHAVINGS IN ROLL OFF BOX PLACED WITHIN UNROOFED CONCRETE. CONTAINMENT AREA PROVIDED WITH A BLIND TRENCH DRAIN.
3. LOAD/UNLOAD SOUTH DOCK RECEIVES TOTES WITH CHEMICALS FOR THE REMEDIATION SYSTEM, ADDITIVES, COOLANTS, OILS, AND PARTS. IT IS PROVIDED WITH CONTAINMENT AREA SCHEDULED FOR UPDATE
4. ROOFED NON-HAZARDOUS WASTE STORAGE AREA CONTAINING ONE ROLL OFF BOX FOR NON-HAZ TRASH, TWO ROLL OFF BOXES FOR METAL CHIPS, AND ONE "MUD BOX" WITH FINE METAL CHIPS AND GRINDING MATERIAL. THE AREA IS EQUIPPED WITH A TRENCH DRAIN ALONG THE WEST SIDE.
5. SALT STORAGE AREA, OPENED ON THE EAST SIDE, IS PROVIDED WITH TWO SALT BINS AND AN EQUIPMENT STORAGE BIN.
6. TIN PAD AREA DRAINS TO PROCESS LINE. VARIOUS ROLL OFF BOXES, WOOD DEBRIS, EMPTY PALLETS ARE STORED HERE.
7. LOADING DOCK FOR THE TWO ROLL OFF BOXES CONTAINING OILY METAL CHIPS.
8. NORTH DOCK USED TO SHIP OUT FINISHED METAL PARTS.
9. EAST DOCK USED AS SHIPPING/RECEIVING AREA FOR OILS, COOLANTS, AND TRANSMISSION FLUIDS IN DRAINS AND TOTES
10. WASTE SHIPPING AREA, THE SOUTH END IS ROOFED, THE NORTH END IS EQUIPPED WITH A TRENCH DRAIN.
11. THE LISTED SECONDARY CONTAINMENT VOLUMES INCLUDE THE VOLUMES OCCUPIED BY THE TANKS. REFER TO TABLE 4 – SECONDARY CONTAINMENT LIST FOR ADDITIONAL INFORMATION ON SECONDARY CONTAINMENT
12. SCRAP ALUMINUM SHAVINGS IN ROLL OFF BOX STORED INDOORS.
13. THE FOLLOWING ITEMS REQUIRED BY THE NDPES PERMIT ARE INCLUDED IN THIS FIGURE: BUILDINGS AND OTHER PERMANENT STRUCTURES; STORAGE AND DISPOSAL AREAS FOR SIGNIFICANT MATERIALS; SECONDARY CONTAINMENT STRUCTURES; AND STRUCTURAL RUNOFF CONTROLS OR STORM WATER TREATMENT FACILITIES. AREAS OF VEGETATION, AREAS OF EXPOSED AND/OR ERODIBLE SOIL, AND IMPERVIOUS SURFACES (ROOFS, ASPHALT, CONCRETE) ARE ALSO MARKED ON THIS FIGURE.

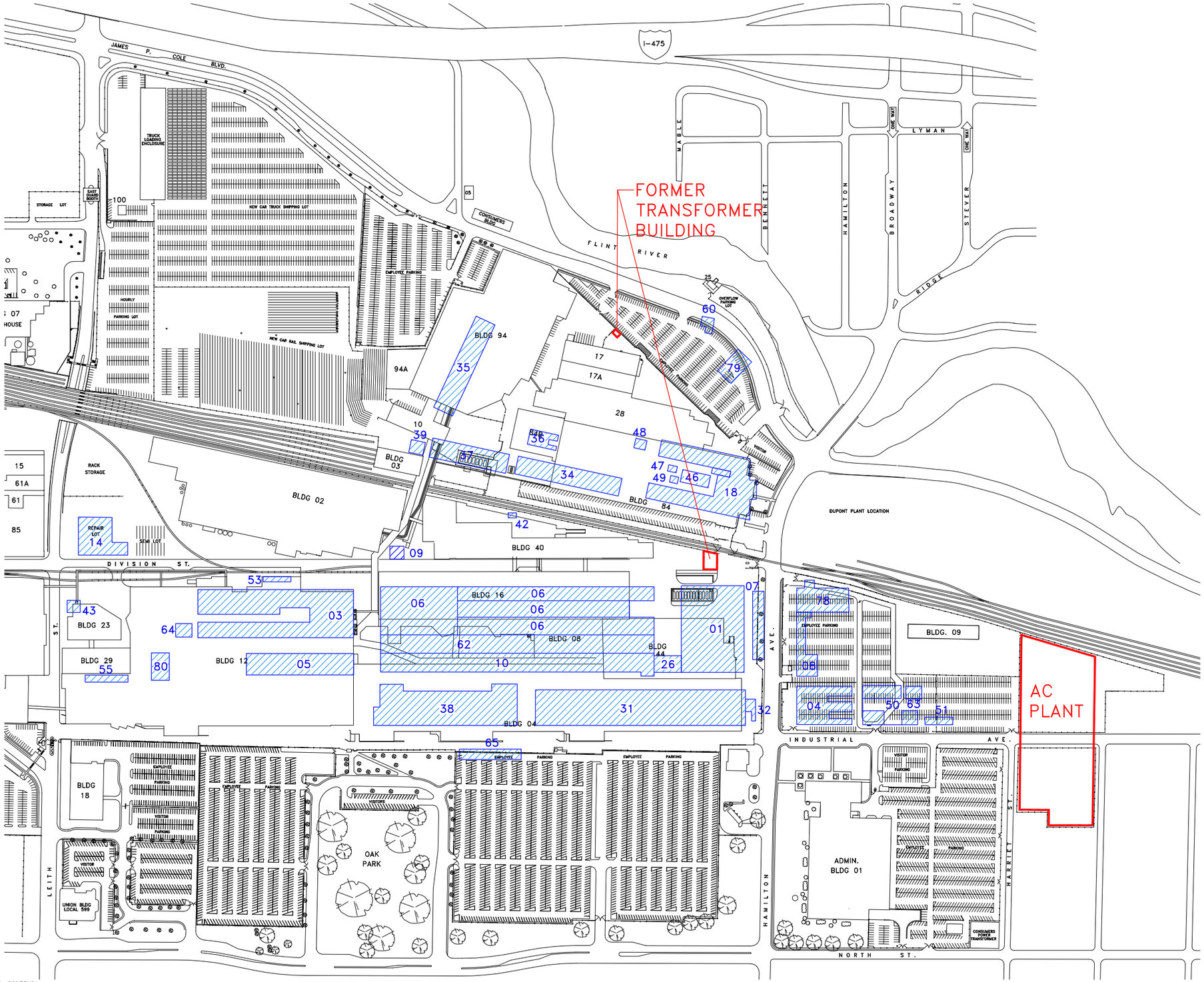
MOTORS LIQUIDATION COMPANY
POWERTRAIN FLINT NORTH
FLINT, MICHIGAN

COMPREHENSIVE ENVIRONMENTAL PLAN

AST LOCATIONS

ARCADIS

FIGURE
3



Historical Buildings		
Building Number	Description	Year Built
01	Transmission Plant	1906
03	Drop Forge	1908
04	Body Plant	Before 1906
05	Enameling	1914
06	Assembly	1907
07	Main Office and Administration	1917
08	Laboratory and Garage	1908
09	Fueling Station	1919
10	Assembly	1909
14	Central Power House	1920
18	Parts Department and Paint	Before 1902
J2 (18)	Store Shed	Before 1921
26	Boiler and Gas House	Between 1907–1913
31	Axle Assembly Plant	1906
32	Axle Plant	1907
34	Axle Plant	1909
35	Axle Plant	1909
36	Power House	1909
37	Axle Plant	1909
38	Axle Plant	1908
39	Receiving Shed for Axle Plant	Est. 1909
42	Transformer House	1920
43	Kitchen	1920
46	Parts Storage/Auxiliary Power Plant	Before 1919
47	Sprinkler Valve House	Before 1921
48	Parts Storage	Before 1921
49	Former Sawdust Vault	Before 1921
50	Dry Kiln	Between 1906–1916
51	Bending Storage & Welding	Before 1912
53	Transformer House	1918
55	Heat Treat	Between 1912–1919
60	Main Pump Station	1913
62	Assembly & Paint	1923
63	Dry Kiln	1916
64	Pickling Room	1924
65	Personnel	1921
78	Engineering & Experimental	1927
79	Storage	Between 1922–1927
80	Die Storage	1928
Not Numbered	AC Spark Operations	1928

LEGEND:

EXISTING SITE BUILDINGS

HISTORICAL BUILDING LOCATION THAT HAVE BEEN DEMOLISHED

NOTES:

1. BASE MAP SUPPLIED BY GENERAL MOTORS CORPORATION, POWERTRAIN DIVISION, FLINT, MICHIGAN, DRAWING NO. C71255–C, DATED 5/1/91, @ A SCALE OF 1" = 200'.
2. HISTORICAL BUILDING LOCATIONS DEVELOPED USING BUICK MOTOR COMPANY DRAWINGS #A–4284 DATED 5–5–22.

SCALE

200' 0 200' 400'

X: 86933X01
L: ON=*,OFF=*REF,*BLDG_FILL,*COLUMN_LINES
P: STD/DL.PCP
5/25/00 SYR–54–YCC JER KMD
86934010/86934G06.DWG

GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS – 902 E. HAMILTON AVE.
FLINT, MICHIGAN 48550–8503

HISTORICAL BUILDING LOCATIONS

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
4

APPENDIX A

User Questionnaire

ARCADIS
Infrastructure, environment, buildings

Phase I Environmental Site Assessment Questionnaire

(User Provided Information Questionnaire)

Date: April 27, 2010
Site Name: Buick City Complex Your Name: Robert Hare
Site Location: Flint, MI Your Title: Env. Project Mgr.
Relationship to Site: ☐ Owner ☐ Occupant ☐ Purchaser ☒ Other

Length of Time Associated with Site: _____

Please review and complete this questionnaire which will assist ARCADIS in completing our site assessment. If sufficient space in not provided, please compete your response on a separate sheet of paper and attach it to this questionnaire.

1. Do you have a title document prepared for the Site? ☐ Yes ☒ No

   If yes, please provide a copy to ARCADIS.

2. Are you aware of any environmental cleanup liens against the Site that are filed or recorded under federal, tribal, state or local law?

   ☐ Yes ☐ No ☒ Unknown ☐ N/A

   If Yes, please explain: _____

   _____

3. Are you aware of any activity or land use limitations, such as engineering controls (for contaminant control), land use restrictions or institutional controls, that are in place at the Site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

   ☒ Yes ☐ No ☐ Unknown ☐ N/A

   If Yes, please explain: Various Deed notices filed, or to be filed. See Corrective Action Corrective Measures Plan

ARCADIS
Infrastructure, environment, buildings

4. Do you have any specialized knowledge or experience related to the Site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the Site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: Currently Project Manager for remediation at the site. _____

_____

5. Are you aware of commonly known or reasonably ascertainable information about the Site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

a) Do you know the past uses of the Site?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: Past uses of the site available in provided Corrective Action documentation._____

_____

b) Do you know of specific chemicals that are present or once were present at the Site?

☐ Yes ☐ No ☒ Unknown ☐ N/A

If Yes, please explain:_____

_____

c) Do you know of chemical spills that have taken place at the Site?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: Any known releases are documented in Corrective Action documentation

d) Do you know of any environmental cleanups that have taken place at the Site?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: See available investigation/remediation reports_____

_____

ARCADIS
Infrastructure, environment, buildings

e) Do you know if any fill material has been imported to the Site?

☐ Yes ☐ No ☒ Unknown ☐ N/A

If Yes, please explain: _____

_____

6. Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Site?

☐ Yes ☐ No ☒ Unknown ☐ N/A

If Yes, please explain: _____

_____

7. Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Site?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: Corrective Action agreement available. _____

_____

8. Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products at the Site?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: See historical documentation available for the site. _____

_____

9. Based on your knowledge and experience related to the Site are there any obvious indicators that point to the presence or likely presence of contamination at the Site?

☒ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: See available Corrective Action documents _____

_____

ARCADIS
Infrastructure, environment, buildings

10. Does the Site's purchase price reasonably reflect the fair market value of the property?

☐ Yes ☐ No ☒ Unknown ☐ N/A

If No, do you know the reason for lower purchase price? Is it possible that the lower purchase price is because of contamination known or believed to be present at the Site?

☐ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, please explain: _____

_____

11. Have any of the following documents been prepared for the Site and, if so, can copies be provided to ARCADIS:

- Environmental site assessment reports ☐ Yes ☐ No ☒ Copies available
- Environmental compliance audit reports ☐ Yes ☐ No ☒ Copies available
- Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, National Pollutant Discharge Elimination System permits, underground injection permits) ☐ Yes ☐ No ☒ Copies available
- Registrations for underground storage tanks (USTs) and/or above ground storage tanks (ASTs) ☐ Yes ☐ No ☒ Copies available
- Registrations for underground injection systems ☐ Yes ☒ No ☐ Copies available
- Material safety data sheets ☐ Yes ☐ No ☒ Copies available
- Community right-to-know plan ☐ Yes ☐ No ☒ Copies available
- Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc. ☐ Yes ☐ No ☒ Copies available
- Reports regarding hydrogeologic conditions on the Site or in the surrounding area
  ☐ Yes ☐ No ☒ Copies available
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the Site or relating to environmental liens encumbering the Site ☐ Yes ☐ No ☒ Copies available
- Hazardous waste generator notices or reports ☐ Yes ☐ No ☒ Copies available
- Risk assessments ☐ Yes ☐ No ☒ Copies available
- Recorded Activity and Use Limitations (e.g. deed restriction, asphalt cap)
  ☐ Yes ☐ No ☒ Copies available

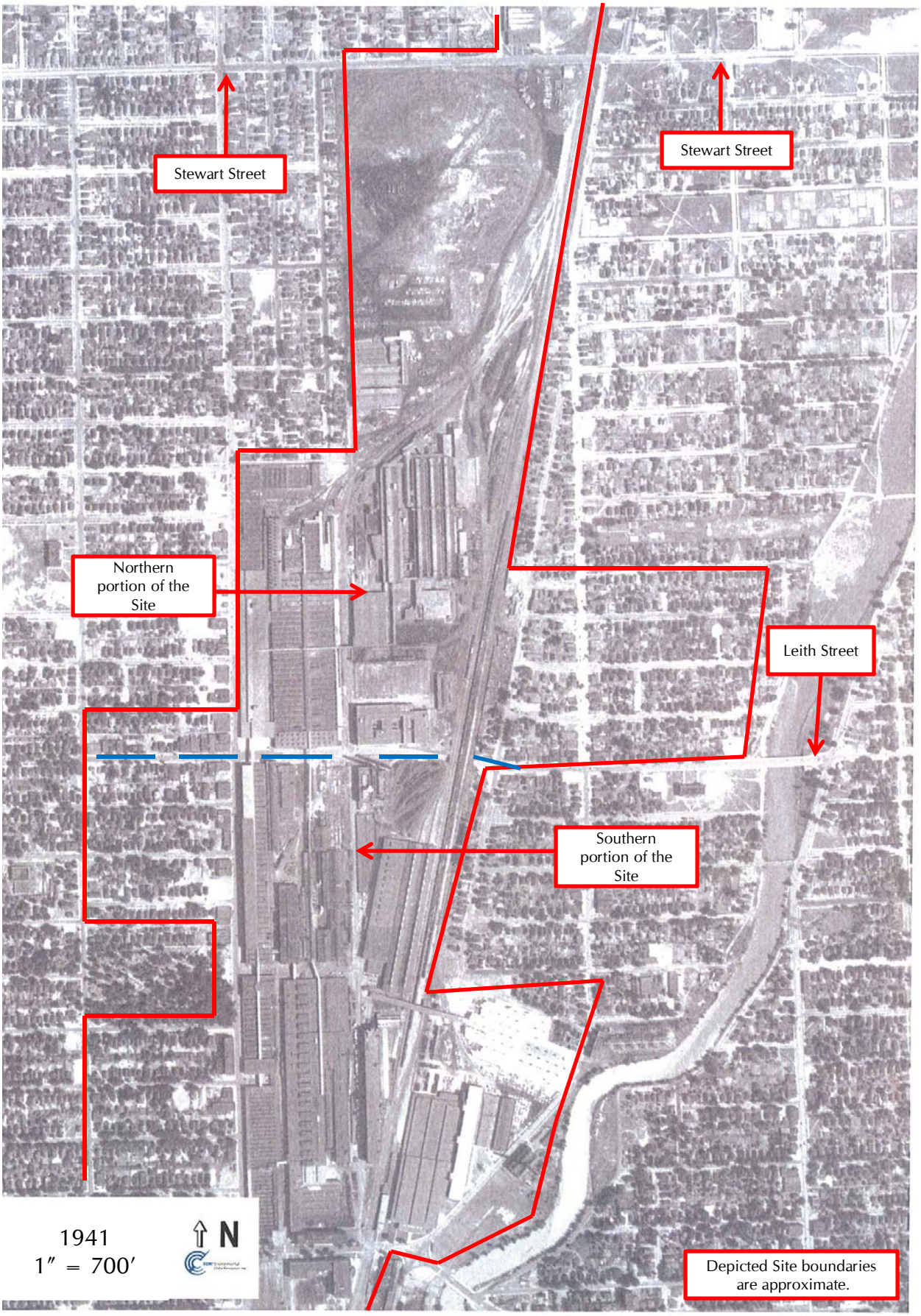
ARCADIS appreciates your assistance on this project.

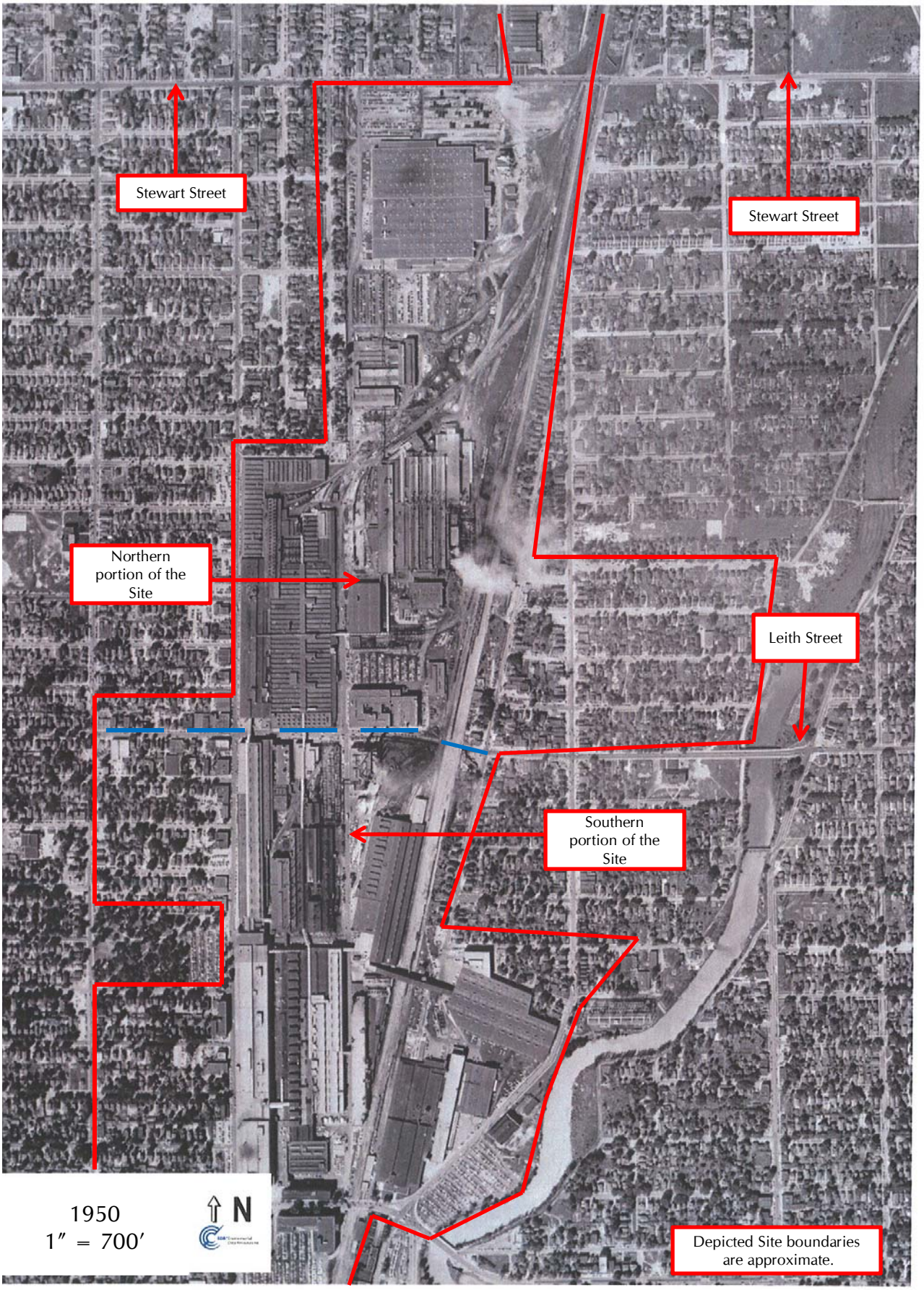
APPENDIX B

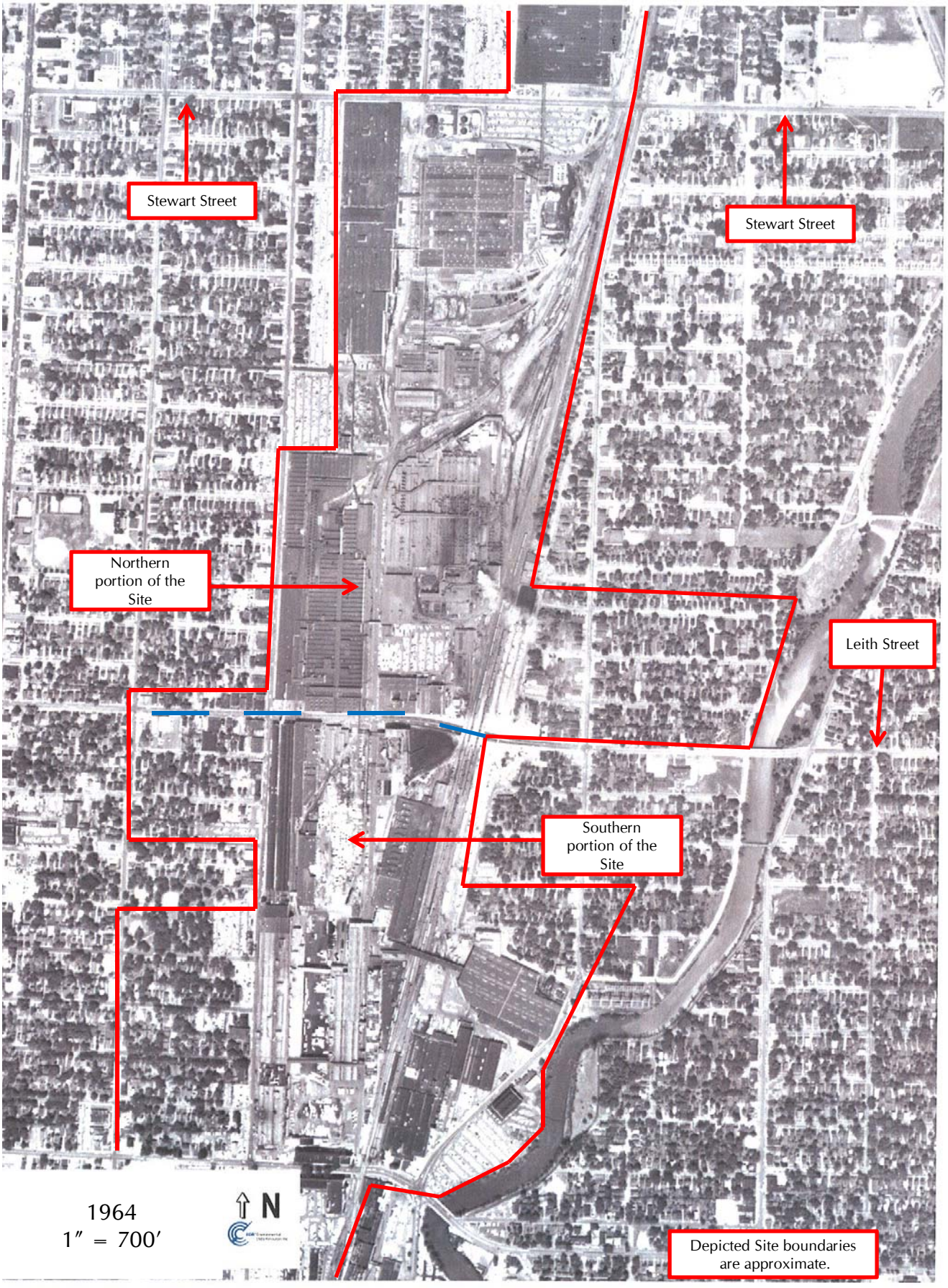
Historical Research Documentation

Aerial Photographs

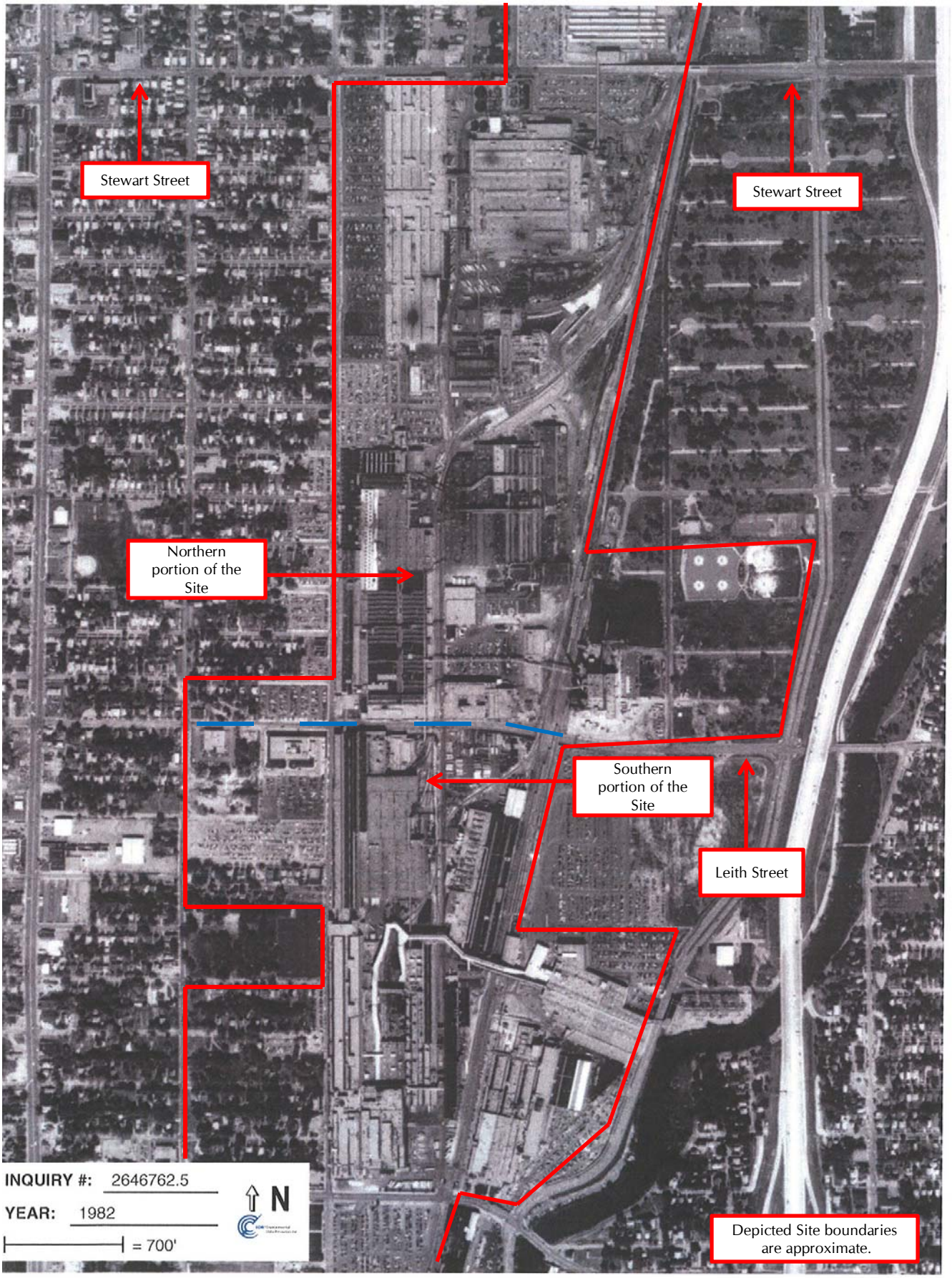

Stewart Street
Stewart Street
Northern portion of the Site
Leith Street
Southern portion of the Site
INQUIRY #: 2646762.5
YEAR: 1937
= 700'
N
Depicted Site boundaries are approximate.

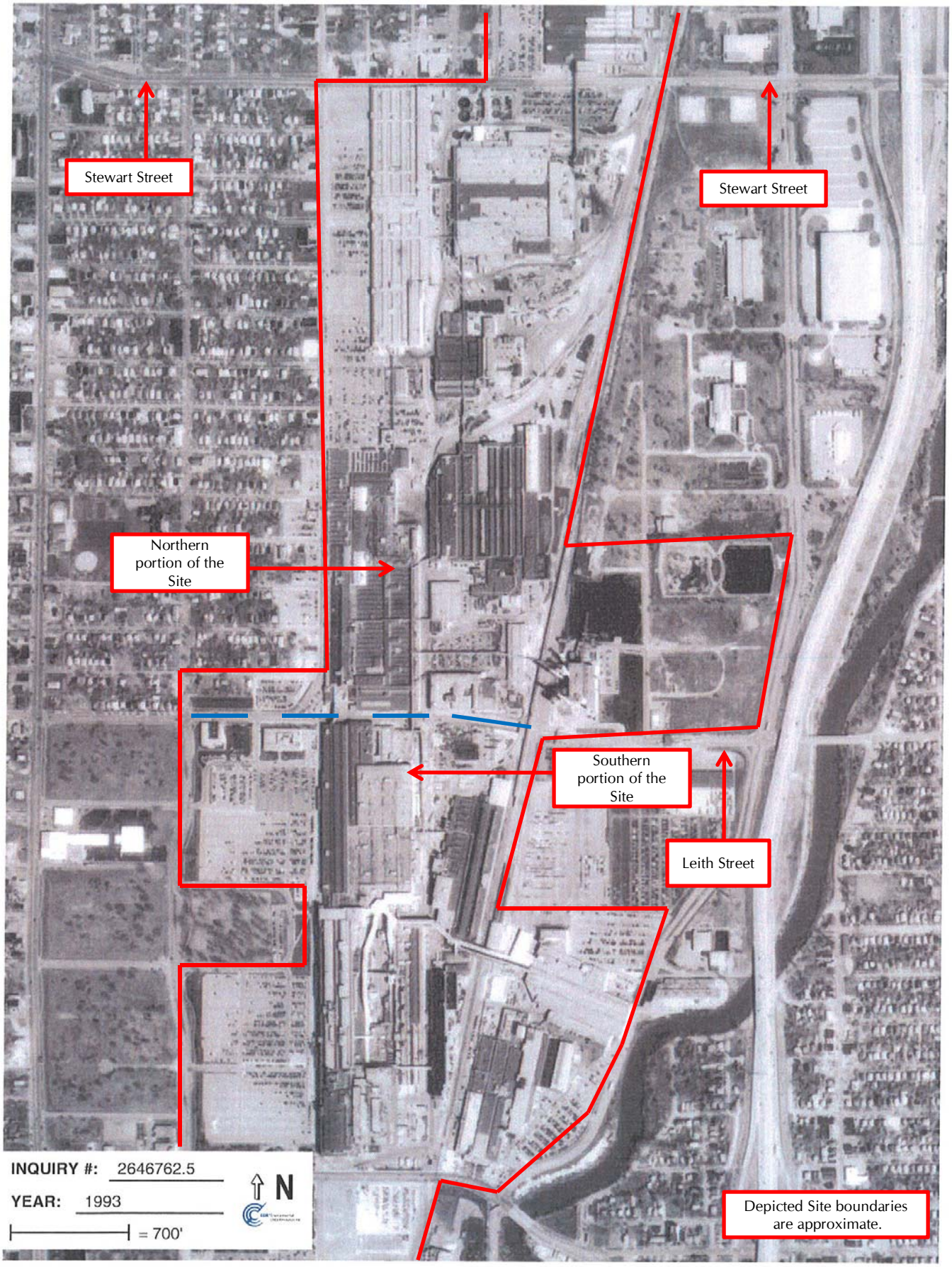

Stewart Street
Stewart Street
Northern portion of the Site
Leith Street
Southern portion of the Site
1941
1″ = 700′
N
Depicted Site boundaries are approximate.

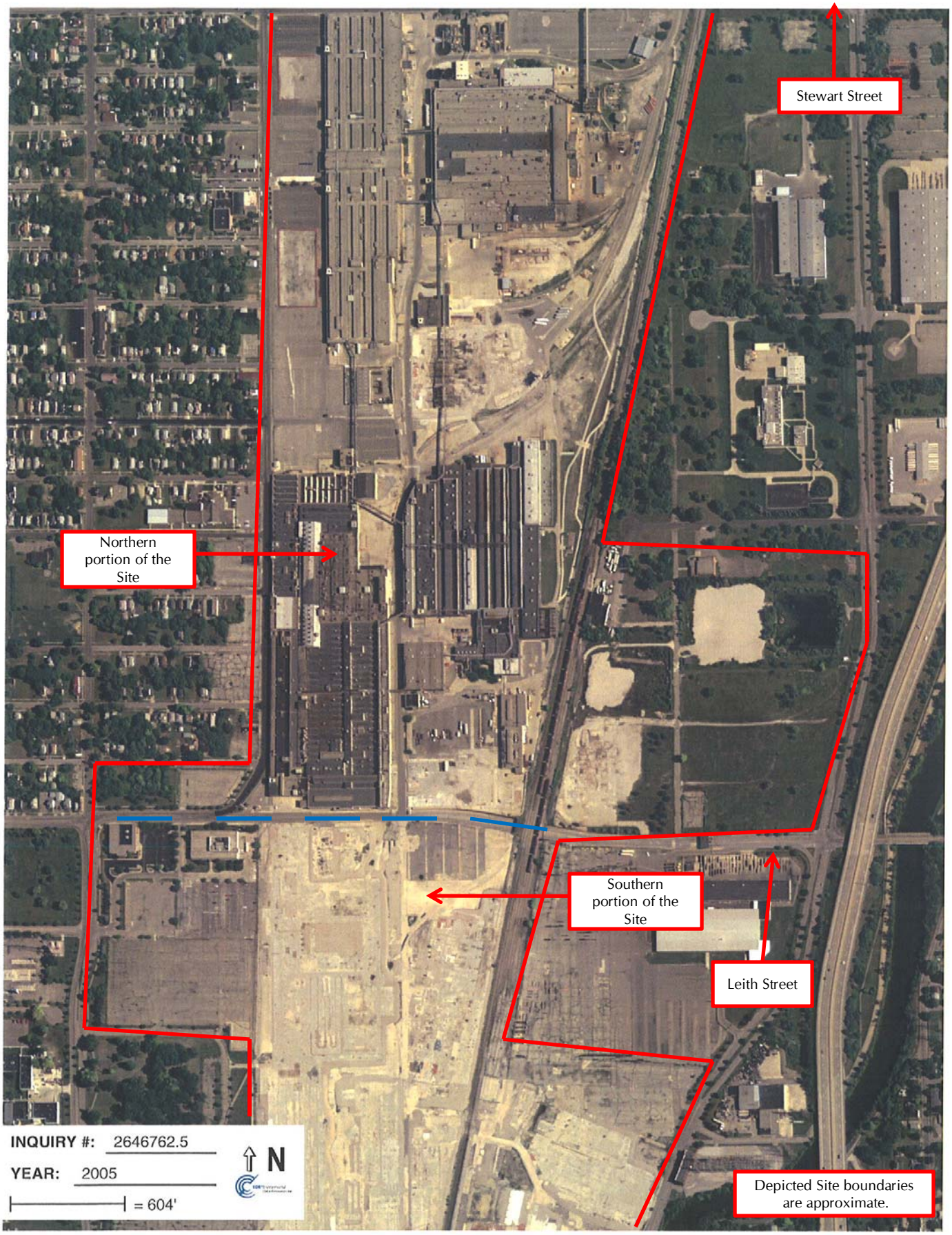

Stewart Street
Stewart Street
Northern portion of the Site
Leith Street
Southern portion of the Site
1950
1″ = 700′
N
Depicted Site boundaries are approximate.


Stewart Street
Stewart Street
Northern portion of the Site
Leith Street
Southern portion of the Site
1964
1″ = 700′
N
Depicted Site boundaries are approximate.


Stewart Street
Stewart Street
Leith Street
Northern portion of the Site
Southern portion of the Site
INQUIRY #: 2646762.5
YEAR: 1972
= 700'
N
Depicted Site boundaries are approximate.


Stewart Street
Stewart Street
Northern portion of the Site
Southern portion of the Site
Leith Street
Depicted Site boundaries are approximate.
INQUIRY #: 2646762.5
YEAR: 1982
= 700'
N

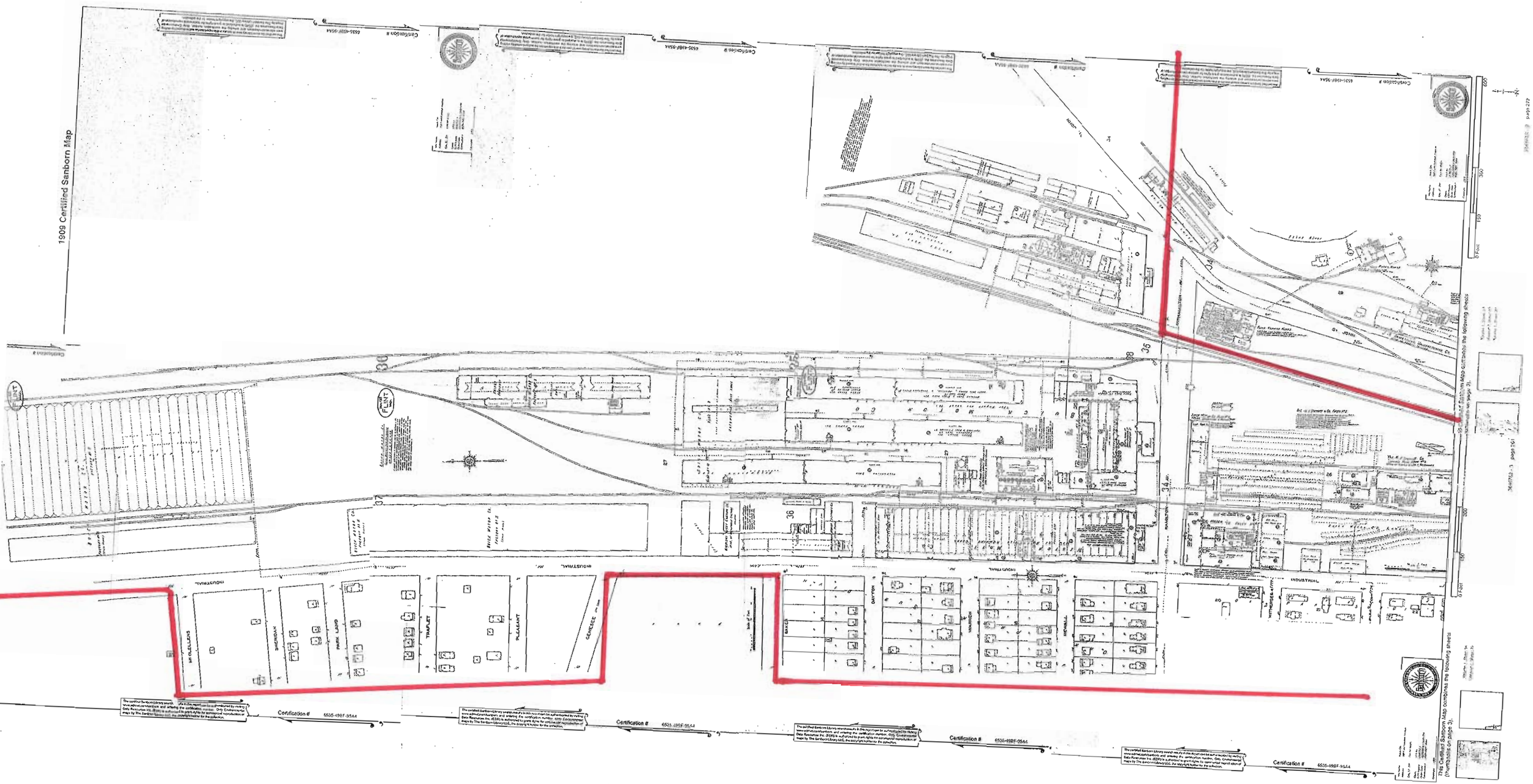

Stewart Street
Stewart Street
Northern portion of the Site
Southern portion of the Site
Leith Street
Depicted Site boundaries are approximate.
INQUIRY #: 2646762.5
YEAR: 1993
= 700'
N


Stewart Street
Northern portion of the Site
Southern portion of the Site
Leith Street
Depicted Site boundaries are approximate.
INQUIRY #: 2646762.5
YEAR: 2005
= 604'
N

Sanborn Maps

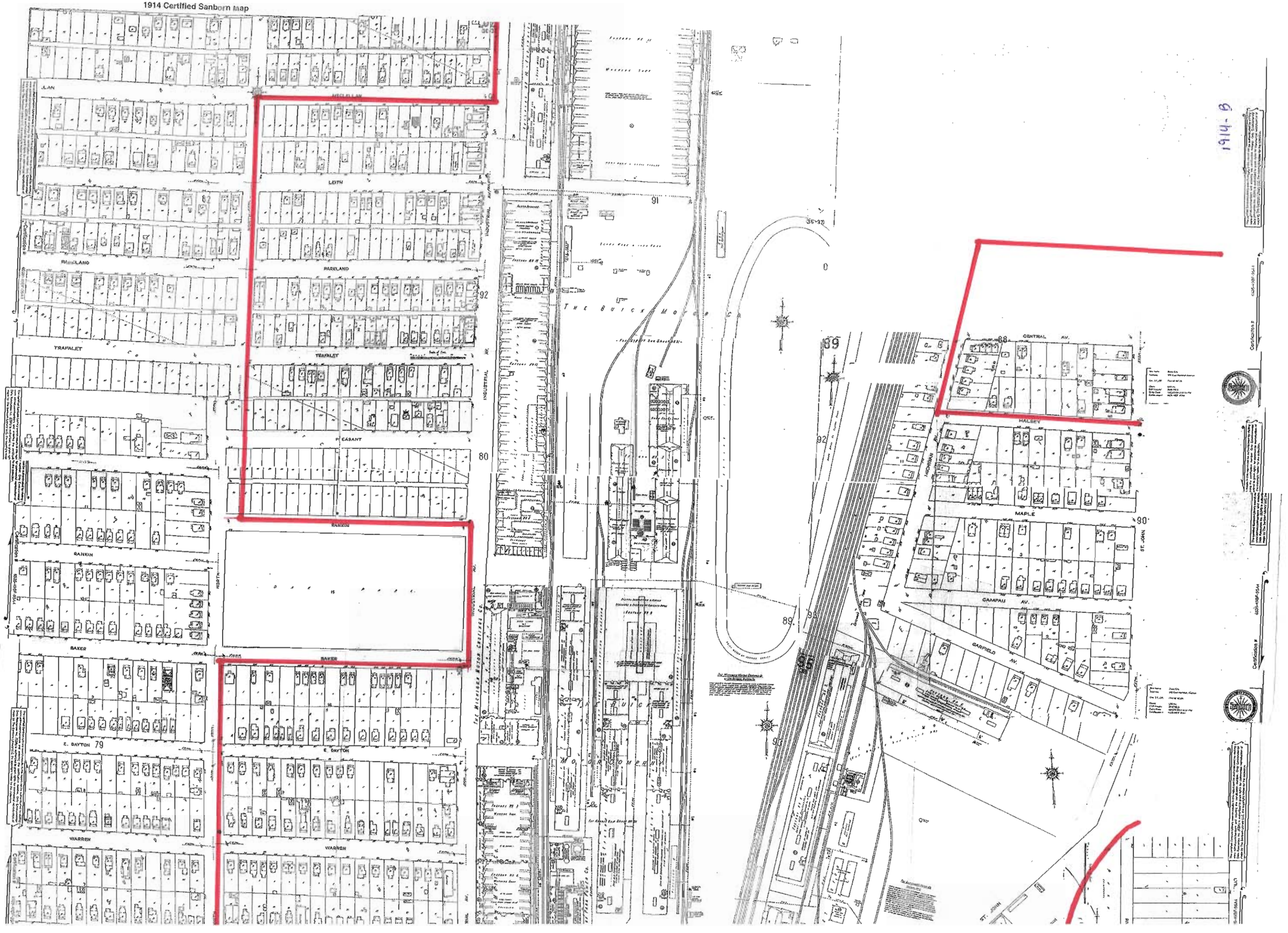
1909

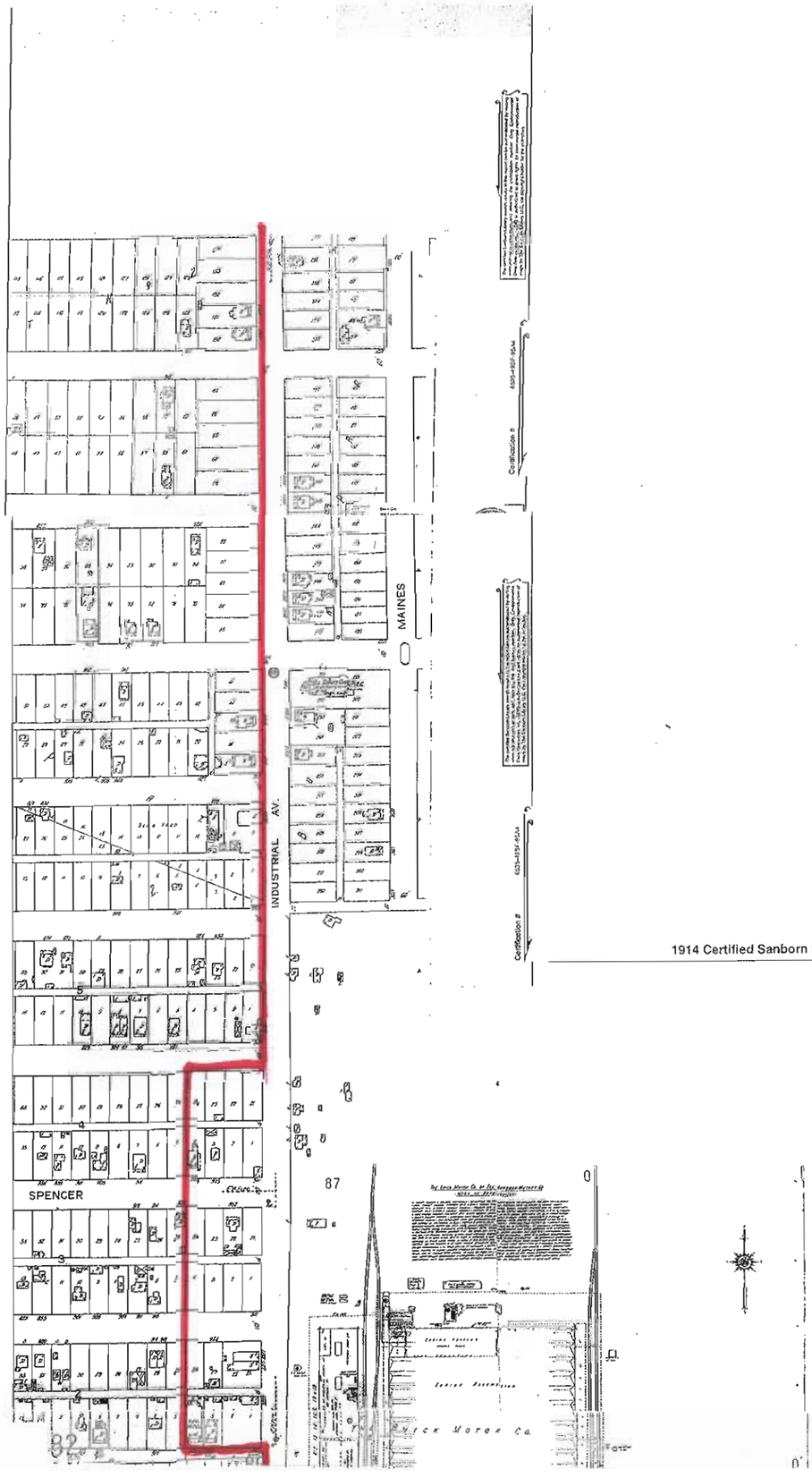
1909 Certified Sanborn Map



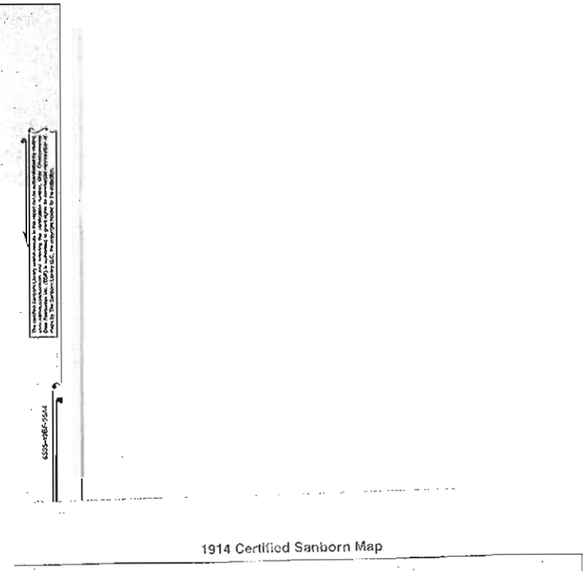
1914

1914 Certified Sanborn Map





1914 Certified Sanborn Map



1914 Certified Sanborn Map

1928

1928 Certified Sanborn Map

1928 Certified Sanborn Map

E. BALTIMORE BLVD

E. WAGER AV.

BLACK AV

ROBERTS

MAINES

GRANT

HORTON

INDUSTRIAL

E. STEWART AV.

E. MOORE

DAMON

E. MYRTLE AV.

EDMUND

CAMERON

BEHAN AV

ARMSTRONG & SPRING COMPANY

ST. JOHN

KEELEY AV.

THEXTON

CUMMINGS

NEVADA AV.

HEWLEY AV.

OREGON AV.

IDAHO AV.

FLORIDA AV.

MISSISSIPPI AV.

GENERAL OFFICE

BUICK MOTOR COMPANY

(For Report See Sheet No 31H)

Certificate #

Y-8261

1928-B

1928 Certified Sanborn Map

tified Sanborn Map

BUICK MOTOR COMPANY

E. WARMOUTH
E. TAYLOR
E. BANKIN
E. BAKER
E. DAYTON
WARREN
E. NEWALL
E. HAMILTON AV.
E. WITHERBEE
E. PATERSON
NORTH
INDUSTRIAL AV.
9-94-95
FACTORY BUILDING
MAPLE
CAMPAU AV.
GARFIELD AV.
346
BUICK MOTOR COMPANY
DIVISION OF THE GENERAL MOTORS CORPORATION
St. Johns
Buick Motor Co
South Towne Commercial
371
372
River

1950

1950 Certified Sanborn Map

1950 Certified Sanborn Map

1950 Certified Sanborn Map

1950 Certified Sanborn Map

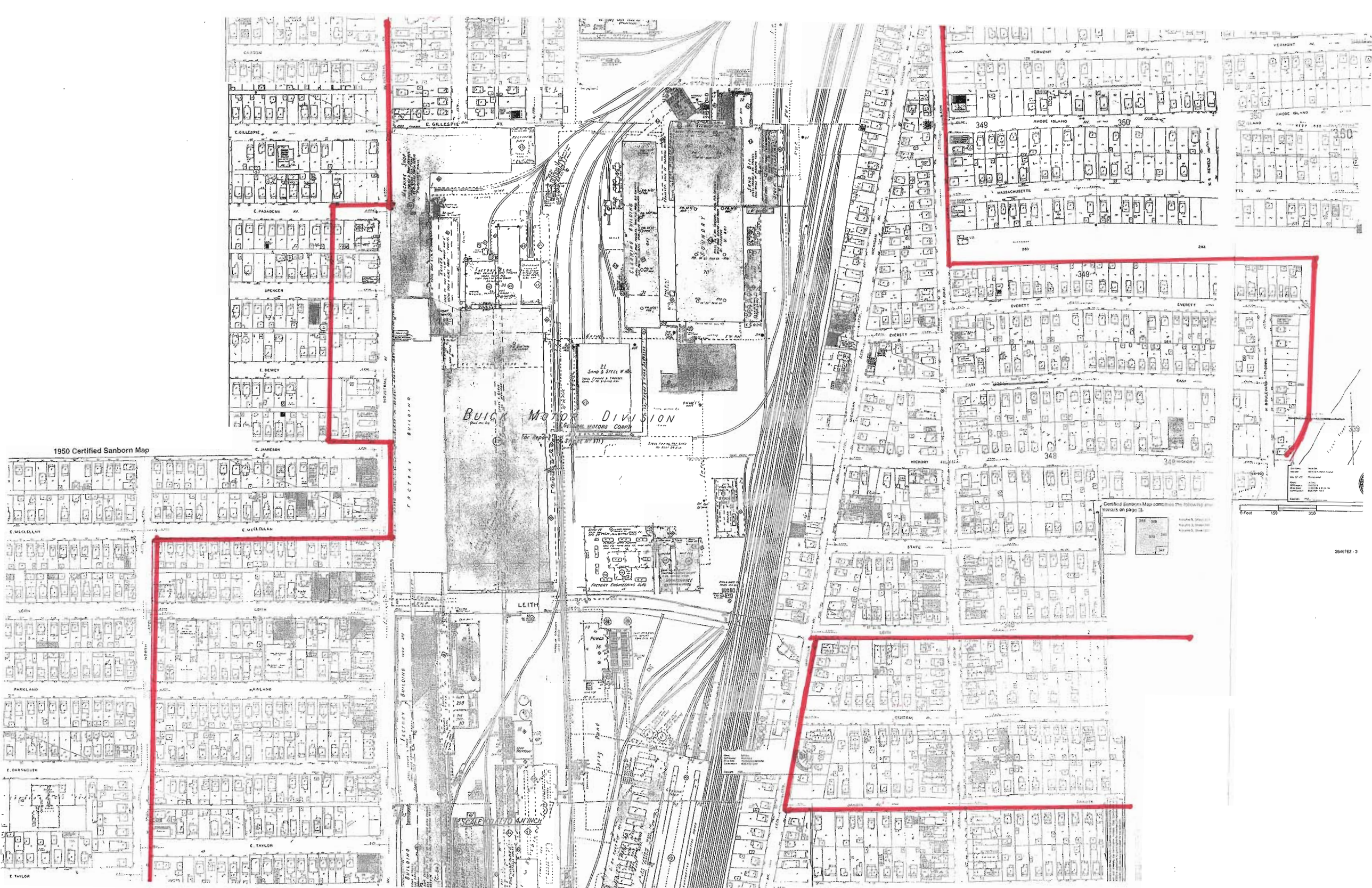
1950 Certified Sanborn Map

1950 Certified Sanborn Map

1950 Certified Sanborn Map

1956 - A

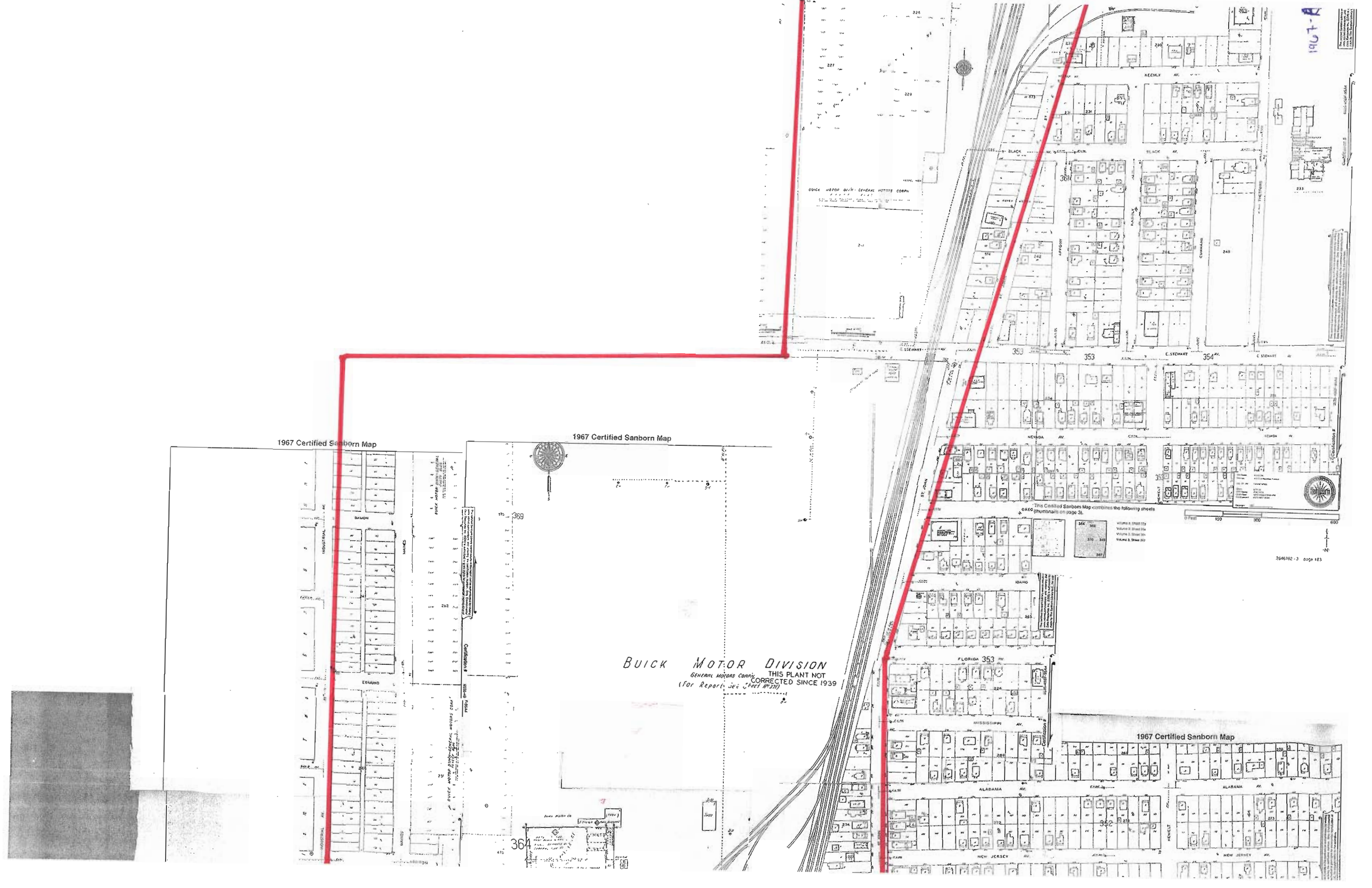
1950 Certified Sanborn Map




E. RANKIN
E. BAKER
E. DAYTON
WARREN
E. NEWALL
E. HAMILTON AV.
E. WITHERELL
E. PATERSON
NORTH
INDUSTRIAL AV.
BUICK
MOTOR DIVISION
GENERAL MOTORS CORPN.
MANUFACTURE OF MOTOR CARS
CAMPAU AV.
GARFIELD AV.
ST. JOHN
BROADWAY
River
Buick Motor
Certification 8
Certification 9
346
347
371
555
0 Feet 150 300 600

1950-C

1967


1967 Certified Sanborn Map
1967 Certified Sanborn Map
1967 Certified Sanborn Map
BUICK MOTOR DIVISION
GENERAL MOTORS CORP.
CORRECTED SINCE 1939
THIS PLANT NOT
This Certified Sanborn Map combines the following sheets
2646702 - 3 page 183


Volume One
INDUSTRIAL AV.
FACTORY BUILDING
Buick Motor Division
LEITH
Spicy Pond
MICHIGAN AV.
ST. JOHN
EVERETT
CENTRAL AV.
STATE
JAMES P. COLE BLVD.
MASSACHUSETTS AV.
348
349
350
339
1967-B

1967

City Directory Abstract

Buick City
902 East Hamilton Avenue
Flint, MI 48505

Inquiry Number: 2646762.6
December 01, 2009

The EDR-City Directory Abstract

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

City Directory Report. Three important enhancements have been made to the EDR City Directory Abstract:

1. *Executive Summary.* The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.

2. *Page Images.* Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.

3. *Findings Listed by Location.* Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

Options for Selecting Adjoining Properties. Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

1. *You Select Addresses and EDR Selects Addresses.* Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.

2. *EDR Selects Addresses.* Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.

3. *You Select Addresses.* Use this method for research based solely on the addresses you select or enter into the system.

4. *Hold City Directory Research Option.* If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit www.edrnet.com/2009enhancements

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2009	Polk's City Directory	X	X	X	-
2004	Polk's City Directory	X	X	X	-
2000	Polk's City Directory	X	X	X	-
1995	Polk's City Directory	X	X	X	-
1988	Polk's City Directory	X	X	X	-
1983	Polk's City Directory	X	X	X	-
1978	Polk's City Directory	X	X	X	-
1973	Polk's City Directory	X	X	X	-
1968	Polk's City Directory	X	X	X	-
1963	Polk's City Directory	X	X	X	-
1958	Polk's City Directory	X	X	X	-
1954	Polk's City Directory	X	X	X	-
1949	Polk's City Directory	X	X	X	-
1945	Polk's City Directory	X	X	X	-
1941	Polk's City Directory	X	X	X	-
1936	Polk's City Directory	X	X	X	-
1931	Polk's City Directory	X	X	X	-
1926	Polk's City Directory	X	X	X	-
1921	Polk's City Directory	X	X	X	-
1916	Polk's City Directory	X	X	X	-
1912	Polk's City Directory	-	X	X	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

902 East Hamilton Avenue
Flint, MI 48505

FINDINGS DETAIL

Target Property research detail.

Year	Uses	Source
2009	GM Powertrain (auto parts & supl. mfrs.)	Polk's City Directory
2004	Buick Motor (marketing programs & serv.)	Polk's City Directory
	GM Powertrain (auto parts & supl. mfrs.)	Polk's City Directory
2000	Electronic Data Systems Corp.	Polk's City Directory
	General Motors Corp. Buick Div. Headquarters	Polk's City Directory
	General Motors Corp. Cadillac Luxury Car Div.	Polk's City Directory
	General Motors Corp. Chassis Div.	Polk's City Directory
	General Motors Corp. Mach. Tool Div.	Polk's City Directory
	GM Powertrain V-6 Plant (auto parts & supl. mfrs.)	Polk's City Directory
	Morrison-Knudsen (elec. work)	Polk's City Directory
	Pinkerton's (armored car serv.)	Polk's City Directory
	PPG Industries (paints allied prods.)	Polk's City Directory
	Seagull Entertainment (mgmt. consulting svcs.)	Polk's City Directory
	Total Travel Management (travel agency)	Polk's City Directory
1995	Buick Motors Division General Motors Corp.	Polk's City Directory
1988	Buick Motors Division General Motors Corp.	Polk's City Directory
	Servomation (buick cafeteria)	Polk's City Directory
1983	Buick Motors Division General Motors Corp.	Polk's City Directory
	Servomation	Polk's City Directory
1978	Buick Motors Division General Motors Corp.	Polk's City Directory
1973	Buick Motors Division General Motors Corp.	Polk's City Directory
1968	Buick Motors Division General Motors Corp.	Polk's City Directory
1963	Buick Motor Co. (parking lot)	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Vacant	Polk's City Directory

FINDINGS

Year	Uses	Source
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

East Hamilton Avenue

East Hamilton Avenue

Year	Uses	Source
2009	-No Other Addresses Listed 800-1100 Block East Hamilton Avenue	Polk's City Directory
2004	-No Other Addresses Listed 800-1100 Block East Hamilton Avenue	Polk's City Directory
2000	-No Other Addresses Listed 800-1100 Block East Hamilton Avenue	Polk's City Directory
1995	-No Other Addresses Listed 800-1100 Block East Hamilton Avenue	Polk's City Directory
1988	-No Other Addresses Listed 800-1100 Block East Hamilton Avenue	Polk's City Directory

815 East Hamilton Avenue

Year	Uses	Source
1983	Residential	Polk's City Directory
1978	Residential	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Albert Taylor (pntr.)	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

818 East Hamilton Avenue

Year	Uses	Source
1963	Vacant	Polk's City Directory
1958	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

819 East Hamilton Avenue

Year	Uses	Source
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Vacant	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Vacant	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Vacant	Polk's City Directory

819 1/2 East Hamilton Avenue

Year	Uses	Source
1968	Residential	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory

820 East Hamilton Avenue

Year	Uses	Source
1912	Vacant	Polk's City Directory

FINDINGS

821 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

822 East Hamilton Avenue

Year	Uses	Source
1963	No Return	Polk's City Directory
1958	Sampson Rogers (auto repr.)	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Flint Metal Bumping & Welding Co.	Polk's City Directory
1941	Flint Metal Bumping & Radiator Shop (auto repr.)	Polk's City Directory
1936	Flint Metal Bumping & Radiator Shop	Polk's City Directory
1931	Flint Metal Bumping & Radiator Shop	Polk's City Directory
1926	Marius Nielson (radiator repr.)	Polk's City Directory
1921	O.I. Nielson (garage)	Polk's City Directory
1916	Residential	Polk's City Directory
1912	Residential	Polk's City Directory

822 1/2 East Hamilton Avenue

Year	Uses	Source
1963	No Return	Polk's City Directory
1958	No Return	Polk's City Directory
1954	Residential	Polk's City Directory

823 East Hamilton Avenue

Year	Uses	Source
1983	Apartments	Polk's City Directory
1978	Apartments	Polk's City Directory
1973	Apartments	Polk's City Directory
1968	Apartments	Polk's City Directory
1963	Apartments	Polk's City Directory
1958	Apartments	Polk's City Directory
1954	Apartments	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Vacant	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1921	Residential	Polk's City Directory
1916	Jacob Anderson (barber)	Polk's City Directory
1912	Residential	Polk's City Directory

826 East Hamilton Avenue

Year	Uses	Source
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory
1912	Residential	Polk's City Directory

826 1/2 East Hamilton Avenue

Year	Uses	Source
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory

827 East Hamilton Avenue

Year	Uses	Source
1978	Vacant	Polk's City Directory
1973	Vacant	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1916	Residential	Polk's City Directory

828 East Hamilton Avenue

Year	Uses	Source
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory
1912	Residential	Polk's City Directory

829 East Hamilton Avenue

Year	Uses	Source
1931	Vacant	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory
1912	Residential	Polk's City Directory

830 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

831 East Hamilton Avenue

Year	Uses	Source
1968	Vacant	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Vacant	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory
1912	Residential	Polk's City Directory

831 1/2 East Hamilton Avenue

Year	Uses	Source
1968	Vacant	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Vacant	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

832 East Hamilton Avenue

Year	Uses	Source
1968	Under Construction	Polk's City Directory
1963	Buick Motor Co. (parking lot)	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory
1912	Myra Smith (boarding)	Polk's City Directory

833 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

FINDINGS

835 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

836 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

837 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

837 1/2 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

839 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

840 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

841 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

842 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

843 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

844 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

845 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

FINDINGS

846 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

854 East Hamilton Avenue

Year	Uses	Source
1912	Malinda Carmen (boarding)	Polk's City Directory

856 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

856 1/2 East Hamilton Avenue

Year	Uses	Source
1912	Louis Galos (shoe maker)	Polk's City Directory

858 East Hamilton Avenue

Year	Uses	Source
1912	Hamilton House (hotel)	Polk's City Directory

860 East Hamilton Avenue

Year	Uses	Source
1912	Auto Restaurant	Polk's City Directory

861 East Hamilton Avenue

Year	Uses	Source
1912	Residential	Polk's City Directory

863 East Hamilton Avenue

Year	Uses	Source
1912	Vacant	Polk's City Directory

901 East Hamilton Avenue

Year	Uses	Source
1983	Residential	Polk's City Directory
1978	Vacant	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Vacant	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

901 1/2 East Hamilton Avenue

Year	Uses	Source
1978	Vacant	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Vacant	Polk's City Directory
1963	Residential	Polk's City Directory

903 East Hamilton Avenue

Year	Uses	Source
1983	Residential	Polk's City Directory
1978	Vacant	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Vacant	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

903 1/2 East Hamilton Avenue

Year	Uses	Source
1983	Residential	Polk's City Directory
1978	Vacant	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1963	Residential	Polk's City Directory

906 East Hamilton Avenue

Year	Uses	Source
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Robert Jackson (exp.)	Polk's City Directory
1916	Residential	Polk's City Directory

907 East Hamilton Avenue

Year	Uses	Source
1968	Vacant	Polk's City Directory
1963	Vacant	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

908 East Hamilton Avenue

Year	Uses	Source
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

908 1/2 East Hamilton Avenue

Year	Uses	Source
1945	Residential	Polk's City Directory

911 East Hamilton Avenue

Year	Uses	Source
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Sterling Awning Sls.	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

912 East Hamilton Avenue

Year	Uses	Source
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

915 East Hamilton Avenue

Year	Uses	Source
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

916 East Hamilton Avenue

Year	Uses	Source
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Vacant	Polk's City Directory
1916	Residential	Polk's City Directory

918 East Hamilton Avenue

Year	Uses	Source
1921	Carl T Walter (tailor)	Polk's City Directory
1916	Residential	Polk's City Directory

919 East Hamilton Avenue

Year	Uses	Source
1963	Margie's Lunch	Polk's City Directory
1958	Celia's Lunch	Polk's City Directory
1954	Myrtle Abbott (restr.)	Polk's City Directory
1949	Myrtle Abbott (restr.)	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Doris Lunch Room	Polk's City Directory
1931	Mattie Swartz (confr.)	Polk's City Directory
1926	Walter Greenfield (confr.)	Polk's City Directory
1921	Residential	Polk's City Directory

FINDINGS

Year	Uses	Source
1916	Residential	Polk's City Directory

919 1/2 East Hamilton Avenue

Year	Uses	Source
1945	Joyce's Lunch (restr.)	Polk's City Directory
1941	Joyce's Lunch (restr.)	Polk's City Directory

920 East Hamilton Avenue

Year	Uses	Source
1931	Auto Annex Hotel	Polk's City Directory
1926	Auto Annex Hotel	Polk's City Directory
1921	Auto Cafe & Annex Hotel	Polk's City Directory
1916	Julius Gaspar (shoe maker)	Polk's City Directory

920 1/2 East Hamilton Avenue

Year	Uses	Source
1931	Residential	Polk's City Directory
1916	Fred Deacon (furn. rooms)	Polk's City Directory

921 East Hamilton Avenue

Year	Uses	Source
1963	Vacant	Polk's City Directory
1958	Vacant	Polk's City Directory
1954	Residential	Polk's City Directory
1949	Vacant	Polk's City Directory
1945	Vacant	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Vacant	Polk's City Directory
1926	Residential	Polk's City Directory
1921	AJ Buerker (restr.)	Polk's City Directory

923 East Hamilton Avenue

Year	Uses	Source
1931	Vacant	Polk's City Directory
1926	Gust Buerker (restr.)	Polk's City Directory
1921	Israel Patton (barber)	Polk's City Directory
	Louis Dorma (restr.)	Polk's City Directory
	OL Welch (billiards)	Polk's City Directory
1916	Lucinda Willson (furn. rooms)	Polk's City Directory

FINDINGS

924 East Hamilton Avenue

Year	Uses	Source
1931	Auto Cafe	Polk's City Directory
1926	Auto Cafe	Polk's City Directory
1921	Auto Cafe & Annex Hotel	Polk's City Directory

924 1/2 East Hamilton Avenue

Year	Uses	Source
1931	Residential	Polk's City Directory
1926	Residential	Polk's City Directory

927 East Hamilton Avenue

Year	Uses	Source
1949	Residential	Polk's City Directory
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory
1931	Vacant	Polk's City Directory
1926	Residential	Polk's City Directory
1921	Residential	Polk's City Directory
1916	Residential	Polk's City Directory

927 1/2 East Hamilton Avenue

Year	Uses	Source
1945	Residential	Polk's City Directory
1941	Residential	Polk's City Directory
1936	Residential	Polk's City Directory

931 East Hamilton Avenue

Year	Uses	Source
2009	New Life Missionary Baptist (church)	Polk's City Directory
2000	Wolverine Dispatch, Inc. (armored car serv.)	Polk's City Directory
1988	Vacant	Polk's City Directory
1983	Citizen's Commercial & Savings Bank	Polk's City Directory
1978	Citizen's Commercial & Savings Bank	Polk's City Directory
1973	Citizen's Commercial & Savings Bank	Polk's City Directory
1968	Citizen's Commercial & Savings Bank	Polk's City Directory
1963	Citizen's Commercial & Savings Bank	Polk's City Directory
1958	Citizen's Commercial & Savings Bank	Polk's City Directory
1954	Citizen's Commercial & Savings Bank	Polk's City Directory

Year	Uses	Source
1949	Citizen's Commercial & Savings Bank	Polk's City Directory

nw cor East Hamilton Avenue

Year	Uses	Source
1945	Citizen's Commercial & Savings Bank	Polk's City Directory
1941	Citizen's Commercial & Savings Bank	Polk's City Directory
1936	Vacant	Polk's City Directory
1931	Union Industrial Trust & Savings Bank	Polk's City Directory
1926	Industrial Savings Bank	Polk's City Directory
	Ralph A Denison (dentist)	Polk's City Directory
1921	CV Merritt (phys.)	Polk's City Directory
	Industrial Savings Bank	Polk's City Directory
	Ross & Denison (dentists)	Polk's City Directory
1916	Industrial Savings Bank Bldg. (5 occupants)	Polk's City Directory
1912	Industrial Savings Bank	Polk's City Directory

Industrial Avenue

Industrial Avenue

Year	Uses	Source
2009	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
2004	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
2000	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1995	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1988	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1983	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1978	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1973	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1968	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1963	-No Intersecting Addresses Listed in Research Source	Polk's City Directory
1958	-No Intersecting Addresses Listed in Research Source	Polk's City Directory

FINDINGS

2021 Industrial Avenue

Year	*Uses*	*Source*
1921	Charles A Brodie & Son (confr.)	Polk's City Directory

2101 Industrial Avenue

Year	*Uses*	*Source*
1954	Residential	Polk's City Directory
1949	Kenneth Ryan (dentist)	Polk's City Directory
	Kenneth Williams (optom.)	Polk's City Directory
1945	Vacant	Polk's City Directory
1941	Austin Sipple (dentist)	Polk's City Directory
1936	Richard Krull (dentist)	Polk's City Directory
1931	Curtis Yorks (dentist)	Polk's City Directory

FINDINGS

TARGET PROPERTY: ADDRESS NOT LISTED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not listed in the research source.

Address Researched	Address Not Listed in Research Source
902 East Hamilton Avenue	1912

ADJOINING PROPERTY: ADDRESSES NOT LISTED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not listed in research source.

Address Researched	Address Not Listed in Research Source
2021 Industrial Avenue	1916, 1912
2101 Industrial Avenue	1926, 1921, 1916, 1912
815 East Hamilton Avenue	1912
818 East Hamilton Avenue	1912
819 1/2 East Hamilton Avenue	1945, 1941, 1936, 1931, 1926, 1921, 1916, 1912
819 East Hamilton Avenue	1912
822 1/2 East Hamilton Avenue	1949, 1945, 1941, 1936, 1931, 1926, 1921, 1916, 1912
826 1/2 East Hamilton Avenue	1954, 1949, 1945, 1941, 1936, 1931, 1926, 1921, 1916, 1912
827 East Hamilton Avenue	1912
831 1/2 East Hamilton Avenue	1941, 1912
901 1/2 East Hamilton Avenue	1958, 1954, 1949, 1945, 1941, 1936, 1931, 1926, 1921, 1916, 1912
901 East Hamilton Avenue	1912
903 1/2 East Hamilton Avenue	1958, 1954, 1949, 1945, 1941, 1936, 1931, 1926, 1921, 1916, 1912
903 East Hamilton Avenue	1912
906 East Hamilton Avenue	1912
907 East Hamilton Avenue	1912
908 1/2 East Hamilton Avenue	1941, 1936, 1931, 1926, 1921, 1916, 1912
908 East Hamilton Avenue	1912
911 East Hamilton Avenue	1912
912 East Hamilton Avenue	1912
915 East Hamilton Avenue	1912
916 East Hamilton Avenue	1912

FINDINGS

Address Researched	Address Not Listed in Research Source
918 East Hamilton Avenue	1912
919 1/2 East Hamilton Avenue	1936, 1931, 1926, 1921, 1916, 1912
919 East Hamilton Avenue	1912
920 1/2 East Hamilton Avenue	1926, 1921, 1912
920 East Hamilton Avenue	1912
921 East Hamilton Avenue	1916, 1912
923 East Hamilton Avenue	1912
924 1/2 East Hamilton Avenue	1921, 1916, 1912
924 East Hamilton Avenue	1916, 1912
927 1/2 East Hamilton Avenue	1931, 1926, 1921, 1916, 1912
927 East Hamilton Avenue	1912
931 East Hamilton Avenue	2004, 1995, 1945, 1941, 1936, 1931, 1926, 1921, 1916, 1912

Topographic Maps

Buick City
902 East Hamilton Avenue
Flint, MI 48505

Inquiry Number: 2646762.4
November 25, 2009

The EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

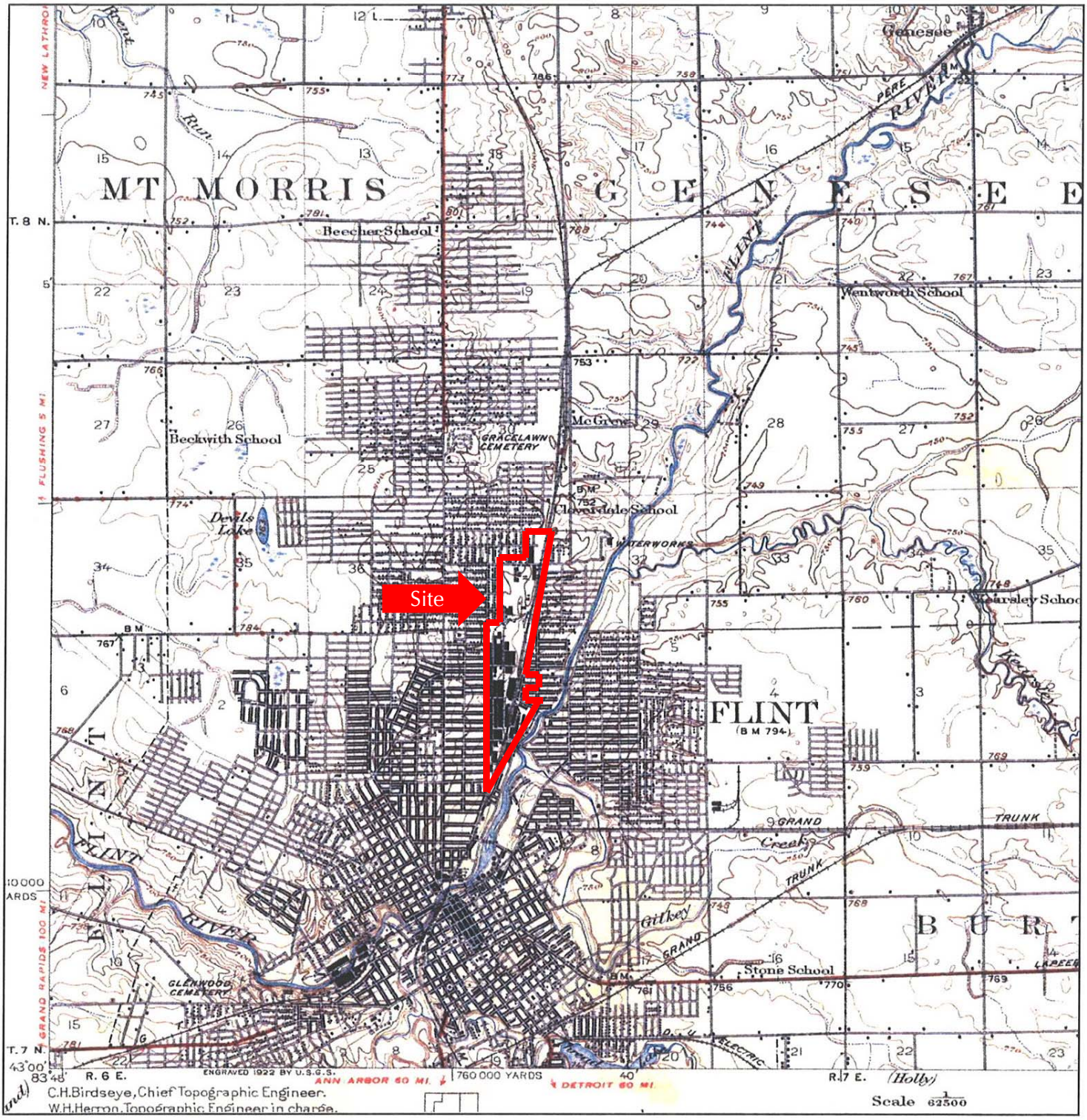
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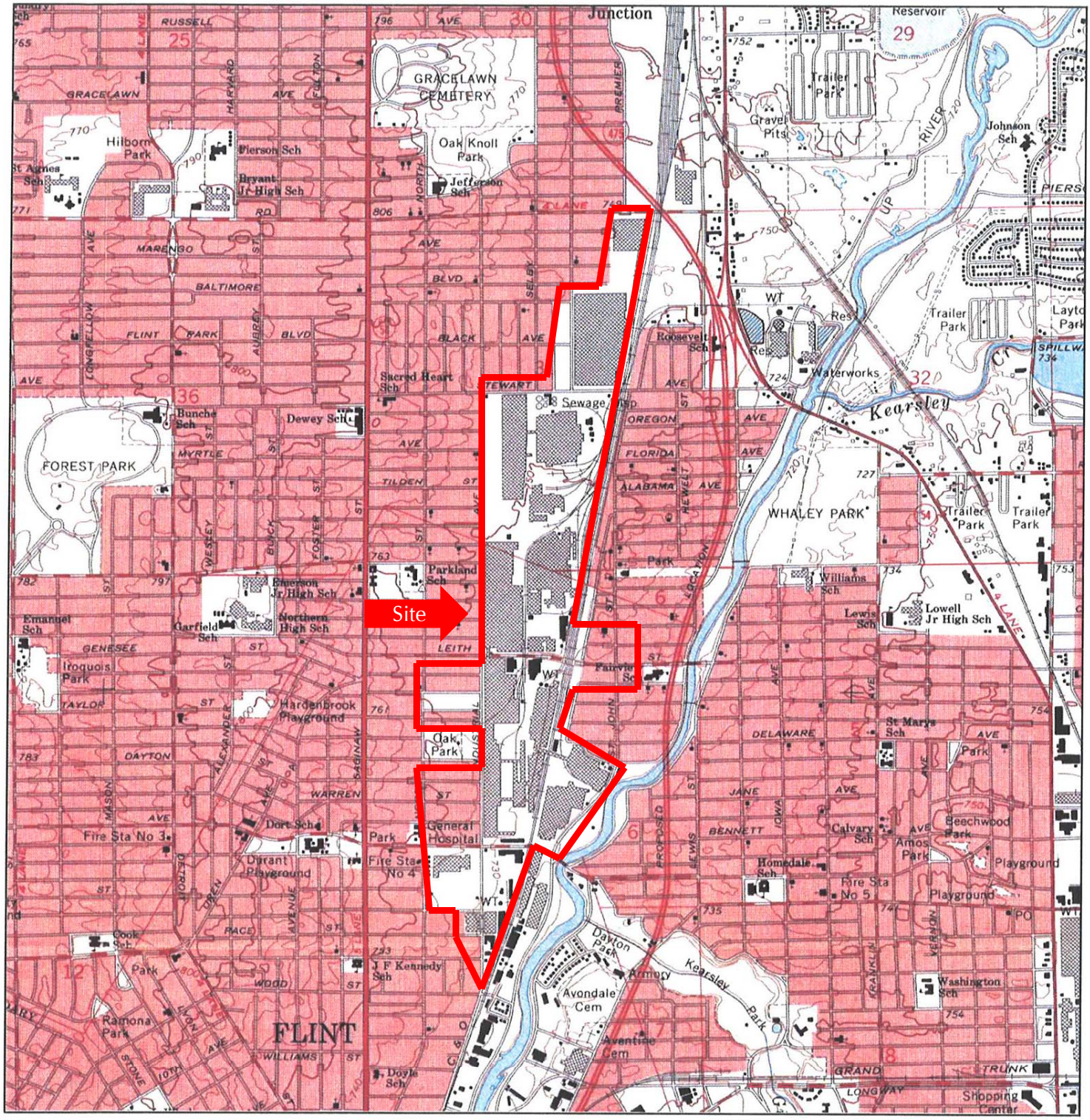
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Historical Topographic Map



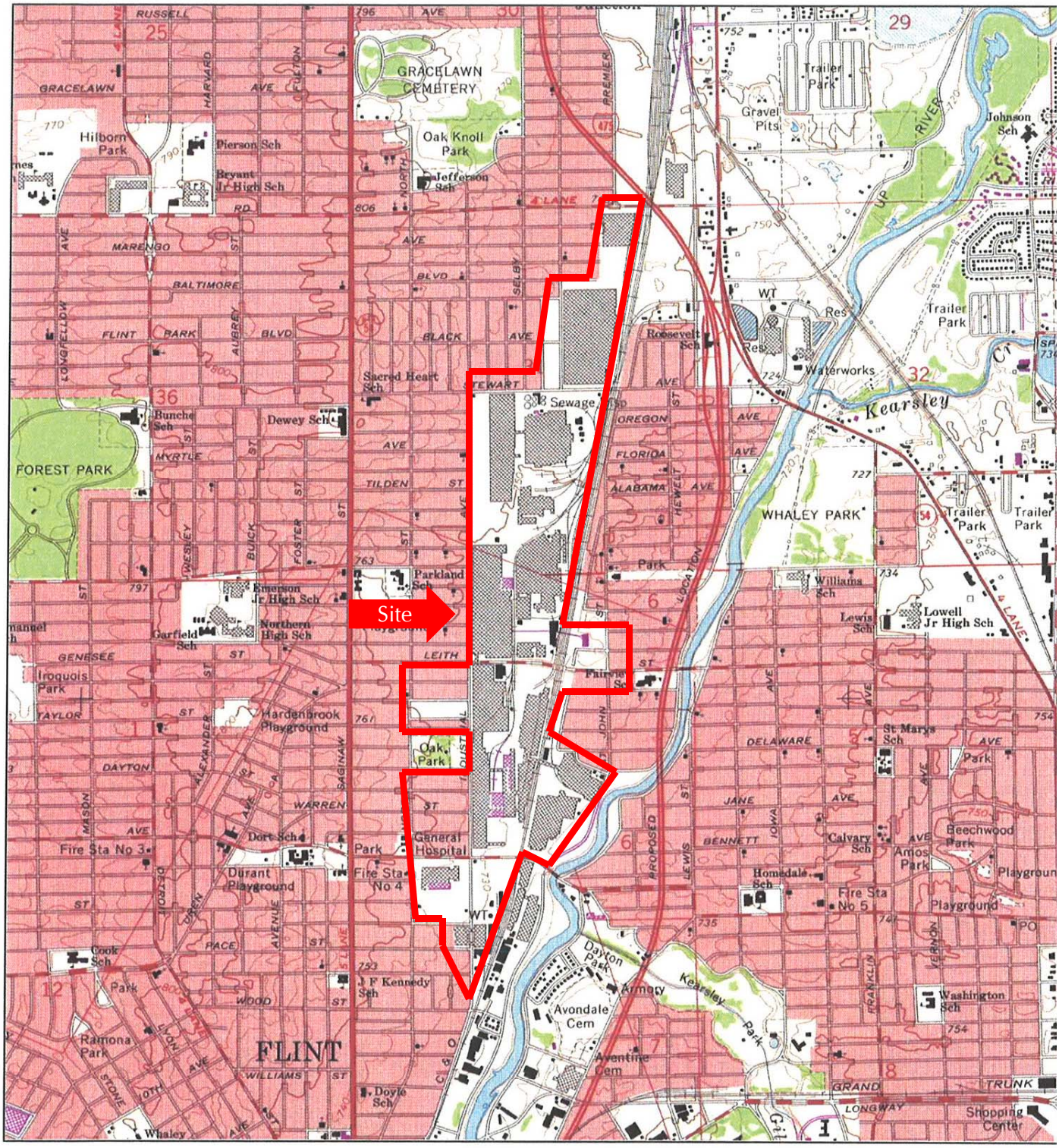
N			
	TARGET QUAD NAME: FLINT MAP YEAR: 1922 SERIES: 15 SCALE: 1:62500	SITE NAME: Buick City ADDRESS: 902 East Hamilton Avenue Flint, MI 48505 LAT/LONG: 43.0458 / 83.6835	CLIENT: LFR Inc CONTACT: Sean Drain INQUIRY#: 2646762.4 RESEARCH DATE: 11/25/2009

Historical Topographic Map



N			
	TARGET QUAD NAME: FLINT NORTH MAP YEAR: 1969 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Buick City ADDRESS: 902 East Hamilton Avenue Flint, MI 48505 LAT/LONG: 43.0458 / 83.6835	CLIENT: LFR Inc CONTACT: Sean Drain INQUIRY#: 2646762.4 RESEARCH DATE: 11/25/2009

Historical Topographic Map



N	TARGET QUAD NAME: FLINT NORTH MAP YEAR: 1975 PHOTOREVISED FROM:1969 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Buick City ADDRESS: 902 East Hamilton Avenue Flint, MI 48505 LAT/LONG: 43.0458 / 83.6835	CLIENT: LFR Inc CONTACT: Sean Drain INQUIRY#: 2646762.4 RESEARCH DATE: 11/25/2009

APPENDIX C

EDR Radius Map Report

Buick City
902 East Hamilton Avenue
Flint, MI 48505

Inquiry Number: 2646762.2s
November 30, 2009

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

902 EAST HAMILTON AVENUE
FLINT, MI 48505

COORDINATES

Latitude (North):	43.045800 - 43° 2' 44.9''
Longitude (West):	83.683500 - 83° 41' 0.6''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	281423.1
UTM Y (Meters):	4769181.0
Elevation:	742 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	43083-A6 FLINT NORTH, MI
Most Recent Revision:	1975

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2006
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 7 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A

EXECUTIVE SUMMARY

902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST 902 EAST HAMILTON ST FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST. ON THE FLIN 902 EAST HAMILTON ST. ON THE FLINT RIVER OUTFALL NO. 3 FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON IN THE STORM SE 902 EAST HAMILTON IN THE STORM SEWER SYSTEM FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST BUILDING 43 902 EAST HAMILTON ST BUILDING 43 FLINT, MI 48502	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET BLDG 32 902 EAST HAMILTON STREET BLDG 32 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST 902 EAST HAMILTON ST FLINT, MI	ERNS	N/A

EXECUTIVE SUMMARY

902 EAST HAMILTON ST 902 EAST HAMILTON ST FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET OUTFALL 902 EAST HAMILTON STREET OUTFALL NO.003 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST 902 EAST HAMILTON ST FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET BLDG. 3 902 EAST HAMILTON STREET BLDG. 36 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A

EXECUTIVE SUMMARY

902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. BUILDING 37 902 EAST HAMILTON ST. BUILDING 37 FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
GEN MOTORS-GM REGIONAL PURCHAS 902 E HAMILTON AVE FLINT, MI 48501	TSCA	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. BUILDING NO 902 EAST HAMILTON ST. BUILDING NO. 30 FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A

EXECUTIVE SUMMARY

902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST. FACTORY NO. 902 EAST HAMILTON ST. FACTORY NO. 81 FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST 902 EAST HAMILTON ST FLINT, MI 48502	ERNS	N/A
902 EAST HAMILTON ST. BLDG 14 902 EAST HAMILTON ST. BLDG 14 FLINT, MI	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. 902 EAST HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON AVE 902 EAST HAMILTON AVE FLINT, MI	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A

EXECUTIVE SUMMARY

902 E HAMILTON 902 E HAMILTON FLINT, MI 0	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
GENERAL MOTORS CORP 902 E HAMILTON FLINT, MI 48550	AIRS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 0	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 0	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A

EXECUTIVE SUMMARY

902 E HAMILTON 902 E HAMILTON FLINT, MI	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
GENERAL MOTORS - NAO FLINT OPERAT 902 E HAMILTON AVE-MAIL CODE 485-118-225 FLINT, MI 48550	FINDS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 0	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 0	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON AVE 902 E HAMILTON AVE FLINT, MI 0	ERNS	N/A
902 EAST HAMILTON ST BUILDING 20 902 EAST HAMILTON ST BUILDING 20 FLINT, MI	ERNS	N/A

EXECUTIVE SUMMARY

902 EAST HAMILTON ST FACTORY 36 B 902 EAST HAMILTON ST FACTORY 36 BLDG 36 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST BLDG 28 FACT 902 EAST HAMILTON ST BLDG 28 FACTORY 94 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET BUICK CI 902 EAST HAMILTON STREET BUICK CITY / BLDG 16 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET BUILDING 902 EAST HAMILTON STREET BUILDING 28 FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET BUILDING 902 EAST HAMILTON STREET BUILDING 65(PUMP STATION) FLINT, MI 48550	ERNS	N/A
902 E. HAMILTON ST. 902 E. HAMILTON ST. FLINT, MI	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON ST 902 EAST HAMILTON ST FLINT, MI	ERNS	N/A
902 EAST HAMILTON ST. OUTFALL 003 902 EAST HAMILTON ST. OUTFALL 003 FLINT, MI	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A

902 E HAMILTON 902 E HAMILTON FLINT, MI 0	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 E. HAMILTON GEM PLANT 902 E. HAMILTON GEM PLANT FLINT, MI	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON AVE. 902 EAST HAMILTON AVE. FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
GENERAL MOTORS CORPORATION 902 E HAMILTON ST FLINT, MI 48550	RCRA-NonGen	MIT270010044
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON 902 EAST HAMILTON FLINT, MI 48550	ERNS	N/A
902 E HAMILTON 902 E HAMILTON FLINT, MI 48550	ERNS	N/A
902 EAST HAMILTON STREET 902 EAST HAMILTON STREET FLINT, MI	ERNS	N/A
BUILDING 16 902 E HAMILTON AVE FLINT, MI 48550	LUST Facility Status: Open Facility Status: Open **Additional key fields are available in the Map Findings section* UST	N/A

EXECUTIVE SUMMARY

GMC BOC FLINT AUTOMOTIVE DIV 902 E HAMILTON DIV 14 FLINT, MI 48550	RCRA-TSDF CORRACTS RCRA-LQG TRIS PADS FINDS MANIFEST	48550BCFLN90
GENERAL MOTORS - NAO FLINT OPERAT 902 EAST HAMILTON AVENUE FLINT MI 485508502 FLINT, MI 48550	ICIS	N/A
902 E. HAMILTON 902 E. HAMILTON FLINT, MI	SPILLS	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal RCRA generators list

RCRA-SQG ---------- RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Facilities Database

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

INDIAN UST ---- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ---- Open Dump Inventory
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
HIST LF ---- Inactive Solid Waste Facilities
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---- Clandestine Drug Labs
CDL ---- Clandestine Drug Lab Listing
US HIST CDL ---- National Clandestine Laboratory Register

Local Land Records

LIENS 2 ---- CERCLA Lien Information
LUCIS ---- Land Use Control Information System
LIENS ---- Lien List

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System

Other Ascertainable Records

DOT OPS ---- Incident and Accident Data
DOD ---- Department of Defense Sites
FUDS ---- Formerly Used Defense Sites
CONSENT ---- Superfund (CERCLA) Consent Decrees
ROD ---- Records Of Decision
UMTRA ---- Uranium Mill Tailings Sites
MINES ---- Mines Master Index File
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
SSTS ---- Section 7 Tracking Systems
MLTS ---- Material Licensing Tracking System
RADINFO ---- Radiation Information Database
RAATS ---- RCRA Administrative Action Tracking System

EXECUTIVE SUMMARY

UIC ..... Underground Injection Wells Database
DRYCLEANERS ..... Drycleaning Establishments
INDIAN RESERV ..... Indian Reservations
SCRD DRYCLEANERS ..... State Coalition for Remediation of Drycleaners Listing
PCB TRANSFORMER ..... PCB Transformer Registration Database
COAL ASH ..... Coal Ash Disposal Sites

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants ..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 06/30/2009 has revealed that there is 1 CERCLIS site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FLINT IND PLATING	1109 E STEWART ST	0 - 1/8 (0.000 mi.)	C105	108

EXECUTIVE SUMMARY

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 06/23/2009 has revealed that there is 1 CERC-NFRAP site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ESTECH OIL COMPANY	*4701 THETFORD*	*NNE 1/2 - 1 (0.542 mi.)*	*P178*	*211*

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 09/15/2009 has revealed that there is 1 CORRACTS site within approximately 1.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
EI DUPONT FLINT SITE	*1555 JAMES P COLE BLVD*	*S 1/2 - 1 (0.647 mi.)*	*188*	*226*

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 11/12/2008 has revealed that there are 2 RCRA-LQG sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LOCKHART CHEMICAL CO	*4302 JAMES P COLE BLVD*	*NE 1/4 - 1/2 (0.251 mi.)*	*M157*	*176*
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
PPG INDUSTRIES INC	*3601 JAMES P COLE BLVD*	*N 0 - 1/8 (0.098 mi.)*	*E132*	*127*

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 11/12/2008 has revealed that there are 4 RCRA-CESQG sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BFI OF MICHIGAN VALLEY	***775 E TAYLOR ST***	***W 0 - 1/8 (0.054 mi.)***	***123***	***119***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MI DEPT/TRANSPORTATION	***I-475 UNDER CARPENTER R***	***E 0 - 1/8 (0.115 mi.)***	***H137***	***140***
ROGERS AND SON GARAGE	***3018 LEWIS ST***	***ESE 1/8 - 1/4 (0.137 mi.)***	***139***	***144***
INTERNATIONAL TRANSMISSION COM	2404 JAMES P COLE BOULE	ESE 1/8 - 1/4 (0.186 mi.)	153	169

Federal ERNS list

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 08/31/2009 has revealed that there are 10 ERNS sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
902 EAST LEITH ST	902 EAST LEITH ST	0 - 1/8 (0.000 mi.)	B106	109
902 E LEITH STREET	902 E LEITH STREET	0 - 1/8 (0.000 mi.)	B107	109
902 EAST LEITH ST	902 EAST LEITH ST	0 - 1/8 (0.000 mi.)	B109	110
902 EAST LEITH ST	902 EAST LEITH ST	0 - 1/8 (0.000 mi.)	B112	115
902 EAST LEITH ST.	902 EAST LEITH ST.	0 - 1/8 (0.000 mi.)	B115	116
902 EAST LEITH ST	902 EAST LEITH ST	0 - 1/8 (0.000 mi.)	B118	117
902 EAST LEITH ST.	902 EAST LEITH ST.	0 - 1/8 (0.000 mi.)	B119	117

Lower Elevation	Address	Direction / Distance	Map ID	Page
2851 JAMES P. COLE BLVD.	2851 JAMES P. COLE BLVD	S 0 - 1/8 (0.090 mi.)	F129	126
3601 JAMES P COLE BLVD	3601 JAMES P COLE BLVD	N 0 - 1/8 (0.098 mi.)	E131	127
3601 JAMES P COLE	3601 JAMES P COLE	N 0 - 1/8 (0.098 mi.)	E133	139

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's' Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, and dated 10/28/2009 has revealed that there are 5

SHWS sites within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
4302 JAMES P. COLE BOULEVARD	***4302 JAMES P. COLE BOUL***	***NE 1/4 - 1/2 (0.251 mi.)***	***M158***	***186***
Facility Status: Interim Response in progress				
2601-2603 RICHFIELD ROAD	***2601-2603 RICHFIELD ROA***	***ENE 1 - 2 (1.025 mi.)***	***191***	***247***
Facility Status: Inactive - no actions taken to address contamination				
1005 ROOT STREET	1005 ROOT STREET	SSW 1 - 2 (1.072 mi.)	192	248
Facility Status: Evaluation conducted				

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOCKHART CHEMICAL-WAREHOUSE	1620 INDUSTRIAL DR.	S 1/2 - 1 (0.534 mi.)	O173	206
Facility Status: Interim Response in progress				
PHIL FLINT OIL CO (FRMR)	909 E KEARSLEY PARK BLV	SE 1 - 2 (1.012 mi.)	190	247
Facility Status: Interim Response in progress				

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 09/01/2009 has revealed that there are 21 LUST sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSAL SYSTEMS	***1401 E STEWART AVE***	***E 1/8 - 1/4 (0.158 mi.)***	***I141***	***148***
Facility Status: Closed				
BALAL INC	***2905 N SAGINAW ST***	***W 1/8 - 1/4 (0.166 mi.)***	***K144***	***153***
Facility Status: Closed				
FORMER AUTO REPAIR	2918 N SAGINAW ST	W 1/8 - 1/4 (0.166 mi.)	K147	157
Facility Status: Open				
BALAL SOUTH INC	***2805 N SAGINAW ST***	***W 1/8 - 1/4 (0.166 mi.)***	***K148***	***158***
Facility Status: Open				
GANNETT	***2711 N SAGINAW ST***	***W 1/8 - 1/4 (0.167 mi.)***	***150***	***162***
Facility Status: Open				
ALLEN STORAGE FACILITY	***4002 JAMES P COLE BLVD***	***E 1/8 - 1/4 (0.207 mi.)***	***154***	***171***
Facility Status: Closed				
Facility Status: Closed				
LARRY & HELENS MEAT MARKET	***3907 N SAGINAW ST***	***W 1/4 - 1/2 (0.326 mi.)***	***161***	***190***
Facility Status: Closed				
MOBIL OIL CORP	***5001 N SAGINAW***	***NW 1/2 - 1 (0.505 mi.)***	***169***	***201***
Facility Status: Closed				
Facility Status: Closed				
**Additional key fields are available in the Map Findings section*				
CITY OF FLINT	1818 N SAGINAW ST	SW 1/2 - 1 (0.510 mi.)	N171	205
Facility Status: Open				
FOUR M MFG GROUP OF CPC INC	***1409 E PIERSON RD***	***NNE 1/2 - 1 (0.536 mi.)***	***176***	***208***
Facility Status: Closed				

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KIMES CORP	***4701 THETFORD RD***	***NNE 1/2 - 1 (0.542 mi.)***	***P177***	***209***
Facility Status: Open				
RITE AID	709 E PIERSON RD	NNW 1/2 - 1 (0.568 mi.)	Q179	213
Facility Status: Open				
RITE AID CORP	***5202 N SAGINAW ST***	***NW 1/2 - 1 (0.577 mi.)***	***Q180***	***214***
Facility Status: Open				
Facility Status: Open				
PIERSON GAS MART	***680 E PIERSON RD***	***NW 1/2 - 1 (0.594 mi.)***	***Q183***	***217***
Facility Status: Open				
ROBERT S YOUNG/YOUNG & ORME	***G5305 N DORT HWY***	***NNE 1/2 - 1 (0.625 mi.)***	***187***	***223***
Facility Status: Open				
Facility Status: Open				

Lower Elevation	Address	Direction / Distance	Map ID	Page
QUONSET HUT	***1910 E BOULEVARD DR***	***SSE 1/4 - 1/2 (0.351 mi.)***	***163***	***192***
Facility Status: Closed				
CITY SEWER CLEANERS OF FLINT I	***2301 LEWIS ST***	***SSE 1/4 - 1/2 (0.427 mi.)***	***165***	***196***
Facility Status: Open				
PRINCE SINGH LLC	***4111 N DORT HWY***	***E 1/4 - 1/2 (0.442 mi.)***	***166***	***197***
Facility Status: Open				
STEVENS MOVING	***1220 LINGLE***	***SSE 1/4 - 1/2 (0.468 mi.)***	***167***	***199***
Facility Status: Open				
KIMES CORP WAREHOUSE	1620 INDUSTRIAL	S 1/2 - 1 (0.534 mi.)	O174	207
Facility Status: Open				
SUNOCO #0354-5613	***1405 DAVISON RD***	***SE 1/2 - 1 (0.598 mi.)***	***S185***	***220***
Facility Status: Closed				
Facility Status: Closed				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 09/01/2009 has revealed that there are 10 UST sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FIRE STATION #4	4309 INDUSTRIAL AVE	N 0 - 1/8 (0.037 mi.)	D121	118
UNIVERSAL SYSTEMS	***1401 E STEWART AVE***	***E 1/8 - 1/4 (0.158 mi.)***	***I141***	***148***
BALAL INC	***2905 N SAGINAW ST***	***W 1/8 - 1/4 (0.166 mi.)***	***K144***	***153***
BALAL SOUTH INC	***2805 N SAGINAW ST***	***W 1/8 - 1/4 (0.166 mi.)***	***K148***	***158***
GANNETT	***2711 N SAGINAW ST***	***W 1/8 - 1/4 (0.167 mi.)***	***150***	***162***
SERVICE DRY CLEANERS INC	3219 N SAGINAW ST	WNW 1/8 - 1/4 (0.180 mi.)	L152	168
ALLEN STORAGE FACILITY	***4002 JAMES P COLE BLVD***	***E 1/8 - 1/4 (0.207 mi.)***	***154***	***171***
LARRY & HELENS MEAT MARKET	***3907 N SAGINAW ST***	***W 1/4 - 1/2 (0.326 mi.)***	***161***	***190***
GENESEE BANK	3615 N SAGINAW ST	W 1/4 - 1/2 (0.329 mi.)	162	192

Lower Elevation	Address	Direction / Distance	Map ID	Page
QUONSET HUT	***1910 E BOULEVARD DR***	***SSE 1/4 - 1/2 (0.351 mi.)***	***163***	***192***

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Natural Resources' Michigan AST database.

A review of the AST list, as provided by EDR, and dated 09/15/2009 has revealed that there is 1 AST site within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GM POWERTRAIN FLINT NORTH	902 E LEITH ST	0 - 1/8 (0.000 mi.)	B104	95

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database.

A review of the BROWNFIELDS list, as provided by EDR, and dated 09/21/2009 has revealed that there are 2 BROWNFIELDS sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CITY OF FLINT FIRE DEPARTMENT	1818 N SAGINAW STREET	SW 1/2 - 1 (0.510 mi.)	N170	205

Lower Elevation	Address	Direction / Distance	Map ID	Page
1527 INDUSTRIAL	1527 INDUSTRIAL DRIVE	S 1/2 - 1 (0.623 mi.)	186	223

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites.The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

A review of the DEL SHWS list, as provided by EDR, and dated 11/04/2009 has revealed that there is 1 DEL SHWS site within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
1303 N. SAGINAW	1303 NORTH SAGINAW	SSW 1/2 - 1 (0.783 mi.)	189	247

Records of Emergency Release Reports

SPILLS: Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

A review of the SPILLS list, as provided by EDR, and dated 09/21/2009 has revealed that there are 5 SPILLS sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1102 E. STEWART AVE.	0 - 1/8 (0.000 mi.)	C108	109
GM FLINT NORTH SITE	***902 E. LEITH ST.***	***0 - 1/8 (0.000 mi.)***	***B111***	***115***
AMANDA KURZMAN/GENERAL MOTORS	902 E. LEITH ST., FLINT	0 - 1/8 (0.000 mi.)	B114	116

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	2851 JAMES P. COLE BLVD	S 0 - 1/8 (0.090 mi.)	F128	126
Not reported	3601 JAMES P. COLE BLVD	N 0 - 1/8 (0.098 mi.)	E134	139

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 11/12/2008 has revealed that there are 15 RCRA-NonGen sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MI DEPT/ENVIRONMENTAL QUALITY	***1109 E STEWART AVE***	***0 - 1/8 (0.000 mi.)***	***C110***	***110***
UNIVERSAL SYSTEMS	1401 E STEWART AVE	E 1/8 - 1/4 (0.158 mi.)	I140	146
FLINT COATINGS INC	***4221 JAMES P COLE***	***ENE 1/8 - 1/4 (0.161 mi.)***	***J142***	***149***
SUNOCO INC	***2905 N SAGINAW***	***W 1/8 - 1/4 (0.166 mi.)***	***K145***	***155***
SPEEDWAY SUPERAMERICA LLC	***2805 N SAGINAW***	***W 1/8 - 1/4 (0.166 mi.)***	***K149***	***160***
GANNETT	***2711 N SAGINAW ST***	***W 1/8 - 1/4 (0.167 mi.)***	***150***	***162***
SERVICE CLEANERS	***3219 N SAGINAW ST***	***WNW 1/8 - 1/4 (0.180 mi.)***	***L151***	***166***
ALUTIIQ PROFESSIONAL SERVICES	***2400 N SAGINAW ST***	***SW 1/8 - 1/4 (0.229 mi.)***	***156***	***174***
AMAL PROPERTIES LLC	4250 N SAGINAW STREET	W 1/4 - 1/2 (0.326 mi.)	160	189

Lower Elevation	Address	Direction / Distance	Map ID	Page
CONSOLIDATED FREIGHTWAYS	***3600 JAMES P COLE BLVD***	***N 0 - 1/8 (0.069 mi.)***	***E124***	***121***
UPF INC	2851 JAMES P COLE BLVD	S 0 - 1/8 (0.090 mi.)	F126	123
MI DEPT/TRANSPORTATION	I-475 OVER STEWART	E 0 - 1/8 (0.115 mi.)	H138	142
VACUCAST INC	***1227 GARFIELD AVE***	***E 1/8 - 1/4 (0.221 mi.)***	***155***	***172***
DIVERSIFIED ENVIRONMENTAL RECY	***1525 DELAWARE AVE***	***SE 1/4 - 1/2 (0.325 mi.)***	***159***	***187***
MI DEPT/TRANSPORTATION	***I-475 OVER STEWART***	***E 1/4 - 1/2 (0.353 mi.)***	***164***	***194***

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/23/2009 has revealed that there are 11 FINDS sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MI DEPT/ENVIRONMENTAL QUALITY	***1109 E STEWART AVE***	***0 - 1/8 (0.000 mi.)***	***C110***	***110***
FLINT IND PLATING	1109 E STEWART ST	0 - 1/8 (0.000 mi.)	C116	116
FIRE STATION #4	4309 INDUSTRIAL AVE.	N 0 - 1/8 (0.037 mi.)	D120	118
Not reported	3420 ST JOHN ST	E 0 - 1/8 (0.050 mi.)	122	119

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BFI OF MICHIGAN VALLEY	***775 E TAYLOR ST***	***W 0 - 1/8 (0.054 mi.)***	***123***	***119***
DELTA FIBERGLASS STRUCTURES	4221 JAMES P COLE BLV	ENE 0 - 1/8 (0.090 mi.)	130	126
STEEL TECHNOLOGIES	1301 ALABAMA AVE	E 0 - 1/8 (0.105 mi.)	G135	139

Lower Elevation	Address	Direction / Distance	Map ID	Page
CONSOLIDATED FREIGHTWAYS	***3600 JAMES P COLE BLVD***	***N 0 - 1/8 (0.069 mi.)***	***E124***	***121***
UPF INC.	2851 JAMES P COLE BLVD	S 0 - 1/8 (0.090 mi.)	F127	125
PPG INDUSTRIES INC	***3601 JAMES P COLE BLVD***	***N 0 - 1/8 (0.098 mi.)***	***E132***	***127***
MI DEPT/TRANSPORTATION	***I-475 UNDER CARPENTER R***	***E 0 - 1/8 (0.115 mi.)***	***H137***	***140***

NPDES: General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

A review of the NPDES list, as provided by EDR, and dated 10/13/2009 has revealed that there are 2 NPDES sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GM POWERTRAIN-FLINT NORTH	902 EAST LEITH STREET	0 - 1/8 (0.000 mi.)	B117	117
AUTO BLANKERS INCORPORATED OF	1301 ALABAMA	E 0 - 1/8 (0.105 mi.)	G136	139

AIRS: Permit and emissions inventory data.

A review of the AIRS list, as provided by EDR, and dated 12/31/2007 has revealed that there are 3 AIRS sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GM FLINT NORTH SITE	***902 E. LEITH ST.***	***0 - 1/8 (0.000 mi.)***	***B111***	***115***
FLINT PLATING	1109 E STEWART AVENUE	0 - 1/8 (0.000 mi.)	C113	115

Lower Elevation	Address	Direction / Distance	Map ID	Page
UPF INCORPORATED	2851 JAMES P COLE BLVD	S 0 - 1/8 (0.090 mi.)	F125	123

BEA: Baseline Environmental Assessment.

A review of the BEA list, as provided by EDR, and dated 09/14/2009 has revealed that there are 10 BEA sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
4221 JAMES P COLE BOULEVARD	4221 JAMES P COLE BOULE	ENE 1/8 - 1/4 (0.161 mi.)	J143	152
Not reported	2918 NORTH SAGINAW STRE	W 1/8 - 1/4 (0.166 mi.)	K146	157
BALAL SOUTH INC	***2805 N SAGINAW ST***	***W 1/8 - 1/4 (0.166 mi.)***	***K148***	***158***
4302 JAMES P. COLE BOULEVARD	***4302 JAMES P. COLE BOUL***	***NE 1/4 - 1/2 (0.251 mi.)***	***M158***	***186***
TROY DESIGN, INC.	1900 N. SAGINAW STREET	SW 1/4 - 1/2 (0.475 mi.)	N168	201
Not reported	1818 NORTH SAGINAW	SW 1/2 - 1 (0.510 mi.)	N172	206
3119 NORTH FRANKLIN AVENUE	3119 NORTH FRANKLIN AVE	ESE 1/2 - 1 (0.586 mi.)	R181	217
3102 NORTH FRANKLIN SSTREET	3102 NORTH FRANKLIN STR	ESE 1/2 - 1 (0.586 mi.)	R182	217

Lower Elevation	Address	Direction / Distance	Map ID	Page
1620 INDUSTRIAL AVE.	1620 INDUSTRIAL AVE.	S 1/2 - 1 (0.535 mi.)	O175	207

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
1405 DAVISON ROAD	1405 DAVISON ROAD	SE 1/2 - 1 (0.598 mi.)	S184	219

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
4500 N DORT HWY	FTTS, HIST FTTS, FINDS, LUST, UST
FLINT, CITY OF - FLINT PARK ALLOT	SHWS
FORMER SUNOCO #0354/ A J MINI MART	BROWNFIELDS
LEEMON OIL CO INC	LUST, UST
FORMER FAY MOTOR SALES	LUST
KURTZ GRAVEL CO	UST
MTA SERVICE CENTER	AST
I - RAMP OVERC 475	RCRA-NonGen, FINDS
I - RAMP BOVER 475	RCRA-NonGen, FINDS
S 1ST & 2 MILE N DORT HWY	RCRA-NonGen
I 475 & RAMP B OVER SVC RD S	RCRA-NonGen, FINDS
I 475 RAMP OVERHORTON AVE	RCRA-NonGen, FINDS
I 69 RAMP OFFTODORTFR W	RCRA-NonGen
JET AUTO REPAIR IC	RCRA-NonGen
69 I - RAMP DUNDERSBSV	RCRA-CESQG
I 475 RAMP BRIDGEDUNDER 8TH	RCRA-CESQG
AIRGAS GREAT LAKES INC	RCRA-CESQG
RAMP F E	RCRA-CESQG, FINDS
3701 AND 3751 S. DORT HWY	BEA
1512 AND 1514 S. DORT HWY.	BEA
PARCEL 07-32-102-001 & 07-32-102-0	BEA
3701 AND 3751 S. DORT HIGHWAY	BEA
G-5150 NORTH DORT HIGHWAY	BEA
5000, 5022, AND 5030 NORTH DORT HI	BEA
5130 AND 5122 NORTH DORT HIGHWAY	BEA
RAILROAD RIGHT-OF-WAY (FORMER)	BEA
SAGINAW & LEITH STREETS, SOUTH EAS	BEA
AIRGAS GREAT LAKES	ICIS
DELTA FIBERGLASS STRUCTURES	ICIS
GENESEE POWER STATION LIMITED PART	AIRS
EXXONMOBIL OIL CORP	AIRS
TOTAL PETROLEUM, INC.	AIRS
AMOCO OIL COMPANY	AIRS
SHELL OIL COMPANY	AIRS
SPOONER METALS LLC	AIRS
BUCKEYE TERMINALS, LLC - FLINT TER	AIRS
RENO AUTO PARTS-FLINT	NPDES
KURTZ GRAVEL CO-FLINT	NPDES
RESOURCE RECOVERY OF FLINT	NPDES
RJ TORCHING	NPDES
PPG INDUSTRIES INC-FLINT	NPDES

OVERVIEW MAP - 2646762.2s

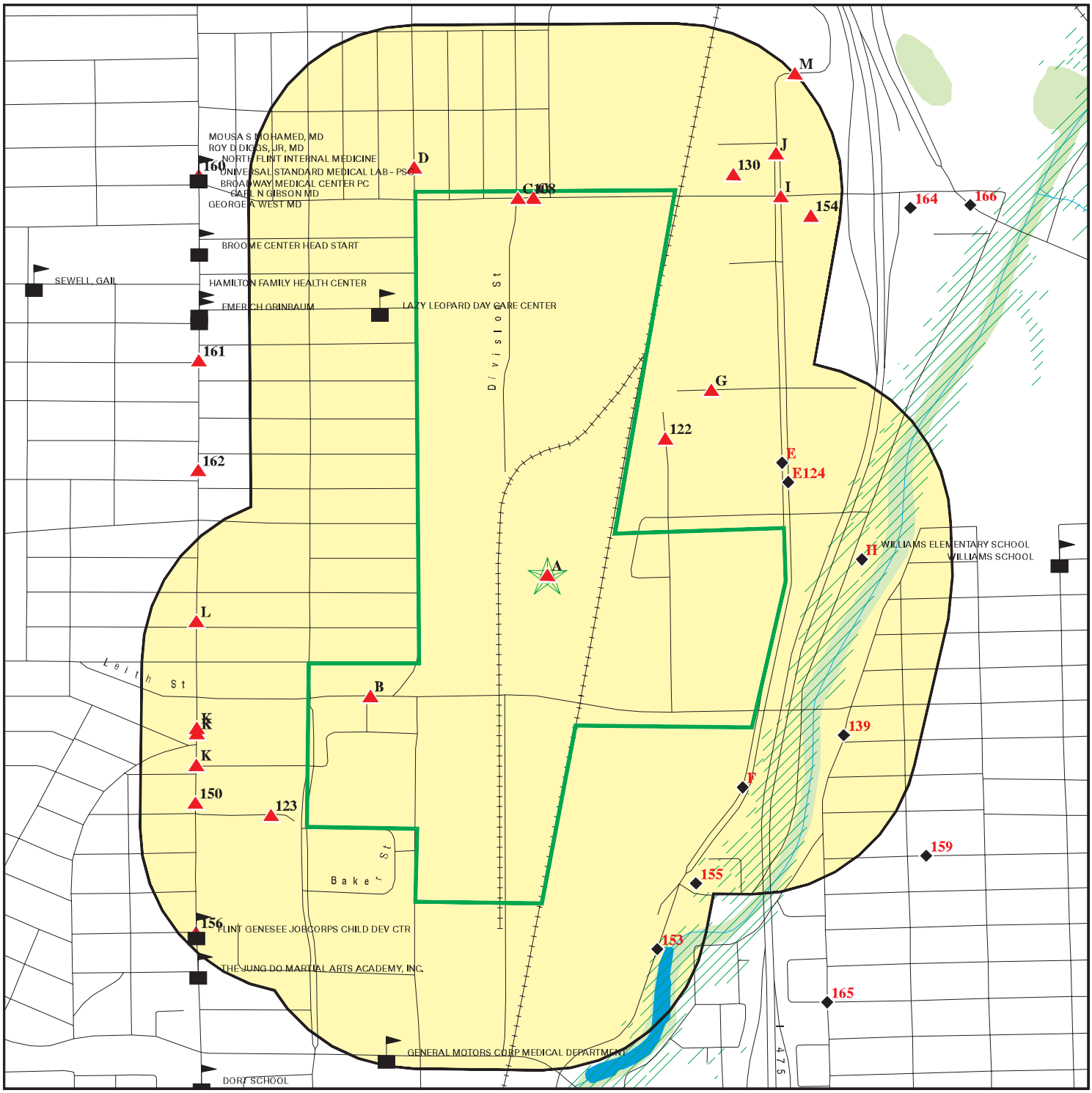


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Buick City ADDRESS: 902 East Hamilton Avenue Flint MI 48505 LAT/LONG: 43.0458 / 83.6835	CLIENT: LFR Inc CONTACT: Sean Drain INQUIRY #: 2646762.2s DATE: November 30, 2009 7:43 am

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DETAIL MAP - 2646762.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Buick City	CLIENT: LFR Inc
ADDRESS: 902 East Hamilton Avenue Flint MI 48505	CONTACT: Sean Drain INQUIRY #: 2646762.2s
LAT/LONG: 43.0458 / 83.6835	DATE: November 30, 2009 7:44 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.125	0	0	0	0	0	0
Proposed NPL		1.125	0	0	0	0	0	0
NPL LIENS		0.125	0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.125	0	0	0	0	0	0
Federal CERCLIS list								
CERCLIS		0.625	1	0	0	0	NR	1
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.625	0	0	0	1	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	X	1.125	0	0	0	1	0	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	X	0.625	0	0	0	0	NR	0
Federal RCRA generators list								
RCRA-LQG	X	0.375	1	0	1	NR	NR	2
RCRA-SQG		0.375	0	0	0	NR	NR	0
RCRA-CESQG		0.375	2	2	0	NR	NR	4
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.625	0	0	0	0	NR	0
US INST CONTROL		0.625	0	0	0	0	NR	0
Federal ERNS list								
ERNS	X	0.125	10	NR	NR	NR	NR	10
State- and tribal - equivalent CERCLIS								
SHWS		1.125	0	0	1	1	3	5
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.625	0	0	0	0	NR	0
State and tribal leaking storage tank lists								
LUST	X	0.625	0	6	5	10	NR	21
INDIAN LUST		0.625	0	0	0	0	NR	0
State and tribal registered storage tank lists								
UST	X	0.375	1	6	3	NR	NR	10
AST		0.375	1	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN UST		0.375	0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.625	0	0	0	0	NR	0
State and tribal Brownfields sites								
BROWNFIELDS		0.625	0	0	0	2	NR	2
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.625	0	0	0	0	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.625	0	0	0	0	NR	0
DEBRIS REGION 9		0.625	0	0	0	0	NR	0
HIST LF		0.625	0	0	0	0	NR	0
INDIAN ODI		0.625	0	0	0	0	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		0.125	0	NR	NR	NR	NR	0
DEL SHWS		1.125	0	0	0	1	0	1
CDL		0.125	0	NR	NR	NR	NR	0
US HIST CDL		0.125	0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		0.125	0	NR	NR	NR	NR	0
LUCIS		0.625	0	0	0	0	NR	0
LIENS		0.125	0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		0.125	0	NR	NR	NR	NR	0
SPILLS	X	0.125	5	NR	NR	NR	NR	5
Other Ascertainable Records								
RCRA-NonGen	X	0.375	4	8	3	NR	NR	15
DOT OPS		0.125	0	NR	NR	NR	NR	0
DOD		1.125	0	0	0	0	0	0
FUDS		1.125	0	0	0	0	0	0
CONSENT		1.125	0	0	0	0	0	0
ROD		1.125	0	0	0	0	0	0
UMTRA		0.625	0	0	0	0	NR	0
MINES		0.375	0	0	0	NR	NR	0
TRIS	X	0.125	0	NR	NR	NR	NR	0
TSCA	X	0.125	0	NR	NR	NR	NR	0
FTTS		0.125	0	NR	NR	NR	NR	0
HIST FTTS		0.125	0	NR	NR	NR	NR	0
SSTS		0.125	0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICIS	X	0.125	0	NR	NR	NR	NR	0
PADS	X	0.125	0	NR	NR	NR	NR	0
MLTS		0.125	0	NR	NR	NR	NR	0
RADINFO		0.125	0	NR	NR	NR	NR	0
FINDS	X	0.125	11	NR	NR	NR	NR	11
RAATS		0.125	0	NR	NR	NR	NR	0
UIC		0.125	0	NR	NR	NR	NR	0
DRYCLEANERS		0.375	0	0	0	NR	NR	0
NPDES		0.125	2	NR	NR	NR	NR	2
AIRS	X	0.125	3	NR	NR	NR	NR	3
BEA		0.625	0	3	2	5	NR	10
INDIAN RESERV		1.125	0	0	0	0	0	0
SCRD DRYCLEANERS		0.625	0	0	0	0	NR	0
PCB TRANSFORMER		0.125	0	NR	NR	NR	NR	0
COAL ASH		0.625	0	0	0	0	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.125	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **902 EAST HAMILTON STREET** **ERNS** **93337933**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 1 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A2 **902 EAST HAMILTON STREET** **ERNS** **93344594**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 2 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A3 **902 EAST HAMILTON ST.** **ERNS** **90181039**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 3 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A4 **902 EAST HAMILTON STREET** **ERNS** **93346529**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 4 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A5 **902 EAST HAMILTON STREET** **ERNS** **92294900**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 5 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A6 **902 EAST HAMILTON ST** **ERNS** **92277829**
Target **902 EAST HAMILTON ST** **N/A**
Property **FLINT, MI 48550**

Site 6 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A7
Target Property
902 EAST HAMILTON ST. ON THE FLINT RIVER OUTFALL NO. 3
902 EAST HAMILTON ST. ON THE FLINT RIVER OUTFALL NO. 3
FLINT, MI

ERNS **90190102**
N/A

Site 7 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A8
Target Property
902 EAST HAMILTON ST.
902 EAST HAMILTON ST.
FLINT, MI

ERNS **90189542**
N/A

Site 8 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A9
Target Property
902 EAST HAMILTON IN THE STORM SEWER SYSTEM
902 EAST HAMILTON IN THE STORM SEWER SYSTEM
FLINT, MI

ERNS **90189180**
N/A

Site 9 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A10
Target Property
902 EAST HAMILTON ST.
902 EAST HAMILTON ST.
FLINT, MI

ERNS **90180349**
N/A

Site 10 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A11
Target Property
902 EAST HAMILTON ST BUILDING 43
902 EAST HAMILTON ST BUILDING 43
FLINT, MI 48502

ERNS **94389332**
N/A

Site 11 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A12
Target Property
902 EAST HAMILTON
902 EAST HAMILTON
FLINT, MI

ERNS **90182029**
N/A

Site 12 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A13 **902 EAST HAMILTON STREET BLDG 32** **ERNS** **93307491**
Target **902 EAST HAMILTON STREET BLDG 32** **N/A**
Property **FLINT, MI 48550**

Site 13 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A14 **902 EAST HAMILTON STREET** **ERNS** **93306495**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 14 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A15 **902 EAST HAMILTON STREET** **ERNS** **93337863**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 15 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A16 **902 EAST HAMILTON ST** **ERNS** **91230113**
Target **902 EAST HAMILTON ST** **N/A**
Property **FLINT, MI**

Site 16 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A17 **902 EAST HAMILTON ST** **ERNS** **91228478**
Target **902 EAST HAMILTON ST** **N/A**
Property **FLINT, MI**

Site 17 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A18 **902 EAST HAMILTON STREET OUTFALL NO.003** **ERNS** **93310861**
Target **902 EAST HAMILTON STREET OUTFALL NO.003** **N/A**
Property **FLINT, MI 48550**

Site 18 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A19 **902 EAST HAMILTON STREET** **ERNS** **93301172**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 19 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A20 **902 EAST HAMILTON ST** **ERNS** **92274022**
Target **902 EAST HAMILTON ST** **N/A**
Property **FLINT, MI 48550**

Site 20 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A21 **902 EAST HAMILTON STREET** **ERNS** **93346021**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 21 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A22 **902 EAST HAMILTON STREET** **ERNS** **93327735**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 22 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A23 **902 EAST HAMILTON STREET BLDG. 36** **ERNS** **93326786**
Target **902 EAST HAMILTON STREET BLDG. 36** **N/A**
Property **FLINT, MI 48550**

Site 23 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A24 **902 EAST HAMILTON STREET** **ERNS** **93325804**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 24 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A25
Target Property
902 EAST HAMILTON ST.
902 EAST HAMILTON ST.
FLINT, MI

ERNS **90179412**
N/A

Site 25 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A26
Target Property
902 EAST HAMILTON ST.
902 EAST HAMILTON ST.
FLINT, MI

ERNS **91201715**
N/A

Site 26 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A27
Target Property
902 EAST HAMILTON ST.
902 EAST HAMILTON ST.
FLINT, MI

ERNS **91200978**
N/A

Site 27 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A28
Target Property
902 EAST HAMILTON STREET
902 EAST HAMILTON STREET
FLINT, MI 48550

ERNS **94375264**
N/A

Site 28 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A29
Target Property
902 EAST HAMILTON
902 EAST HAMILTON
FLINT, MI

ERNS **91218603**
N/A

Site 29 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A30
Target Property
902 EAST HAMILTON ST. BUILDING 37
902 EAST HAMILTON ST. BUILDING 37
FLINT, MI

ERNS **91217447**
N/A

Site 30 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A31 **902 EAST HAMILTON ST.** **ERNS** **91206080**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 31 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A32 **902 EAST HAMILTON** **ERNS** **91203304**
Target **902 EAST HAMILTON** **N/A**
Property **FLINT, MI**

Site 32 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A33 **GEN MOTORS-GM REGIONAL PURCHAS** **TSCA** **1005928750**
Target **902 E HAMILTON AVE** **N/A**
Property **FLINT, MI 48501**

Site 33 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional TSCA detail in the EDR Site Report.

A34 **902 E HAMILTON** **ERNS** **99651984**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 34 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A35 **902 EAST HAMILTON STREET** **ERNS** **94374774**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 35 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A36 **902 EAST HAMILTON ST.** **ERNS** **91205863**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 36 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A37 **902 EAST HAMILTON ST.** **ERNS** **91203317**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 37 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A38 **902 EAST HAMILTON ST. BUILDING NO. 30** **ERNS** **90172021**
Target **902 EAST HAMILTON ST. BUILDING NO. 30** **N/A**
Property **FLINT, MI**

Site 38 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A39 **902 EAST HAMILTON STREET** **ERNS** **94391408**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 39 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A40 **902 EAST HAMILTON ST.** **ERNS** **90174732**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 40 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A41 **902 EAST HAMILTON STREET** **ERNS** **94392330**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 41 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A42 **902 EAST HAMILTON ST. FACTORY NO. 81** **ERNS** **90163697**
Target **902 EAST HAMILTON ST. FACTORY NO. 81** **N/A**
Property **FLINT, MI**

Site 42 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A43 **902 EAST HAMILTON ST** **ERNS** **94394236**
Target **902 EAST HAMILTON ST** **N/A**
Property **FLINT, MI 48502**

Site 43 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A44 **902 EAST HAMILTON ST. BLDG 14** **ERNS** **91206165**
Target **902 EAST HAMILTON ST. BLDG 14** **N/A**
Property **FLINT, MI**

Site 44 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A45 **902 EAST HAMILTON** **ERNS** **91210549**
Target **902 EAST HAMILTON** **N/A**
Property **FLINT, MI**

Site 45 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A46 **902 EAST HAMILTON STREET** **ERNS** **94368823**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 46 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A47 **902 EAST HAMILTON** **ERNS** **90174032**
Target **902 EAST HAMILTON** **N/A**
Property **FLINT, MI**

Site 47 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A48 **902 EAST HAMILTON ST.** **ERNS** **91210460**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 48 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A49 **902 EAST HAMILTON ST.** **ERNS** **91206859**
Target **902 EAST HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 49 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A50 **902 EAST HAMILTON AVE** **ERNS** **91234074**
Target **902 EAST HAMILTON AVE** **N/A**
Property **FLINT, MI**

Site 50 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A51 **902 E HAMILTON** **ERNS** **2002598420**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 51 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A52 **902 E HAMILTON** **ERNS** **2001554342**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 52 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A53 **902 E HAMILTON** **ERNS** **2001565495**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 0**

Site 53 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A54 **902 EAST HAMILTON** **ERNS** **90157809**
Target **902 EAST HAMILTON** **N/A**
Property **FLINT, MI**

Site 54 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A55 **GENERAL MOTORS CORP** **AIRS** **S107696170**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 55 of 103 in cluster A

Actual:
742 ft.

AIRS:

State Registration Number:	A1178
Naics Code:	Not reported
Contact Name:	MARVIN ASBURY
Contact Phone:	(810) 234-6073
Contact Address:	GENERAL MOTORS CORP
Contact Address 2:	902 E LEITH
Contact City,St,Zip:	FLINT, MI 48550
Permit Number:	154-03
Date Received:	06/25/03
State Registration Number:	A1178
Country:	Not reported
Application Reason:	ROOM TEMP VULCANIZING SEALER OPERATION
Record Type:	Not reported
State County FIPS:	Not reported
Facility Category:	Not reported
SIC Primary:	Not reported
Tribal Code:	Not reported
EI Year:	Not reported

A56 **902 E HAMILTON** **ERNS** **2001569119**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 56 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A57 **902 E HAMILTON** **ERNS** **2002626603**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 0**

Site 57 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A58 **902 E HAMILTON** **ERNS** **2002626687**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 58 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A59 **902 E HAMILTON** **ERNS** **2002626777**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 0**

Site 59 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A60 **902 E HAMILTON** **ERNS** **99616629**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 60 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A61 **902 E HAMILTON** **ERNS** **2002626705**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 61 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A62 **902 E HAMILTON** **ERNS** **2002626711**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 62 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A63 **902 E HAMILTON** **ERNS** **96483203**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 63 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A64 **902 E HAMILTON** **ERNS** **2002601744**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 64 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A65 **902 E HAMILTON** **ERNS** **89112614**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI**

Site 65 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A66 **902 E HAMILTON** **ERNS** **96484015**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 66 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A67 **902 E HAMILTON** **ERNS** **96488414**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 67 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A68 **902 E HAMILTON** **ERNS** **96480898**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 68 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A69 **GENERAL MOTORS - NAO FLINT OPERATIONS** **FINDS** **1010454528**
Target **902 E HAMILTON AVE-MAIL CODE 485-118-225** **N/A**
Property **FLINT, MI 48550**

Site 69 of 103 in cluster A

Actual:
742 ft.

FINDS:

Registry ID: 110032902429

Environmental Interest/Information System
US Facility Response Plan (FRP) contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

A70
Target Property
902 E HAMILTON
902 E HAMILTON
FLINT, MI 0

ERNS **2000546560**
N/A

Site 70 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A71
Target Property
902 EAST HAMILTON
902 EAST HAMILTON
FLINT, MI

ERNS **90158708**
N/A

Site 71 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A72
Target Property
902 E HAMILTON
902 E HAMILTON
FLINT, MI 0

ERNS **2002622368**
N/A

Site 72 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A73
Target Property
902 E HAMILTON
902 E HAMILTON
FLINT, MI 48550

ERNS **2002606975**
N/A

Site 73 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A74
Target Property
902 E HAMILTON
902 E HAMILTON
FLINT, MI 48550

ERNS **2002608306**
N/A

Site 74 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A75
Target Property
902 E HAMILTON AVE
902 E HAMILTON AVE
FLINT, MI 0

ERNS **2002626940**
N/A

Site 75 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A76
Target Property
902 EAST HAMILTON ST BUILDING 20
902 EAST HAMILTON ST BUILDING 20
FLINT, MI

ERNS **92254158**
N/A

Site 76 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A77
Target Property
902 EAST HAMILTON ST FACTORY 36 BLDG 36
902 EAST HAMILTON ST FACTORY 36 BLDG 36
FLINT, MI 48550

ERNS **92259203**
N/A

Site 77 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A78
Target Property
902 EAST HAMILTON ST BLDG 28 FACTORY 94
902 EAST HAMILTON ST BLDG 28 FACTORY 94
FLINT, MI 48550

ERNS **92259164**
N/A

Site 78 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A79
Target Property
902 EAST HAMILTON STREET
902 EAST HAMILTON STREET
FLINT, MI 48550

ERNS **93347383**
N/A

Site 79 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A80
Target Property
902 EAST HAMILTON STREET
902 EAST HAMILTON STREET
FLINT, MI 48550

ERNS **93350147**
N/A

Site 80 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A81
Target Property
902 EAST HAMILTON STREET BUICK CITY / BLDG 16
902 EAST HAMILTON STREET BUICK CITY / BLDG 16
FLINT, MI 48550

ERNS **94354782**
N/A

Site 81 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A82 **902 EAST HAMILTON STREET BUILDING 28** **ERNS** **94355313**
Target **902 EAST HAMILTON STREET BUILDING 28** **N/A**
Property **FLINT, MI 48550**

Site 82 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A83 **902 EAST HAMILTON STREET BUILDING 65(PUMP STATION)** **ERNS** **94365922**
Target **902 EAST HAMILTON STREET BUILDING 65(PUMP STATION)** **N/A**
Property **FLINT, MI 48550**

Site 83 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A84 **902 E. HAMILTON ST.** **ERNS** **91225943**
Target **902 E. HAMILTON ST.** **N/A**
Property **FLINT, MI**

Site 84 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A85 **902 EAST HAMILTON STREET** **ERNS** **93347371**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI 48550**

Site 85 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A86 **902 EAST HAMILTON ST** **ERNS** **91239399**
Target **902 EAST HAMILTON ST** **N/A**
Property **FLINT, MI**

Site 86 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A87 **902 EAST HAMILTON ST. OUTFALL 003** **ERNS** **91223327**
Target **902 EAST HAMILTON ST. OUTFALL 003** **N/A**
Property **FLINT, MI**

Site 87 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A88 **902 E HAMILTON** **ERNS** **96494295**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 88 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A89 **902 E HAMILTON** **ERNS** **2002626022**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 0**

Site 89 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A90 **902 E HAMILTON** **ERNS** **2002625863**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 90 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A91 **902 E. HAMILTON GEM PLANT** **ERNS** **2003639806**
Target **902 E. HAMILTON GEM PLANT** **N/A**
Property **FLINT, MI**

Site 91 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A92 **902 E HAMILTON** **ERNS** **99625258**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 92 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A93 **902 EAST HAMILTON AVE.** **ERNS** **2003644630**
Target **902 EAST HAMILTON AVE.** **N/A**
Property **FLINT, MI 48550**

Site 93 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A94 **902 E HAMILTON** **ERNS** **2002626467**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 94 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A95 **GENERAL MOTORS CORPORATION** **RCRA-NonGen** **1000828962**
Target **902 E HAMILTON ST** **MIT270010044**
Property **FLINT, MI 48550**

Site 95 of 103 in cluster A

Actual:
742 ft.

RCRA-NonGen:

Date form received by agency:	08/18/1980
Facility name:	GENERAL MOTORS CORPORATION
Facility address:	902 E HAMILTON ST
	FLINT, MI 48550
EPA ID:	MIT270010044
Contact:	ROBERT METCALF
Contact address:	902 E HAMILTON ST
	FLINT, MI 48550
Contact country:	Not reported
Contact telephone:	(313) 766-3316
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	G. M. C. BUICK MOTOR DIV
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	G. M. C. BUICK MOTOR DIV
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No

GENERAL MOTORS CORPORATION (Continued) **1000828962**

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Universal Waste Summary:

Waste type:	DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	MERCURY THERMOMETERS
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	MERCURY SWITCHES
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Batteries
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Lamps
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Pesticides
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Thermostats
Accumulated waste on-site:	No
Generated waste on-site:	No
Violation Status:	No violations found

A96 **902 E HAMILTON** **ERNS** **2005629199**
Target Property **902 E HAMILTON** **N/A**
FLINT, MI 48550

Site 96 of 103 in cluster A

Actual: 742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A97 **902 EAST HAMILTON** **ERNS** **2002625977**
Target **902 EAST HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 97 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A98 **902 E HAMILTON** **ERNS** **96506292**
Target **902 E HAMILTON** **N/A**
Property **FLINT, MI 48550**

Site 98 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A99 **902 EAST HAMILTON STREET** **ERNS** **2005600048**
Target **902 EAST HAMILTON STREET** **N/A**
Property **FLINT, MI**

Site 99 of 103 in cluster A

Actual:
742 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A100 **BUILDING 16** **LUST** **U000253375**
Target **902 E HAMILTON AVE** **UST** **N/A**
Property **FLINT, MI 48550**

Site 100 of 103 in cluster A

Actual:
742 ft.

LUST:

Facility ID:	00002763
Source:	STATE OF MICHIGAN
Owner Name:	General Motors Corp Nao-Flint Operations
Owner Address:	M/C 485-118-230 902 E Hamilton Ave
Owner City,St,Zip:	Flint, MI 48550
Owner Contact:	Not reported
Owner Phone:	(810) 236-0300
Country:	USA
District:	Lansing District Office
Site Name:	Boc, Tank Farm 37 & Building 36
Latitude:	43.0351840000
Longitude:	-83.6888070000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0282-90
Release Date:	Feb 16 1990
Substance Released:	Not reported
Release Status:	Open

BUILDING 16 (Continued) **U000253375**

Release Closed Date: Not reported

Leak Number: C-0320-01
Release Date: Jun 8 2001
Substance Released: Other
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0324-89
Release Date: Jun 12 1989
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0375-01
Release Date: Jun 6 2001
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0434-97
Release Date: Dec 13 1988
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0470-97
Release Date: Sep 5 1985
Substance Released: Gasoline
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0471-97
Release Date: Jan 2 1987
Substance Released: Hazardous Substance
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0633-91
Release Date: Apr 11 1991
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0679-00
Release Date: Aug 18 2000
Substance Released: Unknown,Unknown
Release Status: Closed
Release Closed Date: Jun 8 2001

Leak Number: C-0921-91
Release Date: Feb 2 1990
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0921-93

BUILDING 16 (Continued) **U000253375**

Release Date: Feb 16 1990
Substance Released: Not reported
Release Status: Closed
Release Closed Date: Jun 18 1997

Leak Number: C-0922-91
Release Date: May 10 1991
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0923-91
Release Date: May 10 1991
Substance Released: Not reported
Release Status: Closed
Release Closed Date: Oct 1 1991

Leak Number: C-0924-91
Release Date: May 10 1991
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-1160-90
Release Date: Dec 13 1988
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-1173-90
Release Date: Jun 29 1990
Substance Released: Not reported
Release Status: Closed
Release Closed Date: Jan 8 1997

Leak Number: C-1408-01
Release Date: Nov 5 2001
Substance Released: Unknown,Unknown
Release Status: Closed
Release Closed Date: Apr 4 2002

Leak Number: C-1613-92
Release Date: Sep 4 1992
Substance Released: Unknown
Release Status: Closed
Release Closed Date: Oct 1 1991

UST:
Facility ID: 00002763
Facility Type: ACTIVE
Latitude: 43.0351840000
Longitude: -83.6888070000
Owner Name: General Motors Corp Nao-Flint Operations
Owner Address: M/C 485-118-230 902 E Hamilton Ave
Owner City,St,Zip: Flint, MI 48550
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (810) 236-0300

BUILDING 16 (Continued) **U000253375**

Contact:	Robert S Metcalf P E
Contact Phone:	(810) 236-0300
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	059/86
Tank Status:	**Removed from Ground**
Capacity:	6000
Install Date:	May 5 1964
Product:	Gasoline
Remove Date:	Jan 1 1988
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	110/36
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1980
Product:	Gasoline
Remove Date:	Jan 1 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	111/36
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1980
Product:	Gasoline
Remove Date:	Jan 1 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	147/60
Tank Status:	**Closed in Ground**
Capacity:	100000
Install Date:	Jan 1 1955

BUILDING 16 (Continued) **U000253375**

Product: Used Oil,
Remove Date: Jan 1 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Gravity Fed?
Constr Material: Concrete,Lined Interier
Impressed Device: No

Tank ID: 196/36
Tank Status: **Currently In Use**
Capacity: 12000
Install Date: May 5 1978
Product: WASTE H20
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Concrete
Impressed Device: No

Tank ID: 072/40N
Tank Status: **Removed from Ground**
Capacity: 10000
Install Date: May 5 1946
Product: WASTE SOLV.
Remove Date: Sep 7 1990
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 066/02
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1954
Product: Gasoline
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 096/84
Tank Status: **Removed from Ground**
Capacity: 6000
Install Date: May 5 1972
Product: Gasoline,WASTE GAS

BUILDING 16 (Continued) **U000253375**

Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 095/84
Tank Status: Removed from Ground
Capacity: 6000
Install Date: May 5 1972
Product: Gasoline,WINTER GAS
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 197/36
Tank Status: Currently In Use
Capacity: 3000
Install Date: May 6 1971
Product: WASTE H20
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel,Unknown
Piping Type: Not reported
Constr Material: Concrete
Impressed Device: No

Tank ID: 100-1
Tank Status: Removed from Ground
Capacity: 580
Install Date: Jan 1 1950
Product: WATER
Remove Date: Jul 20 2000
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 004/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: Gasoline
Remove Date: Jul 9 1991

BUILDING 16 (Continued) **U000253375**

Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 007/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: HYDRAULIC
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 016/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: Hazardous Substance,SOLUBLE,0
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 019/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: Hazardous Substance
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 123/38
Tank Status: Removed from Ground
Capacity: 6000
Install Date: May 5 1980
Product: Gasoline
Remove Date: Jan 1 1990
Tank Release Detection: Not reported

BUILDING 16 (Continued) **U000253375**

Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 086/31T
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1960
Product: Gasoline
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 009/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: MOTOR OIL
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 017/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: Hazardous Substance
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 094/84
Tank Status: Removed from Ground
Capacity: 6000
Install Date: May 5 1972
Product: Gasoline,SUMMER GAS
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported

BUILDING 16 (Continued) **U000253375**

Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 103/84
Tank Status: Removed from Ground
Capacity: 15000
Install Date: May 5 1954
Product: Gasoline
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 090/31T
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1960
Product: 106 PS THINNER,Hazardous Substance
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 100-2
Tank Status: Removed from Ground
Capacity: 320
Install Date: Jan 1 1950
Product: WATER
Remove Date: Jul 20 2000
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 049/43
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1936
Product: Gasoline
Remove Date: Dec 1 1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel

BUILDING 16 (Continued) **U000253375**

Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 051/88
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1936
Product: Hazardous Substance
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 053/88
Tank Status: Closed in Ground
Capacity: 12000
Install Date: May 5 1936
Product: Hazardous Substance
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 055/88
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1936
Product: Hazardous Substance
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 097/84
Tank Status: Removed from Ground
Capacity: 6000
Install Date: May 6 1971
Product: Gasoline
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported

BUILDING 16 (Continued) **U000253375**

Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 100/84
Tank Status: Removed from Ground
Capacity: 6
Install Date: May 5 1966
Product: Gasoline
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 005/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: Gasoline
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 012/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: Jan 1 1954
Product: MOTOR OIL
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: H2
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jan 1 1986
Product: UNKOWN
Remove Date: Oct 16 2001
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel

BUILDING 16 (Continued) **U000253375**

Impressed Device: No

Tank ID: H3
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jan 1 1986
Product: UNKOWN
Remove Date: Oct 16 2001
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 114
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Jan 1 1946
Product: HYPOID (GEAR-OIL)
Remove Date: Jan 1 1982
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 115
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Dec 1 1946
Product: UNK
Remove Date: Oct 2 2002
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 75
Tank Status: Removed from Ground
Capacity: 900
Install Date: Jan 1 1953
Product: UNK
Remove Date: Jan 1 1982
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Unknown
Impressed Device: No

BUILDING 16 (Continued) **U000253375**

Tank ID: 1001
Tank Status: Removed from Ground
Capacity: 20000
Install Date: May 5 1941
Product: Used Oil
Remove Date: Jan 1 1990
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 002/38
Tank Status: Removed from Ground
Capacity: 3000
Install Date: May 5 1964
Product: Gasoline
Remove Date: Oct 1 1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 010/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: MOTOR OIL
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: SA-01
Tank Status: NON-Registered Tank
Capacity: Not reported
Install Date: Not reported
Product: Not reported
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 014/37

BUILDING 16 (Continued) **U000253375**

Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	Jan 1 1954
Product:	Hazardous Substance
Remove Date:	Jul 9 1991
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	018/37
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1950
Product:	MOTOR OIL
Remove Date:	Jul 9 1991
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	027/43
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1956
Product:	Hazardous Substance
Remove Date:	Dec 19 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Concrete
Impressed Device:	No

Tank ID:	032/43
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1956
Product:	Hazardous Substance
Remove Date:	Dec 1 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	035/30
Tank Status:	**Removed from Ground**

BUILDING 16 (Continued) **U000253375**

Capacity:	12000
Install Date:	May 5 1945
Product:	Hazardous Substance
Remove Date:	Dec 1 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	015/37
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	Jan 1 1954
Product:	P47/WAY OIL
Remove Date:	Jul 9 1991
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	037/30
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1945
Product:	Hazardous Substance
Remove Date:	Dec 1 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	052/88
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1936
Product:	Hazardous Substance
Remove Date:	Nov 1 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	025/20E
Tank Status:	**Removed from Ground**
Capacity:	200000

BUILDING 16 (Continued) **U000253375**

Install Date: May 5 1942
Product: Diesel
Remove Date: Jan 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Concrete
Impressed Device: No

Tank ID: 083/31T
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1960
Product: Hazardous Substance
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 085/31T
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1960
Product: Hazardous Substance
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 089/31T
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1960
Product: 55 PS THINNER,Hazardous Substance
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 029/43
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1956

BUILDING 16 (Continued) **U000253375**

Product: Hazardous Substance
Remove Date: Dec 19 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 036/30
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1945
Product: Hazardous Substance
Remove Date: Dec 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 001/38
Tank Status: **Removed from Ground**
Capacity: 500
Install Date: May 6 1971
Product: Diesel
Remove Date: Oct 1 1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 003/37
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1950
Product: Hazardous Substance,THINNER,0
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 008/37
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: May 5 1950
Product: MOTOR OIL

BUILDING 16 (Continued) **U000253375**

Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 011/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: Jan 1 1954
Product: MOTOR OIL
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 013/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: Jan 1 1954
Product: Hazardous Substance
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: H4
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jan 1 1986
Product: UNKOWN
Remove Date: Oct 16 2001
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 100-3
Tank Status: Removed from Ground
Capacity: 580
Install Date: Jan 1 1950
Product: WATER
Remove Date: Jul 20 2000

BUILDING 16 (Continued) **U000253375**

Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 006/37
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1950
Product: HYDRAULIC
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 028/43
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1956
Product: Hazardous Substance
Remove Date: Dec 19 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Concrete
Impressed Device: No

Tank ID: 050/88
Tank Status: Closed in Ground
Capacity: 12000
Install Date: May 5 1936
Product: Hazardous Substance
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 054/88
Tank Status: Closed in Ground
Capacity: 12000
Install Date: May 5 1936
Product: Used Oil
Remove Date: Nov 1 1989
Tank Release Detection: Not reported

BUILDING 16 (Continued) **U000253375**

Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 057/88
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1936
Product: Hazardous Substance
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: H5
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jan 1 1986
Product: UNKOWN
Remove Date: Oct 16 2001
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 113
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Jan 1 1946
Product: TRANSMISSION/FLUID
Remove Date: Jan 1 1982
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 098/84
Tank Status: Removed from Ground
Capacity: 6000
Install Date: May 6 1971
Product: Hazardous Substance
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported

BUILDING 16 (Continued) **U000253375**

Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 101/84
Tank Status: Removed from Ground
Capacity: 15000
Install Date: May 5 1954
Product: Gasoline
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 102/84
Tank Status: Removed from Ground
Capacity: 15000
Install Date: May 5 1954
Product: Gasoline
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 133/31
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 6 1979
Product: Diesel
Remove Date: Jan 1 1990
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 195/36
Tank Status: Currently In Use
Capacity: 12000
Install Date: May 5 1978
Product: WASTE H20
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel

BUILDING 16 (Continued) **U000253375**

Piping Type: Not reported
Constr Material: Concrete
Impressed Device: No

Tank ID: 030/43
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1956
Product: Hazardous Substance
Remove Date: Dec 19 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 033/43
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1956
Product: Hazardous Substance
Remove Date: Dec 19 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 132/31
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 6 1979
Product: Diesel
Remove Date: Jan 1 1990
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 0056/88
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1936
Product: Hazardous Substance
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported

BUILDING 16 (Continued) **U000253375**

Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 031/43
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1956
Product: Hazardous Substance
Remove Date: Dec 19 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 058/88
Tank Status: Removed from Ground
Capacity: 3000
Install Date: May 5 1936
Product: Gasoline
Remove Date: Nov 1 1989
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: H1
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jan 1 1986
Product: UNKOWN
Remove Date: Oct 15 2001
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 071/40N
Tank Status: Closed in Ground
Capacity: 10000
Install Date: May 5 1946
Product: TRANS. OIL
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel

BUILDING 16 (Continued) **U000253375**

Impressed Device: No

Tank ID: 073/40N
Tank Status: Currently In Use
Capacity: Not reported
Install Date: Not reported
Product: Not reported
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 088/31T
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1960
Product: Hazardous Substance
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 074/40N
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1946
Product: Not reported
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 081/31T
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1960
Product: Gasoline
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

BUILDING 16 (Continued) **U000253375**

Tank ID: 082/31T
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1960
Product: Gasoline,0
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 084/31T
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 5 1960
Product: Hazardous Substance
Remove Date: Apr 1 1986
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: NRT16-1003
Tank Status: Removed from Ground
Capacity: 260
Install Date: Not reported
Product: Not reported
Remove Date: Jan 6 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

Tank ID: 099/84
Tank Status: Removed from Ground
Capacity: 15000
Install Date: May 6 1971
Product: Used Oil,0
Remove Date: Jul 9 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 148/60

BUILDING 16 (Continued) **U000253375**

Tank Status:	**Closed in Ground**
Capacity:	100000
Install Date:	Jan 1 1955
Product:	Used Oil,
Remove Date:	Jan 1 1991
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Gravity Fed?
Constr Material:	Concrete,Lined Interier
Impressed Device:	No

Tank ID:	087/31T
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1960
Product:	Hazardous Substance
Remove Date:	Apr 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	073/40#N
Tank Status:	**Removed from Ground**
Capacity:	10000
Install Date:	May 5 1946
Product:	WASTE SOLV.
Remove Date:	Apr 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	024/2OE
Tank Status:	**Removed from Ground**
Capacity:	200000
Install Date:	May 5 1942
Product:	Used Oil,
Remove Date:	Aug 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Concrete
Impressed Device:	No

Tank ID:	091/31T
Tank Status:	**Removed from Ground**

BUILDING 16 (Continued) **U000253375**

Capacity:	12000
Install Date:	May 5 1960
Product:	93 PS THINNER,Hazardous Substance
Remove Date:	Apr 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

A101 **GMC BOC FLINT AUTOMOTIVE DIV** **RCRA-TSDF** **1000104874**
Target **902 E HAMILTON DIV 14** **CORRACTS** **48550BCFLN90**
Property **FLINT, MI 48550** **RCRA-LQG**
TRIS
Site 101 of 103 in cluster A **PADS**
FINDS
Actual: **MANIFEST**
742 ft.

RCRA-TSDF:

Date form received by agency:	02/27/2008
Facility name:	GENERAL MOTORS CORPORATION
Facility address:	902 E LEITH ST FLINT, MI 48505
EPA ID:	MID005356712
Contact:	APURVA PUJARA
Contact address:	902 E LEITH ST FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(810) 236-3436
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
TSD commencement date:	Not reported
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	GENERAL MOTORS CORPORATION
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Owner/operator name: GMPT FLINT NORTH
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: Yes
Generated waste on-site: Yes

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: Yes
Generated waste on-site: Yes

Waste type: MERCURY SWITCHES
Accumulated waste on-site: Yes
Generated waste on-site: Yes

Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: Yes

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: Yes

Waste type: Pesticides
Accumulated waste on-site: No

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: Yes

Historical Generators:
Date form received by agency: 04/27/2007
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/01/2006
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/28/2006
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/01/2004
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/27/2004
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 04/28/2003
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/01/2002
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/28/2002
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/02/2000
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/28/2000
Facility name: GENERAL MOTORS CORPORATION
Site name: GMC NAO FLINT OPERATIONS
Classification: Large Quantity Generator

Date form received by agency: 02/10/1998
Facility name: GENERAL MOTORS CORPORATION
Site name: GMC, NAO FLINT OPERATIONS
Classification: Large Quantity Generator

Date form received by agency: 02/21/1996
Facility name: GENERAL MOTORS CORPORATION
Site name: GMC, NAO FLINT OPERATIONS
Classification: Large Quantity Generator

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Date form received by agency: 01/18/1995
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/09/1994
Facility name: GENERAL MOTORS CORPORATION
Site name: GMC, NAO FLINT OPERATIONS
Classification: Large Quantity Generator

Date form received by agency: 02/25/1992
Facility name: GENERAL MOTORS CORPORATION
Site name: GMC - BOC FLINT OPERATIONS
Classification: Large Quantity Generator

Date form received by agency: 02/22/1990
Facility name: GENERAL MOTORS CORPORATION
Site name: GMC - BOC FLINT OPERATIONS
Classification: Large Quantity Generator

Date form received by agency: 11/16/1980
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: GENERAL MOTORS CORPORATION
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2007

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 10160.3

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 390.1

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Amount (Lbs): 24.9

Waste code: D004
Waste name: ARSENIC
Amount (Lbs): 13197.7

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 15004.7

Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 1600

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 1616.6

Waste code: D008
Waste name: LEAD
Amount (Lbs): 1616.6

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 93.6

Waste code: D011
Waste name: SILVER
Amount (Lbs): 16.6

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 871.5

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 4059.1

Waste code: D039
Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 550

Waste code: D040
Waste name: TRICHLOROETHYLENE
Amount (Lbs): 591.5

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Amount (Lbs): 3776.6

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 1909.1

Waste code: U228
Waste name: ETHENE, TRICHLORO-
Amount (Lbs): 41.5

Corrective Action Summary:

Event date: 09/23/1988
Event: RFA Completed

Event date: 03/31/1992
Event: CA Prioritization, Facility or area was assigned a high corrective action priority.

Event date: 09/10/1992
Event: Stabilization Measures Evaluation,This facility is not amenable to stabilization activity because of a lack of technical data. An evaluation has been completed, but further data is necessary to determine stabilization measures, feasibility or appropriateness. This status should be changed when data becomes available.

Event date: 06/12/1995
Event: RFI Imposition, Focused data collection required for stabilization evaluation.

Event date: 05/28/1998
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 02/22/2000
Event: Igration of Contaminated Groundwater under Control, More information is needed to make a determination.

Event date: 03/01/2000
Event: RFI Imposition, Focused data collection required for stabilization evaluation.

Event date: 07/20/2001

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Event: CA005EE

Event date: 08/17/2004
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 09/29/2005
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Not reported
Date violation determined: Not reported
Date achieved compliance: Not reported
Violation lead agency: Not reported
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 03/20/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/13/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 11/05/2004
Date achieved compliance: 01/03/2005
Violation lead agency: State

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/08/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 04/14/2004
Date achieved compliance: 01/03/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/14/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 04/14/2004
Date achieved compliance: 01/03/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/14/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 04/14/2004
Date achieved compliance: 01/03/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/14/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 07/22/2003
Date achieved compliance: 03/15/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Enforcement action date: 07/24/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 07/22/2003
Date achieved compliance: 03/15/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/24/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 03/13/2002
Date achieved compliance: 04/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/15/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 03/13/2002
Date achieved compliance: 04/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/15/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 03/13/2002
Date achieved compliance: 04/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/15/2002

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 12/20/2000
Date achieved compliance: 01/24/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/20/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 12/29/1998
Date achieved compliance: 09/09/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/29/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/29/1998
Date achieved compliance: 09/09/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/29/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 07/17/1995
Date achieved compliance: 06/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/17/1995
Enf. disposition status: Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 04/12/1994
Date achieved compliance: 06/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/12/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 04/12/1994
Date achieved compliance: 06/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/17/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/05/1993
Date achieved compliance: 05/24/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/05/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 04/05/1993
Date achieved compliance: 05/24/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/05/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 02/08/1990
Date achieved compliance: 08/14/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/12/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 03/29/1989
Date achieved compliance: 06/06/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/07/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 01/04/1989
Date achieved compliance: 07/20/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/07/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 09/03/1986
Date achieved compliance: 01/22/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/16/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 08/29/1985
Date achieved compliance: 09/23/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/30/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 07/17/1984
Date achieved compliance: 09/05/1984
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 07/17/1984
Date achieved compliance: 09/05/1984
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 09/19/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/14/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Evaluation lead agency: State

Evaluation date: 08/28/2007
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/22/2006
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/20/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/05/2004
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Used Oil - Generators
Date achieved compliance: 01/03/2005
Evaluation lead agency: State

Evaluation date: 03/30/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 01/03/2005
Evaluation lead agency: State

Evaluation date: 03/30/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 01/03/2005
Evaluation lead agency: State

Evaluation date: 03/30/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 01/03/2005
Evaluation lead agency: State

Evaluation date: 07/22/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 03/15/2004
Evaluation lead agency: State

Evaluation date: 07/22/2003

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 03/15/2004
Evaluation lead agency: State

Evaluation date: 09/20/2002
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/13/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/19/2002
Evaluation lead agency: State

Evaluation date: 03/13/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 04/19/2002
Evaluation lead agency: State

Evaluation date: 03/13/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 04/19/2002
Evaluation lead agency: State

Evaluation date: 12/19/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 01/24/2001
Evaluation lead agency: State

Evaluation date: 12/10/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/30/1999
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/17/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/09/1999
Evaluation lead agency: State

Evaluation date: 12/17/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 09/09/1999

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Evaluation lead agency: State

Evaluation date: 04/16/1998
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/01/1997
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/14/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/29/1996
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Generators - General
Date achieved compliance: 06/11/1996
Evaluation lead agency: State

Evaluation date: 05/29/1996
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - General
Date achieved compliance: 06/11/1996
Evaluation lead agency: State

Evaluation date: 08/21/1995
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/11/1996
Evaluation lead agency: State

Evaluation date: 06/30/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 06/11/1996
Evaluation lead agency: State

Evaluation date: 03/18/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 06/11/1996
Evaluation lead agency: State

Evaluation date: 09/30/1993

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/14/1993
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/31/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 05/24/1993
Evaluation lead agency: State

Evaluation date: 03/31/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/24/1993
Evaluation lead agency: State

Evaluation date: 09/21/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/04/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/30/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/07/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/30/1990
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/08/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 08/14/1990

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Evaluation lead agency: State

Evaluation date: 02/08/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/12/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/02/1989
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 06/06/1989
Evaluation lead agency: State

Evaluation date: 01/04/1989
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 07/20/1989
Evaluation lead agency: State

Evaluation date: 09/16/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/16/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/21/1987
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/03/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/22/1987
Evaluation lead agency: State

Evaluation date: 04/01/1986

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 08/29/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/23/1985
Evaluation lead agency: State

Evaluation date: 07/17/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 09/05/1984
Evaluation lead agency: State

Evaluation date: 07/17/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/05/1984
Evaluation lead agency: State

Evaluation date: 09/30/1983
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CORRACTS:

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 2/22/2000
Action: CA750IN - Migration of Contaminated Groundwater under Control, More information is needed to make a determination
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 3/1/2000
Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Area Name: ENTIRE FACILITY
Actual Date: 3/31/1992
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 5/28/1998
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 6/12/1995
Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 8/17/2004
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 9/10/1992
Action: CA225IN - Stabilization Measures Evaluation, This facility is not, amenable to stabilization activity because of, a lack of technical data. An evaluation has been completed, but further data is necessary to determine stabilization measures, feasibility or appropriateness. This status should be changed when data becomes available
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 9/23/1988
Action: CA050 - RFA Completed
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005356712
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 9/29/2005
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 336312 33635
Gasoline Engine and Engine Parts Manufacturing
Motor Vehicle Transmission and Power Train Parts Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

FINDS:

Registry ID: 110000407649

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

NY MANIFEST:

EPA ID:	MID005356712
Country:	USA
Mailing Name:	GENERAL MOTORS CORP
Mailing Contact:	DANIEL S HARRETT
Mailing Address:	902 E HAMILTON AVE
Mailing Address 2:	Not reported
Mailing City:	FLINT
Mailing State:	MI
Mailing Zip:	48550
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	313-236-3436

Document ID:	NYG2984112
Manifest Status:	Not reported
Trans1 State ID:	0629746ME
Trans2 State ID:	Not reported
Generator Ship Date:	02/12/2004
Trans1 Recv Date:	02/12/2004
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	02/16/2004
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	OHD068913409
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	03789
Units:	P - Pounds
Number of Containers:	018

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	04
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984121
Manifest Status:	Not reported
Trans1 State ID:	0629753ME
Trans2 State ID:	Not reported
Generator Ship Date:	03/24/2004
Trans1 Recv Date:	03/24/2004
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	03/29/2004
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	OHD068913409
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	02741
Units:	P - Pounds
Number of Containers:	014
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00784
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	007
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Year:	04
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984148
Manifest Status:	Not reported
Trans1 State ID:	0629753ME
Trans2 State ID:	Not reported
Generator Ship Date:	05/12/2004
Trans1 Recv Date:	05/12/2004
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	05/13/2004
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	OHD068913409
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01858
Units:	P - Pounds
Number of Containers:	009
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	00689
Units:	P - Pounds
Number of Containers:	002
Container Type:	CF - Fiber or plastic boxes, cartons
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	04
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984157
Manifest Status:	Not reported
Trans1 State ID:	0629753ME
Trans2 State ID:	Not reported
Generator Ship Date:	07/23/2004
Trans1 Recv Date:	07/23/2004
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	07/26/2004
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Generator EPA ID:	MID005356712
Trans1 EPA ID:	OHD068913409
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01406
Units:	P - Pounds
Number of Containers:	008
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	04
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984337
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	02/23/2005
Trans1 Recv Date:	02/23/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	02/25/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	01663
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	007
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00172
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00163
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	02177
Units:	P - Pounds
Number of Containers:	009
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984337
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	02/23/2005
Trans1 Recv Date:	02/23/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	02/25/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00440
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	B004 - PCB ARTICLES WITH 50 PPM BUT < 500 PPM
Quantity:	00249
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985516
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	03/30/2005
Trans1 Recv Date:	03/30/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	04/04/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TM
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00415
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00649
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01559
Units:	P - Pounds

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985534
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	04/25/2005
Trans1 Recv Date:	04/25/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	04/29/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TM
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01760
Units:	P - Pounds
Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	05633
Units:	P - Pounds
Number of Containers:	008
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00253
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00226
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985543
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	06/13/2005
Trans1 Recv Date:	06/13/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	06/16/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T717060TM
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01251
Units:	P - Pounds
Number of Containers:	008
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00051
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00326
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	004
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985552
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	07/26/2005
Trans1 Recv Date:	07/26/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	08/01/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	TH7060TM
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	00411
Units:	P - Pounds
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00281
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00046
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985561
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	09/12/2005
Trans1 Recv Date:	09/12/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	09/14/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	TH7060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	00904
Units:	P - Pounds
Number of Containers:	008
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00156
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	00514
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985579
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	10/20/2005
Trans1 Recv Date:	10/20/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	10/24/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01136
Units:	P - Pounds
Number of Containers:	009
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00614
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00208
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00134
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985588
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	10/20/2005
Trans1 Recv Date:	10/20/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	10/24/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T112060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00190
Units:	K - Kilograms (2.2 pounds)

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00038
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00338
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985597
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	12/05/2005
Trans1 Recv Date:	12/05/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	12/06/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	7717060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	00845
Units:	P - Pounds

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	004
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985606
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	12/05/2005
Trans1 Recv Date:	12/05/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	12/06/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	7717060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00104
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00303
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	004
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00145
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	Not reported
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYB7947234
Manifest Status:	Completed copy
Trans1 State ID:	5084BGOK
Trans2 State ID:	Not reported
Generator Ship Date:	950630
Trans1 Recv Date:	950630
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950705
Part A Recv Date:	950713
Part B Recv Date:	950719
Generator EPA ID:	MID005356712
Trans1 EPA ID:	ARD981908551
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	02059
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	018
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00072
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00335
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	95
Manifest Tracking Num:	Not reported
Import Ind:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYB7405506
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	0075
Trans2 State ID:	12074PNY
Generator Ship Date:	951107
Trans1 Recv Date:	951107
Trans2 Recv Date:	951117
TSD Site Recv Date:	951120
Part A Recv Date:	951211
Part B Recv Date:	951213
Generator EPA ID:	MID005356712
Trans1 EPA ID:	ILD099202681
Trans2 EPA ID:	NYD980769947
TSDF ID:	NYD049836679
Waste Code:	B005 - PCB ARTICLES WITH 500 PPM OR > PCB
Quantity:	00071
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	03074
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	017
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	95
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984337
Manifest Status:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	02/23/2005
Trans1 Recv Date:	02/23/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	02/25/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	01663
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	007
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00172
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00163
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	02177
Units:	P - Pounds
Number of Containers:	009
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	L Landfill.
Specific Gravity:	Not reported
Year:	2005
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2984337
Manifest Status:	Not reported
Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	02/23/2005
Trans1 Recv Date:	02/23/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	02/25/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TN
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00440
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	B004 - PCB ARTICLES WITH 50 PPM BUT < 500 PPM
Quantity:	00249
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	Not reported
Year:	2005
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYG2985516
Manifest Status:	Not reported

GMC BOC FLINT AUTOMOTIVE DIV (Continued) **1000104874**

Trans1 State ID:	OHD068913409
Trans2 State ID:	Not reported
Generator Ship Date:	03/30/2005
Trans1 Recv Date:	03/30/2005
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	04/04/2005
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID005356712
Trans1 EPA ID:	T117060TM
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	00415
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	01.00
Waste Code:	B002 - PETROLEUM OIL WITH 50 BUT < 500 PPM PCB
Quantity:	00649
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	01.00
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	01559
Units:	P - Pounds
Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	Not reported
Year:	2005
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Click this hyperlink while viewing on your computer to access
37 additional NY_MANIFEST: record(s) in the EDR Site Report.

A102 **GENERAL MOTORS - NAO FLINT OPERATIONS** **ICIS** **1011621931**
Target **902 EAST HAMILTON AVENUE FLINT MI 485508502** **N/A**
Property **FLINT, MI 48550**

Site 102 of 103 in cluster A

Actual:
742 ft.

ICIS:

Enforcement Action ID:	05-2000-0252
FRS ID:	110000407649
Program ID:	NEI NEI11898
Action Name:	GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name:	Not reported
Facility Address:	902 EAST HAMILTON AVENUE FLINT MI 485508502 FLINT, Michigan 485508502
Enforcement Action Type:	RCRA 3008H AO For Corrective Action
Facility County:	Genesee
EPA Region #:	6

Enforcement Action ID:	05-2000-0252
FRS ID:	110000407649
Program ID:	NEI NEIMI14422
Action Name:	GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name:	Not reported
Facility Address:	902 EAST HAMILTON AVENUE FLINT MI 485508502 FLINT, Michigan 485508502
Enforcement Action Type:	RCRA 3008H AO For Corrective Action
Facility County:	Genesee
EPA Region #:	6

Enforcement Action ID:	05-2000-0252
FRS ID:	110000407649
Program ID:	FRS 110000407649
Action Name:	GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name:	GENERAL MOTORS CORP
Facility Address:	902 EAST HAMILTON AVENUE FLINT MI 485508502 FLINT, Michigan 485508502
Enforcement Action Type:	RCRA 3008H AO For Corrective Action
Facility County:	Genesee
EPA Region #:	6

Enforcement Action ID:	05-2000-0252
FRS ID:	110000407649
Program ID:	NEI NTI11898
Action Name:	GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name:	GENERAL MOTORS CORP
Facility Address:	902 EAST HAMILTON AVENUE FLINT MI 485508502 FLINT, Michigan 485508502
Enforcement Action Type:	RCRA 3008H AO For Corrective Action
Facility County:	Genesee
EPA Region #:	6

Enforcement Action ID:	05-2000-0252
FRS ID:	110000407649
Program ID:	NEI NTIMI14422
Action Name:	GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name:	GENERAL MOTORS CORP
Facility Address:	902 EAST HAMILTON AVENUE FLINT MI 485508502 FLINT, Michigan 485508502
Enforcement Action Type:	RCRA 3008H AO For Corrective Action

GENERAL MOTORS - NAO FLINT OPERATIONS (Continued) **1011621931**

Facility County: Genesee
EPA Region #: 6

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: NET 260490014
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GENERAL MOTORS CORP
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: NTI NTI11898
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GENERAL MOTORS CORP
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: PCS MI0001597
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GM-POWERTRAIN FLINT NORTH
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: RCRAINFO MIT270010044
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GMC BUICK MOTOR DIV
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: RCRAINFO MID005356712
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GMC NAO FLINT OPERATIONS
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

GENERAL MOTORS - NAO FLINT OPERATIONS (Continued) **1011621931**

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: TRIS 48550BCFLN902EH
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GMC NAO FLINT OPS.
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

Enforcement Action ID: 05-2000-0252
FRS ID: 110000407649
Program ID: AIRS/AFS 2604900014
Action Name: GENERAL MOTORS - NAO FLINT OPERATIONS
Facility Name: GMC-FLINT NORTH POWERTRAIN
Facility Address: 902 EAST HAMILTON AVENUE FLINT MI 485508502
FLINT, Michigan 485508502
Enforcement Action Type: RCRA 3008H AO For Corrective Action
Facility County: Genesee
EPA Region #: 6

Program ID: AIRS/AFS 2604900014
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: FRS 110000407649
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: NEI NEI11898
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: NEI NEIMI14422
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: NEI NTI11898
Facility Name: GENERAL MOTORS CORP

GENERAL MOTORS - NAO FLINT OPERATIONS (Continued) **1011621931**

Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: NEI NTIMI14422
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: NET 260490014
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: NTI NTI11898
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: PCS MI0001597
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: RCRAINFO MID005356712
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: RCRAINFO MIT270010044
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

Program ID: TRIS 48550BCFLN902EH
Facility Name: GENERAL MOTORS CORP
Address: 902 EAST HAMILTON AVENUE

GENERAL MOTORS - NAO FLINT OPERATIONS (Continued) **1011621931**

Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 3711

A103 **SPILLS** **S105975825**
Target Property **902 E. HAMILTON** **N/A**
FLINT, MI

Site 103 of 103 in cluster A

Actual: 742 ft.

MI PEAS:
Incident Date: 07/07/2000
Date Of PEAS Call: 07/09/2000
Complainant / Company: Stacie Fejes w/GM NAO, Flint Site
Complainant Address: 902 E. Hamilton
Company Involved: Stacie Fejes w/GM NAO, Flint Site
DEQ Division Involved: SWQD
Incident Description: A process waste line broke underground. It bubbled up through the stormsewer mats. Approximately 300 gallons of waste water was discharged.They put sewer mats in place and stopped the off-load of the pipe.
Description: Not reported

B104 **GM POWERTRAIN FLINT NORTH** **AST** **A100269063**
902 E LEITH ST **N/A**
< 1/8 **FLINT, MI 48550**
1 ft.

Site 1 of 11 in cluster B

Relative: Higher

Actual: 746 ft.

AST:
Type: ACTIVE
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550
Owner County: USA
Owner Contact: Not reported
Owner Telephone: (810) 236-6427
Facility ID: 91025106
District: Lansing District Office
Contact: Sharon Sawyer
Facility Phone: (810) 234-6073
Tank ID: 12
Tank Status: Removed from Premises
Capacity: 20000
Install Date: Not reported
Close Date: Jul 1 2003
Content: Flammable Liquid
Latitude: 43.0352880000
Longitude: -83.6888200000
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Description of Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Nu

Type: ACTIVE
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550
Owner County: USA
Owner Contact: Not reported
Owner Telephone: (810) 236-6427
Facility ID: 91025106
District: Lansing District Office
Contact: Sharon Sawyer
Facility Phone: (810) 234-6073
Tank ID: 13
Tank Status: Removed from Premises
Capacity: 20000
Install Date: Not reported
Close Date: Jul 1 2003
Content: Flammable Liquid
Latitude: 43.0352880000
Longitude: -83.6888200000
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Description of Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Nu

Type: ACTIVE
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550
Owner County: USA
Owner Contact: Not reported
Owner Telephone: (810) 236-6427
Facility ID: 91025106
District: Lansing District Office
Contact: Sharon Sawyer
Facility Phone: (810) 234-6073
Tank ID: 44-3
Tank Status: Removed from Premises
Capacity: 12000
Install Date: Not reported
Close Date: Jul 1 2003
Content: Flammable Liquid
Latitude: 43.0352880000
Longitude: -83.6888200000
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Description of Category: Plant Entrance (Freight)

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Method of Collection: Address Matching-House Nu

Type: ACTIVE
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550
Owner County: USA
Owner Contact: Not reported
Owner Telephone: (810) 236-6427
Facility ID: 91025106
District: Lansing District Office
Contact: Sharon Sawyer
Facility Phone: (810) 234-6073
Tank ID: 44-4
Tank Status: Removed from Premises
Capacity: 12000
Install Date: Not reported
Close Date: Jul 1 2003
Content: Flammable Liquid
Latitude: 43.0352880000
Longitude: -83.6888200000
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Description of Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Nu

Type: ACTIVE
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550
Owner County: USA
Owner Contact: Not reported
Owner Telephone: (810) 236-6427
Facility ID: 91025106
District: Lansing District Office
Contact: Sharon Sawyer
Facility Phone: (810) 234-6073
Tank ID: 44-5
Tank Status: Removed from Premises
Capacity: 12000
Install Date: Not reported
Close Date: Jul 1 2003
Content: Flammable Liquid
Latitude: 43.0352880000
Longitude: -83.6888200000
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Description of Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Nu

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	44-8
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	44-9
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	84-6
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	9-02
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	17-02
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	20-02
Tank Status:	Removed from Premises
Capacity:	7500
Install Date:	Jan 1 1991
Close Date:	May 1 2003
Content:	Liquid Propane
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	20-03
Tank Status:	Removed from Premises
Capacity:	7500
Install Date:	Not reported
Close Date:	May 1 2003
Content:	Liquid Propane
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	43-10
Tank Status:	Currently In Use
Capacity:	10000
Install Date:	Not reported
Close Date:	Not reported
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	44-10
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	44-12
Tank Status:	Removed from Premises
Capacity:	12000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	44-13
Tank Status:	Removed from Premises
Capacity:	20000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	86-01
Tank Status:	Currently In Use
Capacity:	2500
Install Date:	Not reported
Close Date:	Not reported
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	T84-4
Tank Status:	Removed from Premises
Capacity:	15000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	84-3-4
Tank Status:	Removed from Premises
Capacity:	15000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	Flammable Liquid
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	84-1-1A
Tank Status:	Removed from Premises
Capacity:	15000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	SPLIT TANK (2)
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	84-2ABC
Tank Status:	Removed from Premises
Capacity:	5000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	3 COMPARTMENT
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	84-5-5A
Tank Status:	Removed from Premises
Capacity:	15000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	SPLIT TANK (2)
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	84-7-7A
Tank Status:	Removed from Premises
Capacity:	15000
Install Date:	Not reported
Close Date:	Jul 1 2003
Content:	SPLIT TANK (2)
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	T37-5AB
Tank Status:	Currently In Use
Capacity:	15000
Install Date:	Dec 10 1990
Close Date:	Not reported
Content:	COMPARTMENT
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer
Facility Phone:	(810) 234-6073
Tank ID:	T37-6AB
Tank Status:	Currently In Use
Capacity:	15000
Install Date:	Not reported
Close Date:	Not reported
Content:	COMPARTMENT
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	GM Powertrain Flint North
Owner Address:	902 E Leith St MC:485-143-060
Owner City,St,Zip:	Flint, MI 48550
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(810) 236-6427
Facility ID:	91025106
District:	Lansing District Office
Contact:	Sharon Sawyer

GM POWERTRAIN FLINT NORTH (Continued) **A100269063**

Facility Phone:	(810) 234-6073
Tank ID:	T37-7AB
Tank Status:	Currently In Use
Capacity:	15000
Install Date:	Not reported
Close Date:	Not reported
Content:	COMPARTMENT
Latitude:	43.0352880000
Longitude:	-83.6888200000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

C105 **FLINT IND PLATING** **CERCLIS** **1003871916**
1109 E STEWART ST **MID981958978**
< 1/8 **FLINT, MI 48505**
1 ft.

Site 1 of 5 in cluster C

Relative:
Higher

Actual:
755 ft.

CERCLIS:

Site ID:	0503643
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	NFRAP

CERCLIS Site Contact Name(s):

Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	52727

Site Description: Not reported

CERCLIS Assessment History:

Action:	DISCOVERY
Date Started:	Not reported
Date Completed:	4/29/1987 0:00:00
Priority Level:	Not reported
Action:	PRELIMINARY ASSESSMENT
Date Started:	Not reported
Date Completed:	8/2/1988 0:00:00
Priority Level:	NFRAP: No further Remedial Action planned
Action:	ARCHIVE SITE
Date Started:	Not reported
Date Completed:	9/15/1999 0:00:00
Priority Level:	Not reported
Action:	Notice Letters Issued
Date Started:	Not reported
Date Completed:	8/11/2005 0:00:00
Priority Level:	Not reported

FLINT IND PLATING (Continued) **1003871916**

Action:	SITE UNARCHIVED
Date Started:	Not reported
Date Completed:	8/23/2005 10:50:25
Priority Level:	Not reported
Action:	REMOVAL
Date Started:	8/26/2005 0:00:00
Date Completed:	9/28/2005 0:00:00
Priority Level:	Cleaned up
Action:	NON-NPL PRP SEARCH
Date Started:	Not reported
Date Completed:	12/29/2006 0:00:00
Priority Level:	Not reported

B106 **902 EAST LEITH ST** **ERNS** **2008868309**
902 EAST LEITH ST **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 2 of 11 in cluster B

Relative: Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 746 ft.

B107 **902 E LEITH STREET** **ERNS** **2004719877**
902 E LEITH STREET **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 3 of 11 in cluster B

Relative: Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 746 ft.

C108 **SPILLS** **S105975309**
1102 E. STEWART AVE. **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 2 of 5 in cluster C

Relative: Higher

Actual: 755 ft.

MI PEAS:

Incident Date:	04/04/2000
Date Of PEAS Call:	04/05/2000
Complainant / Company:	Tom Griffith w/Consumers Energy
Complainant Address:	3201 E. Court St.
Company Involved:	Tom Griffith w/Consumers Energy
DEQ Division Involved:	ERD
Incident Description:	Purging a new gas station by using a vent upside the building. There was arelease of 25 gallons of antifreeze to the top of the building and the ground.
Description:	Not reported

B109 **902 EAST LEITH ST** **ERNS** **2003701330**
902 EAST LEITH ST **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 4 of 11 in cluster B

Relative: Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 746 ft.

C110 **MI DEPT/ENVIRONMENTAL QUALITY** **RCRA-NonGen** **1000321676**
1109 E STEWART AVE **FINDS** **MID005362637**
< 1/8 **FLINT, MI 48505**
1 ft.

Site 3 of 5 in cluster C

Relative: Higher

Actual: 755 ft.

RCRA-NonGen:

Date form received by agency:	02/22/2008
Facility name:	MI DEPT/ENVIRONMENTAL QUALITY
Facility address:	1109 E STEWART AVE FLINT, MI 48505
EPA ID:	MID005362637
Mailing address:	P O BOX 30426 LANSING, MI 48909
Contact:	DAVID LABRECQUE
Contact address:	1109 E STEWART AVE FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(517) 335-6229
Contact email:	Not reported
EPA Region:	05
Land type:	Other land type
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	08/01/2007
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	08/01/2007
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No

MI DEPT/ENVIRONMENTAL QUALITY (Continued) **1000321676**

Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:

Date form received by agency: 07/31/2007
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Not a generator, verified

Date form received by agency: 06/07/2007
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Not a generator, verified

Date form received by agency: 05/25/2006
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Not a generator, verified

MI DEPT/ENVIRONMENTAL QUALITY (Continued) **1000321676**

Date form received by agency: 03/01/2006
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Large Quantity Generator

Date form received by agency: 09/06/2005
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Not a generator, verified

Date form received by agency: 07/15/1995
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Not a generator, verified

Date form received by agency: 09/14/1989
Facility name: MI DEPT/ENVIRONMENTAL QUALITY
Classification: Not a generator, verified

Biennial Reports:

Last Biennial Reporting Year: 2007

Annual Waste Handled:
Waste code: D008
Waste name: LEAD
Amount (Lbs): 100316.5

Waste code: F007
Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
Amount (Lbs): 919568.3

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 12/09/2004
Date achieved compliance: 09/27/2005
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 01/10/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/09/2004
Date achieved compliance: 09/27/2005
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 01/10/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

MI DEPT/ENVIRONMENTAL QUALITY (Continued) **1000321676**

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/09/2004
Date achieved compliance: 09/27/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/05/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 12/09/2004
Date achieved compliance: 09/27/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/05/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/06/1989
Date achieved compliance: 10/29/1990
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/29/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/06/1989
Date achieved compliance: 10/29/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/28/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

MI DEPT/ENVIRONMENTAL QUALITY (Continued) **1000321676**

Evaluation Action Summary:

Evaluation date:	09/16/2005
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State

Evaluation date:	12/09/2004
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - Pre-transport
Date achieved compliance:	09/27/2005
Evaluation lead agency:	State

Evaluation date:	12/09/2004
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	09/27/2005
Evaluation lead agency:	State

Evaluation date:	06/06/1989
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	10/29/1990
Evaluation lead agency:	State

FINDS:

Registry ID: 110012162550

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

B111 **GM FLINT NORTH SITE** **SPILLS** **S108232691**
902 E. LEITH ST. **AIRS** **N/A**
< 1/8 **FLINT, MI 48550**
1 ft.

Site 5 of 11 in cluster B

Relative:
Higher

Actual:
746 ft.

MI PEAS:

Incident Date:	8/24/2008 10:06:00 AM
Date Of PEAS Call:	Not reported
Complainant / Company:	STACEY HELTON/GENERAL MOTORS
Complainant Address:	Not reported
Company Involved:	GM FLINT NORTH SITE
DEQ Division Involved:	Not reported
Incident Description:	Not reported
Description:	Not reported

AIRS:

State Registration Number:	A1178
Naics Code:	Not reported
Contact Name:	Not reported
Contact Phone:	Not reported
Contact Address:	GMC BUICK MOTOR DIV.
Contact City,St,Zip:	FLINT, MI
Permit Number:	156-83
Date Received:	03/18/83
State Registration Number:	A1178
Country:	Not reported
Application Reason:	FLOW COAT SYSTEM
Record Type:	Not reported
State County FIPS:	Not reported
Facility Category:	Not reported
SIC Primary:	Not reported
Tribal Code:	Not reported
EI Year:	Not reported

B112 **902 EAST LEITH ST** **ERNS** **2007311491**
902 EAST LEITH ST **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 6 of 11 in cluster B

Relative:
Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
746 ft.

C113 **FLINT PLATING** **AIRS** **S107699638**
1109 E STEWART AVENUE **N/A**
< 1/8 **FLINT, MI 48505**
1 ft.

Site 4 of 5 in cluster C

Relative:
Higher

Actual:
755 ft.

AIRS:

State Registration Number:	N0026
Naics Code:	Not reported
Contact Name:	RICHARD HICKS
Contact Phone:	(810) 785-5371
Contact Address:	FLINT PLATING
Contact Address 2:	1109 E STEWART AVENUE
Contact City,St,Zip:	FLINT, MI 48505

FLINT PLATING (Continued) **S107699638**

Permit Number:	667-85B
Date Received:	04/30/03
State Registration Number:	N0026
Country:	Not reported
Application Reason:	CUSTOM DECORATIVE CHROME PLATING
Record Type:	Not reported
State County FIPS:	Not reported
Facility Category:	Not reported
SIC Primary:	Not reported
Tribal Code:	Not reported
EI Year:	Not reported

B114 **AMANDA KURZMAN/GENERAL MOTORS** **SPILLS** **S109532627**
902 E. LEITH ST., FLINT, MI, OUTFALL #3 **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 7 of 11 in cluster B

Relative: Higher

Actual: 746 ft.

MI PEAS:

Incident Date:	01/12/2009 10:58 AM
Date Of PEAS Call:	Not reported
Complainant / Company:	AMANDA KURZMAN/GENERAL MOTORS
Complainant Address:	Not reported
Company Involved:	AMANDA KURZMAN/GENERAL MOTORS
DEQ Division Involved:	WB
Incident Description:	Not reported
Description:	RIVER IS FROZEN, PREVENTING CONTAINMENT BOOMS @ OUTFALL #3 FROM MOVING FREELY. THIS ALLOWED OIL TO BE RELEASED OUTSIDE OF THE CONTAINMENT BOOM. OIL IS NOT MOVING BECAUSE IT IS TRAPPED BY A THIN LAYER OF ICE. ER RESPONSE HAS BEEN CONTACTED & SHOULD BE ABLE TO REMOVE ALL OIL.

B115 **902 EAST LEITH ST.** **ERNS** **2007311808**
902 EAST LEITH ST. **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 8 of 11 in cluster B

Relative: Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 746 ft.

C116 **FLINT IND PLATING** **FINDS** **1008897201**
1109 E STEWART ST **N/A**
< 1/8 **FLINT, MI 48505**
1 ft.

Site 5 of 5 in cluster C

Relative: Higher

Actual: 755 ft.

FINDS:

Registry ID: 110022814034

Environmental Interest/Information System

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites,

FLINT IND PLATING (Continued) **1008897201**

including an inventory of sites, planned and actual site activities, and financial information.

B117 **GM POWERTRAIN-FLINT NORTH** **NPDES** **S107792215**
902 EAST LEITH STREET **N/A**
< 1/8 **FLINT, MI 48550**
1 ft.

Site 9 of 11 in cluster B

Relative:
Higher

Actual:
746 ft.

MI NPDES:

Permit Number:	MI0001597
Permitee PO Box:	N
Permitee Email:	Not reported
Issue Date:	5/15/2006
Effective Date:	7/1/2006
Expiration Date:	10/1/2010
Permittee Name:	General Motors Corporation
Permittee Address:	100 Renaissance Center
Permittee Addr2:	Not reported
Permittee City,St,Zip:	Detroit, MI 48262
Permit Type:	IP
Facility Name 2:	Not reported
Facility Name 3:	Not reported
Facility Name 4:	Not reported
Designed Name:	GM-Powertrain Flint North
Latitude:	43.048549999999999
Lat Direction:	N
Lat Type Code:	LAT
Longitude:	-83.677480000000003
Lon Direction:	W
Lon Type Code:	LON
Hydrologic Unit Code:	4080204

B118 **902 EAST LEITH ST** **ERNS** **2007311275**
902 EAST LEITH ST **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 10 of 11 in cluster B

Relative:
Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
746 ft.

B119 **902 EAST LEITH ST.** **ERNS** **2007315421**
902 EAST LEITH ST. **N/A**
< 1/8 **FLINT, MI**
1 ft.

Site 11 of 11 in cluster B

Relative:
Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
746 ft.

D120
North
< 1/8
0.037 mi.
195 ft.

FIRE STATION #4
4309 INDUSTRIAL AVE.
FLINT, MI 48505

Site 1 of 2 in cluster D

FINDS **1008214828**
N/A

Relative:
Higher

Actual:
759 ft.

FINDS:

Registry ID: 110020916375

Environmental Interest/Information System
US EPA Air Quality System (AQS) contains ambient air pollution data collected by EPA, State, Local, and Tribal air pollution control agencies from thousands of monitoring stations.

D121
North
< 1/8
0.037 mi.
195 ft.

FIRE STATION #4
4309 INDUSTRIAL AVE
FLINT, MI 48505

Site 2 of 2 in cluster D

UST **U003835375**
N/A

Relative:
Higher

Actual:
759 ft.

UST:

Facility ID:	00007353
Facility Type:	ACTIVE
Latitude:	43.0546490000
Longitude:	-83.6877120000
Owner Name:	City of Flint
Owner Address:	PO Box 246
Owner City,St,Zip:	Flint, MI 48501-0246
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(810) 766-7263
Contact:	THERON S WIGGINS
Contact Phone:	(810) 762-7364
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	4-D
Tank Status:	**Currently In Use**
Capacity:	100
Install Date:	Mar 13 1968
Product:	Used Oil
Remove Date:	Not reported
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

122
East
< 1/8
0.050 mi.
264 ft.

Relative:
Higher

Actual:
750 ft.

3420 ST JOHN ST
FLINT, MI 48505

FINDS **1008225554**
N/A

FINDS:

Registry ID: 110020938841

Environmental Interest/Information System
US EPA Air Quality System (AQS) contains ambient air pollution data collected by EPA, State, Local, and Tribal air pollution control agencies from thousands of monitoring stations.

123
West
< 1/8
0.054 mi.
283 ft.

Relative:
Higher

Actual:
756 ft.

BFI OF MICHIGAN VALLEY
775 E TAYLOR ST
FLINT, MI 48505

RCRA-CESQG **1004724280**
FINDS **MID985665462**

RCRA-CESQG:

Date form received by agency:	08/20/1993
Facility name:	BFI OF MICHIGAN VALLEY
Facility address:	775 E TAYLOR ST FLINT, MI 48505
EPA ID:	MID985665462
Contact:	FRED VEZZETTI
Contact address:	775 E TAYLOR ST FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(313) 373-4484
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	CITY OF FLINT ECONOMIC DIV
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Operator

BFI OF MICHIGAN VALLEY (Continued) **1004724280**

Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: CITY OF FLINT ECONOMIC DIV
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

BFI OF MICHIGAN VALLEY (Continued) **1004724280**

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

FINDS:

Registry ID: 110003685272

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E124 **CONSOLIDATED FREIGHTWAYS** **RCRA-NonGen** **1004725657**
North **3600 JAMES P COLE BLVD** **FINDS** **MIR000049049**
< 1/8 **FLINT, MI 48505**
0.069 mi.
366 ft. **Site 1 of 5 in cluster E**

Relative:
Lower

Actual:
729 ft.

RCRA-NonGen:
Date form received by agency: 07/17/2000
Facility name: CONSOLIDATED FREIGHTWAYS
Facility address: 3600 JAMES P COLE BLVD
FLINT, MI 48505
EPA ID: MIR000049049
Contact: BILL WOOLSEY
Contact address: 3600 JAMES P COLE BLVD
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (405) 282-8510
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: DAVE FEILING
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: DAVE FEILING
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private

CONSOLIDATED FREIGHTWAYS (Continued) **1004725657**

Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 01/01/1980
Facility name: CONSOLIDATED FREIGHTWAYS
Classification: Not a generator, verified

CONSOLIDATED FREIGHTWAYS (Continued) **1004725657**

Violation Status: No violations found

FINDS:

Registry ID: 110003715472

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

F125 **UPF INCORPORATED** **AIRS** **S107704300**
South **2851 JAMES P COLE BLVD** **N/A**
< 1/8 **FLINT, MI 48505**
0.090 mi.
476 ft. **Site 1 of 5 in cluster F**

Relative:
Lower

Actual:
718 ft.

AIRS:

State Registration Number:	N7261
Naics Code:	Not reported
Contact Name:	WALTER LEDGER
Contact Phone:	(810) 768-0001
Contact Address:	UPF INCORPORATED
Contact Address 2:	2851 JAMES P COLE BLVD
Contact City,St,Zip:	FLINT, MI 48505
Permit Number:	111-03
Date Received:	05/12/03
State Registration Number:	N7261
Country:	Not reported
Application Reason:	OPT-OUT
Record Type:	Not reported
State County FIPS:	Not reported
Facility Category:	Not reported
SIC Primary:	Not reported
Tribal Code:	Not reported
EI Year:	Not reported

F126 **UPF INC** **RCRA-NonGen** **1007100776**
South **2851 JAMES P COLE BLVD** **MIK878227271**
< 1/8 **FLINT, MI 48505**
0.090 mi.
476 ft. **Site 2 of 5 in cluster F**

Relative:
Lower

Actual:
718 ft.

RCRA-NonGen:

Date form received by agency:	08/06/2002
Facility name:	UPF INC
Facility address:	2851 JAMES P COLE BLVD FLINT, MI 48505
EPA ID:	MIK878227271
Contact:	JIM LEVLEIT
Contact address:	2851 JAMES P COLE BLVD FLINT, MI 48505
Contact country:	Not reported

UPF INC (Continued) **1007100776**

Contact telephone: (810) 768-0001
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: UPF INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2000
Owner/Op end date: Not reported

Owner/operator name: UPF INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2000
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No

UPF INC (Continued) **1007100776**

Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

F127 **UPF INC.** **FINDS** **1007141358**
South **2851 JAMES P COLE BLVD** **N/A**
< 1/8 **FLINT, MI 48505**
0.090 mi.
476 ft. **Site 3 of 5 in cluster F**

Relative:
Lower

Actual:
718 ft.

FINDS:

Registry ID: 110015897305

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

F128
South
< 1/8
0.090 mi.
476 ft.

Relative:
Lower

Actual:
718 ft.

2851 JAMES P. COLE BLVD.
FLINT, MI

Site 4 of 5 in cluster F

SPILLS **S107597173**
N/A

MI PEAS:

Incident Date:	02/15/2006 09:47 AM
Date Of PEAS Call:	Not reported
Complainant / Company:	Not reported
Complainant Address:	Not reported
Company Involved:	UPF
DEQ Division Involved:	WB
Incident Description:	Not reported
Description:	AIR COMPRESSOR DRAINING OIL THROUGH WALL INTO STORM DRAIN WHICH DRAINS INTO FLINT RIVER.

F129
South
< 1/8
0.090 mi.
476 ft.

Relative:
Lower

Actual:
718 ft.

2851 JAMES P. COLE BLVD.
2851 JAMES P. COLE BLVD.
FLINT, MI 48505

Site 5 of 5 in cluster F

ERNS **2005612111**
N/A

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

130
ENE
< 1/8
0.090 mi.
477 ft.

Relative:
Higher

Actual:
752 ft.

DELTA FIBERGLASS STRUCTURES
4221 JAMES P COLE BLV
FLINT, MI 48503

FINDS **1004531244**
N/A

FINDS:

Registry ID: 110010739576

Environmental Interest/Information System

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

E131 **3601 JAMES P COLE BLVD** **ERNS** **2003650888**
North **3601 JAMES P COLE BLVD** **N/A**
< 1/8 **FLINT, MI**
0.098 mi.
517 ft. **Site 2 of 5 in cluster E**

Relative:
Lower

Actual:
735 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

E132 **PPG INDUSTRIES INC** **RCRA-LQG** **1001025925**
North **3601 JAMES P COLE BLVD** **FINDS** **MID980995096**
< 1/8 **FLINT, MI 48505** **MANIFEST**
0.098 mi.
517 ft. **Site 3 of 5 in cluster E**

Relative:
Lower

Actual:
735 ft.

RCRA-LQG:

Date form received by agency:	03/06/2008
Facility name:	PPG INDUSTRIES INC
Facility address:	3601 JAMES P COLE BLVD FLINT, MI 48505
EPA ID:	MID980995096
Mailing address:	3800 W 143RD ST CLEVELAND, OH 44111
Contact:	RICHARD KAZMIER
Contact address:	3601 JAMES P COLE BLVD FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(216) 535-3420
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	PPG INDUSTRIES INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	02/01/1985
Owner/Op end date:	Not reported
Owner/operator name:	PPG INDUSTRIES INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported

PPG INDUSTRIES INC (Continued) **1001025925**

Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/01/1985
Owner/Op end date: Not reported

Owner/operator name: PPG INDUSTRIES INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 02/01/1985
Owner/Op end date: Not reported

Owner/operator name: PPG INDUSTRIES INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/01/1985
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

PPG INDUSTRIES INC (Continued) **1001025925**

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 03/01/2006
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 03/01/2006
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 03/01/2004
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 02/24/2004
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 04/21/2003
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 03/01/2002
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

PPG INDUSTRIES INC (Continued) **1001025925**

Date form received by agency: 02/26/2002
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 02/19/2001
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 02/15/2000
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 05/17/1999
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 10/27/1998
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 01/22/1998
Facility name: PPG INDUSTRIES INC
Site name: PPG INDUSTRIES INCORPORATED
Classification: Large Quantity Generator

Date form received by agency: 01/19/1996
Facility name: PPG INDUSTRIES INC
Site name: PPG INDUSTRIES INCORPORATED
Classification: Large Quantity Generator

Date form received by agency: 01/21/1994
Facility name: PPG INDUSTRIES INC
Site name: PPG INDUSTRIES INCORPORATED
Classification: Large Quantity Generator

Date form received by agency: 02/06/1992
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 02/21/1990
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Date form received by agency: 10/04/1984
Facility name: PPG INDUSTRIES INC
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2007

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE

PPG INDUSTRIES INC (Continued) **1001025925**

MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 28065

Waste code: D008
Waste name: LEAD
Amount (Lbs): 19473.8

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 17086.8

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 27608.5

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 17086.8

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/20/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 04/20/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported

PPG INDUSTRIES INC (Continued) **1001025925**

Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 04/20/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 04/20/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/02/1998
Date achieved compliance: 10/26/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/02/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 06/25/1996
Date achieved compliance: 10/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/25/1996

PPG INDUSTRIES INC (Continued) **1001025925**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 05/30/1995
Date achieved compliance: 10/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/30/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/30/1995
Date achieved compliance: 10/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/30/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 05/30/1995
Date achieved compliance: 10/11/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/30/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 07/10/1991
Date achieved compliance: 09/16/1991
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1991
Enf. disposition status: Not reported

PPG INDUSTRIES INC (Continued) **1001025925**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/01/1989
Date achieved compliance: 03/19/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/12/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/09/1988
Date achieved compliance: 10/11/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/11/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/07/1987
Date achieved compliance: 10/11/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/11/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/26/1987
Date achieved compliance: 03/26/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/27/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

PPG INDUSTRIES INC (Continued) **1001025925**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/22/1985
Date achieved compliance: 09/27/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/03/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 04/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/20/2006
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 04/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/11/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/26/1998
Evaluation lead agency: State

Evaluation date: 07/30/1996

PPG INDUSTRIES INC (Continued) **1001025925**

Evaluation: FOLLOW-UP INSPECTION
Area of violation: Generators - General
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 07/30/1996
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 07/30/1996
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Generators - Records/Reporting
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 06/18/1996
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 03/27/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 03/27/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 03/27/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/11/1996
Evaluation lead agency: State

Evaluation date: 07/10/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/16/1991
Evaluation lead agency: State

Evaluation date: 03/13/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/01/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/19/1990

PPG INDUSTRIES INC (Continued) **1001025925**

Evaluation lead agency: State

Evaluation date: 08/09/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/11/1988
Evaluation lead agency: State

Evaluation date: 08/07/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/11/1988
Evaluation lead agency: State

Evaluation date: 02/26/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/26/1987
Evaluation lead agency: State

Evaluation date: 07/21/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/22/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/27/1985
Evaluation lead agency: State

FINDS:

Registry ID: 110000407603

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

PPG INDUSTRIES INC (Continued) **1001025925**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WI MANIFEST:

Year:	04
EPA ID:	MID980995096
FID:	0
ACT Code:	201
ACT Status:	A
ACT Code 1:	201
ACT Name:	HW Generator - Large
Contact First Name:	Not reported
Contact Last Name:	Not reported
Contact Title:	Not reported
Contact Address:	Not reported
Contact State:	Not reported
Contact City:	Not reported
Contact Zip:	Not reported
Contact Telephone:	Not reported
Contact Extention:	Not reported
Contact Email Address:	Not reported
WI MANIFEST SHIP:	-
Manifest DOC ID:	Not reported
Copy Type:	Not reported
Gen EPA ID:	Not reported
Gen Date:	Not reported
TSD Date:	Not reported
TSD EPA ID:	Not reported
GEN Copy Revd Date:	Not reported
TSG Copy Revd Date:	Not reported
Manifest DOC ID:	Not reported
Waste Page No:	Not reported
Waste Line No:	Not reported
Waste Code:	Not reported
Waste Amount:	Not reported
Unit of Measure:	Not reported
Waste LBS:	Not reported

WI MANIFEST TRANS:	-
Mifest DOC ID:	Not reported
TRAN EPA ID:	Not reported
TRAN ORDER NO:	Not reported
TRAN Date:	Not reported

Manifest DOC ID:	Not reported
Waste Page No:	Not reported
Waste Line No:	Not reported
Waste Code:	Not reported
Waste Amount:	Not reported
Unit of Measure:	Not reported
Waste LBS:	Not reported

E133 **3601 JAMES P COLE** **ERNS** **2003650880**
North **3601 JAMES P COLE** **N/A**
< 1/8 **FLINT, MI**
0.098 mi.
517 ft. **Site 4 of 5 in cluster E**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
735 ft.

E134 **SPILLS** **S105980037**
North **3601 JAMES P. COLE BLVD** **N/A**
< 1/8 **FLINT, MI**
0.098 mi.
517 ft. **Site 5 of 5 in cluster E**

Relative:
Lower

MI PEAS:

Incident Date:	07/15/2003
Date Of PEAS Call:	07/15/2003
Complainant / Company:	Rich Mccurdy, PPG Industries
Complainant Address:	5875 New King Ct.
Company Involved:	PPG Industries
DEQ Division Involved:	Not reported
Incident Description:	Chiller unit line failure
Description:	Not reported

Actual:
735 ft.

G135 **STEEL TECHNOLOGIES** **FINDS** **1011919154**
East **1301 ALABAMA AVE** **N/A**
< 1/8 **FLINT, MI 48505**
0.105 mi.
556 ft. **Site 1 of 2 in cluster G**

Relative:
Higher

FINDS:

Registry ID: 110037397206

Actual:
748 ft.

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

G136 **AUTO BLANKERS INCORPORATED OF FLINT** **NPDES** **S107792729**
East **1301 ALABAMA** **N/A**
< 1/8 **FLINT, MI 48505**
0.105 mi.
556 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

MI NPDES:

Permit Number:	MIS510558
Permitee PO Box:	N
Permitee Email:	Not reported
Issue Date:	11/18/2004
Effective Date:	4/1/2005
Expiration Date:	4/1/2010

Actual:
748 ft.

AUTO BLANKERS INCORPORATED OF FLINT (Continued) **S107792729**

Permittee Name:	Kasle Steel Corporation
Permittee Address:	4343 Wyoming
Permittee Addr2:	Not reported
Permittee City,St,Zip:	Dearborn, MI 48126
Permit Type:	COC
Facility Name 2:	Not reported
Facility Name 3:	Not reported
Facility Name 4:	Not reported
Designed Name:	Kasle Steel-Auto Blankers-Flt
Latitude:	43.051699999999997
Lat Direction:	N
Lat Type Code:	LAT
Longitude:	-83.676699999999997
Lon Direction:	W
Lon Type Code:	LON
Hydrologic Unit Code:	4080204

H137 **MI DEPT/TRANSPORTATION** **RCRA-CESQG 1001228760**
East **I-475 UNDER CARPENTER RD** **FINDS MIR000034363**
< 1/8 **FLINT, MI 48501**
0.115 mi.
609 ft. **Site 1 of 2 in cluster H**

Relative:
Lower

Actual:
714 ft.

RCRA-CESQG:

Date form received by agency:	12/31/2001
Facility name:	MI DEPT/TRANSPORTATION
Facility address:	I-475 UNDER CARPENTER RD FLINT, MI 48501
EPA ID:	MIR000034363
Mailing address:	9495 E POTTER RD DAVISON, MI 48423
Contact:	ARMONDO LAPEZ JR
Contact address:	I-475 UNDER CARPENTER RD FLINT, MI 48501
Contact country:	Not reported
Contact telephone:	(810) 653-7470
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	MICH DEPT OF TRANSPORTATION
Owner/operator address:	Not reported

MI DEPT/TRANSPORTATION (Continued) **1001228760**

Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1978
Owner/Op end date: Not reported

Owner/operator name: MICH DEPT OF TRANSPORTATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1978
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

MI DEPT/TRANSPORTATION (Continued) **1001228760**

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 02/26/2001
Facility name: MI DEPT/TRANSPORTATION
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 08/11/1998
Facility name: MI DEPT/TRANSPORTATION
Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110007593470

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

H138
East
< 1/8
0.115 mi.
609 ft.

MI DEPT/TRANSPORTATION **RCRA-NonGen** **1001228766**
I-475 OVER STEWART **MIR000034421**
FLINT, MI 48501

Site 2 of 2 in cluster H

Relative:
Lower

Actual:
714 ft.

RCRA-NonGen:
Date form received by agency: 02/28/2001
Facility name: MI DEPT/TRANSPORTATION
Facility address: I-475 OVER STEWART
FLINT, MI 48501
EPA ID: MIR000034421
Mailing address: 9495 E POTTER RD
DAVISON, MI 48423
Contact: ARMANDO LOPEZ
Contact address: I-475 OVER STEWART
FLINT, MI 48501
Contact country: Not reported
Contact telephone: (810) 653-7470
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

MI DEPT/TRANSPORTATION (Continued) **1001228766**

Owner/operator name: MICH DEPT OF TRANSPORTATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 08/16/2000
Owner/Op end date: Not reported

Owner/operator name: MICH DEPT OF TRANSPORTATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 08/16/2000
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps

MI DEPT/TRANSPORTATION (Continued) **1001228766**

Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 10/10/2000
Facility name: MI DEPT/TRANSPORTATION
Classification: Not a generator, verified

Date form received by agency: 08/11/1998
Facility name: MI DEPT/TRANSPORTATION
Classification: Not a generator, verified

Violation Status: No violations found

---

139 ESE 1/8-1/4 0.137 mi. 723 ft.

Relative: Lower

Actual: 720 ft.

ROGERS AND SON GARAGE **RCRA-CESQG** **1004724018**
3018 LEWIS ST **FINDS** **MID985654763**
FLINT, MI 48506

RCRA-CESQG:
Date form received by agency: 12/11/1992
Facility name: ROGERS AND SON GARAGE
Facility address: 3018 LEWIS ST
FLINT, MI 48506
EPA ID: MID985654763
Contact: ALVIN BELLAMY
Contact address: 3018 LEWIS ST
FLINT, MI 48506
Contact country: Not reported
Contact telephone: (313) 288-1961
Contact email: Not reported
EPA Region: 05
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

ROGERS AND SON GARAGE (Continued) **1004724018**

Owner/Operator Summary:

Owner/operator name:	ROGERS GARNIZ
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	ROGERS GARNIZ
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Universal Waste Summary:

Waste type:	DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	MERCURY THERMOMETERS
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	MERCURY SWITCHES
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Batteries
Accumulated waste on-site:	No
Generated waste on-site:	No

ROGERS AND SON GARAGE (Continued) **1004724018**

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

FINDS:

Registry ID: 110003677511

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

I140 **UNIVERSAL SYSTEMS** **RCRA-NonGen** **1007098401**
East **1401 E STEWART AVE** **MIK514418854**
1/8-1/4 **FLINT, MI 48505**
0.158 mi.
836 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
751 ft.

RCRA-NonGen:
Date form received by agency: 04/24/2003
Facility name: UNIVERSAL SYSTEMS
Facility address: 1401 E STEWART AVE
FLINT, MI 48505
EPA ID: MIK514418854
Contact: TODD DENNIS
Contact address: 1401 E STEWART AVE
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (810) 785-7970
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: GENE DENNIS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/24/2003

UNIVERSAL SYSTEMS (Continued) **1007098401**

Owner/Op end date: Not reported

Owner/operator name: GENE DENNIS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/24/2003
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats

UNIVERSAL SYSTEMS (Continued) **1007098401**

Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

I141 **UNIVERSAL SYSTEMS** **LUST U003081893**
East **1401 E STEWART AVE** **UST N/A**
1/8-1/4 **FLINT, MI 48505**
0.158 mi.
836 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
751 ft.

LUST:

Facility ID:	00007289
Source:	STATE OF MICHIGAN
Owner Name:	Universal Systems
Owner Address:	1401 E Stewart Ave
Owner City,St,Zip:	Flint, MI 48505-3616
Owner Contact:	Not reported
Owner Phone:	810-785-7970
Country:	USA
District:	Lansing District Office
Site Name:	Universal Systems
Latitude:	43.0542120000
Longitude:	-83.6764770000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0160-03
Release Date:	Apr 21 2003
Substance Released:	Gasoline
Release Status:	Closed
Release Closed Date:	Jun 2 2003

UST:

Facility ID:	00007289
Facility Type:	CLOSED
Latitude:	43.0542120000
Longitude:	-83.6764770000
Owner Name:	Universal Systems
Owner Address:	1401 E Stewart Ave
Owner City,St,Zip:	Flint, MI 48505-3616
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	810-785-7970
Contact:	Todd Dennis
Contact Phone:	810-785-7970
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

UNIVERSAL SYSTEMS (Continued) **U003081893**

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	3000
Install Date:	Mar 11 1981
Product:	Gasoline
Remove Date:	Mar 31 2003
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	Automatic Line Leak Detectors
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Asphalt Coated or Bare Steel, Cathodically Protected Steel
Impressed Device:	No

J142 **FLINT COATINGS INC** **RCRA-NonGen** **1000321412**
ENE **4221 JAMES P COLE** **FINDS** **MID981796527**
1/8-1/4 **FLINT, MI 48505**
0.161 mi.
849 ft. **Site 1 of 2 in cluster J**

Relative:
Higher

Actual:
751 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	FLINT COATINGS INC
Facility address:	4221 JAMES P COLE FLINT, MI 48505
EPA ID:	MID981796527
Contact:	NOT OBTAINED NOT OBTAINED
Contact address:	4221 JAMES P COLE FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(810) 555-1212
Contact email:	Not reported
EPA Region:	05
Land type:	Other land type
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

FLINT COATINGS INC (Continued) **1000321412**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 08/31/1998
Facility name: FLINT COATINGS INC
Classification: Not a generator, verified

Date form received by agency: 11/17/1986
Facility name: FLINT COATINGS INC
Classification: Not a generator, verified

FLINT COATINGS INC (Continued) **1000321412**

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 09/02/1998
Date achieved compliance: 10/26/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/02/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/02/1998
Date achieved compliance: 10/26/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/02/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 09/02/1998
Date achieved compliance: 10/26/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/02/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/13/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 10/26/1998
Evaluation lead agency: State

Evaluation date: 08/13/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/26/1998
Evaluation lead agency: State

FLINT COATINGS INC (Continued) **1000321412**

Evaluation date: 08/13/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 10/26/1998
Evaluation lead agency: State

FINDS:

Registry ID: 110000781887

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

J143 **4221 JAMES P COLE BOULEVARD** **BEA S107596698**
ENE **4221 JAMES P COLE BOULEVARD** **N/A**
1/8-1/4 **FLINT, MI**
0.161 mi.
849 ft. **Site 2 of 2 in cluster J**

Relative:
Higher

Actual:
751 ft.

BEA:
Secondary Address: Not reported
BEA Number: 1014
District: Lansing
Date Received: 12/22/2005 12:59:00 AM
Submitter Name: Lasalle Bank
Petition Determination: Affirmed

4221 JAMES P COLE BOULEVARD (Continued) **S107596698**

Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Affirmed
Reviewer:	innesj
Division Assigned:	Environmental Response Division
Secondary Address:	Not reported
BEA Number:	1227
District:	Lansing
Date Received:	9/28/2007 12:59:00 AM
Submitter Name:	Thomas A Panek
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	innesj
Division Assigned:	Environmental Response Division

K144 **BALAL INC** **LUST U002301139**
West **2905 N SAGINAW ST** **UST N/A**
1/8-1/4 **FLINT, MI 48505**
0.166 mi.
878 ft. **Site 1 of 6 in cluster K**

Relative:
Higher

Actual:
763 ft.

LUST:

Facility ID:	00004167
Source:	STATE OF MICHIGAN
Owner Name:	Balal Inc
Owner Address:	2905 N Saginaw
Owner City,St,Zip:	Flint, MI 48505
Owner Contact:	Not reported
Owner Phone:	(810) 238-7408
Country:	USA
District:	Lansing District Office
Site Name:	Sun North Saginaw, #27
Latitude:	43.0422700000
Longitude:	-83.6937520000
Date of Collection:	26-07-2005
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0722-90
Release Date:	Apr 24 1990
Substance Released:	Not reported
Release Status:	Closed
Release Closed Date:	Aug 7 2001

UST:

Facility ID:	00004167
Facility Type:	ACTIVE
Latitude:	43.0422700000
Longitude:	-83.6937520000
Owner Name:	Balal Inc
Owner Address:	2905 N Saginaw

BALAL INC (Continued) **U002301139**

Owner City,St,Zip:	Flint, MI 48505
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(810) 238-7408
Contact:	Taher Alwajh
Contact Phone:	(810) 423-0881
Date of Collection:	26-07-2005
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off

Tank ID:	1
Tank Status:	**Currently In Use**
Capacity:	10000
Install Date:	Mar 1 1984
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Tank Tightness Testing, Inventory Control, Automatic Tank Gauging, Vapor Monitoring, Groundwater Monitoring, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection:	Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Cathodically Protected
Piping Type:	Suction: Valve at Tank
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	2
Tank Status:	**Currently In Use**
Capacity:	10000
Install Date:	Mar 1 1984
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging, Vapor Monitoring, Groundwater Monitoring, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection:	Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Cathodically Protected
Piping Type:	Suction: No Valve At Tank, Suction: Valve at Tank
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	3
Tank Status:	**Currently In Use**
Capacity:	10000
Install Date:	Mar 2 1984
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging, Vapor Monitoring, Groundwater Monitoring, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection:	Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Cathodically Protected
Piping Type:	Suction: Valve at Tank

BALAL INC (Continued) **U002301139**

Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: 4
Tank Status: Currently In Use
Capacity: 550
Install Date: May 2 1976
Product: Used Oil
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging, Vapor Monitoring, Groundwater Monitoring, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Cathodically Protected
Piping Type: Suction: Valve at Tank
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

K145 **SUNOCO INC** **RCRA-NonGen** **1000528955**
West **2905 N SAGINAW** **FINDS** **MID985613876**
1/8-1/4 **FLINT, MI 48505**
0.166 mi.
878 ft. **Site 2 of 6 in cluster K**

Relative:
Higher

Actual:
763 ft.

RCRA-NonGen:
Date form received by agency: 05/22/1991
Facility name: SUNOCO INC
Facility address: 2905 N SAGINAW
FLINT, MI 48505
EPA ID: MID985613876
Mailing address: 1801 MARKET ST MKT RISK MGT
PHILADELPHIA, PA 19103
Contact: WILLIAM DELAUGHTER
Contact address: 2905 N SAGINAW
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (215) 977-6108
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/17/1995
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported

SUNOCO INC (Continued) **1000528955**

Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/17/1995
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

FINDS:

SUNOCO INC (Continued) **1000528955**

Registry ID: 110001680128

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

K146 **BEA** **S106521593**
West **2918 NORTH SAGINAW STREET** **N/A**
1/8-1/4 **FLINT, MI**
0.166 mi.
879 ft. **Site 3 of 6 in cluster K**

Relative:
Higher

Actual:
763 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	840
District:	Lansing
Date Received:	7/8/2004 12:59:00 AM
Submitter Name:	Standard Federal Bank
Petition Determination:	Affirmed
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Affirmed
Reviewer:	leinbaca
Division Assigned:	Storage Tank Division

K147 **FORMER AUTO REPAIR** **LUST** **S107466479**
West **2918 N SAGINAW ST** **N/A**
1/8-1/4 **FLINT, MI 99999**
0.166 mi.
879 ft. **Site 4 of 6 in cluster K**

Relative:
Higher

Actual:
763 ft.

LUST:

Facility ID:	50005482
Source:	STATE OF MICHIGAN
Owner Name:	Nrt Owner
Owner Address:	Unknown
Owner City,St,Zip:	Unknown, MI 99999
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	USA
District:	Lansing District Office
Site Name:	Former Auto Repair
Latitude:	43.0427780000
Longitude:	-83.6933330000
Date of Collection:	16-01-2007
Method of Collection:	Interpolation-Map
Accuracy:	40
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Not reported

FORMER AUTO REPAIR (Continued) **S107466479**

Leak Number: C-0297-05
Release Date: Apr 22 2004
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

K148 **BALAL SOUTH INC** **LUST** **U002301137**
West **2805 N SAGINAW ST** **UST** **N/A**
1/8-1/4 **FLINT, MI 48505** **BEA**
0.166 mi.
879 ft. **Site 5 of 6 in cluster K**

Relative:
Higher

Actual:
762 ft.

LUST:
Facility ID: 00008084
Source: STATE OF MICHIGAN
Owner Name: Balal South Inc
Owner Address: 2805 N Saginaw
Owner City,St,Zip: Flint, MI 48505-4449
Owner Contact: Not reported
Owner Phone: (810) 233-7072
Country: USA
District: Lansing District Office
Site Name: Total Petroleum #1823
Latitude: 43.0417970000
Longitude: -83.6937850000
Date of Collection: 26-07-2005
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0279-96
Release Date: May 1 1996
Substance Released: Gasoline
Release Status: Open
Release Closed Date: Not reported

UST:
Facility ID: 00008084
Facility Type: ACTIVE
Latitude: 43.0417970000
Longitude: -83.6937850000
Owner Name: Balal South Inc
Owner Address: 2805 N Saginaw
Owner City,St,Zip: Flint, MI 48505-4449
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (810) 233-7072
Contact: Ahmed Alwageeh
Contact Phone: Not reported
Date of Collection: 26-07-2005
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

BALAL SOUTH INC (Continued) **U002301137**

Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 6000
Install Date: Mar 27 1982
Product: Gasoline
Remove Date: May 1 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Automatic Line Leak Detectors
Piping Material: Galvanized Steel
Piping Type: Pressure
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 8000
Install Date: Mar 27 1982
Product: Gasoline
Remove Date: May 1 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Automatic Line Leak Detectors
Piping Material: Galvanized Steel
Piping Type: Pressure
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Mar 27 1982
Product: Gasoline
Remove Date: May 1 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Automatic Line Leak Detectors
Piping Material: Galvanized Steel
Piping Type: Pressure
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Currently In Use
Capacity: 12000
Install Date: May 1 1996
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass Reinforced Plastic, Double Walled
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

BALAL SOUTH INC (Continued) **U002301137**

Tank ID: 5
Tank Status: Currently In Use
Capacity: 8000
Install Date: Aug 19 1996
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass Reinforced Plastic, Double Walled
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: 6
Tank Status: Currently In Use
Capacity: 6000
Install Date: May 23 1996
Product: Diesel
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass Reinforced Plastic, Double Walled
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

BEA:
Secondary Address: Not reported
BEA Number: 907
District: Lansing
Date Received: 2/10/2005 12:59:00 AM
Submitter Name: BALAL SOUTH INC
Petition Determination: No Request
Petition Disclosure: 0
Category: Same Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: cummingd
Division Assigned: Storage Tank Division

K149 **SPEEDWAY SUPERAMERICA LLC** **RCRA-NonGen** **1004723218**
West **2805 N SAGINAW** **FINDS** **MID985593672**
1/8-1/4 **FLINT, MI 48505**
0.166 mi.
879 ft. **Site 6 of 6 in cluster K**

Relative:
Higher

Actual:
762 ft.

RCRA-NonGen:
Date form received by agency: 09/02/2004
Facility name: SPEEDWAY SUPERAMERICA LLC
Facility address: 2805 N SAGINAW
FLINT, MI 48505
EPA ID: MID985593672
Mailing address: PO BOX 1500
SPRINGFIELD, OH 45501
Contact: CHARLES BESSE
Contact address: 2805 N SAGINAW
FLINT, MI 48505

SPEEDWAY SUPERAMERICA LLC (Continued) **1004723218**

Contact country: Not reported
Contact telephone: (937) 863-6272
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/03/2004
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/03/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES

SPEEDWAY SUPERAMERICA LLC (Continued) **1004723218**

Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 03/21/1996
Facility name: SPEEDWAY SUPERAMERICA LLC
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110003645743

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

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150 West 1/8-1/4 0.167 mi. 883 ft.

Relative: Higher

Actual: 764 ft.

GANNETT
2711 N SAGINAW ST
FLINT, MI 48505

RCRA-NonGen FINDS LUST UST **1000314355 MID148692320**

RCRA-NonGen:
Date form received by agency: 02/26/1990
Facility name: GANNETT
Facility address: 2711 N SAGINAW ST
FLINT, MI 48505
EPA ID: MID148692320
Contact: BOB ELLERY
Contact address: 2711 N SAGINAW ST
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (313) 232-7491
Contact email: Not reported
EPA Region: 05

GANNETT (Continued) **1000314355**

Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/03/1970
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/03/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries

GANNETT (Continued) **1000314355**

Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

FINDS:

Registry ID: 110003613992

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LUST:

Facility ID: 00006080
Source: STATE OF MICHIGAN
Owner Name: Gannett Outdoor Advertising
Owner Address: G-6083 TAYLOR
Owner City,St,Zip: FLINT, MI 48505
Owner Contact: Not reported
Owner Phone: (313) 232-8400
Country: USA
District: Lansing District Office
Site Name: Gannett Outdoor
Latitude: 43.0407560000
Longitude: -83.6939700000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-2391-91
Release Date: Nov 6 1991
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

GANNETT (Continued) **1000314355**

UST:

Facility ID:	00006080
Facility Type:	CLOSED
Latitude:	43.0407560000
Longitude:	-83.6939700000
Owner Name:	Gannett Outdoor Advertising
Owner Address:	G-6083 TAYLOR
Owner City,St,Zip:	FLINT, MI 48505
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(313) 232-8400
Contact:	AUGUST H. HILL
Contact Phone:	(313) 232-7491
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	2000
Install Date:	Jun 3 1976
Product:	Gasoline
Remove Date:	Jul 11 1991
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	2000
Install Date:	Jun 3 1976
Product:	Gasoline
Remove Date:	Jul 11 1991
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

L151 **SERVICE CLEANERS** **RCRA-NonGen** **1001127491**
WNW **3219 N SAGINAW ST** **FINDS** **MIR000021584**
1/8-1/4 **FLINT, MI 48505**
0.180 mi.
949 ft. **Site 1 of 2 in cluster L**

Relative:
Higher

Actual:
762 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	SERVICE CLEANERS
Facility address:	3219 N SAGINAW ST FLINT, MI 48505
EPA ID:	MIR000021584
Contact:	ELNORA LOWE
Contact address:	3219 N SAGINAW ST FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(810) 785-2981
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No

SERVICE CLEANERS (Continued) **1001127491**

Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 02/18/1997
Facility name: SERVICE CLEANERS
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110003699775

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

L152 **SERVICE DRY CLEANERS INC** **UST** **U000253130**
WNW **3219 N SAGINAW ST** **N/A**
1/8-1/4 **FLINT, MI 48505**
0.180 mi.
949 ft. **Site 2 of 2 in cluster L**

Relative:
Higher

Actual:
762 ft.

UST:

Facility ID:	00008393
Facility Type:	CLOSED
Latitude:	43.0448450000
Longitude:	-83.6940250000
Owner Name:	George D Lowe
Owner Address:	3219 N Saginaw St
Owner City,St,Zip:	Flint, MI 48505-4474
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(313) 785-2981
Contact:	GEORGE D. LOWE
Contact Phone:	(313) 785-2981
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	1500
Install Date:	Mar 27 1971
Product:	Not reported
Remove Date:	Jan 1 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	4500
Install Date:	Mar 27 1971
Product:	Not reported
Remove Date:	Jan 1 1989
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

153
ESE
1/8-1/4
0.186 mi.
982 ft.

INTERNATIONAL TRANSMISSION COMPANY LLC
2404 JAMES P COLE BOULEVARD
FLINT, MI 48503

RCRA-CESQG | **1010564607** | **MIK649865490**

Relative:
Lower

Actual:
716 ft.

RCRA-CESQG:

Date form received by agency:	09/01/2006
Facility name:	INTERNATIONAL TRANSMISSION COMPANY LLC
Facility address:	2404 JAMES P COLE BOULEVARD FLINT, MI 48503
EPA ID:	MIK649865490
Mailing address:	39500 ORCHARD HILL PLACE NOVI, MI 48375
Contact:	STEVE SCZYTKO
Contact address:	2404 JAMES P COLE BOULEVARD FLINT, MI 48503
Contact country:	Not reported
Contact telephone:	(734) 547-0266
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	CONSUMERS ENERGY
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1990
Owner/Op end date:	Not reported
Owner/operator name:	METC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	09/01/2006
Owner/Op end date:	Not reported
Owner/operator name:	ITC TRANSMISSION

INTERNATIONAL TRANSMISSION COMPANY LLC (Continued) **1010564607**

Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/01/2006
Owner/Op end date: Not reported

Owner/operator name: CONSUMERS ENERGY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1990
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No

INTERNATIONAL TRANSMISSION COMPANY LLC (Continued) **1010564607**

Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

154
East
1/8-1/4
0.207 mi.
1092 ft.

Relative:
Higher

Actual:
750 ft.

ALLEN STORAGE FACILITY **LUST U003083131**
4002 JAMES P COLE BLVD **UST N/A**
FLINT, MI 48505

LUST:
Facility ID: 00008266
Source: STATE OF MICHIGAN
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550
Owner Contact: Not reported
Owner Phone: (810) 236-6427
Country: USA
District: Lansing District Office
Site Name: Boc, Allen Storage
Latitude: 43.0515130000
Longitude: -83.6763580000
Date of Collection: 01-12-1998
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0628-89
Release Date: Oct 3 1989
Substance Released: Not reported
Release Status: Closed
Release Closed Date: Dec 18 2003

Leak Number: C-0660-95
Release Date: Jun 6 1995
Substance Released: Diesel
Release Status: Closed
Release Closed Date: Dec 18 2003

UST:
Facility ID: 00008266
Facility Type: CLOSED
Latitude: 43.0515130000
Longitude: -83.6763580000
Owner Name: GM Powertrain Flint North
Owner Address: 902 E Leith St MC:485-143-060
Owner City,St,Zip: Flint, MI 48550

ALLEN STORAGE FACILITY (Continued) **U003083131**

Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(810) 236-6427
Contact:	Robert Metcalf
Contact Phone:	(810) 236-0300
Date of Collection:	01-12-1998
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	10000
Install Date:	Mar 18 1985
Product:	Diesel
Remove Date:	Oct 30 2002
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Fiberglass Reinforced Plastic, Double Walled
Impressed Device:	No

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155 East 1/8-1/4 0.221 mi. 1169 ft.

VACUCAST INC
1227 GARFIELD AVE
FLINT, MI 48505

RCRA-NonGen **1000343565**
FINDS **MID161064381**

Relative: Lower

Actual: 716 ft.

RCRA-NonGen:

Date form received by agency:	02/28/1990
Facility name:	VACUCAST INC
Site name:	INNOVA CORP SPECTRUM CAST DIV
Facility address:	1227 GARFIELD AVE
	FLINT, MI 48505
EPA ID:	MID161064381
Contact:	JACKIE S PAPP
Contact address:	Not reported
	Not reported
Contact country:	Not reported
Contact telephone:	(313) 238-4706
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private

VACUCAST INC (Continued) **1000343565**

Owner/Operator Type: Operator
Owner/Op start date: 01/03/1970
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/03/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: Unknown
Mixed waste (haz. and radioactive): Unknown
Recycler of hazardous waste: Unknown
Transporter of hazardous waste: Unknown
Treater, storer or disposer of HW: No
Underground injection activity: Unknown
On-site burner exemption: Unknown
Furnace exemption: Unknown
Used oil fuel burner: Unknown
Used oil processor: Unknown
User oil refiner: Unknown
Used oil fuel marketer to burner: Unknown
Used oil Specification marketer: Unknown
Used oil transfer facility: Unknown
Used oil transporter: Unknown
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

VACUCAST INC (Continued) **1000343565**

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 06/06/1989
Facility name: VACUCAST INC
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110002118173

Environmental Interest/Information System
US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

156
SW
1/8-1/4
0.229 mi.
1207 ft.

Relative:
Higher

Actual:
769 ft.

ALUTIIQ PROFESSIONAL SERVICES LLC **RCRA-NonGen** **1001817613**
2400 N SAGINAW ST **FINDS** **MIR000043422**
FLINT, MI 48505

RCRA-NonGen:
Date form received by agency: 08/16/2005
Facility name: ALUTIIQ PROFESSIONAL SERVICES LLC
Facility address: 2400 N SAGINAW ST
FLINT, MI 48505
EPA ID: MIR000043422
Contact: RAY HADDIX
Contact address: 2400 N SAGINAW ST
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (810) 272-9102
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: US DEPT/LABOR - JOB CORPS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported

ALUTIIQ PROFESSIONAL SERVICES LLC (Continued) **1001817613**

Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Owner/operator name: ALUTIIZ PROFESSIONAL SERVICES LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/01/2004
Owner/Op end date: Not reported

Owner/operator name: US DEPT/LABOR - JOB CORPS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

ALUTIIQ PROFESSIONAL SERVICES LLC (Continued) **1001817613**

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 01/01/2004
Facility name: ALUTIIQ PROFESSIONAL SERVICES LLC
Classification: Not a generator, verified

Date form received by agency: 11/29/1999
Facility name: ALUTIIQ PROFESSIONAL SERVICES LLC
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110003712590

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

M157 **LOCKHART CHEMICAL CO** **RCRA-LQG** **1000270272**
NE **4302 JAMES P COLE BLVD** **TRIS** **48505LCKHR47**
1/4-1/2 **FLINT, MI 48505** **FINDS**
0.251 mi. **MANIFEST**
1323 ft. **Site 1 of 2 in cluster M**

Relative:
Higher

Actual:
750 ft.

RCRA-LQG:
Date form received by agency: 02/18/2008
Facility name: LOCKHART CHEMICAL CO
Facility address: 4302 JAMES P COLE BLVD
FLINT, MI 48505
EPA ID: MID033674730
Contact: RAJINDER MINHAS
Contact address: 4302 JAMES P COLE BLVD
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (810) 789-8330
Contact email: Not reported

LOCKHART CHEMICAL CO (Continued) **1000270272**

EPA Region: 05
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: LOCKHART HOLDING MID033674730
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1985
Owner/Op end date: Not reported

Owner/operator name: LOCKHART HOLDING MID033674730
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1985
Owner/Op end date: Not reported

Owner/operator name: NL KIMES ASSOC INC MIT270013014
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: NL KIMES ASSOC INC MIT270013014
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

LOCKHART CHEMICAL CO (Continued) **1000270272**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 03/01/2006
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 02/14/2006
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

LOCKHART CHEMICAL CO (Continued) **1000270272**

Date form received by agency: 03/02/2005
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 03/01/2004
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 02/26/2004
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 03/24/2003
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 03/01/2002
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 02/25/2002
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 01/01/2001
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 12/21/2000
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 02/11/1998
Facility name: LOCKHART CHEMICAL CO
Site name: LOCKHART CHEMICAL COMPANY
Classification: Large Quantity Generator

Date form received by agency: 02/03/1989
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Date form received by agency: 11/24/1980
Facility name: LOCKHART CHEMICAL CO
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2007

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

LOCKHART CHEMICAL CO (Continued) **1000270272**

Amount (Lbs): 297341

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 284230.2

Waste code: D021
Waste name: CHLOROBENZENE
Amount (Lbs): 1369.5

Waste code: D022
Waste name: CHLOROFORM
Amount (Lbs): 1369.5

Waste code: D025
Waste name: P-CRESOL
Amount (Lbs): 1369.5

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 1369.5

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 1369.5

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Not reported
Date violation determined: Not reported
Date achieved compliance: Not reported
Violation lead agency: Not reported
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Tank System Standards
Date violation determined: 02/01/2006
Date achieved compliance: Not reported
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/14/2006

LOCKHART CHEMICAL CO (Continued) **1000270272**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Tank System Standards
Date violation determined: 02/01/2006
Date achieved compliance: Not reported
Violation lead agency: EPA
Enforcement action: LETTER OF INTENT TO INITIATE ENFORCEMENT ACTION
Enforcement action date: 02/14/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Preparedness and Prevention
Date violation determined: 02/01/2006
Date achieved compliance: Not reported
Violation lead agency: EPA
Enforcement action: LETTER OF INTENT TO INITIATE ENFORCEMENT ACTION
Enforcement action date: 02/14/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Preparedness and Prevention
Date violation determined: 02/01/2006
Date achieved compliance: Not reported
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/14/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 07/13/1999
Date achieved compliance: 10/16/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/13/1999
Enf. disposition status: Not reported

LOCKHART CHEMICAL CO (Continued) **1000270272**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/29/1999
Date achieved compliance: 10/16/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/13/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 05/10/2007
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/30/2006
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: TSD IS-Preparedness and Prevention
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 08/30/2006
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: TSD IS-Tank System Standards
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 02/01/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/01/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Tank System Standards
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 02/01/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Preparedness and Prevention
Date achieved compliance: Not reported
Evaluation lead agency: EPA

LOCKHART CHEMICAL CO (Continued) **1000270272**

Evaluation date: 06/29/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/16/2000
Evaluation lead agency: State

Evaluation date: 06/29/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/16/2000
Evaluation lead agency: State

FINDS:

Registry ID: 110000407596

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US Facility Response Plan (FRP) contains plans for responding, to the maximum extent practical, to worst case discharges of oil.

NY MANIFEST:
EPA ID: MID033674730
Country: USA
Mailing Name: LOCKHART CHEMICAL CO
Mailing Contact: RAJ MINHAS
Mailing Address: JAMES P COLR BLVD
Mailing Address 2: Not reported
Mailing City: FLINT

LOCKHART CHEMICAL CO (Continued) **1000270272**

Mailing State:	MI
Mailing Zip:	48505
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	810-789-8330

Document ID:	NYB8912277
Manifest Status:	Not reported
Trans1 State ID:	NYD986969947
Trans2 State ID:	Not reported
Generator Ship Date:	05/26/1998
Trans1 Recv Date:	05/26/1998
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	05/27/1998
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID033674730
Trans1 EPA ID:	NYD049836679
Trans2 EPA ID:	Not reported
TSDF ID:	0225848ME
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	19740
Units:	P - Pounds
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	98
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYB9092682
Manifest Status:	Not reported
Trans1 State ID:	NYD986969947
Trans2 State ID:	Not reported
Generator Ship Date:	12/10/1998
Trans1 Recv Date:	12/10/1998
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	12/11/1998
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID033674730
Trans1 EPA ID:	NYD049836679
Trans2 EPA ID:	Not reported
TSDF ID:	88916MNY

LOCKHART CHEMICAL CO (Continued) **1000270272**

Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	32160
Units:	P - Pounds
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	98
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

Document ID:	NYB9132867
Manifest Status:	Not reported
Trans1 State ID:	OHD009865825
Trans2 State ID:	Not reported
Generator Ship Date:	08/12/1999
Trans1 Recv Date:	08/12/1999
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	08/13/1999
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	MID033674730
Trans1 EPA ID:	NYD049836679
Trans2 EPA ID:	Not reported
TSDF ID:	T262KJ
Waste Code:	D005 - BARIUM 100.0 MG/L TCLP
Quantity:	16480
Units:	P - Pounds
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Year:	99
Manifest Tracking Num:	Not reported
Import Ind:	Not reported
Export Ind:	Not reported
Discr Quantity Ind:	Not reported
Discr Type Ind:	Not reported
Discr Residue Ind:	Not reported
Discr Partial Reject Ind:	Not reported
Discr Full Reject Ind:	Not reported
Manifest Ref Num:	Not reported
Alt Fac RCRA Id:	Not reported
Alt Fac Sign Date:	Not reported
Mgmt Method Type Code:	Not reported

M158 **4302 JAMES P. COLE BOULEVARD** **SHWS** **S107792965**
NE **4302 JAMES P. COLE BOULEVARD** **NPDES** **N/A**
1/4-1/2 **FLINT, MI** **BEA**
0.251 mi.
1323 ft. **Site 2 of 2 in cluster M**

Relative:
Higher

Actual:
750 ft.

SHWS:

Facility ID:	25000013
Facility Status:	**Interim Response in progress**
Source:	Petroleum Products
SAM Score:	34 out o
SAM Score Date:	5/23/2005
Township:	08N
Range:	07E
Section:	31
Quarter:	NE
Quarter/Quarter:	null
Pollutants:	1,3-Dichloropropene; Sb; As; Benzene; Ni; PCB's; BEHP; Hg

MI NPDES:

Permit Number:	MIS510265
Permitee PO Box:	N
Permitee Email:	Not reported
Issue Date:	1/20/2005
Effective Date:	4/1/2005
Expiration Date:	4/1/2010
Permittee Name:	Lockhart Chemical Company
Permittee Address:	4302 James P. Cole Boulevard
Permittee Addr2:	Not reported
Permittee City,St,Zip:	Flint, MI 48505
Permit Type:	COC
Facility Name 2:	Not reported
Facility Name 3:	Not reported
Facility Name 4:	Not reported
Designed Name:	Lockhart Chem Co-Flint
Latitude:	43.058900000000001
Lat Direction:	N
Lat Type Code:	LAT
Longitude:	-83.676400000000001
Lon Direction:	W
Lon Type Code:	LON
Hydrologic Unit Code:	4080204

BEA:

Secondary Address:	Not reported
BEA Number:	1405
District:	Lansing
Date Received:	5/28/2009 12:59:00 AM
Submitter Name:	Additives International, LLC
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	innesj
Division Assigned:	RRD

159 SE 1/4-1/2 0.325 mi. 1714 ft. | **DIVERSIFIED ENVIRONMENTAL RECYCLING INC**
1525 DELAWARE AVE
FLINT, MI 48506 | **RCRA-NonGen FINDS** | **1001220273 MIR000032854**

Relative: Lower

Actual: 724 ft.

RCRA-NonGen:

Date form received by agency:	12/21/2000
Facility name:	DIVERSIFIED ENVIRONMENTAL RECYCLING INC
Facility address:	1525 DELAWARE AVE FLINT, MI 48506
EPA ID:	MIR000032854
Mailing address:	3022 WOLCOTT ST FLINT, MI 48504
Contact:	DAVID WITHEY II
Contact address:	1525 DELAWARE AVE FLINT, MI 48506
Contact country:	Not reported
Contact telephone:	(810) 235-5167
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	12/22/2000
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	12/22/2000
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

DIVERSIFIED ENVIRONMENTAL RECYCLING INC (Continued) **1001220273**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:
Date form received by agency: 06/18/1998
Facility name: DIVERSIFIED ENVIRONMENTAL RECYCLING INC
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110032749612

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

160 West 1/4-1/2 0.326 mi. 1720 ft.

AMAL PROPERTIES LLC
4250 N SAGINAW STREET
FLINT, MI 48505

RCRA-NonGen

1007264641
MIK826142820

Relative: Higher

Actual: 792 ft.

RCRA-NonGen:

Date form received by agency:	04/26/2007
Facility name:	AMAL PROPERTIES LLC
Facility address:	4250 N SAGINAW STREET FLINT, MI 48505
EPA ID:	MIK826142820
Contact:	MOZELLA HENRY
Contact address:	4250 N SAGINAW STREET FLINT, MI 48505
Contact country:	Not reported
Contact telephone:	(810) 785-1121
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	AMAL MOUSA MOHAMED
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	07/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	AMAL MOUSA MOHAMED
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	07/01/2002
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No

AMAL PROPERTIES LLC (Continued) **1007264641**

Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 02/20/2004
Facility name: AMAL PROPERTIES LLC
Classification: Not a generator, verified

Violation Status: No violations found

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161 West 1/4-1/2 0.326 mi. 1723 ft.

Relative: Higher

Actual: 775 ft.

LARRY & HELENS MEAT MARKET **LUST U003103277**
3907 N SAGINAW ST **UST N/A**
FLINT, MI 48505

LUST:
Facility ID: 00038985
Source: STATE OF MICHIGAN
Owner Name: Larry D Johnson
Owner Address: 913 W Hamilton Ave
Owner City,St,Zip: Flint, MI 48504-7249
Owner Contact: Not reported
Owner Phone: (810) 238-1926
Country: USA
District: Lansing District Office
Site Name: Larry & Helens Meat Market
Latitude: 43.0505810000
Longitude: -83.6940620000

LARRY & HELENS MEAT MARKET (Continued) **U003103277**

Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0321-96
Release Date: May 20 1996
Substance Released: Gasoline
Release Status: Closed
Release Closed Date: Sep 3 1996

UST:
Facility ID: 00038985
Facility Type: CLOSED
Latitude: 43.0505810000
Longitude: -83.6940620000
Owner Name: Larry D Johnson
Owner Address: 913 W Hamilton Ave
Owner City,St,Zip: Flint, MI 48504-7249
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (810) 238-1926
Contact: LARRY D JOHNSON
Contact Phone: (810) 238-1926
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 2000
Install Date: Not reported
Product: Gasoline
Remove Date: May 15 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Unknown
Impressed Device: No

162
West
1/4-1/2
0.329 mi.
1735 ft.

GENESEE BANK — **UST** **U000253172**
3615 N SAGINAW ST — **N/A**
FLINT, MI 48505

Relative:
Higher

Actual:
763 ft.

UST:

Facility ID:	00001007
Facility Type:	CLOSED
Latitude:	43.0485510000
Longitude:	-83.6940630000
Owner Name:	Genesee Bank
Owner Address:	1 E FIRST ST
Owner City,St,Zip:	FLINT, MI 48504
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(000) 000-0000
Contact:	RAY W. OTCHINSON
Contact Phone:	(000) 000-0000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	500
Install Date:	Aug 5 1947
Product:	Used Oil
Remove Date:	Aug 30 1987
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

163
SSE
1/4-1/2
0.351 mi.
1851 ft.

QUONSET HUT — **LUST** **U003330566**
1910 E BOULEVARD DR — **UST** **N/A**
FLINT, MI 48506

Relative:
Lower

Actual:
713 ft.

LUST:

Facility ID:	00010903
Source:	STATE OF MICHIGAN
Owner Name:	Stevens Moving & Storage
Owner Address:	1273 Broadway Blvd
Owner City,St,Zip:	Flint, MI 48506-3206
Owner Contact:	Not reported
Owner Phone:	(810) 232-0151
Country:	USA
District:	Lansing District Office
Site Name:	Broadway Management
Latitude:	43.0331900000
Longitude:	-83.6809330000

QUONSET HUT (Continued) **U003330566**

Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0008-98
Release Date: Jan 5 1998
Substance Released: Diesel
Release Status: Closed
Release Closed Date: Oct 15 2001

UST:
Facility ID: 00010903
Facility Type: CLOSED
Latitude: 43.0331900000
Longitude: -83.6809330000
Owner Name: Stevens Moving & Storage
Owner Address: 1273 Broadway Blvd
Owner City,St,Zip: Flint, MI 48506-3206
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (810) 232-0151
Contact: JOHN STEVENS
Contact Phone: (810) 232-0151
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 1000
Install Date: May 5 1948
Product: Gasoline
Remove Date: Oct 13 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Closed in Ground
Capacity: 1000
Install Date: May 5 1969
Product: Diesel
Remove Date: Mar 11 1998
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported

QUONSET HUT (Continued) **U003330566**

Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

164
East
1/4-1/2
0.353 mi.
1866 ft.

MI DEPT/TRANSPORTATION **RCRA-NonGen** **1001228757**
I-475 OVER STEWART **FINDS** **MIR000034330**
FLINT, MI 48501

Relative:
Lower

Actual:
734 ft.

RCRA-NonGen:
Date form received by agency: 02/28/2001
Facility name: MI DEPT/TRANSPORTATION
Facility address: I-475 OVER STEWART
FLINT, MI 48501
EPA ID: MIR000034330
Mailing address: 9495 E POTTER RD
DAVISON, MI 48423
Contact: ARMANDO LOPEZ
Contact address: I-475 OVER STEWART
FLINT, MI 48501
Contact country: Not reported
Contact telephone: (810) 653-7470
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: MICH DEPT OF TRANSPORTATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Owner/operator name: MICH DEPT OF TRANSPORTATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No

MI DEPT/TRANSPORTATION (Continued) **1001228757**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 10/10/2000
Facility name: MI DEPT/TRANSPORTATION
Classification: Not a generator, verified

Date form received by agency: 08/11/1998
Facility name: MI DEPT/TRANSPORTATION
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110007593443

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource

MI DEPT/TRANSPORTATION (Continued) **1001228757**

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

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165 **CITY SEWER CLEANERS OF FLINT INC** **LUST U000253057**
SSE **2301 LEWIS ST** **UST N/A**
1/4-1/2 **FLINT, MI 48506**
0.427 mi.
2256 ft.

Relative:
Lower

Actual:
724 ft.

LUST:

Facility ID:	00013390
Source:	STATE OF MICHIGAN
Owner Name:	City Sewer Cleaners Of Flint Inc
Owner Address:	1521 Dakota Ave
Owner City,St,Zip:	Flint, MI 48506-2757
Owner Contact:	Not reported
Owner Phone:	(810) 238-6843
Country:	USA
District:	Lansing District Office
Site Name:	City Sewer Cleaners Of Flint Inc
Latitude:	43.0366260000
Longitude:	-83.6753730000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-1013-98
Release Date:	Oct 16 1998
Substance Released:	Unknown
Release Status:	Open
Release Closed Date:	Not reported

UST:

Facility ID:	00013390
Facility Type:	CLOSED
Latitude:	43.0366260000
Longitude:	-83.6753730000
Owner Name:	City Sewer Cleaners Of Flint Inc
Owner Address:	1521 Dakota Ave
Owner City,St,Zip:	Flint, MI 48506-2757
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(810) 238-6843
Contact:	WILLIAM PIERSON
Contact Phone:	(810) 238-6843
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN

CITY SEWER CLEANERS OF FLINT INC (Continued) **U000253057**

Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 4000
Install Date: May 5 1971
Product: Gasoline
Remove Date: Oct 16 1998
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 2000
Install Date: May 5 1971
Product: Diesel
Remove Date: Oct 16 1998
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 3000
Install Date: May 5 1971
Product: Gasoline
Remove Date: Oct 16 1998
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

166
East
1/4-1/2
0.442 mi.
2336 ft.

PRINCE SINGH LLC
4111 N DORT HWY
FLINT, MI 48505

LUST U000253210
UST N/A

Relative:
Lower

Actual:
723 ft.

LUST:
Facility ID: 00015951
Source: STATE OF MICHIGAN
Owner Name: Prince Singh LLC
Owner Address: 4111 N Dort Hwy
Owner City,St,Zip: Flint, MI 48505
Owner Contact: Not reported

PRINCE SINGH LLC (Continued) **U000253210**

Owner Phone:	(810) 787-6510
Country:	USA
District:	Lansing District Office
Site Name:	Citgo Petroleum Co.
Latitude:	43.0539000000
Longitude:	-83.6713580000
Date of Collection:	01-12-1998
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0951-98
Release Date:	Oct 1 1998
Substance Released:	Unknown
Release Status:	Open
Release Closed Date:	Not reported

UST:

Facility ID:	00015951
Facility Type:	ACTIVE
Latitude:	43.0539000000
Longitude:	-83.6713580000
Owner Name:	Prince Singh LLC
Owner Address:	4111 N Dort Hwy
Owner City,St,Zip:	Flint, MI 48505
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(810) 787-6510
Contact:	Balkar Singh
Contact Phone:	(810) 787-6510
Date of Collection:	01-12-1998
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Tank ID:	2
Tank Status:	**Currently In Use**
Capacity:	12000
Install Date:	Mar 6 1985
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	Interstitial Monitoring Double Walled Piping
Piping Material:	Double Walled,Fiberglass reinforced plastic
Piping Type:	Pressure
Constr Material:	Cathodically Protected Steel
Impressed Device:	No
Tank ID:	1
Tank Status:	**Currently In Use**

PRINCE SINGH LLC (Continued) **U000253210**

Capacity:	12000
Install Date:	Mar 6 1985
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	Interstitial Monitoring Double Walled Piping
Piping Material:	Double Walled,Fiberglass reinforced plastic
Piping Type:	Pressure
Constr Material:	Cathodically Protected Steel
Impressed Device:	No

Tank ID:	3
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Mar 6 1985
Product:	Used Oil
Remove Date:	Oct 1 1998
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Gravity Fed?
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	4
Tank Status:	**Currently In Use**
Capacity:	6000
Install Date:	Jan 1 1998
Product:	Diesel
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	Automatic Line Leak Detectors
Piping Material:	Double Walled,Fiberglass reinforced plastic
Piping Type:	Pressure
Constr Material:	Cathodically Protected Steel
Impressed Device:	No

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167 **STEVENS MOVING** **LUST U003330565**
SSE **1220 LINGLE** **UST N/A**
1/4-1/2 **FLINT, MI 48506**
0.468 mi.
2472 ft.

Relative:
Lower

Actual:
720 ft.

LUST:

Facility ID:	00010902
Source:	STATE OF MICHIGAN
Owner Name:	Broadway Mgt Co
Owner Address:	1273 Broadway Blvd
Owner City,St,Zip:	Flint, MI 48506-3206
Owner Contact:	Not reported
Owner Phone:	(810) 232-0151
Country:	USA
District:	Lansing District Office
Site Name:	Stevens Moving
Latitude:	43.0323590000
Longitude:	-83.6792800000

STEVENS MOVING (Continued) **U003330565**

Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-1053-97
Release Date: Oct 31 1997
Substance Released: Diesel
Release Status: Open
Release Closed Date: Not reported

UST:
Facility ID: 00010902
Facility Type: CLOSED
Latitude: 43.0323590000
Longitude: -83.6792800000
Owner Name: Broadway Mgt Co
Owner Address: 1273 Broadway Blvd
Owner City,St,Zip: Flint, MI 48506-3206
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (810) 232-0151
Contact: JOHN STEVENS
Contact Phone: (810) 232-0151
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 8000
Install Date: May 5 1964
Product: Diesel
Remove Date: Oct 13 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 8000
Install Date: May 5 1964
Product: Diesel
Remove Date: Oct 13 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported

STEVENS MOVING (Continued) **U003330565**

Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

N168
SW
1/4-1/2
0.475 mi.
2508 ft.

TROY DESIGN, INC. **BEA** **S108414577**
1900 N. SAGINAW STREET **N/A**
FLINT, MI 48505

Site 1 of 4 in cluster N

Relative:
Higher

Actual:
755 ft.

BEA:
Secondary Address: Not reported
BEA Number: 1130
District: Lansing
Date Received: 1/24/2007 12:59:00 AM
Submitter Name: MGB Holdings, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: cummingd
Division Assigned: Storage Tank Division

169
NW
1/2-1
0.505 mi.
2668 ft.

MOBIL OIL CORP **RCRA-NonGen** **1000529073**
5001 N SAGINAW **FINDS** **MID985615061**
FLINT, MI 48505 **LUST**
UST

Relative:
Higher

Actual:
801 ft.

RCRA-NonGen:
Date form received by agency: 12/31/2001
Facility name: MOBIL OIL CORP
Facility address: 5001 N SAGINAW
FLINT, MI 48505
EPA ID: MID985615061
Mailing address: 3225 GALLOWS RD
FAIRFAX, VA 22037
Contact: DAN HORTON
Contact address: 5001 N SAGINAW
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (703) 849-3330
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner

MOBIL OIL CORP (Continued) **1000529073**

Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

MOBIL OIL CORP (Continued) **1000529073**

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 06/05/1991
Facility name: MOBIL OIL CORP
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110003658916

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LUST:
Facility ID: 00003185
Source: STATE OF MICHIGAN
Owner Name: ExxonMobil -Oil Corporation
Owner Address: 3225 Gallows Rd Room 5B-1734
Owner City,St,Zip: Fairfax, VA 22037
Owner Contact: C S Fennell
Owner Phone: (703) 846-5735
Country: USA
District: Lansing District Office
Site Name: Mobil #05-c07, Former Gas-n-go
Latitude: 43.0595540000
Longitude: -83.6940530000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0136-85
Release Date: Nov 21 1989
Substance Released: Not reported
Release Status: Closed
Release Closed Date: Apr 2 1996

Leak Number: C-0871-93
Release Date: Jun 28 1993
Substance Released: Gasoline
Release Status: Closed
Release Closed Date: Apr 2 1996

MOBIL OIL CORP (Continued) **1000529073**

Leak Number: C-2295-90
Release Date: Nov 6 1990
Substance Released: Not reported
Release Status: Closed
Release Closed Date: Apr 2 1996

UST:
Facility ID: 00003185
Facility Type: CLOSED
Latitude: 43.0595540000
Longitude: -83.6940530000
Owner Name: ExxonMobil -Oil Corporation
Owner Address: 3225 Gallows Rd Room 5B-1734
Owner City,St,Zip: Fairfax, VA 22037
Owner Country: USA
Owner Contact: C S Fennell
Owner Phone: (703) 846-5735
Contact: RATRY C VINAYA
Contact Phone: (703) 849-3717
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Feb 20 1971
Product: Gasoline
Remove Date: Jun 10 1993
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Feb 20 1971
Product: Gasoline
Remove Date: Jun 10 1993
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground

MOBIL OIL CORP (Continued) **1000529073**

Capacity:	10000
Install Date:	Feb 20 1971
Product:	Gasoline
Remove Date:	Jun 10 1993
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

N170 **CITY OF FLINT FIRE DEPARTMENT** **BROWNFIELDS** **S107135953**
SW **1818 N SAGINAW STREET** **N/A**
1/2-1 **FLINT, MI**
0.510 mi.
2695 ft. **Site 2 of 4 in cluster N**

Relative:
Higher

Actual:
755 ft.

BROWNFIELD:

Facility ID:	50000515
Region:	1
Status:	In Progress
Properry Use:	Not reported
BEA:	No
Ernie Id Number:	25000269
Redevelop Status:	Not reported
Before Redevelopment:	Not reported
After Redevelopment:	Not reported

N171 **CITY OF FLINT** **LUST** **S102726153**
SW **1818 N SAGINAW ST** **N/A**
1/2-1 **FLINT, MI 99999**
0.510 mi.
2695 ft. **Site 3 of 4 in cluster N**

Relative:
Higher

Actual:
755 ft.

LUST:

Facility ID:	50000515
Source:	STATE OF MICHIGAN
Owner Name:	Nrt Owner
Owner Address:	Unknown
Owner City,St,Zip:	Unknown, MI 99999
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	USA
District:	Lansing District Office
Site Name:	City Of Flint
Latitude:	43.0329330000
Longitude:	-83.6934880000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-2215-90

CITY OF FLINT (Continued) **S102726153**

Release Date: Oct 29 1990
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

N172 **BEA** **S109416540**
SW **1818 NORTH SAGINAW** **N/A**
1/2-1 **FLINT, MI**
0.510 mi.
2695 ft. **Site 4 of 4 in cluster N**

Relative:
Higher

Actual:
755 ft.

BEA:
Secondary Address: Not reported
BEA Number: 1379
District: Lansing
Date Received: 2/19/2009 12:59:00 AM
Submitter Name: TDM International, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: cummingd
Division Assigned: Storage Tank Division

Secondary Address: Not reported
BEA Number: 1380
District: Lansing
Date Received: 2/19/2009 12:59:00 AM
Submitter Name: MGB Holdings, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: cummingd
Division Assigned: Storage Tank Division

O173 **LOCKHART CHEMICAL-WAREHOUSE** **SHWS** **S105143995**
South **1620 INDUSTRIAL DR.** **N/A**
1/2-1 **FLINT, MI 48503**
0.534 mi.
2820 ft. **Site 1 of 3 in cluster O**

Relative:
Lower

Actual:
728 ft.

SHWS:
Facility ID: 25000014
Facility Status: Interim Response in progress
Source: Chemical Preparations
SAM Score: 37 out o
SAM Score Date: 5/24/2005
Township: 07N
Range: 07E
Section: 7
Quarter: NW
Quarter/Quarter: NE
Pollutants: Benzene; Naphthalene; Toluene

O174 **KIMES CORP WAREHOUSE** **LUST** **S102726245**
South **1620 INDUSTRIAL** **N/A**
1/2-1 **FLINT, MI 48503**
0.534 mi.
2820 ft. **Site 2 of 3 in cluster O**

Relative:
Lower

Actual:
728 ft.

LUST:

Facility ID:	50001442
Source:	STATE OF MICHIGAN
Owner Name:	Nrt Owner
Owner Address:	Unknown
Owner City,St,Zip:	Unknown, MI 99999
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	USA
District:	Lansing District Office
Site Name:	Kimes Corp. Warehouse
Latitude:	43.0309380000
Longitude:	-83.6869850000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0146-85
Release Date:	Jun 2 1987
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

O175 **1620 INDUSTRIAL AVE.** **BEA** **S104910226**
South **1620 INDUSTRIAL AVE.** **N/A**
1/2-1 **FLINT, MI**
0.535 mi.
2823 ft. **Site 3 of 3 in cluster O**

Relative:
Lower

Actual:
728 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	152
District:	Lansing
Date Received:	7/1/1997
Submitter Name:	Burnash Wrecking Co.
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	temppm
Division Assigned:	Environmental Response Division

176
NNE
1/2-1
0.536 mi.
2832 ft.

FOUR M MFG GROUP OF CPC INC
1409 E PIERSON RD
FLINT, MI 48505

LUST U003102889
UST N/A

Relative:
Higher

Actual:
752 ft.

LUST:

Facility ID:	00012423
Source:	STATE OF MICHIGAN
Owner Name:	Four M Mfg Group Of Cpc Inc
Owner Address:	1409 E Pierson Rd
Owner City,St,Zip:	Flint, MI 48505-3081
Owner Contact:	Not reported
Owner Phone:	(810) 787-6503
Country:	USA
District:	Lansing District Office
Site Name:	Consolidated Packaging Corp.
Latitude:	43.0614690000
Longitude:	-83.6761210000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0565-94
Release Date:	Jun 7 1994
Substance Released:	Diesel
Release Status:	Closed
Release Closed Date:	Oct 31 1994

UST:

Facility ID:	00012423
Facility Type:	CLOSED
Latitude:	43.0614690000
Longitude:	-83.6761210000
Owner Name:	Four M Mfg Group Of Cpc Inc
Owner Address:	1409 E Pierson Rd
Owner City,St,Zip:	Flint, MI 48505-3081
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(810) 787-6503
Contact:	DON UNBAN
Contact Phone:	(313) 787-6503
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	8000
Install Date:	Feb 4 1982
Product:	Diesel

FOUR M MFG GROUP OF CPC INC (Continued) **U003102889**

Remove Date: May 2 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 10000
Install Date: Feb 5 1980
Product: FUEL OIL
Remove Date: Jun 7 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

P177 **KIMES CORP** **LUST U000253256**
NNE **4701 THETFORD RD** **UST N/A**
1/2-1 **FLINT, MI 48505**
0.542 mi.
2862 ft. **Site 1 of 2 in cluster P**

Relative: Higher

Actual: 750 ft.

LUST:
Facility ID: 00017324
Source: STATE OF MICHIGAN
Owner Name: Kimes Corp
Owner Address: 4701 Thetford Rd
Owner City,St,Zip: Flint, MI 48505-3669
Owner Contact: Not reported
Owner Phone: (734) 789-8330
Country: USA
District: Lansing District Office
Site Name: Kimes Corp., Thetford Road Plant
Latitude: 43.0595670000
Longitude: -83.6753680000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0157-85
Release Date: Sep 23 1986
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

UST:
Facility ID: 00017324
Facility Type: CLOSED

KIMES CORP (Continued) **U000253256**

Latitude:	43.0595670000
Longitude:	-83.6753680000
Owner Name:	Kimes Corp
Owner Address:	4701 Thetford Rd
Owner City,St,Zip:	Flint, MI 48505-3669
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 789-8330
Contact:	JOSEPH ELDICK
Contact Phone:	(734) 789-8330
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	FUELTK1
Tank Status:	**Removed from Ground**
Capacity:	Not reported
Install Date:	Not reported
Product:	Gasoline,1/2 FULL OF GRAVEL
Remove Date:	Aug 30 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Not reported
Constr Material:	Unknown
Impressed Device:	No

Tank ID:	108
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1978
Product:	Used Oil
Remove Date:	Aug 30 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Fiberglass reinforced plastic
Piping Type:	Not reported
Constr Material:	Fiberglass Reinforced plastic
Impressed Device:	No

Tank ID:	958
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	May 5 1978
Product:	TENNCOUNT
Remove Date:	Aug 30 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Fiberglass reinforced plastic
Piping Type:	Not reported

KIMES CORP (Continued) **U000253256**

Constr Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: FUELTK2
Tank Status: Removed from Ground
Capacity: Not reported
Install Date: Not reported
Product: Gasoline,1/2 FULL OF GRAVEL
Remove Date: Aug 30 1990
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Unknown
Impressed Device: No

P178 **ESTECH OIL COMPANY** **CERC-NFRAP** **1000200832**
NNE **4701 THETFORD** **RCRA-NonGen** **MID098675937**
1/2-1 **FLINT, MI 48505** **FINDS**
0.542 mi.
2862 ft. **Site 2 of 2 in cluster P**

Relative:
Higher

Actual:
750 ft.

CERC-NFRAP:
Site ID: 0502696
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP

CERCLIS-NFRAP Site Contact Name(s):
Contact Title: RESPONSIBLE PARTY INVESTIGATOR
Contact Name: JANET PFUNDHELLER
Contact Tel: (312) 353-5821

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: ESTECH OIL CO
Alias Address: 4701 THETFORD
FLINT, MI 48505

Program Priority:
Description: Great Lakes

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: Not reported
Date Completed: 06/01/1981
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 12/22/1987
Priority Level: NFRAP: No further Remedial Action planned

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 12/22/1987

ESTECH OIL COMPANY (Continued) **1000200832**

Priority Level: Not reported

RCRA-NonGen:
Date form received by agency: 08/18/1980
Facility name: ESTECH OIL CO
Facility address: 4701 THETFORD ST
FLINT, MI 48505
EPA ID: MID098675937
Contact: JOHN HOLLEMBEAK
Contact address: 4701 THETFORD ST
FLINT, MI 48505
Contact country: Not reported
Contact telephone: (313) 785-8311
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/03/1970
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/03/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

ESTECH OIL COMPANY (Continued) **1000200832**

Universal Waste Summary:

Waste type:	DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	MERCURY THERMOMETERS
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	MERCURY SWITCHES
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Batteries
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Lamps
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Pesticides
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Thermostats
Accumulated waste on-site:	No
Generated waste on-site:	No
Violation Status:	No violations found

FINDS:

Registry ID: 110003609532

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Q179 **RITE AID** **LUST** **S103028822**
NNW **709 E PIERSON RD** **N/A**
1/2-1 **FLINT, MI 48505**
0.568 mi.
3001 ft. **Site 1 of 3 in cluster Q**

Relative:
Higher

Actual:
801 ft.

LUST:

Facility ID:	50002183
Source:	STATE OF MICHIGAN
Owner Name:	Nrt Owner
Owner Address:	Unknown
Owner City,St,Zip:	Unknown, MI 99999
Owner Contact:	Not reported
Owner Phone:	Not reported

RITE AID (Continued) **S103028822**

Country:	USA
District:	Lansing District Office
Site Name:	Rite Aid
Latitude:	43.0611150000
Longitude:	-83.6934490000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0061-98
Release Date:	Jan 19 1996
Substance Released:	Unknown
Release Status:	Open
Release Closed Date:	Not reported

Q180 **RITE AID CORP** **LUST U003083093**
NW **5202 N SAGINAW ST** **UST N/A**
1/2-1 **FLINT, MI 17011**
0.577 mi.
3047 ft. **Site 2 of 3 in cluster Q**

Relative:
Higher

Actual:
801 ft.

LUST:

Facility ID:	00038916
Source:	STATE OF MICHIGAN
Owner Name:	Rite Aid Michigan
Owner Address:	30 Hunter Ln
Owner City,St,Zip:	Camp Hill, PA 17011
Owner Contact:	Not reported
Owner Phone:	(586) 264-0323
Country:	USA
District:	Lansing District Office
Site Name:	Rite Aid Corp
Latitude:	43.0611170000
Longitude:	-83.6936700000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0046-96
Release Date:	Jan 19 1996
Substance Released:	Unknown
Release Status:	Open
Release Closed Date:	Not reported
Leak Number:	C-0073-96
Release Date:	Jan 30 1996
Substance Released:	Gasoline
Release Status:	Open
Release Closed Date:	Not reported

UST:

RITE AID CORP (Continued) **U003083093**

Facility ID:	00038916
Facility Type:	CLOSED
Latitude:	43.0611170000
Longitude:	-83.6936700000
Owner Name:	Rite Aid Michigan
Owner Address:	30 Hunter Ln
Owner City,St,Zip:	Camp Hill, PA 17011
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(586) 264-0323
Contact:	PAUL KIRKWOOD
Contact Phone:	(717) 975-3743
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	425
Install Date:	Not reported
Product:	UNK
Remove Date:	Jan 19 1996
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	5
Tank Status:	**Removed from Ground**
Capacity:	550
Install Date:	Not reported
Product:	Used Oil
Remove Date:	Jan 31 1996
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	6
Tank Status:	**Removed from Ground**
Capacity:	550
Install Date:	Not reported
Product:	Gasoline
Remove Date:	Jan 31 1996
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported

RITE AID CORP (Continued) **U003083093**

Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 275
Install Date: Not reported
Product: UNK
Remove Date: Jan 19 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 275
Install Date: Not reported
Product: UNK
Remove Date: Jan 19 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 7
Tank Status: Removed from Ground
Capacity: 550
Install Date: Not reported
Product: Gasoline
Remove Date: Jan 31 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 2000
Install Date: Not reported
Product: Gasoline
Remove Date: Jan 29 1996
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel

RITE AID CORP (Continued) **U003083093**

Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

R181 **3119 NORTH FRANKLIN AVENUE** **BEA** **S108986738**
ESE **3119 NORTH FRANKLIN AVENUE** **N/A**
1/2-1 **FLINT, MI**
0.586 mi.
3092 ft. **Site 1 of 2 in cluster R**

Relative:
Higher

Actual:
747 ft.

BEA:
Secondary Address: Not reported
BEA Number: 1271
District: Lansing
Date Received: 1/23/2008 12:59:00 AM
Submitter Name: Genesee County Land Bank Authority
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: innesj
Division Assigned: Environmental Response Division

R182 **3102 NORTH FRANKLIN SSTREET** **BEA** **S107031532**
ESE **3102 NORTH FRANKLIN STREET** **N/A**
1/2-1 **FLINT, MI**
0.586 mi.
3095 ft. **Site 2 of 2 in cluster R**

Relative:
Higher

Actual:
747 ft.

BEA:
Secondary Address: Not reported
BEA Number: 958
District: Lansing
Date Received: 7/12/2005 12:59:00 AM
Submitter Name: Family Dollar Stores of Michigan, Inc.
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: innesj
Division Assigned: Environmental Response Division

Q183 **PIERSON GAS MART** **LUST** **U003081943**
NW **680 E PIERSON RD** **UST** **N/A**
1/2-1 **FLINT, MI 48505**
0.594 mi.
3138 ft. **Site 3 of 3 in cluster Q**

Relative:
Higher

Actual:
801 ft.

LUST:
Facility ID: 00008085
Source: STATE OF MICHIGAN
Owner Name: Ahmed Harajly
Owner Address: 723 Norborne
Owner City,St,Zip: Dearborn Heights, MI 48127
Owner Contact: Not reported

PIERSON GAS MART (Continued) **U003081943**

Owner Phone: 313-477-5133
Country: USA
District: Lansing District Office
Site Name: Mooney Oil #21
Latitude: 43.0608300000
Longitude: -83.6945670000
Date of Collection: 01-12-1998
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0608-94
Release Date: Jun 17 1994
Substance Released: Gasoline
Release Status: Open
Release Closed Date: Not reported

UST:
Facility ID: 00008085
Facility Type: ACTIVE
Latitude: 43.0608300000
Longitude: -83.6945670000
Owner Name: Ahmed Harajly
Owner Address: 723 Norborne
Owner City,St,Zip: Dearborn Heights, MI 48127
Owner Country: USA
Owner Contact: Not reported
Owner Phone: 313-477-5133
Contact: Nasser Bazzi
Contact Phone: 313-471-6500
Date of Collection: 01-12-1998
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 1
Tank Status: Currently In Use
Capacity: 4000
Install Date: Mar 27 1966
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging,Inter Monitoring Double Walled Tank
Pipe Realease Detection: Automatic Line Leak Detectors,Interstitial Monitoring Double Walled Piping
Piping Material: Double Walled,Enviroflex
Piping Type: Pressure
Constr Material: Asphalt Coated or Bare Steel,Lined Interior
Impressed Device: No

Tank ID: 2

PIERSON GAS MART (Continued) **U003081943**

Tank Status:	**Currently In Use**
Capacity:	4000
Install Date:	Mar 27 1966
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging,Inter Monitoring Double Walled Tank
Pipe Realease Detection:	Automatic Line Leak Detectors,Interstitial Monitoring Double Walled Piping
Piping Material:	Double Walled,Enviroflex
Piping Type:	Pressure
Constr Material:	Asphalt Coated or Bare Steel,Lined Interior
Impressed Device:	No

Tank ID:	3
Tank Status:	**Closed in Ground**
Capacity:	4000
Install Date:	Mar 27 1966
Product:	Gasoline
Remove Date:	Oct 25 2002
Tank Release Detection:	Automatic Tank Gauging,Inter Monitoring Double Walled Tank
Pipe Realease Detection:	Automatic Line Leak Detectors,Interstitial Monitoring Double Walled Piping
Piping Material:	Double Walled,Envroflex
Piping Type:	Pressure
Constr Material:	Asphalt Coated or Bare Steel,Lined Interior
Impressed Device:	No

Tank ID:	4
Tank Status:	**Removed from Ground**
Capacity:	Not reported
Install Date:	Not reported
Product:	Gasoline
Remove Date:	Dec 5 1995
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

S184 **1405 DAVISON ROAD** **BEA** **S104910306**
SE **1405 DAVISON ROAD** **N/A**
1/2-1 **FLINT, MI**
0.598 mi.
3156 ft. **Site 1 of 2 in cluster S**

Relative:
Lower

Actual:
732 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	169
District:	Lansing
Date Received:	9/12/1997
Submitter Name:	Assaf, George
Petition Determination:	Affirmed
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Pending

1405 DAVISON ROAD (Continued) **S104910306**

Reviewer: temppm
Division Assigned: Storage Tank Division

S185 **SUNOCO #0354-5613** **LUST U003081491**
SE **1405 DAVISON RD** **UST N/A**
1/2-1 **FLINT, MI 48506**
0.598 mi.
3156 ft. **Site 2 of 2 in cluster S**

Relative:
Lower

Actual:
732 ft.

LUST:

Facility ID:	00004153
Source:	STATE OF MICHIGAN
Owner Name:	Sunoco Inc (R&M)
Owner Address:	1735 Market St 12nd Floor
Owner City,St,Zip:	Philadelphia, PA 19103
Owner Contact:	Environmental Compliance Officer
Owner Phone:	(215) 246-8513
Country:	USA
District:	Lansing District Office
Site Name:	Buick City Shell
Latitude:	43.0330910000
Longitude:	-83.6748110000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0112-94
Release Date:	Dec 23 1993
Substance Released:	Used Oil
Release Status:	Closed
Release Closed Date:	May 11 1994
Leak Number:	C-0644-90
Release Date:	Apr 12 1990
Substance Released:	Not reported
Release Status:	Closed
Release Closed Date:	May 11 1994

UST:

Facility ID:	00004153
Facility Type:	CLOSED
Latitude:	43.0330910000
Longitude:	-83.6748110000
Owner Name:	Sunoco Inc (R&M)
Owner Address:	1735 Market St 12nd Floor
Owner City,St,Zip:	Philadelphia, PA 19103
Owner Country:	USA
Owner Contact:	Environmental Compliance Officer
Owner Phone:	(215) 246-8513
Contact:	KATHLEEN MCCANEY
Contact Phone:	(215) 246-8513
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET

SUNOCO #0354-5613 (Continued) **U003081491**

Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 7
Tank Status: Removed from Ground
Capacity: 6000
Install Date: May 2 1985
Product: Gasoline,8
Remove Date: Apr 29 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass reinforced plastic
Piping Type: Not reported
Constr Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 5
Tank Status: Removed from Ground
Capacity: 4000
Install Date: May 3 1975
Product: Gasoline
Remove Date: Jan 1 1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 8
Tank Status: Removed from Ground
Capacity: 8000
Install Date: May 2 1985
Product: Gasoline,8
Remove Date: Apr 29 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Constr Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 2
Tank Status: Closed in Ground
Capacity: 4000
Install Date: May 3 1975
Product: Gasoline
Remove Date: Jan 13 1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel

SUNOCO #0354-5613 (Continued) **U003081491**

Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 550
Install Date: May 3 1975
Product: Used Oil
Remove Date: Dec 1 1993
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 550
Install Date: May 3 1975
Product: FUEL OIL
Remove Date: Dec 1 1993
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Pressure
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 4000
Install Date: May 2 1985
Product: Gasoline,8
Remove Date: Apr 29 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Constr Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 12000
Install Date: May 3 1975
Product: Gasoline
Remove Date: Jan 1 1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported

SUNOCO #0354-5613 (Continued) **U003081491**

Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

186
South
1/2-1
0.623 mi.
3287 ft.

1527 INDUSTRIAL **BROWNFIELDS** **S107135933**
1527 INDUSTRIAL DRIVE **N/A**
FLINT, MI

Relative:
Lower

Actual:
724 ft.

BROWNFIELD:
Facility ID: Not reported
Region: 1
Status: Closed
Properry Use: Not reported
BEA: No
Ernie Id Number: 25000367
Redevelop Status: Not reported
Before Redevelopment: Not reported
After Redevelopment: Not reported

187
NNE
1/2-1
0.625 mi.
3299 ft.

ROBERT S YOUNG/YOUNG & ORME **LUST** **U002301220**
G5305 N DORT HWY **UST** **N/A**
FLINT, MI 48505

Relative:
Higher

Actual:
750 ft.

LUST:
Facility ID: 00001946
Source: STATE OF MICHIGAN
Owner Name: Robert S Young/Young & Orme
Owner Address: G5305 N Dort Hwy
Owner City,St,Zip: Flint, MI 48505-1832
Owner Contact: Not reported
Owner Phone: (810) 789-7155
Country: USA
District: Lansing District Office
Site Name: Young & Orme
Latitude: 43.0852280000
Longitude: -83.6746490000
Date of Collection: 01-12-1998
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-1463-94
Release Date: Nov 29 1994
Substance Released: Used Oil,Other
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-2041-90
Release Date: Oct 12 1990
Substance Released: Not reported

ROBERT S YOUNG/YOUNG & ORME (Continued) **U002301220**

Release Status: Open
Release Closed Date: Not reported

UST:
Facility ID: 00001946
Facility Type: ACTIVE
Latitude: 43.0852280000
Longitude: -83.6746490000
Owner Name: Robert S Young/Young & Orme
Owner Address: G5305 N Dort Hwy
Owner City,St,Zip: Flint, MI 48505-1832
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (810) 789-7155
Contact: Robert S Young
Contact Phone: (810) 789-7155
Date of Collection: 01-12-1998
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 5
Tank Status: Removed from Ground
Capacity: 1000
Install Date: Apr 10 1979
Product: Used Oil
Remove Date: Nov 19 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 4000
Install Date: Apr 9 1966
Product: Diesel
Remove Date: Jun 30 1987
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 4000
Install Date: Apr 9 1966
Product: Gasoline

ROBERT S YOUNG/YOUNG & ORME (Continued) **U002301220**

Remove Date: Jun 4 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 8000
Install Date: Apr 9 1966
Product: Diesel
Remove Date: Jun 4 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 7
Tank Status: Currently In Use
Capacity: 10000
Install Date: Feb 13 1992
Product: Gasoline, Diesel
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled Piping
Piping Material: Fiberglass Reinforced Plastic, Double Walled
Piping Type: Pressure
Constr Material: Composite (Steel with Fiberglass), Double Walled
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 2000
Install Date: Apr 9 1986
Product: FUEL OIL
Remove Date: Nov 19 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel,Lined Interier
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 8000
Install Date: Apr 9 1966

ROBERT S YOUNG/YOUNG & ORME (Continued) **U002301220**

Product: Diesel
Remove Date: Jun 4 1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

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188 South 1/2-1 0.647 mi. 3415 ft.

EI DUPONT FLINT SITE
1555 JAMES P COLE BLVD
FLINT, MI 48503

RCRA-TSDF 1000348693
CORRACTS MID005512066
RCRA-LQG
FINDS
RAATS

Relative: Lower

Actual: 711 ft.

RCRA-TSDF:
Date form received by agency: 02/29/2008
Facility name: EI DUPONT FLINT SITE
Facility address: 1555 JAMES P COLE BLVD
FLINT, MI 48503
EPA ID: MID005512066
Mailing address: BARLEY MIL LPLAZA 19
WILMINGTON, DE 19805
Contact: JOHN LANG
Contact address: 1555 JAMES P COLE BLVD
FLINT, MI 48503
Contact country: Not reported
Contact telephone: (810) 767-1490
Contact email: Not reported
EPA Region: 05
Land type: Private
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
TSD commencement date: Not reported
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: EI DUPONT DE NEMOURS AND CO
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator

EI DUPONT FLINT SITE (Continued) **1000348693**

Owner/Op start date: 03/07/2001
Owner/Op end date: Not reported

Owner/operator name: EI DUPONT DE NEMOURS AND CO
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 03/07/2001
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

EI DUPONT FLINT SITE (Continued) **1000348693**

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:

Date form received by agency: 02/01/2007
Facility name: EI DUPONT FLINT SITE
Classification: Large Quantity Generator

Date form received by agency: 03/14/2006
Facility name: EI DUPONT FLINT SITE
Classification: Large Quantity Generator

Date form received by agency: 03/01/2006
Facility name: EI DUPONT FLINT SITE
Classification: Small Quantity Generator

Date form received by agency: 09/11/2002
Facility name: EI DUPONT FLINT SITE
Classification: Large Quantity Generator

Date form received by agency: 02/26/1996
Facility name: EI DUPONT FLINT SITE
Site name: E.I. DUPONT, FLINT PLANT
Classification: Large Quantity Generator

Date form received by agency: 02/25/1994
Facility name: EI DUPONT FLINT SITE
Site name: E.I. DUPONT, FLINT PLANT
Classification: Large Quantity Generator

Date form received by agency: 02/17/1992
Facility name: EI DUPONT FLINT SITE
Site name: DU PONT E I DE NEMOURS & CO
Classification: Large Quantity Generator

Date form received by agency: 02/15/1990
Facility name: EI DUPONT FLINT SITE
Site name: DU PONT E I DE NEMOURS & CO
Classification: Large Quantity Generator

Date form received by agency: 11/18/1980
Facility name: EI DUPONT FLINT SITE
Classification: Large Quantity Generator

Date form received by agency: 11/17/1980
Facility name: EI DUPONT FLINT SITE
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2007

Annual Waste Handled:
Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

EI DUPONT FLINT SITE (Continued) **1000348693**

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 7428267.4

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 7428267.4

Waste code: U002
Waste name: ACETONE (I)
Amount (Lbs): 7428267.4

Waste code: U031
Waste name: 1-BUTANOL (I)
Amount (Lbs): 7378896

Waste code: U081
Waste name: 2,4-DICHLOROPHENOL
Amount (Lbs): 8700

Waste code: U088
Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER
Amount (Lbs): 7387596

Waste code: U154
Waste name: METHANOL (I)
Amount (Lbs): 7428267.4

Corrective Action Summary:

Event date: 04/27/1989
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 04/27/1989
Event: RFA Completed

Event date: 03/31/1992
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 04/10/1996
Event: RFA Initiation

Event date: 10/31/1997
Event: RFI Workplan Notice Of Deficiency Issued

EI DUPONT FLINT SITE (Continued) **1000348693**

Event date:	02/05/1998
Event:	RFI Imposition, Focused data collection required for stabilization evaluation.
Event date:	03/30/1998
Event:	RFI Workplan Received
Event date:	03/03/2000
Event:	RFI Workplan Received
Event date:	04/19/2000
Event:	RFI Workplan Modification Requested By Agency
Event date:	11/06/2000
Event:	RFI Report Received
Event date:	12/26/2000
Event:	RFI Approved
Event date:	02/28/2001
Event:	CMS Workplan Received
Event date:	03/13/2001
Event:	RFI Report Received
Event date:	07/10/2001
Event:	RFI Supplemental Information Requested By Agency
Event date:	07/10/2001
Event:	RFI Supplemental Information Requested By Agency
Event date:	07/10/2001
Event:	Stabilization Measures Evaluation,This facility is not amenable to stabilization activity because of a lack of technical data. An evaluation has been completed, but further data is necessary to determine stabilization measures, feasibility or appropriateness. This status should be changed when data becomes available.
Event date:	07/24/2001
Event:	CMS Workplan Modification Requested By Agency
Event date:	02/17/2004
Event:	RFI Workplan Received
Event date:	03/15/2004
Event:	Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
Event date:	04/19/2004
Event:	FI Progress Reports Received
Event date:	05/18/2004

EI DUPONT FLINT SITE (Continued) **1000348693**

Event:	CA496
Event date:	01/10/2005
Event:	CA077
Event date:	01/11/2005
Event:	RFI Supplemental Information Requested By Agency
Event date:	07/25/2005
Event:	CA496
Event date:	01/03/2006
Event:	CA497
Event date:	01/30/2006
Event:	Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.
Event date:	05/02/2006
Event:	FI Progress Reports Received
Event date:	07/28/2006
Event:	CMS Progress Reports Received
Event date:	08/14/2006
Event:	Date For Remedy Selection (CM Imposed)
Event date:	09/21/2006
Event:	Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
Event date:	09/21/2006
Event:	Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
Event date:	Not reported
Event:	Certification Of Remedy Completion Or Construction Completion
Event date:	Not reported

EI DUPONT FLINT SITE (Continued) **1000348693**

Event: CA550RC

Event date: Not reported
Event: RFI Workplan Received

Event date: Not reported
Event: RFI Workplan Approved

Event date: Not reported
Event: RFI Imposition, Focused data collection required for stabilization evaluation.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Permits - Conditions
Date violation determined: 12/18/2001
Date achieved compliance: 02/04/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/18/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 09/29/1993
Date achieved compliance: 08/15/1994
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/29/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 07/01/1993
Date achieved compliance: 06/24/1994
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/01/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General

EI DUPONT FLINT SITE (Continued) **1000348693**

Date violation determined: 07/01/1993
Date achieved compliance: 06/24/1994
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/01/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 05/07/1991
Date achieved compliance: 05/29/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 05/07/1991
Date achieved compliance: 05/29/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/14/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 04/23/1990
Date achieved compliance: 05/15/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/25/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 04/23/1990

EI DUPONT FLINT SITE (Continued) **1000348693**

Date achieved compliance: 08/23/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/25/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/29/1988
Date achieved compliance: 05/31/1989
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 06/05/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 3600
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/29/1988
Date achieved compliance: 05/31/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/29/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 07/21/1988
Date achieved compliance: 09/07/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/22/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 01/10/2005
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported

EI DUPONT FLINT SITE (Continued) **1000348693**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/25/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/21/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/18/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Permits - Conditions
Date achieved compliance: 02/04/2002
Evaluation lead agency: State

Evaluation date: 03/14/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/06/2000
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/13/2000
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/21/1999
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/18/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/14/1995
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

EI DUPONT FLINT SITE (Continued) **1000348693**

Evaluation date: 06/07/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/30/1995
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/15/1994
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/23/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/21/1993
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 08/15/1994
Evaluation lead agency: State

Evaluation date: 06/28/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 06/24/1994
Evaluation lead agency: State

Evaluation date: 06/28/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/24/1994
Evaluation lead agency: State

Evaluation date: 06/11/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/26/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/13/1992
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported

EI DUPONT FLINT SITE (Continued) **1000348693**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/01/1991
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/28/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/07/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 05/29/1992
Evaluation lead agency: State

Evaluation date: 05/02/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/06/1990
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/14/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/23/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 05/15/1990
Evaluation lead agency: State

Evaluation date: 04/23/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 08/23/1990
Evaluation lead agency: State

Evaluation date: 07/07/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

EI DUPONT FLINT SITE (Continued) **1000348693**

Evaluation date: 07/07/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/29/1988
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD - General
Date achieved compliance: 05/31/1989
Evaluation lead agency: State

Evaluation date: 09/07/1988
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/21/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/07/1988
Evaluation lead agency: State

CORRACTS:

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 1/11/2005
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: BUILDING 100
Actual Date: 1/11/2005
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: PARCEL A
Actual Date: 1/11/2005
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066

EI DUPONT FLINT SITE (Continued) **1000348693**

EPA Region: 05
Area Name: TANK FARM
Actual Date: 1/11/2005
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: BUILDING 100
Actual Date: 1/30/2006
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: TANK FARM
Actual Date: 1/30/2006
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: PARCEL A
Actual Date: 1/30/2006
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 1/30/2006
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 2/5/1998

EI DUPONT FLINT SITE (Continued) **1000348693**

Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 2/17/2004
Action: CA110 - RFI Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 2/28/2001
Action: CA260 - CMS Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 3/3/2000
Action: CA110 - RFI Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 3/13/2001
Action: CA190 - RFI Report Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: TANK FARM
Actual Date: 3/13/2001
Action: CA190 - RFI Report Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EI DUPONT FLINT SITE (Continued) **1000348693**

EPA ID: MID005512066
EPA Region: 05
Area Name: BUILDING 100
Actual Date: 3/15/2004
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: TANK FARM
Actual Date: 3/15/2004
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: PARCEL A
Actual Date: 3/15/2004
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 3/15/2004
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 3/30/1998
Action: CA110 - RFI Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY

EI DUPONT FLINT SITE (Continued) **1000348693**

Actual Date: 3/31/1992
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 4/10/1996
Action: CA010 - RFA Initiation
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 4/19/2000
Action: CA120 - RFI Workplan Modification Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 4/19/2004
Action: CA195 - FI Progress Reports Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 4/27/1989
Action: CA050 - RFA Completed
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 4/27/1989
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EI DUPONT FLINT SITE (Continued) **1000348693**

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 5/2/2006
Action: CA195 - FI Progress Reports Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: BUILDING 100
Actual Date: 7/10/2001
Action: CA225IN - Stabilization Measures Evaluation, This facility is not, amenable to stabilization activity because of, a lack of technical data. An evaluation has been completed, but further data is necessary to determine stabilization measures, feasibility or appropriateness. This status should be changed when data becomes available
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: TANK FARM
Actual Date: 7/10/2001
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: BUILDING 100
Actual Date: 7/10/2001
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 7/10/2001
Action: CA155 - RFI Supplemental Information Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY

EI DUPONT FLINT SITE (Continued) **1000348693**

Actual Date: 7/24/2001
Action: CA270 - CMS Workplan Modification Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: PARCEL A
Actual Date: 7/28/2006
Action: CA345 - CMS Progress Reports Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: TANK FARM
Actual Date: 7/28/2006
Action: CA345 - CMS Progress Reports Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: BUILDING 100
Actual Date: 7/28/2006
Action: CA345 - CMS Progress Reports Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 7/28/2006
Action: CA345 - CMS Progress Reports Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 8/14/2006
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 56291
Remediation Services
Original schedule date: 09/30/2007
Schedule end date: Not reported

EI DUPONT FLINT SITE (Continued) **1000348693**

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 9/21/2006
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 10/31/1997
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 11/6/2000
Action: CA190 - RFI Report Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 12/26/2000
Action: CA200 - RFI Approved
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA550RC
NAICS Code(s): 56291
Remediation Services
Original schedule date: 09/30/2008
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 56291

EI DUPONT FLINT SITE (Continued) **1000348693**

Remediation Services
Original schedule date: 08/01/1994
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA550 - Certification Of Remedy Completion Or Construction Completion
NAICS Code(s): 56291
Remediation Services
Original schedule date: 09/30/2008
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 56291
Remediation Services
Original schedule date: 05/02/1991
Schedule end date: Not reported

EPA ID: MID005512066
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA110 - RFI Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: 08/30/1991
Schedule end date: Not reported

FINDS:

Registry ID: 110000749673

Environmental Interest/Information System

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

189
SSW
1/2-1
0.783 mi.
4132 ft.

1303 N. SAGINAW — **DEL SHWS** — **S108959483**
1303 NORTH SAGINAW — **N/A**
FLINT, MI

Relative:
Higher

Actual:
748 ft.

DELETED HWS:
Facility ID: 25000353
Status: Deleted - available documentation does not support listing

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190
SE
> 1
1.012 mi.
5341 ft.

PHIL FLINT OIL CO (FRMR) — **SHWS** — **S103595334**
909 E KEARSLEY PARK BLVD — **N/A**
FLINT, MI 48505

Relative:
Lower

Actual:
728 ft.

SHWS:
Facility ID: 25000020
Facility Status: Interim Response in progress
Source: Petroleum Products
SAM Score: 32 out o
SAM Score Date: 3/16/2004
Township: 07N
Range: 07E
Section: 8
Quarter: NW
Quarter/Quarter: SW
Pollutants: Fuel oil

191
ENE
> 1
1.025 mi.
5411 ft.

2601-2603 RICHFIELD ROAD — **SHWS** — **S102720999**
2601-2603 RICHFIELD ROAD — **BEA** — **N/A**
FLINT, MI

Relative:
Higher

Actual:
759 ft.

SHWS:
Facility ID: 25000655
Facility Status: Inactive - no actions taken to address contamination
Source: Unknown
SAM Score: 19 out o
SAM Score Date: 5/12/2004
Township: 07N
Range: 07E
Section: 32
Quarter: null
Quarter/Quarter: null
Pollutants: As

BEA:
Secondary Address: Not reported
BEA Number: 18
District: Lansing
Date Received: 4/22/1996
Submitter Name: Flint Auto Auction, Inc.
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Affirmed

2601-2603 RICHFIELD ROAD (Continued) **S102720999**

Reviewer: temppm
Division Assigned: Environmental Response Division

192
SSW
> 1
1.072 mi.
5659 ft.

1005 ROOT STREET **SHWS** **S108036277**
1005 ROOT STREET **N/A**
FLINT, MI 48503

Relative:
Higher

Actual:
743 ft.

SHWS:
Facility ID: 25000070
Facility Status: Evaluation conducted
Source: null
SAM Score: 33 out o
SAM Score Date: 11/3/2005
Township: 7S
Range: 6E
Section: 12
Quarter: null
Quarter/Quarter: null
Pollutants: Sb; As; Pb

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FLINT	1001228758		I - RAMP OVERC 475		RCRA-NonGen, FINDS
FLINT	1001228763		I - RAMP BOVER 475		RCRA-NonGen, FINDS
FLINT	1007097463		69 I - RAMP DUNDERSBSV	48503	RCRA-CESQG
FLINT	1007097149		S 1ST & 2 MILE N DORT HWY	48506	RCRA-NonGen
FLINT	S108895881	3701 AND 3751 S. DORT HWY	3701ST & 3751ST S DORT HWY		BEA
FLINT	1001228752		I 475 & RAMP B OVER SVC RD S		RCRA-NonGen, FINDS
FLINT	1001228762		I 475 RAMP OVERHORTON AVE		RCRA-NonGen, FINDS
FLINT	1007097702		I 475 RAMP BRIDGEDUNDER 8TH		RCRA-CESQG
FLINT	S109956901	GENESEE POWER STATION LIMITED PART	G 5310 NORTH DORT HIGHWAY	48505	AIRS
FLINT	1007098163		I 69 RAMP OFFTODORTFR W	48505	RCRA-NonGen
FLINT	S107794047	RENO AUTO PARTS-FLINT	5273 N DORT HWY	48505	NPDES
FLINT	S107792800	KURTZ GRAVEL CO-FLINT	5300 N DORT HWY	48505	NPDES
FLINT	S104909673	1512 AND 1514 S. DORT HWY.	DORT HWY S		BEA
FLINT	S108084417	PARCEL 07-32-102-001 & 07-32-102-0	DORT HWY		BEA
FLINT	S104911420	3701 AND 3751 S. DORT HIGHWAY	DORT HWY S		BEA
FLINT	1004882765	KURTZ GRAVEL CO	5300 N DORT HWY	48505	UST
FLINT	S108633182	FORMER SUNOCO #0354/ A J MINI MART	1780 DORT HWY		BROWNFIELDS
FLINT	S108895939	G-5150 NORTH DORT HIGHWAY	5150 N DORT HWY	48505	BEA
FLINT	S107698877	EXXONMOBIL OIL CORP	5340 N DORT HWY	48505	AIRS
FLINT	S107701509	TOTAL PETROLEUM, INC.	5340 N DORT HWY	48505	AIRS
FLINT	S108414434	5000, 5022, AND 5030 NORTH DORT HI	5000 DORT HWY N		BEA
FLINT	S108669810	5130 AND 5122 NORTH DORT HIGHWAY	DORT HWY N		BEA
FLINT	1011604103	AIRGAS GREAT LAKES	5075 N DORT HWY	48505	ICIS
FLINT	1010319430	JET AUTO REPAIR IC	5201 N DORT HWY	48505	RCRA-NonGen
FLINT	1010319910	AIRGAS GREAT LAKES INC	5075 N DORT HWY	48505	RCRA-CESQG
FLINT	S107794058	RESOURCE RECOVERY OF FLINT	5125 N DORT HWY	48505	NPDES
FLINT	S107702254	AMOCO OIL COMPANY	5340 N DORT HWY	48505	AIRS
FLINT	S107701585	SHELL OIL COMPANY	5340 N DORT HWY	48505	AIRS
FLINT	1004533907		4500 N DORT HWY	48505	FTTS, HIST FTTS, FINDS, LUST, UST
FLINT	S108960146	RJ TORCHING	5167 N DORT HWY	48505	NPDES
FLINT	S107703863	SPOONER METALS LLC	5032 DRT HWY	48505	AIRS
FLINT	S103595343	FLINT, CITY OF - FLINT PARK ALLOT	613 FLINT PARK BLVD	48505	SHWS
FLINT	S107793892	PPG INDUSTRIES INC-FLINT	3601 JAMES P COLE BLVD	48505	NPDES
FLINT	1011501306	DELTA FIBERGLASS STRUCTURES	4221 JAMES P COLE BLVD	48505	ICIS
FLINT	U000253494	LEEMON OIL CO INC	G5150 N DORT HWY	48505	LUST, UST
FLINT	S109956810	BUCKEYE TERMINALS, LLC - FLINT TER	G-5340 N DORT HWY	48505	AIRS
FLINT	S104911368	RAILROAD RIGHT-OF-WAY (FORMER)	NE OF DORT HWY & LONGWAY BLVD		BEA
FLINT	1001228765		RAMP F E		RCRA-CESQG, FINDS
FLINT	S104910232	SAGINAW & LEITH STREETS, SOUTH EAS	SAGINAW & LEITH ST		BEA
FLINT	S107812173	FORMER FAY MOTOR SALES	5518 N SAGINAW ST	48505	LUST
GRAND BLANC	A100346335	MTA SERVICE CENTER	5051 DORT HWY	48503	AST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/14/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/14/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/14/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/30/2009
Date Data Arrived at EDR: 08/11/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 41

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/23/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 09/02/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 19

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/15/2009
Date Data Arrived at EDR: 09/22/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 48

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/16/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 11/18/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 11/18/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 11/18/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 11/18/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/18/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/18/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 09/17/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 53

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 10/06/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 10/28/2009
Date Data Arrived at EDR: 11/03/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 517-373-9541
Last EDR Contact: 11/03/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/06/2009
Date Data Arrived at EDR: 10/08/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 40

Source: Department of Environmental Quality
Telephone: 517-335-4035
Last EDR Contact: 10/05/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 09/04/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 31

Source: Department of Environmental Quality
Telephone: 517-373-9837
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/24/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 42
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009
Date Data Arrived at EDR: 05/20/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 28
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 11/04/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 08/24/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 26
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 08/21/2009
Date Data Arrived at EDR: 10/06/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 16
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 08/20/2009
Date Data Arrived at EDR: 08/21/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 31
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/20/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 57
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Semi-Annually

State and tribal registered storage tank lists

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 09/04/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 27

Source: Department of Environmental Quality
Telephone: 517-335-4035
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 09/15/2009
Date Data Arrived at EDR: 09/22/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 9

Source: Department of Environmental Quality
Telephone: 517-373-8168
Last EDR Contact: 11/23/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: No Update Planned

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 09/08/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 10/16/2008
Number of Days to Update: 27

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/22/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 08/24/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 26

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Semi-Annually

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/20/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 57

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 08/20/2009
Date Data Arrived at EDR: 08/21/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 12/30/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 76

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 11/04/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/24/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 42

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/21/2009
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 57

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/30/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 10/05/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/21/2009
Date Data Arrived at EDR: 09/21/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 517-373-4805
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 09/15/2009
Next Scheduled EDR Contact: 12/21/2009
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/01/2009
Date Data Arrived at EDR: 09/11/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 11/04/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 09/23/2009
Next Scheduled EDR Contact: 12/21/2009
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environmental Quality
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/09/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/01/2009
Date Data Arrived at EDR: 06/22/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 91

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/26/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites
Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 11/04/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 13

Source: Department of Environmental Quality
Telephone: 517-373-9541
Last EDR Contact: 11/02/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing
A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 11/21/2008
Number of Days to Update: 3

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 11/02/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 08/18/2009
Date Data Arrived at EDR: 08/21/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/02/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 08/12/2009
Date Data Arrived at EDR: 10/29/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 19

Source: Department of Environmental Quality
Telephone: 517-373-9837
Last EDR Contact: 10/27/2009
Next Scheduled EDR Contact: 02/08/2010
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/05/2009
Date Data Arrived at EDR: 10/05/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 35

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/05/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Annually

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/21/2009
Date Data Arrived at EDR: 09/22/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 13

Source: Department of Environmental Quality
Telephone: 517-373-8427
Last EDR Contact: 09/22/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 11/18/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 72

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 10/23/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 09/05/2008
Date Made Active in Reports: 09/23/2008
Number of Days to Update: 18

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/30/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/03/2009
Date Data Arrived at EDR: 10/27/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 13

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/06/2009
Next Scheduled EDR Contact: 01/18/2010
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 09/22/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/22/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 09/14/2009
Next Scheduled EDR Contact: 12/14/2009
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/07/2009
Date Data Arrived at EDR: 09/18/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 52

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/18/2009
Next Scheduled EDR Contact: 12/21/2009
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 04/09/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 69

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 09/14/2009
Next Scheduled EDR Contact: 12/14/2009
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 10/07/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 09/10/2009
Next Scheduled EDR Contact: 12/14/2009
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 09/10/2009
Next Scheduled EDR Contact: 12/14/2009
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/19/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 125
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 11/02/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 08/21/2009
Date Data Arrived at EDR: 08/27/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 56
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 09/28/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 05/27/2009
Date Data Arrived at EDR: 08/05/2009
Date Made Active in Reports: 09/29/2009
Number of Days to Update: 55

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/21/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/06/2009
Date Data Arrived at EDR: 07/13/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 70

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/21/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/28/2009
Date Data Arrived at EDR: 07/28/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/16/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2009
Date Data Arrived at EDR: 07/28/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 55

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 09/18/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 92

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 03/05/2010
Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 09/10/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 25

Source: Department of Environmental Quality
Telephone: 517-241-1515
Last EDR Contact: 11/02/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 02/18/2009
Date Data Arrived at EDR: 03/17/2009
Date Made Active in Reports: 04/01/2009
Number of Days to Update: 15

Source: Department of Environmental Quality
Telephone: 517-335-4586
Last EDR Contact: 10/26/2009
Next Scheduled EDR Contact: 02/08/2010
Data Release Frequency: Varies

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 10/13/2009
Date Data Arrived at EDR: 10/14/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 517-241-1300
Last EDR Contact: 10/14/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 39

Source: Department of Environmental Quality
Telephone: 517-373-7074
Last EDR Contact: 10/05/2009
Next Scheduled EDR Contact: 01/11/2010
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 09/14/2009
Date Data Arrived at EDR: 09/14/2009
Date Made Active in Reports: 10/05/2009
Number of Days to Update: 21

Source: DEPT. OF ENVIRONMENTAL QUALITY
Telephone: 517-373-9541
Last EDR Contact: 11/23/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/23/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 09/09/2009
Date Data Arrived at EDR: 09/09/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/09/2009
Next Scheduled EDR Contact: 02/08/2010
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/23/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: N/A

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 10/29/2009
Date Data Arrived at EDR: 11/05/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 12

Source: Department of Environmental Quality
Telephone: 586-753-3754
Last EDR Contact: 10/26/2009
Next Scheduled EDR Contact: 01/25/2010
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 05/05/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 17

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/20/2009
Next Scheduled EDR Contact: 02/01/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 07/28/2009
Date Data Arrived at EDR: 08/27/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 25

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 09/11/2008
Date Made Active in Reports: 10/02/2008
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 11/23/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 06/01/2009
Date Data Arrived at EDR: 06/12/2009
Date Made Active in Reports: 06/29/2009
Number of Days to Update: 17

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 09/14/2009
Next Scheduled EDR Contact: 12/14/2009
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/24/2009
Next Scheduled EDR Contact: 01/04/2010
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BUICK CITY
902 EAST HAMILTON AVENUE
FLINT, MI 48505

TARGET PROPERTY COORDINATES

Latitude (North):	43.04580 - 43° 2' 44.9''
Longitude (West):	83.6835 - 83° 41' 0.6''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	281423.1
UTM Y (Meters):	4769181.0
Elevation:	742 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	43083-A6 FLINT NORTH, MI
Most Recent Revision:	1975

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

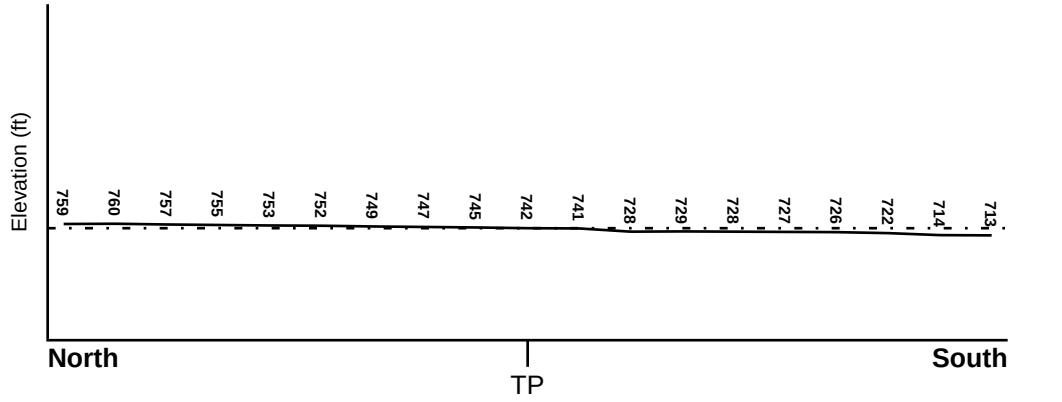
TOPOGRAPHIC INFORMATION

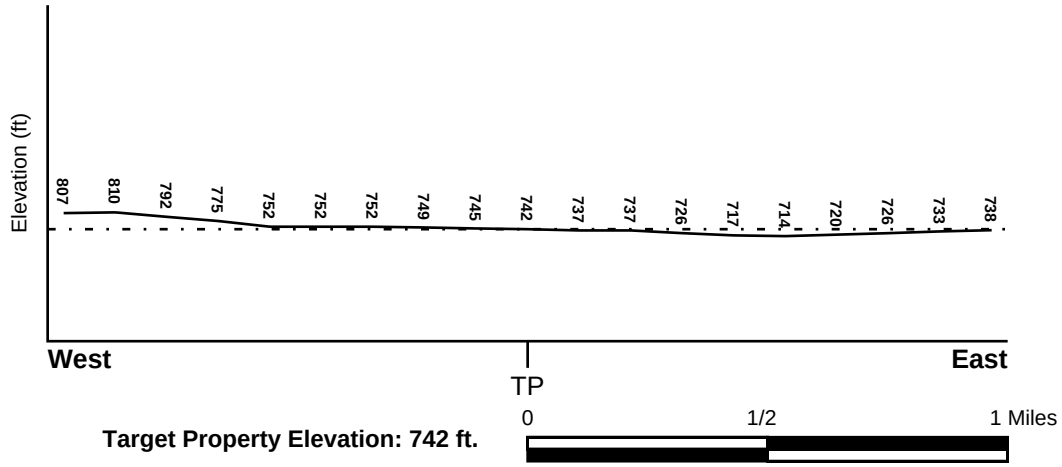
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 742 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
GENESEE, MI	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 2600760020C

Additional Panels in search area: 2600760010C

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FLINT NORTH	Not Available

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/2 - 1 Mile WSW	S

For additional site information, refer to Physical Setting Source Map Findings.

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

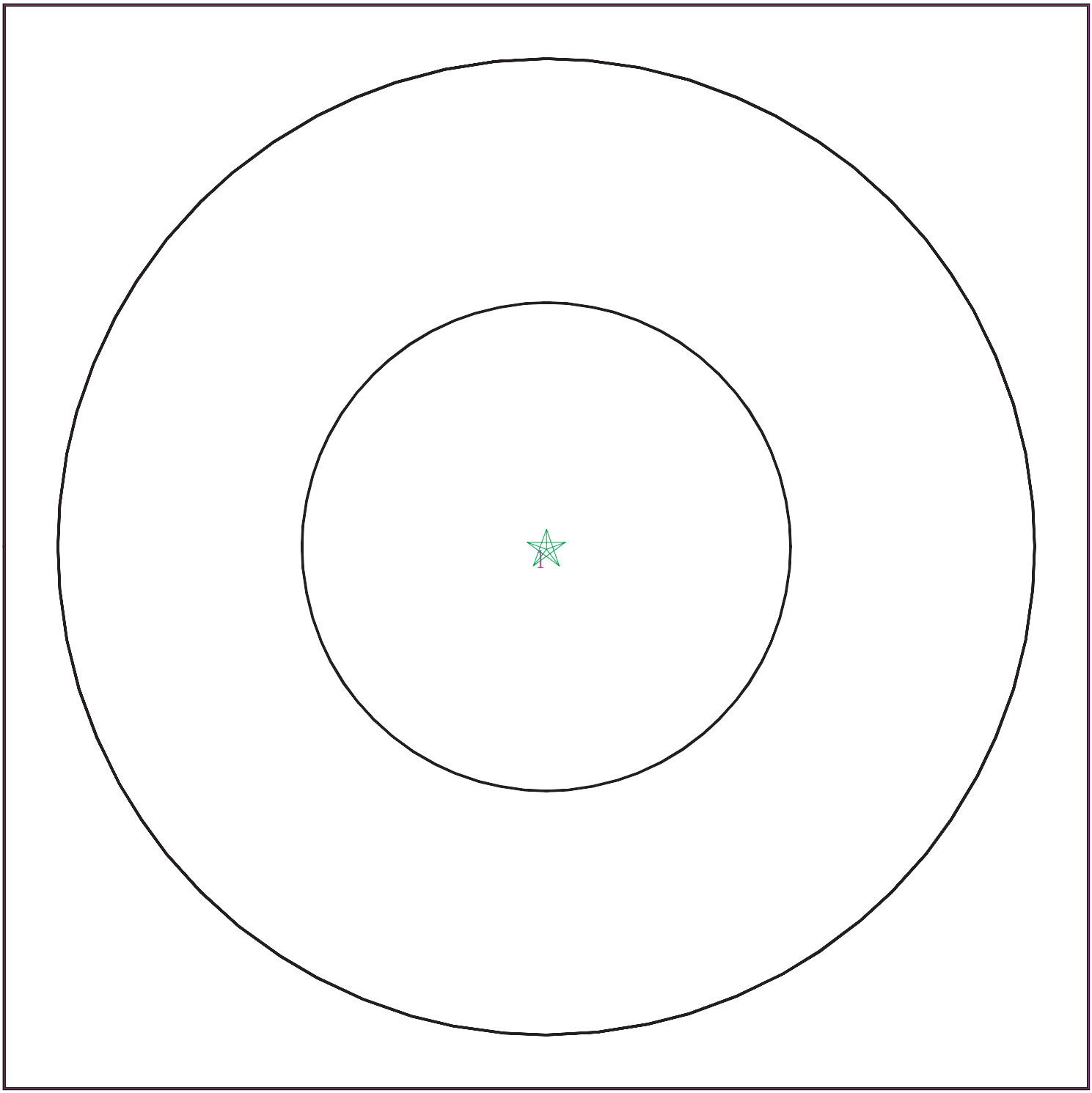
Era:	Paleozoic
System:	Pennsylvanian
Series:	Atokan and Morrowan Series
Code:	PP1 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 2646762.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Buick City	CLIENT:	LFR Inc
ADDRESS:	902 East Hamilton Avenue Flint MI 48505	CONTACT:	Sean Drain
LAT/LONG:	43.0458 / 83.6835	INQUIRY #:	2646762.2s
		DATE:	November 30, 2009 7:44 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Miscellaneous Areas

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	MI20076393	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 2646762.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Buick City	CLIENT: LFR Inc
ADDRESS: 902 East Hamilton Avenue Flint MI 48505	CONTACT: Sean Drain INQUIRY #: 2646762.2s
LAT/LONG: 43.0458 / 83.6835	DATE: November 30, 2009 7:44 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **WSW** **1/2 - 1 Mile** **Higher**	Site ID:	250638	**AQUIFLOW**	**34559**
	Groundwater Flow:	S		
	Shallowest Water Table Depth:	Not Reported		
	Deepest Water Table Depth:	Not Reported		
	Average Water Table Depth:	3.66		
	Date:	08/31/1996		

3
WNW
1/2 - 1 Mile
Higher

MI WELLS **MI20076393**

Wellid:	25000012808	Import id:	Not Reported
County:	Genesee	Township:	Mount Morris
Town range:	08N 06E	Section:	36
Owner name:	WOODLAND REALITY		
Well addr:	3245 MYRTEL ST		
Well depth:	192		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	345
Const date:	1967-07-24 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	112		
Screen frm:	0		
Screen to:	0		
Swl:	58		
Test depth:	60		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	43.05100207		
Longitude:	-83.70081778		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	810	Elev dif:	810
Elev miv:	810	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	53
Pct aq d:	7	Pct aq r:	98
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	47
Pct cm d:	93	Pct cm r:	2
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	95
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	30
Pct maq 1:	0	Pct cm 1:	70
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.66677		
Vert Conduct:	.0001		
T2:	50.0074		
D50plek:	7.76556		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
Random	48505	0	12/9/87	0.7	21.3%		
Random	48505	0	4/13/88	2.7	11.3%		

State Database: MI Radon

Radon Test Results

Zip	Less than sign	Pci/L
48505		0.70
48505	<	0.30
48505		1.00
48505	<	0.30
48505		1.00
48505		0.60
48505		2.60
48505	<	0.30
48505		1.60
48505		0.50
48505		1.50
48505	<	0.30
48505		0.70
48505		0.50
48505	<	0.30
48505	<	0.30
48505		1.50
48505		3.30
48505		2.60
48505		0.80
48505	<	0.30
48505		0.80
48505		1.80
48505		1.40
48505		0.80
48505	<	0.30
48505		2.60
48505		0.90
48505		2.50
48505	<	0.30
48505		1.30
48505		0.50
48505		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	<	0.30
48505		2.30

Federal EPA Radon Zone for GENESEE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 48505

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Michigan Department of Natural Resources
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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APPENDIX D

Photograph Log

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 16, 2009

Direction: East

Description:
Photograph depicts General view of Factory 10 floor. Photo taken from southwest corner of the building facing east.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 16, 2009

Direction: North

Description:
Photograph depicts general view of Factory 10 floor. Photo taken from southwest corner of building facing north.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 16, 2009

Direction: South

Description:
Photograph depicts south shipping dock in Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 16, 2009

Direction: North

Description:
Photograph depicts 55-gallon drums of HCl on south loading dock in Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 16, 2009

Direction: South

Description:
Photograph depicts quench tanks located on the dock south shipping dock in Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 16, 2009

Direction: North

Description:
Photograph depicts 90-Day Hazardous Waste storage Area located on the south shipping dock of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 16, 2009

Direction: North

Description:
Photograph depicts 90-Day Hazardous Waste storage Area located on the south shipping dock of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: December 16, 2009

Direction: North

Description:
Photograph depicts 90-Day Hazardous Waste storage Area located on the south shipping dock of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: December 16, 2009

Direction: North

Description:
Photograph depicts 90-Day Hazardous Waste storage Area located on the south shipping dock of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: December 16, 2009

Direction: East

Description:
Photograph depicts 90-Day Hazardous Waste storage Area located on the south shipping dock of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: December 16, 2009

Direction:

Description:
Photograph depicts a typical parts washer station observed on the Plant Floor in the south central portion of the Factory 10 -Dept 22.

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: December 16, 2009

Direction:

Description:
Photograph depicts a typical chip roll off observed on the Plant Floor in the south central portion of the Factory 10 -Dept 22.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 13

Date: December 16, 2009

Direction: West

Description:
Photograph depicts capacitor, ballast and universal waste collection area located in the south-central portion of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: December 16, 2009

Direction: West

Description:
Photograph depicts satellite accumulation area south-central portion of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 15

Date: December 16, 2009

Direction: West

Description:
Photograph depicts general building view and satellite storage area in south-central portion of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 16

Date: December 16, 2009

Direction: West

Description:
Photograph depicts process water intake from plant floor in Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 17

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Shot dust/blast (a.k.a. metal shavings) storage located in the southeast corner of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 18

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Shot dust/blast (a.k.a. metal shavings) storage located in the southeast corner of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 19

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Shot dust/blast (a.k.a. metal shavings) storage located in the southeast corner of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 20

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a general view of Factory 10. Photo taken from the southeast corner of building facing west.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 21

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a general view of Factory 10. Photo taken from the southeast corner of building facing north.

ARCADIS
Project No.: BN015317.0011

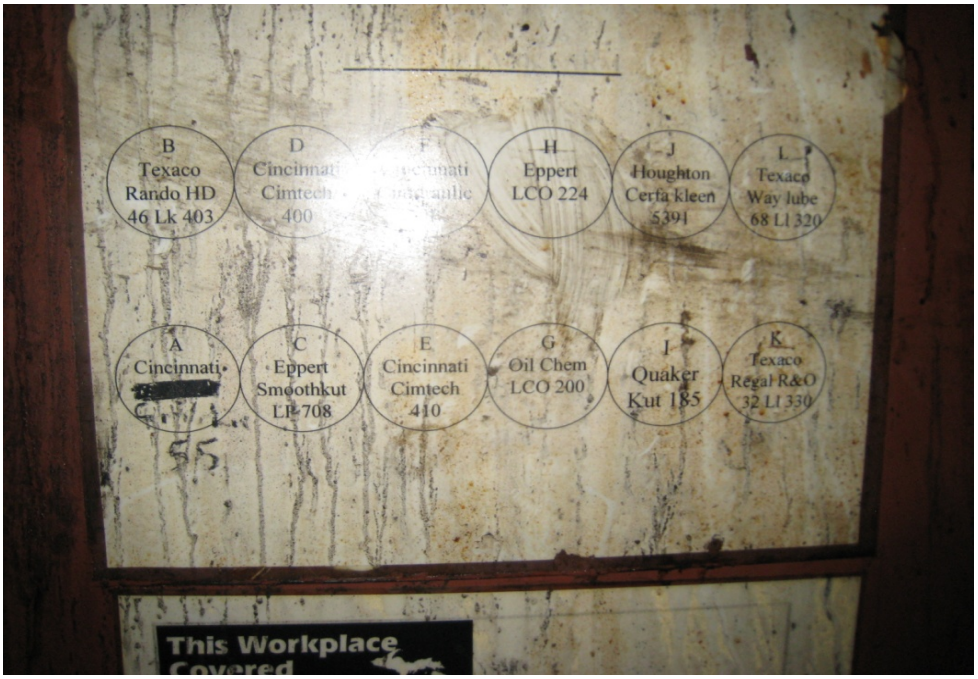


Photo No.: 22

Date: December 16, 2009

Direction:

Description:
Photograph depicts a tank schematic on tank room door located on the east side of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 23

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Bulk Oil Storage ASTs located in eastern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 24

Date: December 16, 2009

Direction: South

Description:
Photograph depicts Bulk Oil Storage ASTs located in eastern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 25

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Bulk Oil Storage ASTs located in eastern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 26

Date: December 16, 2009

Direction: East

Description:
Photograph depicts floor at Bulk Oil Storage ASTs room located in eastern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 27

Date: December 16, 2009

Direction: East

Description:
Photograph depicts absorbent sock storage in the eastern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 28

Date: December 16, 2009

Direction: East

Description:
Photograph depicts drum storage located in Dept 24 Reaction Carrier Area of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 29

Date: December 16, 2009

Direction: West

Description:
Photograph depicts equipment leaking oil in the Dept 24 Reaction Carrier Area of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 30

Date: December 16, 2009

Direction: North

Description:
Photograph depicts maintenance paint booths located in the northwestern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 31

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Factory 10 LNAPL Recovery and Groundwater Treatment System.

ARCADIS
Project No.: BN015317.0011



Photo No.: 32

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Factory 10 LNAPL Recovery and Groundwater Treatment System.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 33

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Vehicle Service Area located adjacent to the Factory 10 treatment system. At the time of the site walk there were 26 - 55 gallon drums of motor oil, transmission fluid, antifreeze, and coolant located in this area. All drums were stored on spill containment pallets.

ARCADIS
Project No.: BN015317.0011



Photo No.: 34

Date: December 11, 2009

Direction: West

Description:
Photograph depicts pressurized cylinder tank storage area located along the northern side of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 35

Date: December 16, 2009

Direction: West

Description:
Photograph depicts empty drum storage area in northern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 36

Date: December 16, 2009

Direction: West

Description:
Photograph depicts empty tote storage along northern portion of Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 37

Date: December 16, 2009

Direction: East

Description:
Photograph depicts 90-day solid waste storage pad for the site, located in Factory 10.

ARCADIS
Project No.: BN015317.0011



Photo No.: 38

Date: December 16, 2009

Direction: East

Description:
Photograph depicts PCB solid storage waste area in Factory 10.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 39

Date: December 16, 2009

Direction: South

Description:
Photograph depicts Factory 10 Oil Storage Area. At the time of the site walk the area contained: 14 - 55 gallon drums of various oils and lubricants; four 330 gallon ASTs containing gear oil, motor oil, transmission fluid and hydraulic oil; and two 500 gallon ASTs containing hydraulic oil and lubricant.
ARCADIS
Project No.: BN015317.0011



Photo No.: 40

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Factory 10 Oil Storage Area. At the time of the site walk the area contained: 14 - 55 gallon drums of various oils and lubricants; four 330 gallon ASTs containing gear oil, motor oil, transmission fluid and hydraulic oil; and two 500 gallon ASTs containing hydraulic oil and lubricant.
ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 41

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Factory 10 Oil Storage Area. The oil storage room has a trench approximately 12" x 6" x 60' which leads to a sump.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 11, 2009

Direction: South

Description:
Photograph depicts Leith Street Guard Shack in foreground. Adjacent property former owned by GM in the background.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 11, 2009

Direction: North

Description:
Photograph depicts storage lot located south of the Former Aeration Lagoons. Lot currently contains ARCADIS site trailer.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 11, 2009

Direction: West

Description:
Photograph depicts grassy area west of the storage lot.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 11, 2009

Direction: East

Description:
Photograph depicts the western former aeration lagoon (filled).

Area now vacant filled with gravel and soil, minor amounts of rebar and debris.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 11, 2009

Direction: North

Description:
Photograph depicts inlet structure for western former aeration lagoon (filled).

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 11, 2009

Direction: Northeast

Description:
Photograph depicts the eastern former aeration basin.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 11, 2009

Direction: South

Description:
Photograph depicts grassy areas located south of the former aeration basins.

Area vacant covered with brush and vegetation.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: December 11, 2009

Direction: Northwest

Description:
Photograph depicts grassy areas south of the former aeration ponds. Area vacant, covered with brush and vegetation.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: December 11, 2009

Direction: South

Description:
Photograph depicts former location of Powerhouse Bldg. 07.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: December 11, 2009

Direction: North

Description:
Photograph depicts area north of the former Powerhouse Bldg 07.

Area now vacant, covered with concrete, gravel, scrap metal, debris, and brush/vegetation.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: December 11, 2009

Direction: North

Description:
Photograph depicts area between Building 36 and Building 38. Building 38 is shown in the background. Metal storage area can be seen in the left portion of the picture

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: December 11, 2009

Direction: South

Description:
Photograph depicts access road east of Building 36.

Area covered with concrete and pavement.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 13

Date: December 11, 2009

Direction: North

Description:
Photograph depicts metal storage area located north of the northeast corner of Building 36.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: December 11, 2009

Direction: West

Description:
Photograph depicts area north of Building 36.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 15

Date: December 11, 2009

Direction: West

Description:
Photograph depicts wood and scrap metal storage locations along the east side of Building 36.

ARCADIS
Project No.: BN015317.0011



Photo No.: 16

Date: December 11, 2009

Direction: Southeast

Description:
Photograph depicts Factory 36 LNAPL Removal System.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 17

Date: December 11, 2009

Direction: Northeast

Description:
Photograph depicts Factory 36 LNAPL removal system extraction wells.

ARCADIS
Project No.: BN015317.0011



Photo No.: 18

Date: December 11, 2009

Direction: North

Description:
Photograph depicts eastern portion of Building 36, taken from Factory 36 LNAPL removal system.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 19

Date: December 11, 2009

Direction: North

Description:
Photograph depicts truck well along eastern side for Building 36.

ARCADIS
Project No.: BN015317.0011



Photo No.: 20

Date: December 11, 2009

Direction: North

Description:
Photograph depicts exterior of Hazardous Materials Storage Area at Building 36.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 21

Date: December 11, 2009

Direction: North

Description:
Photograph depicts eastern side of Building 36 from southeastern corner.

ARCADIS
Project No.: BN015317.0011



Photo No.: 22

Date: December 11, 2009

Direction: West

Description:
Photograph depicts southern side of Building 36 from southeastern corner.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 23

Date: December 11, 2009

Direction: East

Description:
Photograph depicts northern side of Building 36 from northwestern corner.

ARCADIS
Project No.: BN015317.0011



Photo No.: 24

Date: December 11, 2009

Direction: North

Description:
Photograph depicts area north of Building 36 from northwestern corner.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 25

Date: December 11, 2009

Direction: North

Description:
Photograph depicts parking area west of Building 36 from northwestern corner.

ARCADIS
Project No.: BN015317.0011



Photo No.: 26

Date: December 11, 2009

Direction: South

Description:
Photograph depicts western side of Building 36 from northwestern corner.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 27

Date: December 11, 2009

Direction: Northeast

Description:
Photograph depicts area north of Building 36. Building 38 can be seen in the background.

ARCADIS
Project No.: BN015317.0011



Photo No.: 28

Date: December 11, 2009

Direction: Northwest

Description:
Photograph depicts parking areas west of Building 36.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 29

Date: December 11, 2009

Direction: West

Description:
Photograph depicts (former?) AST located on western side of Building 36.

ARCADIS
Project No.: BN015317.0011



Photo No.: 30

Date: December 11, 2009

Direction: Southwest

Description:
Photograph depicts parking lot along southwestern corner of Building 36. Buildings 53 and 55 in background

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 31

Date: December 11, 2009

Direction: East

Description:
Photograph depicts southern side of Building 36 from southwestern corner.

ARCADIS
Project No.: BN015317.0011



Photo No.: 32

Date: December 11, 2009

Direction: North

Description:
Photograph depicts western side of Building 36 from southwestern corner.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 33

Date: December 11, 2009

Direction: West

Description:
Photograph depicts AST tank farm located northeast of Building 22. Tank Farm includes 10 tanks containing gasoline or oil products and a AST containing carbon dioxide(for fire suppression).

ARCADIS
Project No.: BN015317.0011



Photo No.: 34

Date: December 11, 2009

Direction: West

Description:
Photograph depicts two, 7,500 gallon gasoline ASTs.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 35

Date: December 11, 2009

Direction: North

Description:
Photograph depicts AST tank farm located northeast of Building 22. Six 7,500 gallon horizontal ASTs are located in the foreground of the photo and four 15,000 gallon vertical ASTs are in the background.

ARCADIS
Project No.: BN015317.0011



Photo No.: 36

Date: December 11, 2009

Direction: West

Description:
Photograph depicts fire suppression building located south of the AST tank farm.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 37

Date: December 11, 2009

Direction: West

Description:
Photograph depicts concrete berm around loading/unloading area for AST Tank Farm.

ARCADIS
Project No.: BN015317.0011



Photo No.: 38

Date: December 11, 2009

Direction: West

Description:
Photograph depicts AST tank farm loading/unloading area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 39

Date: December 11, 2009

Direction: Southwest

Description:
Photograph depicts AST Tank Farm.

ARCADIS
Project No.: BN015317.0011



Photo No.: 40

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 002.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 41

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 002.

ARCADIS
Project No.: BN015317.0011



Photo No.: 42

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 003.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 43

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 003.

ARCADIS
Project No.: BN015317.0011



Photo No.: 44

Date: December 11, 2009

Direction: Southeast

Description:
Photograph depicts stormwater Outfall 004.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 45

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 004.

ARCADIS
Project No.: BN015317.0011



Photo No.: 46

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 005.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 47

Date: December 11, 2009

Direction: East

Description:
Photograph depicts stormwater Outfall 005.

ARCADIS
Project No.: BN015317.0011



Photo No.: 48

Date: December 11, 2009

Direction: South

Description:
Photograph depicts location of Former Buildings 15, 61, 61A, and 85.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 49

Date: December 11, 2009

Direction: East

Description:
Photograph depicts parking area north of Former Buildings 15, 61, 61A, and 85. Building 86 located in the background.

ARCADIS
Project No.: BN015317.0011



Photo No.: 50

Date: December 11, 2009

Direction: North

Description:
Photograph depicts Argon and Helium storage tanks located on the east side of building 97.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 51

Date: December 11, 2009

Direction: North

Description:
Photograph depicts four 20,000 gallon ASTs containing automatic transmission fluid (ATF)and a 4,500 gallon oil AST. stormwater Outfall 005. Tanks are located West of Building 86.

ARCADIS
Project No.: BN015317.0011



Photo No.: 52

Date: December 11, 2009

Direction: North

Description:
Photograph depicts 4,500 gallon oil AST and loading/unloading area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 53

Date: December 11, 2009

Direction: North

Description:
Photograph depicts 20,000 gallon ASTs containing ATF and the 4,500 gallon AST containing oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 54

Date: December 11, 2009

Direction: South

Description:
Photograph depicts loading/unloading area and metal storage location at the southeast corner of Building 86.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 55

Date: December 11, 2009

Direction: North

Description:
Photograph depicts area east of Building 86. The Factory 81 loading dock can be seen in the background.

ARCADIS
Project No.: BN015317.0011



Photo No.: 56

Date: December 11, 2009

Direction: West

Description:
Photograph depicts area between Building 86 and Factory 81.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 57

Date: December 16, 2009

Direction: Northwest

Description:
Photograph depicts area south of Building 43. Horizontal helium storage tanks can be seen in center of the photo.

ARCADIS
Project No.: BN015317.0011



Photo No.: 58

Date: December 16, 2009
Direction: northeast
North

Description:
Photograph depicts southeast corner of Building 43..

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 59

Date: December 16, 2009

Direction: East

Description:
Photograph depicts steel structure of Former Building 30.

ARCADIS
Project No.: BN015317.0011



Photo No.: 60

Date: December 16, 2009

Direction: Southeast

Description:
Photograph depicts steel structure of Former Building 30.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 61

Date: December 16, 2009

Direction: South

Description:
Photograph depicts metal storage area located east of Building 99.

ARCADIS
Project No.: BN015317.0011



Photo No.: 62

Date: December 16, 2009

Direction: South

Description:
Photograph depicts Building 99 and metal storage area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 63

Date: December 16, 2009

Direction: North

Description:
Photograph depicts LNAPL Recovery Systems located east of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 64

Date: December 16, 2009

Direction: West

Description:
Photograph depicts interior of LNAPL Recovery System.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 65

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts the southeast portion of Building 20.

ARCADIS
Project No.: BN015317.0011



Photo No.: 66

Date: December 16, 2009

Direction: East

Description:
Photograph depicts area south of Building 20.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 67

Date: December 11, 2009

Direction: North

Description:
Photograph depicts Building 30C - Auditorium.

ARCADIS
Project No.: BN015317.0011



Photo No.: 68

Date: December 16, 2009

Direction: Southeast

Description:
Photograph depicts the southeast side of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 69

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the Factory 10 Salvage yard Tank Storage Area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 70

Date: December 16, 2009

Direction: Southeast

Description:
Photograph depicts curbing in the loading/unloading area at the Factory 10 Salvage yard Tank Storage Area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 71

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the Factory 10 Salvage yard Container Storage Area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 72

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts nitrogen storage tank located on the east side of Building 43

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 73

Date: December 16, 2009

Direction: East

Description:
Photograph depicts two 450,000 gallon wastewater overflow process tanks associated with the onsite wastewater treatment plant.

ARCADIS
Project No.: BN015317.0011



Photo No.: 74

Date: December 16, 2009

Direction: Southeast

Description:
Photograph depicts eastern portion of Building 43. The two small buildings in the center of the photo are methanol and anhydrous ammonia storage buildings.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 75

Date: December 16, 2009

Direction: North

Description:
Photograph depicts western portion of the wastewater treatment plant.

ARCADIS
Project No.: BN015317.0011



Photo No.: 76

Date: December 16, 2009

Direction: North

Description:
Photograph depicts two 20,000 gallon used oil storage tanks associated with the wastewater treatment plant.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 77

Date: December 16, 2009

Direction: South

Description:
Photograph depicts eastern portion of wastewater treatment plant.

ARCADIS
Project No.: BN015317.0011



Photo No.: 78

Date: December 16, 2009

Direction: North

Description:
Photograph depicts inactive sludge pits associated with the wastewater treatment plant.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 79

Date: December 16, 2009

Direction: North

Description:
Photograph depicts sulfuric acid tank associated with wastewater treatment plant.

ARCADIS
Project No.: BN015317.0011



Photo No.: 80

Date: December 16, 2009

Direction: North

Description:
Photograph depicts southern portion of the wastewater treatment plant area including apparent wastewater influent area. Photo also shows berm surrounding wastewater influent area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 81

Date: December 16, 2009

Direction: North

Description:
Photograph depicts wastewater influent area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 82

Date: December 16, 2009

Direction: North

Description:
Photograph depicts 400,000 gallon water storage tank and the associated fire water pump house.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 83

Date: December 16, 2009

Direction: East

Description:
Photograph depicts roll off boxes located in the 'Tin Pad' storage area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 84

Date: December 16, 2009

Direction: North

Description:
Photograph depicts soil storage in the 'Tin Pad' storage area.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: November 24, 2009

Direction: West

Description:
Photograph depicts former location of Buildings 04 and 44.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: November 24, 2009

Direction: Northeast

Description:
Photograph depicts former location of Buildings 04, 08, 16, and 44.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: November 24, 2009

Direction: West

Description:
Photograph depicts parking lot area on the east side of North St.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: November 24, 2009

Direction: Northeast

Description:
Photograph depicts former location of Buildings 84, 28, 17, and 17A.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: November 24, 2009

Direction: North

Description:
Photograph depicts former location of Buildings 84, 28, 84B, 17, and 17A.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: November 24, 2009

Direction: Northwest

Description:
Photograph depicts former location of Buildings 28, 84, and 84B.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: November 24, 2009

Direction: East

Description:
Photograph depicts former location of Buildings 02, 03, 10, 94, and 94A.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: November 24, 2009

Direction: Southwest

Description:
Photograph depicts former location of Buildings 16, 08, 44, and 04.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: November 24, 2009

Direction: Northwest

Description:
Photograph depicts former location of Building 12.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: November 24, 2009

Direction: Northeast

Description:
Photograph depicts former location of Buildings 3, 10, 94, and 94A.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: November 24, 2009

Direction: West

Description:
Photograph depicts former parking lot area on the east side of North St.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: November 24, 2009

Direction: Northwest

Description:
Photograph depicts former parking lot area south of Leith St. and east of North St.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 13

Date: November 24, 2009

Direction: East

Description:
Photograph depicts former location of Building 12.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: November 24, 2009

Direction: Southwest

Description:
Photograph depicts location of one former parking lot area (beyond fence) one operational parking lot area for office building.

Former area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 15

Date: November 24, 2009

Direction: East

Description:
Photograph depicts former location of Buildings 29 and 23.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 16

Date: November 24, 2009

Direction: Northeast

Description:
Photograph depicts location of inactive Building 11.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 17

Date: November 24, 2009

Direction: Southeast

Description:
Photograph depicts former location of Building 02.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 18

Date: November 24, 2009

Direction: Southwest

Description:
Photograph depicts former location of Building 12.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 19

Date: November 24, 2009

Direction: Southwest

Description:
Photograph depicts former location of Building 94.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 20

Date: November 24, 2009

Direction: Southwest

Description:
Photograph depicts former location of Building 94 and 94A.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 21

Date: November 24, 2009

Direction: Southeast

Description:
Photograph depicts former location of Employee Parking Lot for Admin Building 01 on the east side of North St.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 22

Date: November 24, 2009

Direction: Northeast

Description:
Photograph depicts former location of Admin Building 01 on the east side of North St.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 23

Date: November 24, 2009

Direction: Southwest

Description:
Photograph depicts property on the corner of Industrial Ave. and Harriet St.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 24

Date: November 24, 2009

Direction: Northeast

Description:
Photograph depicts former location of Building 09.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Project No.:
Project Name: General Motors NAO Phase I
City/State: Flint, Michigan



Photo No.: 25

Date: November 24, 2009

Direction: Southeast

Description:
Photograph depicts former location of Building 09.

Area now vacant, covered with concrete, pavement, stone, gravel, scrap metal, rebar, debris, brush/vegetation, and garbage.

ARCADIS
Project No.: BN015317.0011

Photo No.:

Date: November 24, 2009

Direction:

Description:

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Building 21 Bulk Storage Area located in the northwest corner of the building. At the time of the site walk there were 17 - 55 gallon drums and 16 - 50 gallon storage tanks containing oils and lubricants.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts Building 21 Bulk Storage Area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Building 21 Bulk Storage Area. The room contains a drainage trench which runs the length of the room which appears to drain to the sump seen in the background of this photo.

ARCADIS
Project No.: BN015317.0011

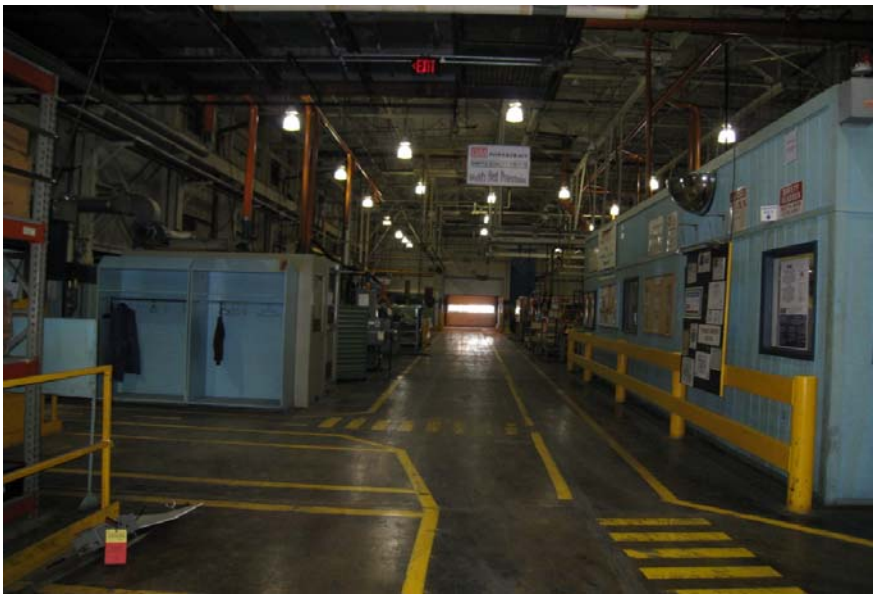


Photo No.: 4

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Building 21. Photo was taken from the southwest corner of the building facing north.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Building 21. Photo was taken from the southwest corner of the building facing east.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts ventilation system connected to equipment located in the eastern portion of Building 21.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts bulk storage are located in northwestern portion of Building 21.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a general view of the Plant floor. Photo taken facing north from the west-central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a satellite waste storage area located in west-central portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 16, 2009

Direction:

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan

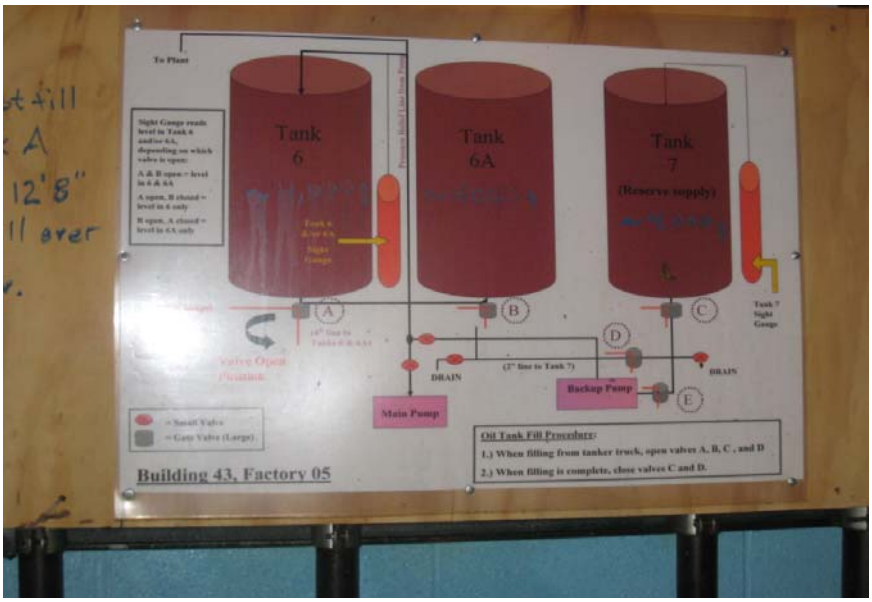


Photo No.: 13

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a schematic of the storage tanks in the 90-Day waste chemical storage area located on the Oil Dock the eastern portion of Building 43. Tags on Tank 6A and 7 indicate that the are no longer in use.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 15

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts maintenance area in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 16

Date: December 16, 2009

Direction: East

Description:
Photograph depicts recycle motor storage in the maintenance area located in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 17

Date: December 16, 2009

Direction: West

Description:
Photograph depicts an unmarked drum stored on the plant floor located in north-central portion of Building 43

ARCADIS
Project No.: BN015317.0011



Photo No.: 18

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a general view of Dept 21 in the central portion of Building 43 (area idle).

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 19

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts a general view of Supermarket area located in northeast corner of Building 43. Photo is taken facing southwest.

ARCADIS
Project No.: BN015317.0011



Photo No.: 20

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the gas cylinder storage in the north dock area of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 21

Date: December 16, 2009

Direction: East

Description:
Photograph depicts dock located in northeastern corner of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 22

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts Dept 21 located in the northeastern corner of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 23

Date: December 16, 2009

Direction:

Description:
Photograph depicts one of multiple sealed storm drains observed throughout Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 24

Date: December 16, 2009

Direction: South

Description:
Photograph depicts a general view of the northeastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 25

Date: December 16, 2009

Direction: South

Description:
Photograph depicts training area located in the northern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 26

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a satellite waste storage area located in the northwestern portion of the plant in Dept 12 of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 27

Date: December 16, 2009

Direction:

Description:
Photograph depicts a floor trench drain that had absorbent material surrounding the drain located in the northwestern portion of the plant in Dept 11 in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 28

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a general view of the plant floor. Photo is taken from west central portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 29

Date: December 16, 2009

Direction: East

Description:
Photograph depicts materials in the sanitary storage crib located in the west central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 30

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a satellite waste storage area located in the maintenance area in the western portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 31

Date: December 16, 2009

Direction: East

Description:
Photograph depicts some material storage observed on the plant floor in Dept 24 near the oil pump in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 32

Date: December 16, 2009

Direction: South

Description:
Photograph depicts one of two booths located in Dept 26 in the southern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 33

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a satellite waste storage area located along the west wall of the plant in the southwest portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 34

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a general view of the plant floor. Photo is taken facing north from the southwest corner of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 35

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a general view of the plant floor. Photo is taken facing east from the southwest corner of Building 43.

ARCADIS
Project No.: BN015317.0011

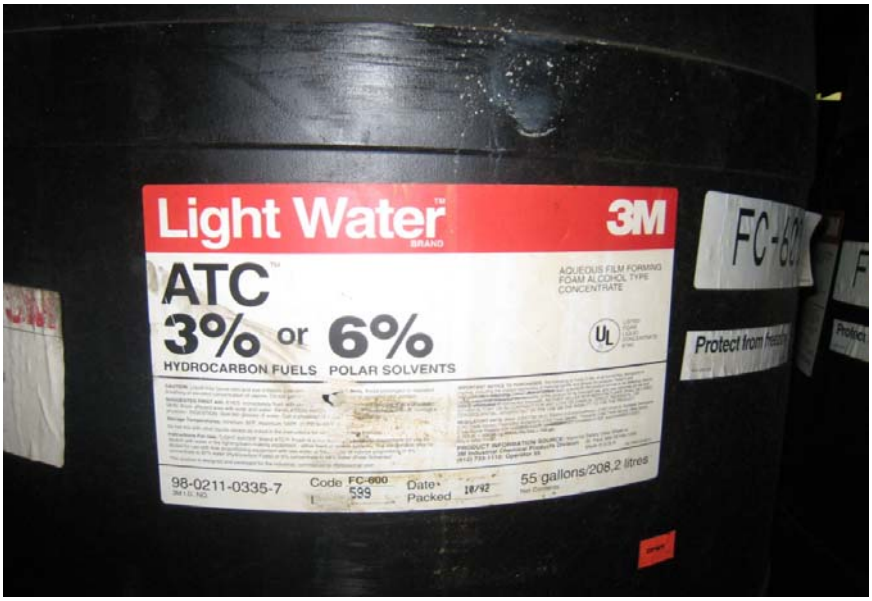


Photo No.: 36

Date: December 16, 2009

Direction:

Description:
Photograph depicts several marked 55-gallon drums on the plant floor near the south loading dock - leakage observed from drums.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 37

Date: December 16, 2009

Direction: East

Description:
Photograph depicts several marked 55-gallon drums on the plant floor near the south loading dock - leakage observed from drums.

ARCADIS
Project No.: BN015317.0011



Photo No.: 38

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the south dock area in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 39

Date: December 16, 2009

Direction:

Description:
Photograph depicts a general view of the plant floor. Photo is taken facing west from the east-central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 40

Date: December 16, 2009

Direction: South

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 41

Date: December 16, 2009

Direction: South

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 42

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 43

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 44

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 45

Date: December 16, 2009

Direction: Northwest

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 46

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 47

Date: December 16, 2009

Direction:

Description:
Photograph depicts a view of the floor trench drain in the North/South Oil Crib located in eastern central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 48

Date: December 16, 2009

Direction:

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 49

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 50

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 51

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 52

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 53

Date: December 16, 2009

Direction:

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 54

Date: December 16, 2009

Direction: East

Description:
Photograph depicts several unmarked 55-gallon drums on the plant floor near a floor trench drain located in the north central portion of the plant west of the Tin Shop.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 55

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Building 43 Heat Treat Area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 56

Date: December 16, 2009

Direction: South

Description:
Photograph depicts Building 43 Heat Treat Area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a general view of the Plant floor. Photo taken facing north from the west-central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a satellite waste storage area located in west-central portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 16, 2009

Direction:

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan

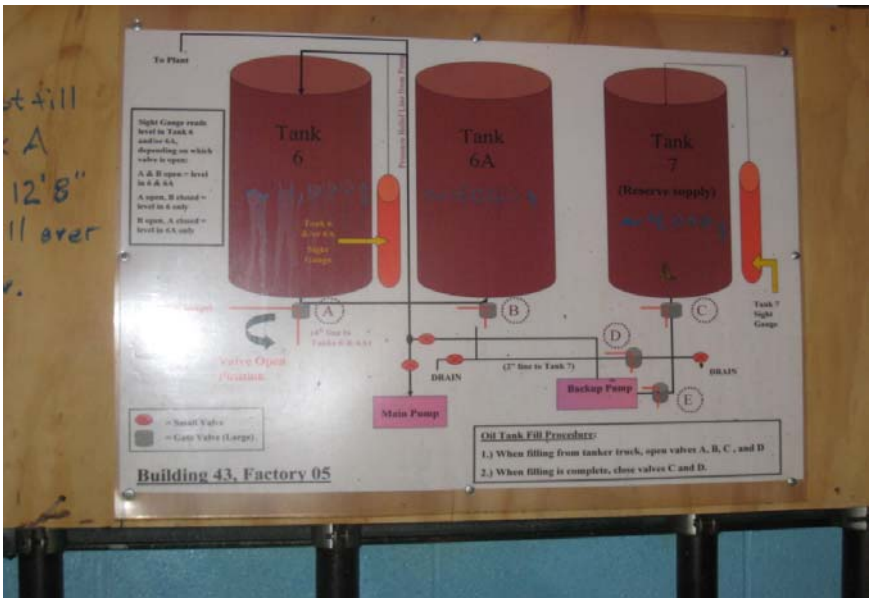


Photo No.: 13

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a schematic of the storage tanks in the 90-Day waste chemical storage area located on the Oil Dock the eastern portion of Building 43. Tags on Tank 6A and 7 indicate that the are no longer in use.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the 90-Day waste chemical storage area located on the Oil Dock in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 15

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts maintenance area in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 16

Date: December 16, 2009

Direction: East

Description:
Photograph depicts recycle motor storage in the maintenance area located in the eastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 17

Date: December 16, 2009

Direction: West

Description:
Photograph depicts an unmarked drum stored on the plant floor located in north-central portion of Building 43

ARCADIS
Project No.: BN015317.0011



Photo No.: 18

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a general view of Dept 21 in the central portion of Building 43 (area idle).

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 19

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts a general view of Supermarket area located in northeast corner of Building 43. Photo is taken facing southwest.

ARCADIS
Project No.: BN015317.0011



Photo No.: 20

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the gas cylinder storage in the north dock area of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 21

Date: December 16, 2009

Direction: East

Description:
Photograph depicts dock located in northeastern corner of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 22

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts Dept 21 located in the northeastern corner of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 23

Date: December 16, 2009

Direction:

Description:
Photograph depicts one of multiple sealed storm drains observed throughout Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 24

Date: December 16, 2009

Direction: South

Description:
Photograph depicts a general view of the northeastern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 25

Date: December 16, 2009

Direction: South

Description:
Photograph depicts training area located in the northern portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 26

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a satellite waste storage area located in the northwestern portion of the plant in Dept 12 of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 27

Date: December 16, 2009

Direction:

Description:
Photograph depicts a floor trench drain that had absorbent material surrounding the drain located in the northwestern portion of the plant in Dept 11 in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 28

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a general view of the plant floor. Photo is taken from west central portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 29

Date: December 16, 2009

Direction: East

Description:
Photograph depicts materials in the sanitary storage crib located in the west central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 30

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a satellite waste storage area located in the maintenance area in the western portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 31

Date: December 16, 2009

Direction: East

Description:
Photograph depicts some material storage observed on the plant floor in Dept 24 near the oil pump in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 32

Date: December 16, 2009

Direction: South

Description:
Photograph depicts one of two booths located in Dept 26 in the southern portion of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 33

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a satellite waste storage area located along the west wall of the plant in the southwest portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 34

Date: December 16, 2009

Direction: North

Description:
Photograph depicts a general view of the plant floor. Photo is taken facing north from the southwest corner of Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 35

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a general view of the plant floor. Photo is taken facing east from the southwest corner of Building 43.

ARCADIS
Project No.: BN015317.0011

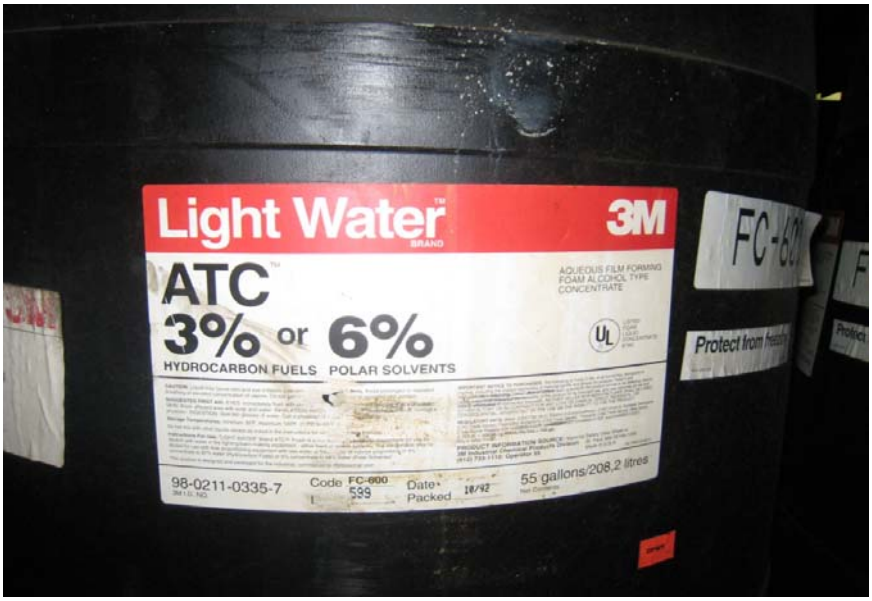


Photo No.: 36

Date: December 16, 2009

Direction:

Description:
Photograph depicts several marked 55-gallon drums on the plant floor near the south loading dock - leakage observed from drums.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 37

Date: December 16, 2009

Direction: East

Description:
Photograph depicts several marked 55-gallon drums on the plant floor near the south loading dock - leakage observed from drums.

ARCADIS
Project No.: BN015317.0011



Photo No.: 38

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the south dock area in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 39

Date: December 16, 2009

Direction:

Description:
Photograph depicts a general view of the plant floor. Photo is taken facing west from the east-central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 40

Date: December 16, 2009

Direction: South

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 41

Date: December 16, 2009

Direction: South

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 42

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 43

Date: December 16, 2009

Direction: West

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 44

Date: December 16, 2009

Direction: East

Description:
Photograph depicts a bulk chemical storage area (15 lithium solvent 55-gallon drums, 10 55-galllon lubricant drums, and 11 ~200-gallon totes of new and used coolant). Storage area is located in the eastern-central portion of the plant near Dept 35 in Building 43.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 45

Date: December 16, 2009

Direction: Northwest

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 46

Date: December 16, 2009

Direction: East

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 47

Date: December 16, 2009

Direction:

Description:
Photograph depicts a view of the floor trench drain in the North/South Oil Crib located in eastern central portion of Building 43.

ARCADIS
Project No.: BN015317.0011



Photo No.: 48

Date: December 16, 2009

Direction:

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 49

Date: December 16, 2009

Direction: North

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 50

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 51

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 52

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 53

Date: December 16, 2009

Direction:

Description:
Photograph depicts the North/South Oil Crib located in the eastern central portion of building 43. Storage of new oil and lubricants along with a satellite area for waste oil.

ARCADIS
Project No.: BN015317.0011



Photo No.: 54

Date: December 16, 2009

Direction: East

Description:
Photograph depicts several unmarked 55-gallon drums on the plant floor near a floor trench drain located in the north central portion of the plant west of the Tin Shop.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 55

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Building 43 Heat Treat Area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 56

Date: December 16, 2009

Direction: South

Description:
Photograph depicts Building 43 Heat Treat Area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 16, 2009

Direction: North

Description:
Photograph depicts Factory 81. Photo is taken from the southwest corner of the building facing north.

ARCADIS
Project No.: BN015317.0011

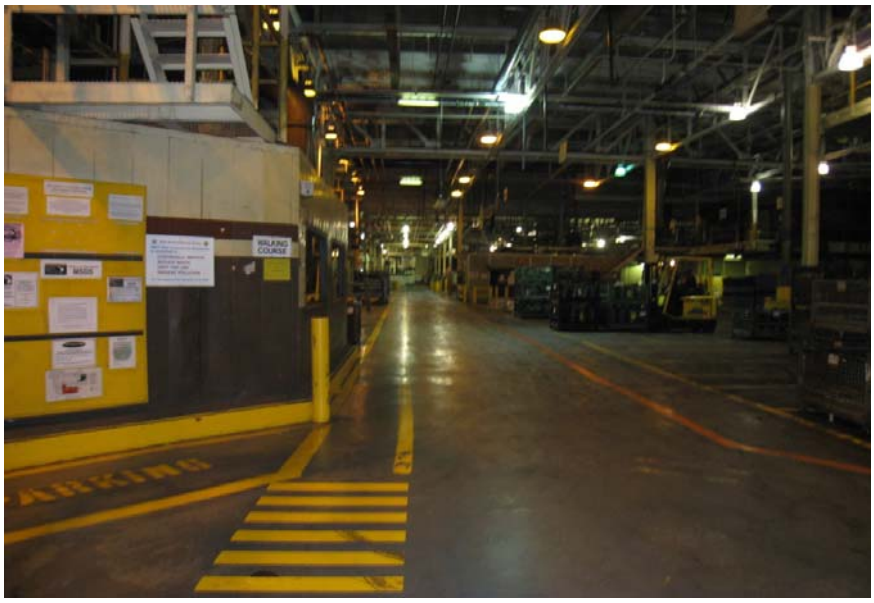


Photo No.: 2

Date: December 16, 2009

Direction: East

Description:
Photograph depicts Factory 81. Photo is taken from the southwest corner of the building facing east.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 16, 2009

Direction: West

Description:
Photograph depicts the 90-Day Waste Storage Area for Factory 81.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 16, 2009

Direction: South

Description:
Photograph depicts the High Density Crib located in the southeast corner of Factory 81.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 16, 2009

Direction: West

Description:
Photograph depicts equipment leaking oil and floor staining in the eastern portion of Factory 81.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts hazardous barium weld dust collection in eastern portion of Factory 81.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 16, 2009

Direction: Northwest

Description:
Photograph depicts bulk storage area located in northeastern portion of Factory 81. At the time of the site walk the area contained 15 55-gallon drums of weld dust, 16 55-gallon drums of oils and lubricants, eight totes of coolant/lubricant and two 350-gallon used oil storage tanks. Hazardous barium weld dust shown in photo.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: December 16, 2009

Direction: West

Description:
Photograph depicts bulk storage area located in northeastern portion of Factory 81. Photo shows two 350-gallon used oil storage tanks.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: December 16, 2009

Direction: Northwest

Description:
Photograph depicts bulk storage area located in northeastern portion of Factory 81. Photo shows eight totes of coolant/lubricant.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts bulk storage area located in northeastern portion of Factory 81. Photo shows nine 55-gallon drums of oils lubricant, coolant.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: December 16, 2009

Direction: Southwest

Description:
Photograph depicts bulk storage area located in northeastern portion of Factory 81. Photo shows drum and tote storage.

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: December 16, 2009

Direction: East

Description:
Photograph depicts 90-Day Flammable Liquid Waste Storage area for the site located in the northeastern portion of Factory 81.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 13

Date: December 16, 2009

Direction: South

Description:
Photograph depicts 90-Day Flammable Liquid Waste Storage area for the site located in the northeastern portion of Factory 81. At the time of the site walk the are contained 21 55-gallon drums and 3 totes of flammable liquid waste.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: December 16, 2009

Direction: East

Description:
Photograph depicts 90-Day Flammable Liquid Waste Storage area for the site located in the northeastern portion of Factory 81. At the time of the site walk the are contained 21 55-gallon drums and 3 totes of flammable liquid waste.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 15

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts 90-Day Flammable Liquid Waste Storage area for the site located in the northeastern portion of Factory 81. At the time of the site walk the are contained 21 55-gallon drums and 3 totes of flammable liquid waste.

ARCADIS
Project No.: BN015317.0011



Photo No.: 16

Date: December 16, 2009

Direction: South

Description:
Photograph northeastern portion of Factory 81. Photo is taken from northeastern corner of the building facing south.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan

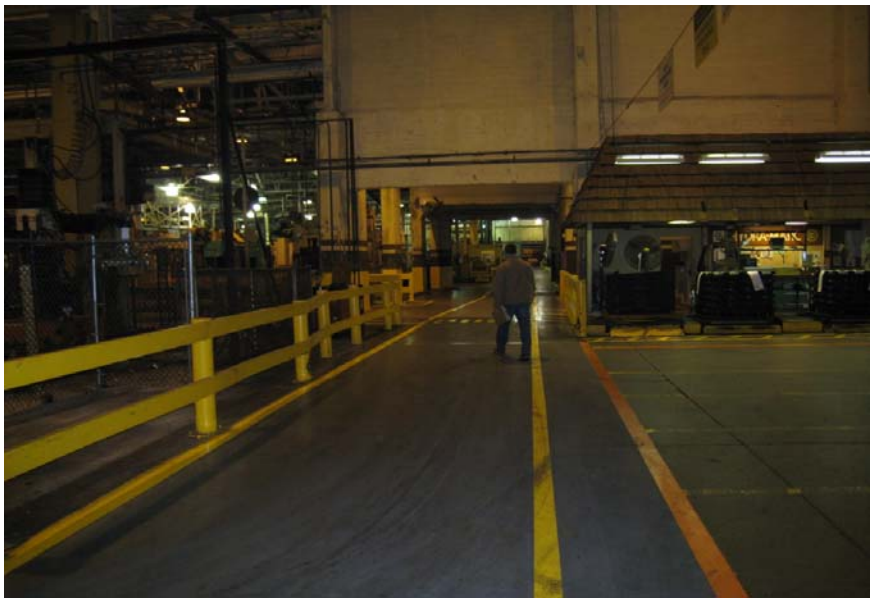


Photo No.: 17

Date: December 16, 2009

Direction: West

Description:
Photograph northeastern portion of Factory 81. Photo is taken from northeastern corner of the building facing west.

ARCADIS
Project No.: BN015317.0011



Photo No.: 18

Date: December 16, 2009

Direction: West

Description:
Photograph depicts chip dock located in the northwestern corner of Factory 81. Metal Chips prior to 'bailing'.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 19

Date: December 16, 2009

Direction: East

Description:
Photograph depicts chip dock located in the northwestern corner of Factory 81.

ARCADIS
Project No.: BN015317.0011



Photo No.: 20

Date: December 16, 2009

Direction: South

Description:
Photograph depicts 'bailed' chips in chip dock area of Factory 81.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 21

Date: December 16, 2009

Direction: Northeast

Description:
Photograph depicts floor between roll off boxes in chip dock area of Factory 81.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 22, 2009

Direction: South

Description:
Photograph depicts northern portion of Factory 83/84. Note - paint chips can be seen on floor.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 22, 2009

Direction: West

Description:
Photograph depicts northern portion of Factory 83/84.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 22, 2009

Direction: West

Description:
Photograph depicts western central portion of Factory 83/84. Production equipment remains in place.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 22, 2009

Direction: West

Description:
Photograph depicts western central portion of Factory 83/84. Area contains piled debris and discarded equipment.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 22, 2009

Direction: North

Description:
Photograph depicts fenced, bermed area located in the south central portion of Factory 83/84.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 22, 2009

Direction: East

Description:
Photograph depicts south central portion of Factory 83/84.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 22, 2009

Direction:

Description:
Photograph depicts peeling paint in south central portion of Factory 83/84.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 11, 2009

Direction: South

Description:
Photograph depicts Building 36 former hazardous materials storage area. This area was also the 90-Day Hazardous waste storage area until the factory became inactive.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 11, 2009

Direction: North

Description:
Photograph depicts Building 26 Loading dock area near the former hazardous waste storage area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 11, 2009

Direction: Southeast

Description:
Photograph depicts Building 36 former hazardous materials storage area. This area was also the 90-Day Hazardous waste storage area until the factory became inactive.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 11, 2009

Direction: North

Description:
Photograph depicts Building 36 former hazardous materials storage area. This area was also the 90-Day Hazardous waste storage area until the factory became inactive.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 22, 2009

Direction: South

Description:
Photograph depicts the floor in the Building 36 former hazardous materials storage area.

ARCADIS
Project No.: BN015317.0011



Photo No.: 6

Date: December 22, 2009

Direction: West

Description:
Photograph depicts a tote containing used oil located in the Building 36 former hazardous materials storage area.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 7

Date: December 22, 2009

Direction: Southwest

Description:
Photograph depicts the eastern central portion of Building 36.

ARCADIS
Project No.: BN015317.0011



Photo No.: 8

Date: December 22, 2009

Direction: West

Description:
Photograph depicts central aisle way of Building 36. The production equipment remains in place.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 9

Date: December 22, 2009

Direction: Northwest

Description:
Photograph depicts one of the drums seen in Building 36 during the site walk. The drum was located along the central aisle way. All drums encountered during the site walk appeared to be empty.

ARCADIS
Project No.: BN015317.0011



Photo No.: 10

Date: December 22, 2009

Direction: West

Description:
Photograph depicts fluid remaining in production equipment located in the western central portion of Building 36.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 11

Date: December 22, 2009

Direction: North

Description:
Photograph depicts south central storage area in Building 36.

ARCADIS
Project No.: BN015317.0011



Photo No.: 12

Date: December 22, 2009

Direction: Northeast

Description:
Photograph depicts south central storage area in Building 36.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I

City/State: Flint, Michigan



Photo No.: 13

Date: December 22, 2009

Direction:

Description:
Photograph depicts basement located in the southeast corner of Building 36. The basement is flooded with water. Oil was seen floating on the water.

ARCADIS
Project No.: BN015317.0011



Photo No.: 14

Date: December 22, 2009

Direction: East

Description:
Photograph depicts the paint waste storage area in the eastern central portion of Building 36. This area contains approximately 20 containers in this area which contained liquid.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 22, 2009

Direction: South

Description:
Photograph depicts Building 38 Interior. Building 38 was historically used as a warehouse and is currently inactive. At the time of the site walk the building contained wood pallets, scrap equipment, and various debris.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 22, 2009

Direction: North

Description:
Photograph depicts Building 38 Interior. Building 38 was historically used as a warehouse and is currently inactive. At the time of the site walk the building contained wood pallets, scrap equipment, and various debris.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 22, 2009

Direction: Northeast

Description:
Photograph depicts Building 38.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 1

Date: December 22, 2009

Direction: East

Description:
Photograph depicts northern portion of Building 86. Photo taken from northwest corner of the building facing east.

ARCADIS
Project No.: BN015317.0011



Photo No.: 2

Date: December 22, 2009

Direction: South

Description:
Photograph depicts three ASTs located in the northeast corner of Building 86.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 3

Date: December 22, 2009

Direction: North

Description:
Photograph depicts storage area in the northeastern portion of Building 86.

ARCADIS
Project No.: BN015317.0011



Photo No.: 4

Date: December 22, 2009

Direction: East

Description:
Photograph depicts light bulb satellite accumulation area located in the northwestern corner of Building 86.

ARCADIS
Project No.: BN015317.0011

Project Name: MLC NAO Phase I
City/State: Flint, Michigan



Photo No.: 5

Date: December 22, 2009

Direction: East

Description:
Photograph depicts what appeared to be a former paint booth in the southern portion of Building 86.

ARCADIS
Project No.: BN015317.0011

APPENDIX E

Supporting Documents

ARCADIS
Infrastructure, environment, facilities

Imagine the result

General Motors Corporation

Resource Conservation and Recovery Act (RCRA) Revised Corrective Measures Proposal

NAO Flint Operations Site
ID #MID 005 356 712

May 1, 2008

ARCADIS

Revised Resource Conservation and Recovery Act (RCRA) Corrective Measures Proposal

NAO Flint Operations Site
ID #MID 005 356 712

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Our Ref.:
B0064410

Date:
May 1, 2008

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Acronyms and Abbreviations

ACGIH	American Conference of Governmental and Industrial Hygienists
ADD	average daily dose
AOI	area of interest
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
ATEC	American Testing and Engineering Corporation Associates
AWQC	ambient water quality criteria
BBL	Blasland, Bouck & Lee, Inc.
BCa	Bias-Corrected and Accelerated
BEHP	bis(2-ethylhexyl)phthalate
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylene
CA 750	Migration of Contaminated Groundwater Under Control
cfs	cubic feet per second
cm/sec	centimeter(s) per second
CSM	Conceptual Site Model
cy	cubic yard(s)
DOCC	Description of Current Conditions
DNAPL	dense nonaqueous phase liquid
EI	Environmental Indicator
ERA	Ecological Risk Assessment
FE	Flammability and Explosivity Criteria
FOIA	Freedom of Information Act
FSP	Field Sampling Plan
G&M	Geraghty & Miller
GAI	Groundwater Acute Inhalation Criteria
GCC	Groundwater Contact Criteria
GIS	geographic information system
gpm	gallons per minute
GM	General Motors Corporation
GSI	Groundwater/Surface Water Interface Criteria
HASP	Health and Safety Plan
HEAST	Health Effects Assessment Summary Tables
HI	Hazard Index
HQ	Hazard Quotient
HUD	U.S. Department of Housing and Urban Development
IDC	Industrial Direct Contact Criteria

IDW	Industrial Drinking Water Criteria
IGVIA	Industrial Groundwater Volatilization to Indoor Air Inhalation Criteria
IM	interim measure
IPSIC	Industrial Particulate Soil Inhalation Criteria
IRIS	Integrated Risk Information System
ISVIA	Industrial Soil Volatilization to Indoor Air Inhalation Criteria
IVSIC	Industrial Infinite Source Volatile Soil Inhalation Criteria
LADD	lifetime average daily dose
LNAPL	light nonaqueous phase liquid
MDEQ	Michigan Department of Environmental Quality
mg/kg	milligrams per kilogram
MNFI	Michigan Natural Features Inventory
NAO	North American Operations
NCEA	National Center for Environmental Assessment
NE DOCC	Northend Description of Current Conditions
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NREPA	Natural Resources and Environmental Protection Act (1994 PA 451, as amended)
NTU	nepholometric turbidity unit
OSHA	Occupational Safety and Health Administration
PA	Public Act
PAL	Project Analyte List
PEL	Permissible Exposure Limit
PID	photoionization detector
ppm	parts per million
PPRTV	provisional peer reviewed toxicity values
PRG	Preliminary Remediation Goal
QAPP	Quality Assurance Project Plan
RBC	Risk-Based Criteria
RCRA	Resource Conservation and Recovery Act
RDW	Residential Drinking Water Criteria
RfC	chronic inhalation reference concentrations
RfD	USEPA-derived chronic reference doses
RFI	RCRA Facility Investigation
RME	Reasonable Maximum Exposure
SDG	sample delivery group
SE DOCC	Southend Description of Current Conditions
SF	slope factor

SOCDS	State of the Cities Data Systems
SVOC	semi-volatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TPH	total petroleum hydrocarbons
UCL	Upper Confidence Limit
ug/L	micrograms per liter
URF	Unit Risk Factor
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound

1. Introduction

1.1 General

On March 2, 2000 (modified November 8, 2001), the United States Environmental Protection Agency (USEPA) and General Motors Corporation (GM) entered into a Resource Conservation and Recovery Act (RCRA) Section 3008(h) Administrative Order on Consent (AOC) R8H-5-00-02 for the North American Operations (NAO) Flint Operations Site located in Flint, Michigan (the Site). The AOC instructs GM to investigate and, as necessary, stabilize and remediate releases of hazardous waste or hazardous constituents at or from the Site in accordance with the RCRA and relevant USEPA corrective action guidance documentation.

This *Resource Conservation and Recovery Act (RCRA) Revised Corrective Measures Proposal* (Revised CMP) for the Site was prepared by ARCADIS on behalf of GM, and it supersedes GM's previous CMP prepared by Blasland, Bouck & Lee, Inc., an ARCADIS Company (BBL), and submitted to the USEPA on December 22, 2006 (December 2006 CMP). This Revised CMP summarizes interim measures (IMs) initiated at the Site prior to and since the effective date of the AOC, describes proposed final corrective measures for areas of interest (AOIs) identified in the RCRA Facility Investigation (RFI) Phase I and II Reports, and discusses the rationale for the selection of those corrective measures.

The December 2006 CMP was submitted to fulfill conditions set forth under Section VI.3 of the AOC. The USEPA provided GM via letter dated April 17, 2007 comments on the December 2006 CMP. GM responded to USEPA's comments via letter dated October 10, 2007. This Revised CMP incorporates GM's October 10, 2007 responses to USEPA's April 17, 2007 comments on the December 2006 CMP, as well as information discussed with USEPA during a project status meeting held at USEPA's offices in Chicago, Illinois on December 13, 2007, with representatives from USEPA, GM, ARCADIS, and ENVIRON attending (minutes dated January 10, 2008).

This Revised CMP also provides GM's final Closure Plans for areas identified during the RFI to contain the presence of polychlorinated biphenyls (PCBs) at levels that are subject to regulation under the Toxic Substances Control Act (TSCA).

1.2 Overview of RFI Activities

To fulfill the conditions set forth under Section VI.1 of the AOC, GM completed activities necessary to identify and define the nature and extent of releases of hazardous waste or hazardous constituents at or from the Site. These activities have been presented in the following documents:

- *Description of Current Conditions for Areas South of Leith Street* (BBL, 2000a) (SEDOCC);
- *Description of Current Conditions for Areas North of Leith Street* (BBL, 2000b) (NEDOCC);
- *RCRA Facility Investigation Work Plan* (BBL, 2001) (Work Plan);
- *Resource Conservation and Recovery Act Facility Investigation Phase I Report* (BBL, 2002a) (RFI Phase I Report);
- *Resource Conservation and Recovery Act Facility Investigation Phase II Report* (BBL, 2004 & BBL, 2006) (RFI Phase II Report).

The investigation activities and risk assessments included in these documents serve as the basis for much of this Revised CMP, and are incorporated by reference herein. As needed, information previously presented in the SEDOCC, NEDOCC, RFI Phase I Report, and RFI Phase II Report is referenced, restated, or summarized. These documents present a more comprehensive understanding of the Site and the RFI activities that have been conducted at the Site.

1.3 Report Organization

This Revised CMP is organized as follows:

- Section 1 presents a general overview of background information.
- Section 2 provides general Site information, describing the Site location, environmental setting, current and historical operations, land use, demographics, geology, and hydrogeology.

- Section 3 provides a summary of the assessments of Site risks to human health with respect to anticipated current and future land use.
- Section 4 provides an evaluation of the corrective measures considered and the final controls proposed for AOIs with potentially significant risks or that contain TSCA-regulated levels of PCBs.
- Section 5 presents a summary of proposed groundwater monitoring for the Site.
- Section 6 presents the schedule for performing the proposed corrective measures.
- Section 7 lists references used in this document.

2. Environmental Setting

Much of the information regarding the environmental setting (e.g., topography, climate, hydrology, geology, hydrogeology, surface water drainage) of the Site has not changed from what is presented in Section 3 of the RFI Phase I Report and Section 3 of the RFI Phase II Report. This section summarizes the information regarding the environmental setting provided in the RFI Phase I and Phase II Reports. New information obtained since the publication of the RFI Phase II Report has been used as necessary to modify or expand the information included in this section.

2.1 Facility Description

The Site is located at 902 East Leith Street in Flint, Michigan, in Genesee County (see Figures 2-1, 2-2, and 2-3) and encompasses approximately 452 acres of land. It is generally bounded to the north by Stewart Avenue and Pierson Road, to the south by Harriet Street, to the east by James P. Cole Boulevard and CSX Railroad, and to the west by Industrial Avenue and North Street. Current operations are all conducted in the portion of the property located north of Leith Street that is referred to as the Northend. Building demolition has been completed in the portion of the property located south of Leith Street which is referred to as the Southend, and has been performed in portions of the Northend.

A plastics recycling facility is located on the northeast corner of James P. Cole Boulevard and Garfield Avenue, and a Consumers Power Building is located on the southeast corner of James P. Cole Boulevard, between the Site and the Flint River. An idle DuPont facility is located south of Hamilton Avenue, east of the Site. The CSX Railroad and Interstate I-475 are located to the east, between the Site and the Flint River, as well as several other companies, including Bell's Produce, PPG Industries, Kasle Steel/Auto Blankers, Flint Coatings, and Lockhart Chemicals. Flint Plating occupies a corner just north of the Site's industrial wastewater treatment plant. The remaining areas surrounding the Site are generally occupied by residential neighborhoods and other companies including Unit Terminal, Universal Systems, and Associated Truck.

2.2 Historical and Current Operations

Portions of the Site were originally developed in the late 1800s to produce the "horseless carriage." In 1898, Billy Durant and J. Dallas Dort purchased the Imperial Wheel Company, making it a subsidiary of the Durant/Dort Carriage Company. After

Durant/Dort Carriage Company purchased the Imperial Wheel Company, manufacturing operations were relocated to the intersection of Hamilton Avenue and St. John Street (currently James P. Cole Boulevard). The Buick Motor Company was first established in Flint when Flint Wagon Works purchased the company from David Buick in September 1903. In 1903, the Buick Motor Company was relocated from Detroit to the Site, on Hamilton Avenue between Industrial Avenue and St. John Street (now James P. Cole Boulevard).

In addition to the manufacturing of automobiles, in response to World War I, the Buick Motor Company began producing the Liberty Aircraft engine in 1918. Similarly, in response to World War II, the production of automobiles was stopped in 1942, and the Buick complex was converted for the production of military equipment. Current Site operations include machining of ferrous and nonferrous metals, V-6 engine manufacturing, torque converter manufacturing, transmission components manufacturing, engine assembly, and industrial wastewater treatment.

2.3 **Location and Topography**

The topography of the Site is fairly flat, although the regional topography slopes east-southeast towards the Flint River. The ground surface elevation drops approximately 35 feet between Industrial Avenue at the western property boundary and James P. Cole Boulevard at the eastern property boundary, in close proximity to the Flint River. The river is approximately 100 feet east of the Southend of the Site and approximately 3,000 feet east of the Northend of the Site.

2.4 **Climate**

Since day-to-day weather is controlled by the movement of pressure systems across the nation, this area seldom experiences prolonged periods of hot, humid weather in the summer or extreme cold during the winter. The prevailing wind is southwesterly, averaging 10 mph. Flint experiences some lake-effect snow. The average mid-day relative humidity varies from 54% in May to 73% in December, and averages 62% annually.

Summers are dominated by moderately warm temperatures with a 1964 to 1993 annual average of 6.6 days exceeding 90°F. An annual average of 139.3 days had minimum temperatures of 32°F or lower. The highest average monthly maximum temperature of 88.8°F was recorded July 1955, and the lowest average monthly minimum temperature of about 4ºF was recorded February 1978.

Precipitation is generally evenly distributed throughout each year with an average annual total for 1942 to 2000 of 31 inches. During this same period, the average wettest month was September, averaging 3.56 inches of precipitation, while the average driest month was February, averaging 1.28 inches of precipitation. Summer precipitation comes mainly in the form of afternoon showers and thundershowers.

The 1942 to 2003 average seasonal snowfall was about 44.9 inches. During the 1964 to 1993 period, 14.3 days per season averaged 1 inch or more of snow on the ground, but this varied greatly from season to season.

2.5 **Regional Hydrology**

The Flint watershed consists of approximately 1,360 square miles. The median daily discharge flow for the Flint River is approximately 400 cubic feet per second (cfs). Stream flow varies widely as a function of precipitation and runoff throughout the year and from season to season.

The Flint River flows north to south through the City of Flint. The slope is approximately 2 feet per mile through this reach. There are four major tributaries to the Flint River in the study area: Butternut, Kearsley, Thread, and Swartz creeks. Most of the tributary waters flow from upland glacial moraines, and all of the surface waters are receptors of groundwater discharge.

2.6 **Regional Geology**

The geology of central Genesee County is dominated by two primary stratigraphic units consisting of unconsolidated glacial deposits of Pleistocene age, underlain by sandstone bedrock. The surficial glacial deposits are composed of a sequence of moraines, outwash and glacial channels, lake bed sediments, and till plains. These deposits are underlain by glacial drift or till consisting primarily of clay with lesser amounts of sand and silt. These overburden materials are underlain by bedrock of the Saginaw Formation, consisting of Pennsylvania age sandstones and limestones.

2.6.1 Overburden

The regional landscape of Flint and the surrounding area consists of gently rolling topography. This topography includes a gently sloping ground moraine, broken by several outwash channels and also by numerous end-moraine ridges, some having slightly greater relief than the surrounding ground-moraine topography. Local relief of

less than 50 feet is found over areas of several miles. The greatest regional elevation changes are along outwash channels, which are commonly accompanied by steep slopes and are 50 to 100 feet lower than the adjacent ground moraine.

The underlying glacial till deposits are typically fine-grained materials (clays and silts) with low permeability (Wiitala, et al., 1963). The till is grayish brown and poorly sorted. Locally, the till includes lenses and/or layers of more permeable silts and sands that are not extensive horizontally or vertically (Geraghty & Miller [G&M], 1986).

2.6.2 Bedrock

The bedrock geology in the region consists primarily of sandstone and limestone formations characteristic of the eastern-central portion of the Michigan Basin. These Pennsylvanian- and Mississippian-age formations include the Saginaw, Bayport, Michigan, and Marshall formations (Wiitala, et al., 1963). In the Flint area, the Saginaw Formation underlies the glacial till deposits and is composed of sandstone, sandy shale, shale, coal, and limestone. The sandstone layers are the primary source of groundwater from this formation. The Saginaw Formation is the results of cyclical sedimentation processes, and consists of numerous successions of sandstone overlain by sandy shale, gray shale, coal, black shale, and limestone.

2.7 **Regional Hydrogeology**

The regional groundwater flow direction within the sandstone bedrock is generally to the north across Genesee County, with groundwater eventually discharging to Saginaw Bay and Lake Huron (Wiitala, et al., 1963). In the Flint area, groundwater is found within the glacial till, which includes various sand and gravel deposits, and in the underlying bedrock. Groundwater flow within the glacial overburden deposits in the vicinity of the Site is toward the Flint River and its tributaries to the east and southeast. Regionally, two distinct water-bearing zones are identified, as discussed in the following sections:

2.7.1 Glacial Drift Groundwater Zone

Discontinuous sand layers are present within the till, can be fully saturated, and have a higher short-term yield than the glacial till. However, the glacial drift groundwater zone is not used as a source of groundwater due to limited yield available from this zone.

2.7.2 Bedrock Groundwater Zones

Bedrock groundwater zones are found within the Saginaw Formation, Michigan Formation, and Marshall Formation.

The Saginaw Formation is the primary source of groundwater in the Flint area. Several production wells installed in this formation were previously used for industrial and public water supply. As alternative sources of water became available, these wells were taken out of production due to the poor quality (hardness and dissolved solids) of the groundwater.

The Michigan Formation is not considered to be an important source of groundwater in the Flint area. There are no known active production wells that use this formation as a source of groundwater (Huffman and Whited, 1993).

The Marshall Formation provides only a small percentage of the groundwater used in Genesee County. In the Flint area, there are no known active production wells that use this formation as a source of groundwater (Huffman and Whited, 1993).

2.8 Surface Water Hydrology

Surface water drainage patterns at the Site are generally east and southeast, toward the Flint River, which is the nearest surface water body. Paved surfaces, parking lots, and structures cover more than 80% of the Site. The Site operates under the requirements of its National Pollutant Discharge Elimination System (NPDES) Permit (No. MI0001597), which regulates surface water discharges. The Site is drained by 15 storm sewers. Of these, the following 6 outfalls are permitted by the NPDES permit: Outfalls 002, 003, 010, 011, 012, and 100. In addition, these discharges include non-GM drainage flow from other portions of the City of Flint, both upstream and downstream of the Site's storm sewer system.

A general layout and orientation of the storm sewer system is shown on Figure 1 of Appendix F of the Southend DOCC (BBL, 2000a) and Figure 1 of Appendix A of the Northend DOCC (BBL, 2000b).

2.9 Groundwater Use

The Saginaw Formation of bedrock, which underlies the unconsolidated glacial drift in the area of the Site at depths reported to be 60 to 80 ft below ground surface (bgs),

was historically the primary source of groundwater in the Flint area. Several production wells in the formation were previously used for industrial and public water supply. As alternative sources of drinking water became available, these wells were taken out of service due to the poor quality of the groundwater (high hardness and dissolved solids values). There are no known active production wells in the City that use the overburden or bedrock formations as a source of groundwater (Huffman and Whited, 1993).

Currently, the City of Flint Department of Public Works supplies drinking water to the City of Flint and Flint Township (MDEQ Website, updated April 2006). The City of Flint Department of Public Works purchases potable water from the City of Detroit, which routes water from a Lake Huron intake to the City of Flint (2002 Water Quality Report, Detroit Water and Sewerage Department).

2.10 **Site Geology**

The subsurface deposits at the Site have been characterized through the completion of numerous soil borings for site-specific investigations. Historical soil boring logs were provided in Appendix A of the RFI Work Plan. During the RFI activities, nearly 500 soil borings were completed to collect soil and groundwater samples for laboratory analyses. Soil boring logs for the RFI activities are provided in Appendix A of the RFI Phase II Report. Geotechnical analyses completed during the RFI are presented in Table 3-1 and Appendix B of the RFI Phase II Report. General cross sections of the major geologic units for the Site were presented in the RFI Phase II Report as Figures 3-1 through 3-7.

The overburden deposits identified at the Site can be grouped into the following units: fill material, silty sand, silty clay, and bedrock. Each of these units is described below.

2.10.1 Fill Material

Fill material is present beneath most areas of the Site due to various construction activities, such as existing or former buildings, loading docks, manufacturing facilities, and material storage areas. Fill material typically consists of sandy deposits. In some areas, the sandy fill material contains other debris, including coal chips, slag fragments, and metal shavings. The fill material is thickest (up to approximately 15 feet) in the vicinity of boring 20-169 (Building 20) on the Northend of the Site. The fill material is thin (approximately 1.5 feet) in the vicinity of boring SBFL3-23 (near

Building 02) on the Southend of the Site, and is absent entirely in scattered areas of limited extent.

2.10.2 Silty Sand

In the Northend of the Site, a silty sand unit of variable thickness is present beneath the fill material. Interbedded with the silty sand unit are discontinuous layers of silt and clay. This silty sand unit generally thins toward the south and is absent in some portions of the Site south of Leith Street. Where present, this unit ranges in thickness from 5 to 25 feet.

2.10.3 Silty Clay

A dense silty clay glacial till deposit underlies the silty sand at the Site. The silty clay till grades to clayey silt in some areas and contains discontinuous sand seams and lenses. The estimated thickness of the glacial till in the Flint area ranges from 50 to 100 feet (Humphrys, 1960).

2.10.4 Bedrock

Bedrock consisting of sandstone, sandy shale, shale, coal, and limestone (Saginaw Formation) is reported to be present beneath the Site at depths of approximately 60 to 80 feet bgs. Bedrock was not encountered in the soil borings completed for the RFI. Sandstone bedrock was encountered at about 60 feet bgs at boring OW-4 (GM-4) near the west side of the Aeration Lagoons (G&M, 1986).

2.11 **Site Hydrogeology**

The hydrogeology of the Site is characterized by a shallow groundwater zone with a depth to the water table typically ranging from approximately 6 to 16 feet bgs. Site monitoring wells have been installed within shallow overburden deposits consisting of fill, silty sand, silt, and clay. The sandy fill materials and silty sand soil units can be partially or fully saturated depending on the horizontal distribution and depth of soils and seasonal fluctuations in the water table.

The wide variation in the horizontal and vertical distribution of permeable sandy fill materials combined with an underlying low-permeability till unit produces localized water table mounds and perched zones. Also, the location and depth of subsurface structures (e.g., basements), recovery wells, and utilities (e.g., storm sewers) locally

affect the depth to the water table and the direction of groundwater movement. Hydraulic conductivity values measured at shallow monitoring wells installed during the RFI in the sandy fill materials and silty sand soil units ranged from approximately 1.3 x 10^{-2} centimeters per second (cm/sec) to 3.3 x 10^{-4} cm/sec, based on specific-capacity tests (see Table 2-2 of RFI Phase II Report). Hydraulic conductivity values measured at shallow monitoring wells installed within silt and clay ranged from approximately 3.1 x 10^{-5} cm/sec to 3.1 x 10^{-6} cm/sec. The variability in the hydraulic conductivity data is due to the heterogeneity of the overburden materials. Nevertheless, the sandy fill and silty sand soil units are considerably more permeable than the silt and clay layers.

The underlying glacial till unit is predominantly a low-permeability unit that even when fully saturated does not readily transmit groundwater. This unit has been characterized as an aquitard based on the unit's low hydraulic conductivity and low yield. Based on the analysis of a Shelby tube sample by a geotechnical laboratory, the vertical hydraulic conductivity of this unit is approximately 7.9 x 10^{-8} cm/sec. Monitoring wells were not installed in the till clay unit during the RFI.

Figures 3-1 through 3-4 of the RFI Phase II Report illustrate Sitewide groundwater contours based on data collected in 2002, 2003 and 2004. Figures 2-4 and 2-5 of this Revised CMP depict groundwater contours for areas of the Site located along its downgradient boundary, based on more recent data collected in October 2007. Groundwater at the Site generally flows toward the Flint River. In the northern portion of the Site (Factory 38 and Factory 36 areas), groundwater flows to the north-northeast. A groundwater ridge, or divide, is present in the vicinity of Stewart Avenue. Groundwater to the south of this divide appears to have an east to southeast flow component. Groundwater flows to the east and southeast in the central portion of the Site (Factory 43, Building 20 areas). In the south central and southern portions of the Site, the direction of groundwater flow is primarily to the east-southeast.

Localized fluctuations in the direction of groundwater flow patterns are observed near subsurface structures (e.g., basements) and utilities that intercept shallow groundwater. Such influences can be observed near Buildings 30 and 70 on the north side of the Site due to a storm sewer. Other manmade features that affect the direction of groundwater are the Leith Street Overpass and the recovery well system operating in the Building 20 Area. Groundwater flow gradients across the Site typically range from 0.01 to 0.02; however, much steeper gradients are present in localized areas of the Site due to the presence of the manmade features discussed above.

Groundwater elevations in several areas of the Site increased between 2001 and 2005. Some of this rise is likely in response to building demolition and the potential change in stormwater management resulting from building demolition. Additional reasons for the rise in groundwater levels may be attributed to the removal of basement sumps and dewatering systems and subsequent recharge through former basement structures. For example, water levels measured within the Building 12 area have risen as much as 4 to 7 feet since Building 12 was razed. Due to the rise in groundwater levels, several well screens as installed no longer intersect the water table. Additional water table monitoring wells were installed in select demolition areas of the Site to enable continued monitoring of light nonaqueous phase liquid (LNAPL) thickness. Figures 2-2 and 2-3 illustrate both the locations of demolished buildings, and the wells in which measurable thickness of LNAPL has been detected.

In 2005, additional monitoring wells were installed in four areas of the Site (Building 36 Area, Building 20 Area, Former Buildings 03, 17, 28, 84, and 94 Area, and Former Building 09 Area), and groundwater elevations were measured. These groundwater elevation measurements are included on Figures 4-4, 4-6, 4-18, and 4-24, respectively, of the RFI Phase II Report. This information was used to support specific conclusions of GM's *RCRA Environmental Indicator CA750 Report Determination of Migration of Contaminated Groundwater under Control* (ENVIRON, September 23, 2005).

There are no active drinking or industrial water production wells at the Site. All potable water is obtained from the City of Flint. G&M (1986) estimated the hydraulic conductivity of the Saginaw Formation bedrock aquifer to be at least two orders of magnitude higher than that of the overlying till.

2.12 Land Use and Demographic Data

The Site occupies approximately 452 acres in Flint, Michigan, in the southeastern portion of Michigan in Genesee County, which is approximately 649 square miles in area. The City of Flint has a population of approximately 143,000, which accounts for 33% of the approximately 437,000 residents of Genesee County. Approximately one-third of the land area of Genesee County is used for agriculture. The City of Flint receives all of its potable water by pipeline from Detroit. The source of the water is Lake Huron, located approximately 60 miles east of the Site.

The Site currently consists of four active manufacturing complexes (Factories 05, 10, 36, and 81), with the remainder either demolished or planned for demolition. Automobile manufacturing operations began at the Site in the early 20th century (1903)

and continue currently. Current Site operations, all of which occur on the Northend, include machining of ferrous and nonferrous metals, V-6 engine manufacturing, torque converter manufacturing, transmission components manufacturing, engine assembly, and industrial wastewater treatment. The Site is zoned industrial, and future onsite land use is expected to remain industrial

According to the City of Flint Department of Community & Economic Development documentation provided on the City's website (www.cityofflint.com), the City believes that maintaining industrial activities at the Site is essential to the revitalization of Flint. The majority of the Site is located within the Flint Renaissance Zone, which is a designation established by the State of Michigan that allows for the creation of tax-exempt zones designed to spur commercial and industrial growth in eleven economically distressed Michigan communities.

Current land use patterns near the Site are discussed below, along with trends in the economy, population, and housing in Flint, the City's plans for revitalization, and the implications of these factors for the future land use at the Site. The information discussed below is taken primarily from the following sources:

- U.S. Department of Housing and Urban Development (HUD) State of the Cities Data Systems (SOCDS) database located on the HUD website (www.socds.huduser.org);
- U.S. Bureau of the Census, Census 2000; and
- The City of Flint website (www.cityofflint.com).

2.12.1 Land Use Patterns

Land use in the City of Flint is divided into 15 districts, which include classes of residential, business, commercial, and manufacturing uses as established within the City of Flint Zoning Ordinance (Chapter 50). Figure 3-3 illustrates the zoning districts for the Site and the properties near the Site. The Site is composed of several tax parcels, most of which are zoned "G" – Heavy Manufacturing District, which is summarized from the City's Zoning Ordinance as:

"The "G" Heavy Manufacturing District is intended to accommodate those heavy industries which cannot eliminate entirely objectionable features and influences but which, nevertheless, must be provided for somewhere in the City."

Site parcels not zoned "G" include the following:

Northend

The strip of land located east of Andrew Street and north of Stewart Street (currently used for employee parking) is zoned "B" – Two-Family District, which is summarized from the City's Zoning Ordinance as:

"This district allows one- and two-family homes on 5,000-square foot lots. Multi-family homes, rest homes, hospitals, and customer parking lots are allowed under special conditions."

Three lots located west of Industrial Avenue and north of Leith Street are zoned "C-1" – Multi-Family Walk-Up Apartment District, which is summarized from the City's Zoning Ordinance as:

"This district allows one- and two-family homes, walk-up apartment, fraternities and children's institutions outright; and offices clinics, customer parking lots and funeral homes under special conditions."

Southend

The parcel located west of Industrial Avenue, north of Hamilton Avenue, and south of Oak Park is zoned "C-1" – Multi-Family Walk-Up Apartment District (as described above), and "D-2" – Neighborhood Business District, which is summarized from the City's Zoning Ordinance as:

"It is the purpose of this district to provide principally for convenience goods needs of persons residing in nearby residential areas. Uses permitted outright or conditionally shall be limited to those required to satisfy basic needs for goods and services required daily or frequently."

The parcel located west of Industrial Avenue and south of Hamilton Avenue (Administration Building 1 and associated employee parking lot) is zoned "E" – Heavy Commercial Limited Manufacturing District, which is summarized from the City's Zoning Ordinance as:

"The "E" Heavy Commercial Limited Manufacturing District is intended to accommodate heavy commercial and certain light manufacturing uses which are

generally incompatible with uses appropriate in retail business districts, but to not warrant an exclusive industrial classification."

The parcel located west of Industrial Avenue and south of Harriet Street is zoned "A-2" – Single Family Medium Density District, which is summarized from the City's Zoning Ordinance as:

"This district allows single-family detached dwellings on minimum 5,000-square foot lots. This zone also allows institutional uses such as churches and schools; and two-family dwellings and home occupations under special conditions."

Zoning districts for properties near the Site include: residential districts ("A-2", "B", and "C-1"); business/commercial districts ("D-2", "D-3", "D-5", and "D-6") and manufacturing districts ("E", "F", and "G"). Note that no AOIs are located within those areas of the Site that are zoned for residential and business/commercial use. Other properties located adjacent to the Site also zoned "G" – Heavy Manufacturing District include: PPG industries, Kasle Steel/Auto Blankers, Universal Systems, Flint Coatings, Flint Police Training Building, Consolidated Freightways, Lockhart Chemicals, and the former DuPont Plant, as identified on the Site Plan (Figures 2-2 and 2-3).

2.12.2 Flint Demographics

The City of Flint's economy has historically centered on manufacturing, which peaked during the late 1960's and early 1970's. From 1980 to 1990 (the 1970 census was deemed unreliable by HUD), the percent of jobs in Flint in the manufacturing sector dropped from 52% to 43% based on information summarized in the SOCDS database located on the HUD website. In 1990, the three largest job categories in Flint were the manufacturing industry (employed 43% of working residents), professional services industry (employed 22% of working residents) and the retail trade industry (employed 12% of working residents). Although the manufacturing sector has declined, manufacturing continues to employ the largest percentage of working residents in Flint.

Population has decreased in the City of Flint from approximately 197,000 in 1960 to 125,000 in 2000, which is a decrease of 37%. The following shows Flint's population trend from 1950 to 2000 (HUD, SOCDS).

Year	Population	Change	Percent Change
1950	163,143	NA	NA
1960	196,940	+33,797	+17%
1970	193,380	-3,560	-2%
1980	159,611	-33,769	-17%
1990	140,761	-18,850	-12%
2000	124,943	-15,818	-11%

The decrease in population resulted in a corresponding decrease in demand for housing in Flint. In 2000, there were approximately 55,310 housing units in Flint, of which 28,679 were owner-occupied (HUD, SOCDS). From 1970 to 2000, the number of owner-occupied residences decreased by approximately 13,500 units, while the number of rentals increased by approximately 1,300 units. Of the 55,310 housing units available in 2000, approximately 12%, or 6,560 units, were vacant, which is more than double the vacancy rate in 1970 (HUD, SOCDS).

Of the housing units identified in the 2000 census, only 2% were constructed between 1990 and 2000, and only an additional 11% of the units were constructed between 1970 and 1990. Approximately 18% of the housing units are 30 to 39 years old, with 69% of the units 40 years or older (U.S. Bureau of the Census, Census 2000).

2.13 **Expected Future Site Uses**

As stated in Section 2.12, the Site currently consists of four active manufacturing complexes (Factories 05, 10, 36, and 81), with the remainder either demolished or inactive. All current Site operations are located on the Northend portion of the Site. The Northend portion of the Site is expected to continue to be used for industrial purposes, with the land zoned “G” – Heavy Manufacturing District. The City of Flint economic development plan expects that the Southend portion of the Site will be developed for industrial use and the current owner, GM, plans to establish a restriction in the property deed to limit future use of the property to Industrial/Commercial II, III, and IV activities only.

3. Summary of Site-Related Risk

3.1 Summary of RFI Site-Related Risk Methods

A human health risk assessment and an ecological risk evaluation were performed as part of the RFI (Sections 6 and 7, respectively, of the RFI Phase II Report). The following sections briefly describe those components of the RFI Phase II Report, as well as supplemental risk evaluations, which were performed since the RFI Phase II Report was submitted.

3.1.1 Human Health Risk Assessment

The scope of the human health risk assessment is summarized in the conceptual site model (CSM) shown in Table 6.1 of the RFI Phase II Report. The CSM identifies the scenarios for potential human exposure under current and reasonably expected future conditions at and around the Site in terms of the potentially exposed populations, the environmental media to which they could be exposed, and the potential routes of exposure. The CSM was developed based on the available Site information and data. The scenarios for potential human exposure were discussed in Section 6.3 of the RFI Phase II Report.

Since the submission of the RFI Phase II Report, GM has supplemented the human health risk assessment with an evaluation of potential exposures to groundwater in the event that areas downgradient of the Site are developed for residential use. This supplemental evaluation is provided in the memorandum entitled "Supplemental Evaluation of Potential Residential Exposure to Groundwater" (Appendix A), and addresses the following hypothetical exposure scenarios:

- Potential future residential exposure to groundwater via vapor intrusion into hypothetical residences with basements in areas downgradient of the Site; and
- Potential future non-potable residential groundwater use (e.g., lawn watering, filling swimming pools, car washing, etc.) downgradient of the Site.

3.1.2 Ecological Risk Assessment

The provisions of a screening-level ecological risk assessment (SLERA), as described by USEPA guidance (USEPA, 1997, 2001), is summarized in Section 7 of the RFI Phase II Report. The initial elements of a SLERA involve the characterization of the environmental setting and contaminants, and the identification of complete exposure

pathways (USEPA 1997). The RFI Phase II Report addresses these elements for the Site. The process used in this assessment included a Site visit to characterize habitats and to identify potential exposure pathways for ecological receptors, and a habitat assessment decision matrix to screen habitat characteristics for those areas at or near the Site that may provide terrestrial and aquatic habitats. The matrix approach was used to determine which habitat-bearing areas and pathways would need to be assessed in the SLERA process, if any, and to determine the areas where ecological impacts are negligible because complete exposure pathways do not exist.

Areas of the Site where there is a likelihood of release and a reasonable potential for complete exposure pathways were carried forward for additional ecological risk analysis. Areas of the Site where there is minimal potential for complete exposure pathways required no further assessment in the SLERA process.

As noted in Sections 4.7.3 and 7.1.1.1 of the RFI Phase II Report, GM and USEPA were discussing the need for further investigation of the Flint River in parallel with GM's submission of the RFI Phase II Report. As a result of these discussions, GM conducted sediment sampling in October and November 2006 in the Flint River at locations just upstream of, adjacent to, and downstream from the Site. The results of these sediment sampling activities are presented in context with a SLERA in GM's report entitled *Flint River Sediment Investigation Report* (ARCADIS BBL, April 2007)(sediment investigation report).

3.2 Summary of RFI Site-Related Risk Conclusions

Section 8 of the RFI Phase II Report divides the Site AOIs covered by the RFI into following three categories:

- AOIs requiring no further action;
- AOIs that do not contain LNAPL and require action based on the human health risk assessment; and
- AOIs that contain LNAPL.

Tables 8-1 through 8-3 were based on the assumption that the future use of the Southend would be residential. However, since the completion of the RFI Phase II Report, GM has decided to restrict the future use of the Southend to Industrial and Commercial II, III & IV use scenarios by implementing a deed restriction, even though

there are AOIs that meet residential criteria. As such, the entire Site is evaluated based on Industrial and Commercial II, III, and IV use scenarios.

The AOIs have been re-grouped into the following three categories:

- AOIs requiring no further action beyond groundwater and land use restrictions;
- AOIs that require further action because they contain PCBs at levels regulated by TSCA; and
- AOIs that require further action based on the RFI.

Tables 3-1, 3-2, and 3-3 of this Revised CMP summarize the Site AOIs divided per these three categories, respectively, and replace Tables 8-1 through 8-3 of the RFI Phase II Report. The AOIs listed in Tables 3-2 and 3-3 are carried forward for evaluation of remedial measures in Section 4. As discussed in Section 6 of the RFI Phase II Report, the risk estimates for all relevant receptors in each exposure area were compared to the USEPA cumulative cancer risk limit of 10^{-4} and hazard index (HI) limit of 1 for determining whether corrective measures are warranted for each AOI. For lead, the arithmetic mean concentration in each exposure area was compared to the MDEQ industrial lead direct contact criterion of 900 mg/kg.

Since the ecological risks at the Site were deemed negligible, as concluded in Section 7.5 of the RFI Phase II Report, further action at a Site AOI is determined by the results of the human health risk assessment and/or the presence of TSCA-regulated LNAPL plumes. Also, in a letter to GM dated March 14, 2008, the USEPA states, "Based on the sediment sampling results of PCB concentrations in the Flint River as reported in the sediment investigation report and consistent with several discussions with GM, USEPA does not believe that further investigation is warranted for the Flint River."

The supplemental human health risk evaluations documented in Appendix A, involving hypothetical future residential exposures to groundwater via vapor intrusion and non-potable use downgradient of the Site, indicate that estimated risks from these routes of exposure do not exceed the USEPA cumulative cancer risk limit of 10^{-4} or the HI limit of 1. Thus, this evaluation concluded that further action to address downgradient groundwater is not necessary as part of this Revised CMP.

As discussed in Section 5.3 of the RFI Phase II Report, various LNAPL plumes have been observed at the Site, and an LNAPL monitoring program was conducted for several years to measure the depth of LNAPL and to remove LNAPL from the wells,

with the results being reported via Quarterly LNAPL Monitoring Reports that were submitted to the USEPA and Michigan Department of Environmental Quality (MDEQ). This program was completed in December 2004 and the final monitoring report was submitted to the USEPA on January 19, 2005. As a result of this program, the various LNAPL plumes identified at the Site have been demonstrated to be relatively stable; however, GM chose to implement certain IMs to collect LNAPL until final remedial activities were to be proposed.

3.3 Interim Measures and Other Site-Related Activities

IMs have been implemented to recover LNAPL at the majority of the LNAPL areas of the Site before the RFI risk assessment was performed. Four of these areas do not have estimated risks from potential exposure exceeding USEPA's acceptable limits. However, they contain TSCA-regulated levels of PCBs in LNAPL. These four areas are listed below, and associated final remedies are evaluated in Section 4.

- Factory 05 Product Recovery Trench (AOI 05-1)
- Factory 05 Building 43 Product Recovery Wells (AOI 05-5)
- Building 40 Tunnel and Basement (AOI 40-D)
- Factory 81 Area Product Recovery System (AOI 81-2)

Ten other areas are not carried forward for corrective measure evaluation, as the estimated risks from potential exposure did not exceed USEPA's acceptable limits as documented in the RFI Phase II Report, and PCBs are not detected at levels regulated by TSCA. GM, therefore, proposes to terminate operation of these IMs. These areas are listed below.

- Factory 10 Groundwater Treatment System (AOI 10-1)
- Factory 10 Scrapyard Area Product Recovery Trench (AOI 10-4)
- Factory 36 Area Exterior Product Recovery and Treatment System (AOI 36-2)
- Former Tank Farm 37 Product Recovery System (AOI 36-5)
- Building 32 Recovery Wells (AOI 83/84-2)
- Factory 03 Product Recovery Sump (AOI 03-1)
- Building 87/Leith Street Overpass Product Recovery System (AOI 86-1)

- Former Factory 94 Tank Farm (AOI 84-D)
- Former Tank Farm at Building 04 (AOI 04-D)
- Building 12 Area (AOI 12-A)

The RFI Phase II Report also identified two abandoned, partially flooded, tunnels: 1) the Building 32/66 Tunnel and 2) the abandoned utility tunnel associated with former Building 23. Both of these tunnels contain some oil sheens on the water within the tunnel. The risk estimates for potential exposure in these areas do not exceed USEPA's acceptable risk limits, as described in the RFI Phase II Report, and PCBs are not detected at levels regulated by TSCA. These tunnels will be closed as part of future decommissioning activities at the Site, which will include, at a minimum, removing the oil sheens to the extent practical.

4. Proposed Corrective Measures Evaluation

This section presents an evaluation of alternatives for corrective measures for each AOI identified during RFI activities as having either: 1) LNAPL in which TSCA-regulated levels of PCBs were detected; or 2) estimated risks higher than USEPA's acceptable risk limits via exposure to hazardous constituents in soil, groundwater, or LNAPL. As noted in Section 3, lists of these AOIs are presented in Table 3-2 and 3-3, respectively. A summary of the proposed corrective measures for these AOIs is provided in Table 4-1, as well as on Figures 4-1 and 4-2.

The range of remedial alternatives selected to be evaluated was developed primarily based on GM's experience obtained through implementation of Interim Measures at the Site. These alternatives include the following:

- Institutional Controls (including Due Care Provisions)
- Containment (including Surface Covers)
- Excavation
- LNAPL-Only Collection

For each AOI, a combination of these remedial alternatives, appropriate for addressing the identified goals for the AOI, was selected for evaluation.

Implementation costs, annual costs, and periodic costs (i.e., those costs that occur periodically during the life of the project, such as equipment replacement or a closure report) were estimated for each alternative for comparative purposes. The present net worth was also calculated for each alternative, assuming a life cycle of 10 years and a discount rate of 7%. A life cycle of 10 years was used as this is considered to be a reasonable planning horizon for property redevelopment that considers the continuing turn-over at similar facilities to keep up with changing technology and consumer demands. Also, local community interests strongly favor short-term redevelopment of inactive property (e.g., less than 10 years).

4.1 Site-Wide Use Restrictions

Corrective measures were evaluated with the consideration that certain baseline Site-wide use restrictions would be applied as part of the overall final corrective action for the Site. Baseline restrictions would consist of a deed restriction that would be established to prohibit the use of groundwater for any purpose, beyond sampling and

other related investigatory testing, and to limit future use of the Site to Industrial/Commercial II, III, and IV activities only.

Based on information included in the RFI Phase II Report and the supplemental human health risk assessment included in Appendix A of this Revised CMP, the identified potential for unacceptable exposure to groundwater at downgradient off-property areas relates solely to drinking water use. Thus, GM proposes to also establish a deed restriction for downgradient offsite property that will prohibit the use of corresponding groundwater for potable uses. City of Flint Ordinance 9, Code of Ordinances, Chapter 46-25 already restricts the installation of drinking water wells in the City of Flint, and Michigan Department of Community Health Rules (Act 368, Part 127) also prohibit the use of groundwater at a depth of less than 25 feet below ground surface within all of Genesee County. As such, it is not anticipated that GM will experience significant difficulty in obtaining the necessary deed restrictions as described.

Additional restrictions above these baseline restrictions may be applied for certain onsite areas as appropriate and determined by the proposed remedy for a particular AOI. These additional restrictions are discussed as appropriate in Sections 4.2 through 4.17.

4.2 **AOI 05-1**

AOI 05-1 consists of the basement area along the southeast portion of Building 43, and is associated with a former metal machining chip processing operation. The RFI soil data from AOI 05-1 indicate that screening criteria were exceeded for lead and manganese, and the RFI groundwater data indicate that no screening criteria were exceeded.

LNAPL has been detected during RFI activities in this area and the physical extent of LNAPL has been defined. Investigations performed in 1994 in response to suspected oil releases in Building 43 (Factory 05 Area) detected LNAPL on the water table along the southeast side of Building 43. To address the LNAPL, three recovery trenches were installed in the Building 43 area in early 1995. These recovery trenches are each approximately 14 feet deep, 3 feet wide, 100 feet long, and backfilled with gravel. LNAPL is recovered from these trenches via 30-inch-diameter recovery wells installed near the midpoint of each recovery trench. Automated belt skimming devices in the recovery wells collect LNAPL from the recovery trenches (with approximately 60% groundwater and 40% LNAPL) and transfer it to a temporary storage tote. Recovered water is periodically allowed to flow back into the recovery well and the recovered

LNAPL is later drummed for disposal. The current belt skimming system is inefficient in removing LNAPL from the recovery wells.

Based on the human health risk assessment for AOI 05-1 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to soil or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in samples of LNAPL collected from the recovery trench system mentioned above at concentrations up to 111 ppm. The presence of PCBs at this concentration requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. GM chooses to pursue a TSCA risk-based closure, and to evaluate the following corrective action alternatives, for the PCB-containing LNAPL at this AOI.

4.2.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative includes establishing in the deed a notification of the presence of PCBs at this AOI.

4.2.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.2.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health, based on the risk assessment included in the RFI Phase II Report.

4.2.2 Alternative 2: LNAPL-Only Extraction and Additional Institutional Controls above Baseline

This alternative includes all of the components of Alternative 1, and additionally involves collecting LNAPL from the subsurface and disposing of the collected LNAPL at an appropriate offsite facility. The existing recovery trench system would be upgraded by installing three submersible pumps designed to collect LNAPL in the recovery trench sumps. The pumps would replace the belt skimmers currently used for LNAPL recovery. The collected LNAPL would be stored in drums or other suitable containers located near the recovery trench until sufficient LNAPL is collected to arrange for offsite disposal. Estimated costs assume an LNAPL removal rate of approximately 20 gallons per week.

4.2.2.1 Estimated Costs

The present net worth of this alternative is $343,000 assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost, annual cost, and periodic cost (equipment repair/replacement and preparation of a Corrective Action Completion Report) are assumed to be $74,000, $37,000, and $9,500, respectively.

4.2.2.2 Evaluation Results

Recovery of LNAPL would ultimately reduce the volume of LNAPL and the mass of PCBs present at this AOI, but this result would provide only marginally greater benefit than Alternative 1.

4.2.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Additional Institutional Controls above Baseline**. This is based on the effectiveness of this alternative. Unacceptable risks from potential exposure have not been identified in association with the LNAPL at AOI 05-1. A risk-based closure, as provided in 40 CFR 761.61(c), is requested from the USEPA by GM as part of this CMP. Deed restrictions and notices will remain with the property deed in perpetuity, or until the area has been remediated to TSCA requirements.

4.3 **AOI 05-5**

AOI 05-5 is in the northern and east-central portion of Building 43, and consists of active process machinery, collection trenches, and sumps for both “wet” and “dry” operations. The RFI soil data from AOI 05-5 indicate that no screening criteria were exceeded, and the RFI groundwater data indicate that screening criteria were exceeded for arsenic and nickel.

A release of an estimated 4,000 gallons of cutting oil was identified in April 1997. Three 4-inch-diameter groundwater monitoring wells were installed to the east of the tank from which the release was thought to have occurred. Product was identified in two monitoring wells. Two pneumatic free-product recovery pumps were installed as IMs in the wells. The recovered total fluids were later piped to two product storage tanks located within Building 43. The LNAPL later caused malfunction of the recovery pumps. As such, the system is currently not operating.

Based on the human health risk assessment for AOI 05-5 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater or LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from well RFI-05-11 at a concentration of 160 ppm and from well RW-05-East at a concentration of 130 ppm. The presence of PCBs at this AOI at these concentrations requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. GM chooses to pursue a TSCA risk-based closure, and to evaluate the following corrective action alternatives, for the PCB-containing LNAPL at this AOI.

4.3.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative includes establishing in the deed a notification of the presence of PCBs at this AOI.

4.3.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.3.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health, based on the risk assessment included in the RFI Phase II Report.

4.3.2 Alternative 2: LNAPL-Only Extraction and Additional Institutional Controls above Baseline

This alternative includes all of the components of Alternative 1, and additionally involves collecting LNAPL from the subsurface and disposing of the collected LNAPL at an appropriate offsite facility. The existing recovery wells, RW-05-East and RW-05-North, would be used by installing new submersible pumps designed to collect LNAPL. The collected LNAPL would be stored in drums or other suitable containers located near the recovery wells until sufficient LNAPL is collected to arrange for offsite disposal. Estimated costs assume an LNAPL removal rate of approximately 10 gal/week.

4.3.2.1 Estimated Costs

The present net worth of this alternative is $263,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost, annual cost, and periodic cost (equipment repair/replacement and preparation of a Corrective Action Completion Report) are assumed to be $47,000, $29,000, and $22,000, respectively.

4.3.2.2 Evaluation Results

Recovery of LNAPL would ultimately reduce the volume of LNAPL and the mass of PCBs present at this AOI, but this result would provide only marginally greater benefit than Alternative 1.

4.3.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Additional Institutional Controls above Baseline**. This is based on the effectiveness of this alternative. Unacceptable risks from potential exposure have not been identified in association with the LNAPL at AOI 05-5. A risk-based closure, as provided in 40 CFR 761.61(c), is requested from the USEPA by GM as part of this CMP. Deed restrictions and notices will remain with the property deed in perpetuity, or until the area has been remediated to TSCA requirements.

4.4 AOI 36-1 Gasoline Plume

AOI 36-1 is located in the northern and central portions of Building 36, and is associated with engine manufacturing and metal machining processes. A gasoline LNAPL plume has been identified to be present in this area, presumably due to historical releases associated with engine testing. This plume is located at the interior of Building 36, and is approximately 75 feet in diameter.

The RFI soil data from AOI 36-1 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents.

Based on the human health risk assessment for AOI 36-1 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure for construction workers who could contact

the gasoline LNAPL plume exceed USEPA's cumulative cancer risk and HI limits. In addition, potential exposure of routine workers to vapors from soil and LNAPL via vapor intrusion exceeds USEPA's cumulative cancer risk and HI limits under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). These risk estimates are primarily attributed to the concentrations of the constituents present in the gasoline plume. Conditions within the current building do meet current OSHA standards related to vapor concentrations in indoor air as discussed in the RFI Phase II Report.

Therefore, the remedial goal for LNAPL at this AOI is to address the potential exposure to construction and routine workers to VOCs from the gasoline plume and soil.

4.4.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative includes establishing a deed restriction that addresses potentially significant risks from volatilization to indoor air in the scenario involving a change in use of the current or future building in this area to a non-OSHA use. The restriction will require that proper precautions be taken as necessary to address potentially significant risks from volatilization to indoor air of constituents in LNAPL and soil, should the use of the existing building be changed or a new building be designed and constructed at this AOI.

4.4.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.4.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.4.2 Alternative 2: LNAPL-Only Extraction and Additional Institutional Controls above Baseline

This alternative includes all of the components of Alternative 1, and additionally involves collecting LNAPL (gasoline plume only) from the subsurface and disposing of the collected LNAPL at an appropriate offsite facility. For this evaluation, it was assumed that one 6-inch diameter LNAPL recovery well would be installed in the gasoline plume. A submersible pump designed to collect only LNAPL would be

installed in the recovery well. In addition, an oleophilic absorbent sock would be installed in existing monitoring well RFI-36-07 for additional LNAPL collection. The collected LNAPL would be stored in drums or other suitable containers located near the recovery well until sufficient LNAPL is collected to arrange for offsite disposal. Estimated costs assume an LNAPL removal rate of approximately 10 gallons per week.

4.4.2.1 Estimated Costs

The present net worth of this alternative is $354,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost, annual cost, and periodic cost are assumed to be $85,000, $37,000, and $15,000, respectively.

4.4.2.2 Evaluation Results

This alternative provides for effective recovery of LNAPL, which may reduce potential exposure of construction workers as well as exposures associated with the future potential routine workers to future non-OSHA use.

4.4.3 Selected Alternative

The selected alternative for this AOI is **Alternative 2: LNAPL-Only Extraction and Additional Institutional Controls above Baseline** due to the technical feasibility of implementation of this alternative and the possibility of reducing potential risks from vapor intrusion. Collection and associated monitoring of LNAPL would continue until it was determined to be no longer practical. Deed restrictions and notices, however, would remain with the property deed in perpetuity, or until the area has been remediated to meet the risk level.

4.5 **AOI 81-1**

AOI 81-1 consists of the basement area beneath the southern and central portions of Building 71B, and is associated with three metal machining chip/cooling and cutting oil filtration/processing operations, as well as an inactive hydraulic elevator, several process waste sumps and tanks, a drum storage area, and a 90-day hazardous waste accumulation area (inactive). The RFI soil data from AOI 81-1 indicate that screening criteria were exceeded for lead.

Based on the human health risk assessment for AOI 81-1 documented in the RFI Phase II Report and summarized in Section 3.2, mean lead concentrations in deep (depth-averaged) soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead in soil greater than 900 mg/kg.

4.5.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative involves implementing additional institutional controls that would provide protection from direct contact to future Site users. The additional institutional controls include establishing a deed restriction limiting excavations in this area. The deed restriction would identify conditions for conducting excavations within the area of soil exceeding 900 mg/kg for lead, and would run with the property in perpetuity, or until soil containing lead concentrations above 900 mg/kg has been remediated

4.5.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.5.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.5.2 Alternative 2: Excavation

This alternative involves excavating soil exceeding 900 mg/kg for lead, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The area to be excavated is expected to be no more than 60,000 square feet, and the expected depth of the excavation is 12 feet bgs. Therefore, the approximate volume of soil to be excavated is 27,000 cubic yards. The excavation limits would be established based on the pre-excavation sampling program; therefore, confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.5.2.1 Estimated Costs

The estimated cost of this alternative is $8,320,000, assuming that the volume of excavation is 27,000 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.5.2.2 Evaluation Results

This alternative is not considered to be cost-effective compared to Alternative 1, and would not provide significant additional protection from potential future risk to human health.

4.5.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Additional Institutional Controls above Baseline**. This option provides adequate protection for human health, and is easily implemented and reliable. The institutional controls would be implemented as a means of preventing and/or controlling potential exposure pathways to identified potential risks associated with lead concentrations in deep soil (approximately 10 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead.

4.6 **AOI 81-2 Soil**

AOI 81-2 consists of active metal welding and machining, and torque converter assembly operations performed in Buildings 70, 70B, 71, 71A, 72, 73, 73A, 73B, and 74. The RFI soil data from AOI 81-2 indicate that screening criteria were exceeded for several VOCs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for lead and manganese. Compounds exceeding screening criteria at this AOI are contained in a former process pit located immediately beneath the operational floor in the northwest corner of Building 71A (i.e., less than 3 feet below ground surface).

Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, estimates of potential exposure of routine workers to soil via direct contact in this area exceeds the USEPA HI limit. In addition, estimates of potential exposure of

routine workers to vapors from soil via vapor intrusion exceeds USEPA's HI limit under future commercial/industrial use scenarios that do not require the application of OSHA regulations (non-OSHA use). Conditions within the current building do meet current OSHA standards related to vapor intrusion as discussed in the RFI Phase II Report.

The remedial goal for soil at this AOI is to address potentially significant exposures to concentrations of certain VOCs in soil in a near-surface soil sample at the RFI-81-38.

4.6.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering controls and additional institutional controls that would provide protection from direct contact and vapor intrusion exposure to future Site users. The engineering controls include maintaining the surface cover consistent with existing conditions. The additional institutional controls include establishing a deed restriction that addresses potentially significant risks from volatilization to indoor air in a scenario involving a change in use of the current or future building in this area to a non-OSHA use. The restriction will require that proper precautions be taken as necessary to address potentially significant risks from volatilization to indoor air, should the use of the existing building be changed or a new building be designed and constructed at this AOI. In addition, this deed restriction would require maintenance of a surface cover consistent with current conditions.

4.6.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.6.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.6.2 Alternative 2: Excavation

This alternative involves excavating soil where the concentrations contribute significantly to USEPA's HI limit, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The

approximate area to be excavated is 5,000 square feet, and the expected depth of the excavation is 4 feet bgs. Therefore, the approximate volume of soil to be excavated is 750 cubic yards. The excavation limits would be established based on the pre-excavation sampling program; therefore, confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.6.2.1 Estimated Costs

The estimated cost of this alternative is $328,000, assuming that the volume of excavation is 750 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.6.2.2 Evaluation Results

This alternative is not considered to be cost-effective compared to Alternative 1, and would not provide significant additional protection from potential future risk to human health.

4.6.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline**. This option provides adequate protection for human health, and is easily implemented and reliable. These controls would be implemented as a means of preventing and/or controlling potential exposure pathways to identified potential risks associated with VOC concentrations in near-surface soils (up to 4 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed restriction additional conditions for future building use and maintaining soil cover within the area. Because any proposed excavation area would be under operational building floors, excavation in this area would be logistically difficult to execute and significantly more expensive than a similar excavation at an inactive portion of the Site.

4.7 **AOI 81-2 LNAPL**

This area was used for storage of foundry sand and steel from the manufacturing process. Subsequent subsurface investigations in this area indicated the presence of LNAPL containing PCBs. An LNAPL recovery trench was installed as an IM in the area in 1996. This recovery trench is approximately 9 feet deep, 3 feet wide, 200 feet

long, and includes perforated pipes and gravel backfill. LNAPL is recovered from the trenches via a 4-foot-diameter recovery well installed near the midpoint of the recovery trench. An automated belt skimming device in the recovery well collects product from the recovery trench and transfers it to a temporary storage tank. The collected product is then transferred to the groundwater treatment facility in Building 20. This system has become ineffective in removing significant quantities of LNAPL due to the lack of recoverable LNAPL within the capture zone of the system. A portion of this LNAPL plume exists outside the area of influence of the existing LNAPL recovery system.

Based on the human health risk assessment for AOI 81-2 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs have been detected in LNAPL at this AOI at concentrations greater than 100 ppm. The presence of PCBs at this AOI at such concentrations requires application of toxic substances control act (TSCA) regulations, and the selected corrective action would also require approval under TSCA. GM chooses a TSCA risk-based closure, and to evaluate the following corrective action alternatives, for the PCB-containing LNAPL at this AOI.

4.7.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative includes establishing in the deed a notification of the presence of PCBs at this AOI.

4.7.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.7.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health, based on the risk assessment included in the RFI Phase II Report.

4.7.2 Alternative 2: LNAPL-Only Extraction and Additional Institutional Controls above Baseline

This alternative includes all of the components of Alternative 1, and additionally involves collecting LNAPL from the subsurface and disposing of the collected LNAPL at an appropriate offsite facility. This alternative would consist of installing two LNAPL

recovery wells, located adjacent to monitoring well 70-107R and between monitoring wells 70-101 and 70-103. Submersible pumps designed to collect only LNAPL would be installed in the recovery wells. The collected LNAPL would be stored in drums or other suitable containers located near the wellheads until sufficient LNAPL is collected to arrange for offsite disposal. In addition, oleophilic absorbent socks would be placed in monitoring wells 70-101, 70-103, and 70-107R for additional LNAPL removal. Estimated costs assume an LNAPL removal rate of approximately 20 gallons per week.

4.7.2.1 Estimated Costs

The present net worth of this alternative is $494,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost, annual cost, and periodic cost are assumed to be $111,000, $53,000, and $19,000, respectively.

4.7.2.2 Evaluation Results

Recovery of LNAPL would ultimately reduce the volume of LNAPL and the mass of PCBs present at this AOI, but this result would provide only marginally greater benefit than Alternative 1.

4.7.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Additional Institutional Controls above Baseline**. This is based on the effectiveness of this alternative. Unacceptable risks from potential exposure to LNAPL at AOI 81-2 have not been identified. A risk-based closure, as provided in 40 CFR 761.61(c), is requested from the USEPA by GM as part of this CMP. Deed restrictions and notices will remain with the property deed in perpetuity, or until the area has been remediated to TSCA requirements**.**

4.8 **AOI 83/84-2 Soil**

AOI 83/84-2 is located in the currently inactive Factory 83/84 area, and consists of areas of various former and existing machining operations in Building 32 (including two basements), including both “wet” and “dry” operations. The RFI soil data from AOI 83/84-2 indicate that industrial screening criteria were exceeded for several PAHs and inorganic constituents, and the RFI groundwater data indicate that screening criteria were exceeded for several VOCs and inorganic constituents.

LNAPL was also observed at this AOI and is addressed in Section 4.9.

Based on the human health risk assessment for AOI 83/34-2 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in deep soil (up to 9 feet bgs) exceed 900 mg/kg (i.e., MDEQ industrial direct contract criterion). Therefore, the remedial goal for soil at this AOI is to address the lead concentrations in soil greater than 900 mg/kg.

4.8.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative involves implementing additional institutional controls that would provide protection from direct contact to future Site users. The additional institutional control include establishing a deed restriction limiting excavations within the area of soil exceeding 900 mg/kg for lead, and would run with the property in perpetuity, or until soil containing lead concentrations above 900 mg/kg has been remediated.

4.8.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.8.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.8.2 Alternative 2: Excavation

This alternative involves excavating soil exceeding 900 mg/kg for lead, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The approximate area to be excavated is 22,500 square feet, and the expected depth of the excavation is 9 feet bgs. Therefore, the approximate volume of soil to be excavated is 7,500 cubic yards. The excavation limits would be established based on the pre-excavation sampling program; therefore, confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.8.2.1 Estimated Costs

The estimated cost of this alternative is $961,000, assuming that the volume of excavation is 7,500 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.8.2.2 Evaluation Results

This alternative is not considered to be cost effective, and would not provide significant additional protection from potential future risk to human health.

4.8.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Additional Institutional Controls above Baseline**. This option provides adequate protection for human health, and is easily implemented and reliable. These controls would be implemented as a means of preventing and/or controlling potential exposure pathways to identified potential exposure associated with lead concentrations in deeper soils (up to 9 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead.

4.9 AOI 83/84-2 LNAPL

LNAPL has been observed floating on the surface of groundwater at select monitoring well locations. The physical extent of LNAPL has been defined to be approximately 150 feet in diameter.

Based on the human health risk assessment for AOI 83/84-2 documented in the RFI Phase II Report and summarized in Section 3.2, estimates for potential exposure to subsurface LNAPL in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, PCBs were detected in LNAPL samples collected from monitoring wells RFI-83/84-06 and RFI-83/84-49 at concentrations as high as 62 mg/kg. The presence of PCBs at this concentration requires application of TSCA regulations, and the selected corrective action would also require approval under TSCA. GM chooses to pursue a TSCA risk-based closure, and to evaluate the following corrective action alternatives, for the PCB-containing LNAPL at this AOI.

4.9.1 Alternative 1: Additional Institutional Controls above Baseline

This alternative includes establishing in the deed a notification of the presence of PCBs at this AOI.

4.9.1.1 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.9.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health, based on the risk assessment included in the RFI Phase II Report.

4.9.2 Alternative 2: LNAPL-Only Extraction and Additional Institutional Controls above Baseline

This alternative includes all of the components of Alternative 1, and additionally involves collecting LNAPL from the subsurface and disposing of the collected LNAPL at an appropriate offsite facility. Two LNAPL recovery wells would be installed at AOI 83/84-2, and submersible pumps designed to collect only LNAPL would be installed in the recovery wells. Collected LNAPL would be stored in drums or other suitable containers located near the recovery trench until sufficient LNAPL is collected to arrange for offsite disposal. Estimated costs assume an LNAPL removal rate of approximately 20 gallons per week.

4.9.2.1 Estimated Costs

The present net worth of this alternative is $428,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost, annual cost, and periodic cost are assumed to be $108,000, $44,000, and $19,000, respectively.

4.9.2.2 Evaluation Results

Recovery of LNAPL would ultimately reduce the volume of LNAPL and the mass of PCBs present at this AOI, but this result would provide only marginally greater benefit than Alternative 1.

4.9.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Additional Institutional Controls above Baseline**. This is based on the effectiveness of this alternative. Unacceptable risks from potential exposure have not been identified in association with the LNAPL at AOI 83/84-2. A risk-based closure, as provided in 40 CFR 761.61(c), is requested from the USEPA by GM as part of this CMP. Deed restrictions and notices will remain with the property deed in perpetuity, or until the area has been remediated to TSCA requirements.

4.10 **AOI 83/84-3**

AOI 83/84-3 consists of areas of various former and existing machining operations in Buildings 66A/66D (both "wet" and "dry" operations). The RFI soil data from AOI 83/84-3 indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for beryllium and lead.

Based on the human health risk assessment for AOI 83/84-3 documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, mean lead concentrations in surface and depth-averaged soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

4.10.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering controls and additional institutional controls that would provide protection from direct contact to future Site users. The engineering controls include maintaining the surface cover consistent with existing conditions. The institutional controls include establishing a deed restriction limiting excavations within the area of soil exceeding 900 mg/kg for lead. These restrictions would run with the property in perpetuity, or until soil containing lead concentrations above 900 mg/kg has been remediated for the appropriate use scenarios. Per GM's November 21, 2004 response to USEPA's Specific Comment No. 21 of the March 2004 RFI Phase II Report, additional delineation of eastern boundary of contamination in this area will be performed prior to establishing the deed restriction.

4.10.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.10.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.10.2 Alternative 2: Excavation

This alternative involves excavating soil exceeding 900 mg/kg for lead, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The approximate area to be excavated is 10,400 square feet, and the expected depth of the excavation is 6 feet bgs. Therefore, the approximate volume of soil to be excavated is 2,300 cubic yards. The excavation limits would be established based on the pre-excavation sampling program; therefore, confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.10.2.1 Estimated Costs

The estimated cost of this alternative is $641,000, assuming that the volume of excavation is 2,300 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.10.2.2 Evaluation Results

This alternative is not considered to be cost-effective compared to Alternative 1, and would not provide significant additional protection from potential future risk to human health.

4.10.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline**. This option protects human

health, and is easily implemented and reliable. These controls would be implemented as a means of preventing and/or controlling potential exposure pathways to identified potential risks associated with lead concentrations in soils (up to 6 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead.

4.11 **AOI 02-C**

AOI Group 02-C is associated with the former Building 02, and relates to a former sump in the former Materials Laboratory. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in near-surface soil sample results from soil boring RFI-02-03.

Based on the human health risk assessment for AOI 02-C documented in the RFI Phase II Report and summarized in Section 3.2, mean lead concentrations in surface soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for this area is to address the potential exposure to lead concentrations in soil greater than 900 mg/kg.

4.11.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering controls and additional institutional controls that would provide protection from direct contact to future Site users. The engineering controls include maintaining the surface cover consistent with existing conditions. The institutional controls include establishing a deed restriction limiting excavations within the area of soil exceeding 900 mg/kg for lead. These restrictions would run with the property in perpetuity, or until soil containing concentrations above 900 mg/kg has been remediated.

4.11.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.11.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.11.2 Alternative 2: Excavation

This alternative involves excavating soil exceeding 900 mg/kg for lead, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The estimated area to be excavated is 10,600 square feet, and the expected depth of the excavation is 4 feet bgs. Therefore, the estimated volume of soil to be excavated is approximately 1,570 cubic yards.

The excavation limits would be established based on the pre-excavation sampling program; therefore, confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.11.2.1 Estimated Costs

The estimated cost of this alternative is $244,000, assuming that the volume of excavation is 1,570 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.11.2.2 Evaluation Results

This alternative is not considered to be cost-effective compared to Alternative 1, and would not provide significant additional protection from potential future risk to human health.

4.11.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline**. This option provides adequate protection for human health, and is easily implemented and reliable. These controls would be implemented as a means of preventing and/or controlling potential exposure pathways to identified potential risks associated with lead concentrations in near-surface soils (less than 4 feet bgs). The potential for unacceptable exposures in the

future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead.

4.12 **AOI 09-A Soil**

AOI Group 09-A is related to the former Building 09, and involves a floor trench/UST that discharged to the process wastewater system, floor trenches over a holding tank in the "vehicle wash area", concrete containment for a former AST, and a former UST. The RFI soil data from AOI Group 09-A indicate that screening criteria were exceeded for benzo(a)pyrene, dibenzo(a,h)anthracene, lead, and manganese, and the RFI groundwater data indicate that screening criteria were exceeded for trichloroethene, vinyl chloride, antimony, and lead.

Based on the human health risk assessment for AOI Group 09-A documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, concentrations of lead in soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Notably, this area includes a rather localized area, centralized around offsite soil boring RFI-09-01, which contained lead at a concentration of 120,000 mg/kg. This soil boring is located on property owned by CSX Transportation, Inc. (CSX), immediately east of GM property. In addition, an offsite soil sample collected from soil boring RFI-09-03 exhibited a concentration of benzo(a)pyrene that exceeds USEPA's risk limits for residential exposure. This boring is also located on CSX property, immediately east of GM property. Therefore, the remedial goal for this area is to address the potential exposure to soil with elevated lead and benzo(a)pyrene concentrations.

4.12.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering controls and additional institutional controls that would provide protection from direct contact to users of the affected area. The engineering controls include maintaining the surface cover consistent with existing conditions. The institutional controls would include establishing a deed restriction limiting excavations in both GM's and CSX's property deed. The deed restriction would run with the properties in perpetuity, or until the area has been remediated.

4.12.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.12.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report. However, due to the high concentration of lead found at this location and the expected difficulty of obtaining the offsite deed restrictions, excavation may be more appropriate.

4.12.2 Alternative 2: Offsite Excavation and Onsite Engineering and Additional Institutional Controls above Baseline

This alternative includes the excavation and offsite disposal of approximately 900 cubic yards of soil associated with a 5,900 square-foot area. The excavation size is based on the removal of offsite soil on CSX property that contains lead concentrations exceeding 400 mg/kg (i.e., MDEQ residential direct contact criterion) and/or benzo(a)pyrene exceeding 6 mg/kg (i.e., USEPA's risk limit for residential exposure). The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

In addition, this alternative involves implementing engineering controls and additional institutional controls for soil on GM property that contain lead exceeding 900 mg/kg (i.e., MDEQ industrial direct contact criterion) and/or benzo(a)pyrene exceeding the USEPA's risk limit. The engineering controls include maintaining the surface cover consistent with existing conditions. These onsite industrial controls would provide protection from direct contact to future Site users by establishing a deed restriction limiting excavations. The deed restrictions would run with the property in perpetuity, or until the area has been remediated.

4.12.2.1 Estimated Costs

The estimated cost of this alternative is $408,000, assuming that the volume of excavation is 900 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.12.2.2 Evaluation Results

This alternative is considered to provide adequate protection from potential future risk to human health.

4.12.3 Alternative 3: Onsite and Offsite Excavation

This alternative includes the excavation and offsite disposal of approximately 1,800 cubic yards of soil associated with an area of 12,000 square feet. The size of the excavation is based on the removal of soil associated with this AOI (both onsite and offsite) that contains lead exceeding 400 mg/kg (CSX property) or 900 mg/kg (GM property), and/or benzo(a)pyrene exceeding USEPA risk limits. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.12.3.1 Estimated Costs

The estimated cost of this alternative is $621,000, assuming that the volume of excavation is 1,800 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.12.3.2 Evaluation Results

This alternative is not considered to be cost-effective compared to Alternative 2, and would not provide significant additional protection from potential future risk to human health as compared to Alternative 2.

4.12.4 Selected Alternative

The selected alternative for this AOI is **Alternative 2: Offsite Excavation and Onsite Engineering and Additional Institutional Controls above Baseline**. Excavating surface soil is desirable due to its practicability, long-term reliability, and effectiveness. Soil on GM property would be addressed with engineering and additional controls above baseline that would be implemented as a means of preventing and/or controlling potential exposure pathways to identified potential risks. The potential for unacceptable risk to occur in the future would be mitigated by establishing in the deed limits on future excavation within the onsite area. Excavation of both the areas onsite and offsite (Alternative 3) would not provide significant additional protection from potential future risk to human health as compared to Alternative 2.

4.13 **AOI 09-B Soil**

AOI Group 09-B is associated with the Former Building 31/Hamilton Avenue Tank Farm. An LNAPL plume consisting primarily of gasoline has been identified and delineated in this area and is approximately 75 feet in diameter. The RFI soil data from AOI Group 09-B indicate that industrial screening criteria were exceeded for benzo(a)pyrene and lead, and the RFI groundwater data indicate that industrial screening criteria were exceeded for several VOCs, total PCBs, and several inorganic constituents.

LNAPL at this AOI is addressed in Section 4.14.

Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to groundwater in this area do not exceed USEPA's cumulative cancer risk and HI limits. However, potential exposure to near-surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.

4.13.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering controls and additional institutional controls that would provide protection from direct contact to future Site users. The engineering controls include maintaining the surface cover consistent with existing conditions. The institutional controls include establishing a deed restriction limiting excavations. These restrictions would run with the property in perpetuity, or until soil containing lead concentrations exceeding 900 mg/kg, have been remediated.

4.13.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.13.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.13.2 Alternative 2: Excavation

This alternative involves excavating soil exceeding 900 mg/kg for lead, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The approximate area to be excavated is 42,000 square feet, and the expected depth of the excavation is 3 feet bgs. Therefore, the approximate volume of soil to be excavated is 4,650 cubic yards. The excavation limits would be established based on the pre-excavation sampling program; therefore, confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source.

4.13.2.1 Estimated Costs

The estimated cost of this alternative is $1,070,000, assuming that the volume of excavation is 4,650 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.13.2.2 Evaluation Results

This alternative is not considered to be cost effective compared to Alternative 1, and would not provide significant additional protection from potential future risk to human health.

4.13.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline**. This option provides adequate protection for human health, and is easily implemented and reliable. These controls would be implemented as a means of preventing and/or controlling potential exposure pathways in near-surface soils (up to 3 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead, as well as for maintaining a surface cover that is consistent with current conditions.

4.14 **AOI 09-B LNAPL**

An LNAPL plume composed of gasoline located at this AOI is approximately 75 feet in diameter.

Based on the human health risk assessment for AOI Group 09-B documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure for future redevelopment construction workers to gasoline LNAPL in this area exceed USEPA's cumulative cancer risk and HI limits. The remedial goal for LNAPL at this AOI is to address the potential exposure of construction workers to LNAPL.

4.14.1 Alternative 1: No Further Action

This alternative involves implementing no further action beyond the corrective measures proposed for soil at this AOI, as described in Section 4.13.1. Such controls would provide protection from direct contact to future Site users.

4.14.1.1 Estimated Costs

There is no cost associated with this alternative.

4.14.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.14.2 Alternative 2: LNAPL-Only Extraction

This alternative involves collecting LNAPL from the subsurface and disposing of the collected LNAPL at an appropriate offsite facility, along with implementing the corrective measures proposed for soil at this AOI, as described in Section 4.13.1.

Two LNAPL recovery wells would be installed at this AOI, and submersible pumps designed to collect only LNAPL would be installed in the recovery wells. Because the Southend buildings have been demolished and active Site utilities are no longer present in this area, a solar-powered controller (or similar) would be used to operate the LNAPL-only extraction pumps. The collected LNAPL would be stored in a drum or other suitable container located near the wellheads until sufficient LNAPL is collected to arrange for offsite disposal. Estimated costs assume an LNAPL removal rate of approximately 20 gallons per week.

4.14.2.1 Estimated Costs

The present net worth of this alternative is $484,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost, annual cost, and periodic cost are assumed to be $86,000, $54,000 and $30,000, respectively.

4.14.2.2 Evaluation Results

This alternative provides effective recovery of LNAPL, which may reduce the potential future impact to human health posed by the presence of LNAPL in the subsurface.

4.14.3 Selected Alternative

The selected alternative for this AOI is **Alternative 2: LNAPL-Only Extraction** due to the technical feasibility and implementation of this alternative. Collection and associated monitoring of LNAPL would continue until it was determined to be no longer practical. Deed restrictions and notices, however, would remain with the property deed in perpetuity, or until the area has been remediated to meet the risk level.

4.15 **AOI 12-A Soil**

AOI Group 12-A is associated with the former Building 12, and relates primarily to several press pits and associated sumps, pits, trenches, and traps. The RFI soil data from these AOIs indicate that screening criteria were exceeded for lead, and the RFI groundwater data indicate that screening criteria were exceeded for tetrachloroethene, vinyl chloride, and lead.

Evidence of LNAPL was discovered in wells located in the northwestern and eastern portions of the former Building 12 (see Figure 3-2). Two stand-alone LNAPL collection systems were installed in July 2003 at wells RFI-12-02 and RFI-12-11D for the purpose of collecting LNAPL in this area. These systems consisted of a pneumatic product skimming pump powered by nitrogen supplied in liquid nitrogen tanks and a battery-powered, solar-charged controller. Collected product was stored in tanks located at each well head. These systems collected very little LNAPL, due to its high viscosity; thus, they were taken out of service in spring of 2004.

Based on the human health risk assessment for AOI Group 12-A documented in the RFI Phase II Report and summarized in Section 3.2, estimates of potential exposure to subsurface groundwater or LNAPL in this area do not exceed USEPA's cumulative

cancer risk and HI limits. However, lead concentrations in surface and deep soil exceed 900 mg/kg (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal is to address lead concentrations in soil greater than 900 mg/kg.

4.15.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering and additional institutional controls that would provide protection from direct contact to future Site users. The engineering controls include maintaining the surface cover consistent with existing conditions. The institutional controls include establishing a deed restriction limiting excavations within the area of soil exceeding 900 mg/kg for lead. These restrictions would run with the property in perpetuity, or until soil containing lead concentrations above 900 mg/kg has been remediated.

4.15.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.15.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.15.2 Alternative 2: Excavation

This alternative includes the excavation and offsite disposal of approximately 950 cubic yards of soil with lead greater than 900 mg/kg associated with soil boring RFI-12-02; estimated disposal costs assume this soil is characterized as hazardous waste. This alternative also includes the excavation and offsite disposal of approximately 3,400 cubic yards of soil associated with soil borings RFI-12-30, RFI-12-31, RFI-12-33, and RFI-12-35; estimated disposal costs assume this soil is characterized as non-hazardous waste.

4.15.2.1 Estimated Costs

The estimated cost of this alternative is $758,000, assuming that the volume of excavation is 3,400 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.15.2.2 Evaluation Results

This alternative is not considered to be cost-effective compared to Alternative 1, and would not provide significant additional protection from potential future risk to human health.

4.15.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline**. This option provides adequate protection for human health, and is easily implemented and reliable. The engineering and institutional controls would be implemented as a means of preventing and/or controlling potential exposure pathways associated with lead concentrations in deeper soils (6 to 8 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead.

4.16 **AOI 29-A**

AOI Group 29-A is associated with the former Building 29, and relates to a pit for a cable-operated elevator and former work pads with oil staining. The RFI soil data from this AOI indicate that the industrial screening criterion was exceeded for lead in surface soil.

Based on the human health risk assessment for AOI Group 29-A documented in the RFI Phase II Report and summarized in Section 3.2, potential exposure to surface soil in this area exceeds 900 mg/kg for lead (i.e., MDEQ industrial direct contact criterion). Therefore, the remedial goal for soil at this AOI is to address lead concentrations greater than 900 mg/kg.

4.16.1 Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline

This alternative involves implementing engineering controls and additional institutional controls that would provide protection from direct contact to future Site users. The engineering controls include maintaining the surface cover consistent with existing conditions. The institutional controls include establishing a deed restriction limiting excavations within the area of soil exceeding 900 mg/kg for lead. These restrictions would run with the property in perpetuity, or until soil containing lead concentrations above 900 mg/kg has been remediated.

4.16.1.1 Estimated Costs

The present net worth of this alternative is $15,000, assuming maintenance only for a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

4.16.1.2 Evaluation Results

This alternative provides adequate protection from potential risk to human health based on the risk assessment included in the RFI Phase II Report.

4.16.2 Alternative 2: Excavation

This alternative involves excavating soil exceeding 900 mg/kg for lead, and disposing of this soil offsite at an appropriate facility. Sampling of the soil prior to excavation is included to both better define the appropriate excavation limits and establish proper disposal requirements. The estimated area to be excavated is 15,700 square feet, and the expected depth of the excavation is 4 feet bgs. Therefore, the estimated volume of soil to be excavated is 2,400 cubic yards. The excavation limits would be established based on the pre-excavation sampling program; therefore confirmation samples would not be collected upon completion of the excavation. The resulting excavation would be backfilled with appropriate fill imported from an offsite source. Estimated disposal costs assume soil is characterized as non-hazardous waste.

4.16.2.1 Estimated Costs

The estimated cost of this alternative is $382,000, assuming that the volume of excavation is 2,400 cubic yards. The cost would be lower if the pre-excavation sampling provides a basis for a smaller excavation volume.

4.16.2.2 Evaluation Results

This alternative would not provide significant additional protection from potential future risk to human health.

4.16.3 Selected Alternative

The selected alternative for this AOI is **Alternative 1: Engineering Controls and Additional Institutional Controls above Baseline**. This option protects human health, and is easily implemented and reliable. The engineering and institutional controls would be implemented as a means of preventing and/or controlling potential exposure pathways associated with lead concentrations in near-surface soils (less than 4 feet bgs) at this AOI. The potential for unacceptable exposures in the future would be mitigated by establishing in the deed limits on future excavation within the area of soil exceeding 900 mg/kg for lead.

4.17 **AOI 40-D**

The Former Building 40 tunnel conveyed materials, personnel, and equipment between former Building 40 and former Building 06/16 assembly areas. The tunnel was oriented in the east-west direction and was approximately 260 feet long by 15 feet wide and 8.5 feet high. An L-shaped basement area, approximately 1,900 square feet in size, was located above a portion of the tunnel, and the ceiling of the basement was removed and the area is surrounded by a chain link fence. The top of the tunnel roof (basement floor) was approximately 12 feet below grade. The tunnel was completely flooded with water, and the water level was approximately 4 feet above the floor of the basement.

The basement floor was cleaned in August 1992 using a foam-applied aqueous-based solvent to extract PCBs from the concrete floor and the lower 2 feet of the basement walls. Other activities since then have included removal of small quantities (less than 1 quart) of floating oil from the tunnel and basement.

In GM's report entitled *Cleanup and Disposal of PCB Remediation Waste, Building 40 Tunnel and Basement* (BBL, January 2004) (hereafter referred to as the Cleanup Report), GM outlined plans to remove the basement floor of the former Building 40 by breaking it and allowing it to collapse into the underlying tunnel. The Cleanup Report was submitted to the USEPA for review and approval.

On September 28 and 29, 2004, the basement floor/tunnel ceiling of the former Building 40 tunnel was sampled as outlined in a July 27, 2004 letter from GM to the USEPA.

This sampling was conducted to evaluate the effectiveness of August 1992 remedial activities, as well as other subsequent remedial activities, conducted on the former Building 40 basement floor and tunnel. Details concerning these remedial activities are presented in the Cleanup Report. The results of this sampling indicated no detection of PCBs in the basement floor/tunnel ceiling.

USEPA conditionally approved, via letter on February 1, 2005, the proposed collapse of the former Building 40 basement floor and the filling of the underlying tunnel as outlined by GM in the Cleanup Report. GM responded to USEPA's February 1 conditional approval via electronic mail (email) on March 1, 2005. After a series of subsequent emails and conference calls, USEPA provided a final conditional approval of these activities via letter dated September 13, 2005, with the following conditions:

1. The water level within the basement must be closely monitored during the demolition of the basement floor and backfilling activities. The backfilling of the tunnel must be performed slowly to allow the water within the basement and tunnel to equilibrate with the added fill material, to prevent any flooding in the surrounding area.

2. After collapsing the basement floor into the tunnel, the basement and remaining areas of the tunnel must be backfilled entirely with clean fill material, which may include clean material from other demolition projects onsite and from offsite sources. The backfill material will be considered as the cap or cover for the collapsed floor and tunnel.

3. During the demolition of the basement floor and backfilling activity, GM and its contractor must visually inspect the water for oil sheens that may appear on the surface of the water. Any oil sheen must be sampled and analyzed following the procedure attached to Derek Kaiding's e-mail message to Tammy Moore dated April 22, 2005, and collected and removed through the use of oil absorbent booms or pads. The PCB concentration of the oil must be reported based on the weight of PCBs per the weight of oil sample. If the oil is found to contain less than 50 ppm PCBs, it must be managed as a liquid PCB remediation waste in accordance with 40 CFR $ 761.61(b)(l), and the absorbent boom or pads may be managed as a bulk PCB remediation waste

in accordance with 40 CFR $ 761.61(a)(5)(i)(B)(2)(ii). If the oil is found to contain equal to or greater than 50 ppm PCBs, it must be disposed of in a Toxic Substances Control Act (TSCA) approved PCB incinerator and the absorbent boom or pads must be disposed of in a TSCA approved incinerator or landfill.

4. GM shall record, in accordance with state law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will notify any potential purchaser of the property of the residual PCBs and of the industrial land use restrictions for the property.

5. GM must include the sampling and analysis of the groundwater for PCBs in the long-term groundwater monitoring plan for the area.

On June 12, 2006, Inland Waters Pollution Control (IWPC) mobilized heavy equipment to the Former Building 40 tunnel area and demolished the basement floor. The initial water level in the former basement was approximately 8 feet below the surrounding grade.

The following day (June 13, 2006), a small amount of oil droplets (1 to 4 inches in diameter) were observed floating on the water surface. The oil was sampled and submitted to Merit Laboratories, Inc. of East Lansing, Michigan (Merit) for analysis of PCBs (individual Aroclors) in accordance with the approved procedure on a 24-hour turn-around-time. The analysis indicated that the oil contained PCBs at a concentration of 2.5 ppm. The oil was recovered using oil absorbent booms and pads prior to basement/tunnel backfilling. The booms and pads were containerized in 55-gallon drums and sampled further for waste characterization, which involved the analysis of VOCs, SVOCs, metals, via Toxic Characteristic Leachate Procedure (TCLP), and ignitability, reactivity, and corrosivity.

On June 14, 15, 16, and 21, 2006, IWPC backfilled the basement and underlying tunnel with approximately 1,800 cubic yards (cy) of fill originating from non-contaminated sources.

Per USEPA's September 13, 2005 conditional approval letter and based on the analytical data from the oil and waste characterization of the booms/pads, the oil-soaked booms and pads were disposed of at Citizens Landfill in Grand Blanc, Michigan, on September 5, 2006.

4.17.1 Proposed Corrective Measure

The proposed corrective measure for this AOI is **Additional Institutional Controls above Baseline**, as required by the USEPA in their February 1, 2005 letter (Condition No. 4), that includes establishing in the deed a notification of the presence of residual PCBs.

4.17.2 Estimated Costs

The cost associated with this alternative is estimated to be $5,000 and includes performing a boundary survey of the area and administering the deed restriction.

4.18 **Outfall 002 Storm Sewer**

As discussed in Sections 3.3.1 and 4.1 of Appendix I of the RFI Phase II Report, evidence of historical groundwater infiltration into Outfall 002 storm sewers has been observed as mineral deposits at pipe joints during video inspection of proposed stretches of the pipe system. Also, the portion of the Outfall 002 storm sewer system between manholes 2-20 and 2-22 runs underneath Stewart Ave. and through an LNAPL area associated with the former Tank Farm 37 UST system (AOI 36-5).

Based on the RFI risk assessment, no unacceptable human health risks were identified for this area. However, certain VOCs were detected in water samples collected from manholes 2-19 and 2-20. The detected VOCs were similar to those detected in groundwater samples surrounding the Outfall 002 storm sewer system in this area. These results suggest that some infiltration of contaminated groundwater is likely occurring. A dissolved groundwater plume containing concentrations of trichloroethene (TCE), and vinyl chloride, as well as LNAPL, exist in the area just upstream of manhole 2-20, and may be the source of the VOCs detected in the sewer. An inspection of the sewer system revealed no evidence of LNAPL infiltration in the area. However, LNAPL sheens are observed at Outfall 002 very intermittently, but may be attributed to manufacturing operations and not subsurface infiltrations. Nonetheless, corrective measures are evaluated below for addressing this potential LNAPL infiltration to this sewer system in the area of the former Tank Farm UST system.

4.18.1 Alternative 1: No Further Action

This alternative involves implementing no further action beyond the existing institutional and engineering controls in place at this portion of the Site. Institutional and

engineering controls protect direct contact to potential current and potential future Site users.

4.18.1.1 Estimated Costs

There is no cost associated with this alternative.

4.18.1.2 Evaluation Results

LNAPL infiltration into the Outfall 002 storm sewer has not been observed. However, an observed LNAPL plume located in close proximity to a portion of this storm sewer suggest the potential for LNAPL infiltration into the storm sewer system. This alternative does not address this potential future condition.

4.18.2 Alternative 2: Storm Sewer Lining

This alternative involves lining a portion of the storm sewer with an impermeable material to prevent groundwater infiltration into the system. The Outfall 002 storm sewer system would be lined between manholes 2-20 and 2-22, at the portion of the storm sewer system that is in close proximity to the observed LNAPL plume associated with the Former Tank Farm 37 UST system

The storm sewer would either be slip-lined with a slightly smaller diameter polyvinyl chloride (PVC) pipe with the ends grouted, or lined with a non-invasive, cured-in-place system, which is intended to provide a physical barrier to prevent infiltration into the targeted section of the storm sewer system.

4.18.2.1 Estimated Costs

The estimated cost of this alternative is $337,000.

4.18.2.2 Evaluation Results

This alternative limits the potential for migration of LNAPL, into the Outfall 002 storm sewer system between manholes 2-20 and 2-22.

4.18.3 Selected Alternative

The selected alternative for this AOI is **Alternative 2: Storm Sewer Lining** due to the technical feasibility of this alternative. Although unacceptable human health risks from potential exposure have not been identified for this area, this alternative limits the potential for migration of LNAPL into the Outfall 002 storm sewer system.

An Interim Measure Work Plan was submitted to the USEPA on February 13, 2008, for implementing the selected alternative. The USEPA approved the interim measure in a letter to GM dated April 8, 2008.

4.19 **Outfall 003 Storm Sewer**

As described in Section 5.7 of the NEDOCC, this overall system consists of two oil/water separators configured to mitigate sheens at Outfall 003 to the Flint River. Additionally, booms are permanently located at Outfall 003 to contain sheens that are not completely contained by the Outfall 003 system oil/water separators. Oil sheens contained by the booms at Outfall 003 are periodically collected and treated at the Factory 10 Groundwater Recovery and Treatment System.

Although this current system is effective in mitigating LNAPL sheens to the Flint River, it is relatively operationally intensive, and select components are not always reliable. As such, this system has been evaluated in comparison with other alternatives.

4.19.1 Alternative 1: Continue Operating Current System

This alternative involves continuing to implement the Outfall 003 oil removal system, which involves collecting LNAPL sheens at the outfall using floating oil booms, and periodic pumping of the collected material into a tanker truck. For this alternative, it is assumed that the pumped oil and water will be taken offsite for treatment and disposal, because the Factory 10 Groundwater Recovery and Treatment System is expected to be turned off within the next two years. The collected LNAPL/water mixture would be taken offsite for treatment and disposal. The cost estimate assumes that the current oil/water separators will be cleaned of sediment that has accumulated since the early 1990's, and a transfer pump and level switch will be replaced in one of the oil/water separators.

For cost comparison purposes, O&M costs were extrapolated for a period of 10 years.

4.19.1.1 Estimated Costs

The present net worth of this alternative is $1,660,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost and annual cost are assumed to be $250,000 and $200,000, respectively.

4.19.1.2 Evaluation Results

As noted above, this alternative requires substantial operations and maintenance to monitor, collect, and treat oil sheens. As such, this alternative is operationally more intensive and not always reliable.

4.19.2 Alternative 2: End-of-Pipe Treatment System

This alternative involves the construction of a new end-of-pipe treatment system to collect LNAPL sheens prior to reaching Outfall 003. The treatment system would consist of the installation of a below-ground self-cleaning bar screen and an oil/water separator in the storm sewer system to remove floating oil during dry weather flows and a portion of wet weather flows. The stormwater treated by these components would then be directed into a detention basin as a polishing step to provide for removal of residual LNAPL, as necessary. After the polishing step, outflow from the detention basin would be directed back to Outfall 003. The recovered debris and LNAPL would be characterized and disposed of at an offsite facility in compliance with applicable waste standards.

4.19.2.1 Estimated Costs

The present net worth of this alternative is $1,640,000 assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost and annual cost are assumed to be $1,362,000 and $40,000, respectively.

4.19.2.2 Evaluation Results

This alternative provides end-of-pipe treatment of stormwater to remove LNAPL sheens prior to discharge to the outfall. This system requires less maintenance and is expected to be more reliable for the removal of oil sheens than Alternative 1.

4.19.3 Selected Alternative

The selected alternative for this AOI is **Alternative 2: End-of-Pipe Treatment System**, due to the technical feasibility of this alternative. This alternative is expected to remove LNAPL sheens prior to discharge to the outfall. In addition, this alternative is expected to require less maintenance and operational needs, and provide a higher degree of reliability than continued operation of the current system as described in Alternative 1.

An Interim Measure Work Plan was submitted to the USEPA on February 13, 2008, for implementing the selected alternative. The USEPA approved the interim measure in a letter to GM dated March 14, 2008.

4.20 **Outfall 004 Storm Sewer**

Currently, an oil removal system is in operation in the Outfall 004 storm sewer system, which involves the collection of oil sheens using floating oil booms at the outfall, and periodic pumping of the collected material into a tanker truck. The collected oil/water mixture is processed at the Factory 10 Groundwater Recovery and Treatment System.

Although this current system is effective in mitigating LNAPL sheens to the Flint River, it requires substantial operations and maintenance to monitor, collect, and treat the collected LNAPL sheens. As such, this system has been evaluated in comparison with other alternatives.

4.20.1 Alternative 1: Continue Operating Current System

This alternative involves continuing to implement the Outfall 003 oil removal system to collect LNAPL sheens using floating oil booms at the outfall, and periodic pumping of the collected material into a tanker truck. For this alternative, it is assumed that the pumped oil and water will be taken offsite for treatment and disposal, because the Factory 10 Groundwater Recovery and Treatment System is expected to be turned off within the next two years. The collected LNAPL/water would be taken offsite for treatment and disposal. For cost comparison purposes, O&M costs were extrapolated for a period of 10 years.

4.20.1.1 Estimated Costs

The present net worth of this alternative is $1,054,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost and annual cost are assumed to be $0 and $150,000, respectively.

4.20.1.2 Evaluation Results

As noted above, this alternative requires substantial operations and maintenance to monitor, collect, and treat oil sheens. As such, this alternative is operationally more intensive and not always reliable.

4.20.2 Alternative 2: End-of-Pipe Treatment System

This alternative involves the construction of a new end-of-pipe treatment system to collect LNAPL sheens prior to reaching Outfall 004. The treatment system would consist of the installation of a below-ground self-cleaning bar screen and an oil/water separator in the storm sewer system to remove floating oil during dry weather flows and a portion of wet weather flows. The recovered debris and LNAPL would be characterized and disposed of at an offsite facility in compliance with applicable waste standards.

For cost comparison purposes, O&M costs were extrapolated for a period of 10 years.

4.20.2.1 Estimated Costs

The present net worth of this alternative is $620,000, assuming a life cycle of 10 years and a discount rate of 7%. The implementation cost and annual cost are assumed to be $478,000 and $20,000, respectively.

4.20.2.2 Evaluation Results

This alternative provides end-of-pipe treatment of stormwater to remove LNAPL sheens prior to discharge to the outfall. This system requires less maintenance and is more reliable for the removal of oil sheens than Alternative 1.

4.20.3 Selected Alternative

The selected alternative for this AOI is **Alternative 2: End-of-Pipe Treatment System**, due to the technical feasibility of this alternative. This alternative is expected to remove LNAPL sheens prior to discharge to the outfall. In addition, this alternative would require less maintenance and provides a higher degree of reliability than continued operation of the current system as described in Alternative 1.

An Interim Measure Work Plan was submitted to the USEPA on February 13, 2008, for implementing the selected alternative. The USEPA approved the interim measure in a letter to GM dated March 14, 2008.

4.21 Outfall 005

Visible sheens have previously been observed at Outfall 005. Inspections of the Outfall 005 storm sewer system revealed that the likely source of the sheens was infiltration into the system near French drain manholes located near the Leith Street underpass. P-traps were installed in two French drain manholes between September and December 2004, and the p-traps have been successful in controlling sheens at Outfall 005.

4.21.1 Proposed Corrective Measure

The proposed corrective measure for this AOI is **Periodic Monitoring** to ensure that the P-traps are operating as designed and holding back the LNAPL from entering the French drain. Annual site visits are proposed.

4.21.2 Estimated Costs

The present net worth of this alternative is $15,000, assuming a life cycle of 10 years and a discount rate of 7%. The annual cost is assumed to be $2,000.

5. Groundwater Monitoring Plan

Manufacturing activities have taken place at the Site since the early to mid 1900's, and the likely time periods between the historical releases of contaminants and current conditions have allowed the subsurface to reach a stable condition. As documented in the RFI Phase I and II Reports, an extensive groundwater characterization program was implemented as part of the RFI. The analytical data from the RFI groundwater characterization further supports the stability of observed groundwater impacts, as discussed in the CA 750 Report. The RFI data were evaluated for risk from potential exposure as part of the human health risk assessment as documented in Section 6 of the RFI Phase II Report, and supplemented in Appendix A of this Revised CMP.

The human health risk assessment determined that the current groundwater conditions do not pose a significant risk under current and reasonably expected future land and groundwater use scenarios at and around the Site. However, as a prudent and conservative measure, GM proposes to continue monitoring groundwater elevations and/or concentrations and/or LNAPL absence, presence, and/or thickness at select monitoring wells for specific durations to confirm subsurface conditions at locations where limited sampling data are available, or where the stability of conditions at the downgradient edge of an impacted area may need further confirmation.

Additional monitoring data are not required within source areas that have been delineated by downgradient monitoring wells, or at downgradient locations where stable concentrations have been demonstrated and concentrations are expected to remain stable.

5.1 Groundwater Monitoring Plan Overview

The proposed groundwater monitoring program includes the collection of groundwater elevations and/or concentrations and/or LNAPL absence, presence, and/or thickness at 42 monitoring wells. The proposed monitoring program is summarized in Table 5-1. Figures 5-1 and 5-2 illustrate the locations of the monitoring wells included in the proposed monitoring program. All activities will be completed in accordance with the Field Sampling Plan (FSP) and Quality Assurance Project Plan (Appendix C of the RFI Work Plan, dated March 30, 2001, as amended [QAPP addendum on May 16, 2005]) and the Health and Safety Plan (HASP) updated June 2005.

Any future modification to Site activities (e.g., future demolition and/or redevelopment) may impact the position of some of the monitoring locations. To accommodate such

activities, alternate monitoring wells may be substituted to provide water level and LNAPL thickness measurements, and groundwater sampling locations. Monitoring wells proposed for monitoring as part of this program may also need to be properly abandoned and re-installed at nearby locations to accommodate future Site activities. Substantial modifications to the proposed monitoring program will be presented to USEPA for approval prior to implementation. Examples of such modifications involve the movement of monitoring points a distance of more than 30 feet, elimination or substitution of monitoring locations at greater distances than 30 feet, and the reduction of proposed analytes.

GM plans to properly abandon any existing monitoring wells associated with the Site (onsite or offsite) that are not proposed to be used as part of this proposed monitoring program, unless such wells have been previously identified to either be destroyed or not found.

5.2 Water Level and LNAPL Measurements

Groundwater elevation data have been contoured on a Site-wide basis for a series of monitoring dates, resulting in a comprehensive understanding of Site-related groundwater flow direction. Due to the consistency of the observed groundwater flow patterns, collection of additional Site-wide water level data is not included in the proposed monitoring program. However, in order to confirm that the subsurface distribution of LNAPL does not change in response to the implementation of the CMP, groundwater levels and LNAPL thickness measurements will be made annually at select monitoring wells listed in Table 5-1. Water levels and LNAPL thickness measurements will be compiled for inclusion in annual reports (see reporting information below).

5.3 Groundwater Sampling

To achieve the program objectives, groundwater samples will be collected on an annual basis, from the monitoring wells listed in Table 5-1 and shown on Figures 5-1 and 5-2. Table 5-1 lists 1) the monitoring wells included in the proposed monitoring program; 2) the proposed analytical parameters corresponding to each monitoring well; 3) the proposed duration of monitoring for each monitoring well; and 4) the purpose of each proposed monitoring location. Groundwater samples will be submitted to Merit Laboratories, Inc. of East Lansing, Michigan (or a similar laboratory) for analysis.

Since over 250,000 analytical data points were validated as part of the RFI, with nearly all being acceptable for use in the risk assessments, no further analytical data validation will be performed as part of this program.

5.4 **Reporting**

A report will be prepared annually to document the results of the proposed monitoring program. The text of each of the annual reports will describe the objectives and scope of each of the sampling events, and will include a summary of the procedures used to complete the sampling. The associated results will be presented using the following methods:

- Analytical data box figures to show the distribution of recent data in context with historical data;
- Summary tables; and
- Graphs to illustrate concentration changes over time (as appropriate).

The resulting data will be compared to historic concentrations, as well as risk-based criteria described in the RFI Phase II Report. Recommendations will also be provided regarding any changes to the number of monitoring wells being monitored, the frequency of measurements and analytical sampling, and/or the analytical parameters. Proposed monitoring well substitutions and replacements, necessitated by Site re-development activities, will also be presented. Again, substantial modifications to the proposed monitoring program will be presented to USEPA for approval prior to implementation. Examples of such modifications are noted above. In the event that a constituent's concentration approaches a risk-based criterion or increases significantly from historic concentrations, the results will be confirmed by re-sampling for that constituent. If the re-sampling confirms the trend, GM will notify the USEPA to discuss potential actions to address the condition.

Each of the annual reports prepared as part of this proposed monitoring program will be submitted to the USEPA within 90 days upon completion of each corresponding annual monitoring event.

6. Schedule

Consistent with the streamlined manner in which GM has conducted all of the phases of corrective action for this Site, GM is proceeding with various aspects of remedies proposed for corrective action outlined in the preceding sections of this Revised CMP as interim measures. Specifically, GM has provided Interim Measure Work Plans (IMWPs) and USEPA has approved IMWP for the following corrective measures, and GM plans to implement the related construction activities later this year:

- Lining of a select section of the Outfall 002 storm sewer system
- Installation of traveling screen, oil-water separator, and stormwater detention pond along the Outfall 003 storm sewer system
- Installation of traveling screen and oil-water separator along the Outfall 004 storm sewer system

As much of the construction work as practicable pertaining to the remedies proposed in the preceding sections of this Revised CMP will be completed within one year after USEPA selects the final remedies, and all remedies will be completed within a reasonable period of time to protect human health.

GM will continue to report project updates, including changes to the above schedule of activities, to USEPA via quarterly reports that are submitted by the 15th day of every month following a quarter.

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Appendix 2 WASTE STREAM DISPOSITION SUMMARY SHEET

GMPT Flint North

	Unit of Measure	Baseline Quantity	Current Technology	Technology Proposed	Facility Name	Facility Location (City, State)
HAZARDOUS WASTE						
Gasoline	drums	2	Energy Recovery	NA	EQ-Detroit	Detroit, MI
Diesel Fuel	drums	2	Energy Recovery	NA	EQ-Detroit	Detroit, MI
Mineral Spirits	drums	4	Energy Recovery	NA	EQ-Detroit	Detroit, MI
Paint related material (Liquid & solids, ie paint rags, brushes)	drums	3	Energy Recovery	NA	PSC	Detroit, MI
Waste Video Jet & Solvent	drums	4	Energy Recovery	NA	EQ-Detroit	Detroit, MI
Waste Aerosol Cans	drums	8	Energy Recovery	NA	PSC	Detroit, MI
Hazardous Weld Dust	drums	20	Landfill	NA	PSC	Detroit, MI
Hazardous Weld Dust Filters	CY Box	10	Landfill	NA	EQ-Michigan Disposal	Bellleville, MI
NON-HAZARDOUS/INDUSTRIAL WASTES						
Plant trash	tons	310	Energy Recovery	NA	Greater Detroit Resource Recovery Authority	Detroit, MI
Medical waste	Boxes	12	Incineration	NA	Stericycle	Toledo, OH
Non-Haz Mixed Waste (includes factories and central waste)	tons	150	Incineration	NA	Covanta WTE	Indianapolis, IN
Grinding Swarf (includes all factories)	tons	220	Recycling	NA	Metal Management	Toledo, OH
Grease Accumulation	drums	7	Incineration	NA	Covanta WTE	Indianapolis, IN
Filter Press Sludge (remediation waste, non-TSCA, not production)	drums	20	Landfill	NA	USIT	Livonia, MI
PCB Wood Floor Block	CY Box	5	Landfill	NA	EQ-Wayne	Bellleville, MI
PCB Light Ballasts/Small Capcacitors	drums	4	Landfill	NA	EQ-Wayne	Bellleville, MI
Carbon Filter Media (remediation waste, non-TSCA, not production)	drums	15	Landfill		USIT	Livonia, MI
Asbestos	tons	5	Landfill	NA	Citizens	Grand Blanc, MI
RECYCLABLES						
Used Fluorescent Light Tubes	tons	1.5	Recycling	NA	Cleanlites	Mason, MI
Broken Bulbs	tons	0.5	Recycling	NA	Environmental Recycling	Bowling Green, OH
Grinding Wheels	tons	20	Recycling	NA	United Abrasives	Vulcan, MI
Lead acid batteries	tons	20	Recycling	NA	Michigan Battery	Flint, MI
Mercury containing devices	drums	4	Recycling	NA	Cleanlites	Mason, MI
Antifreeze	drums	3	Recycling	NA	USIT	Livonia, MI
Used batteries (includes all dry batteries and nickel cadmium)	tons	0.99	Recycling	NA	Cleanlites	Mason, MI
Carboard	tons	60	Recycling	NA	Great Lakes Recycling	Flint, MI
Used Filter Media	tons	3	Recycling	NA	Preferred Filter Recycling	Warren, MI
Electronic Waste	tons	2.30	Recycling	NA	Cleanlites	Mason, MI
Office Paper & Newsprint	tons	20.64	Recycling	NA	Royal Oak Recycling	Royal Oak, MI
Plastic	tons	20	Recycling	NA	Great Lakes Recycling	Flint, MI
Cover Soil	tons	400	Recycling	NA	Citizens	Grand Blanc, MI
Concrete	tons	400	Recycling	NA	Tri-City Aggregate	Burton, MI
Wood Pallets	tons	40	Recycling	NA	Kamps Pallets	Lansing, MI
Scrap Wood	tons	15	Recycling	NA	Mid-Michigan Recycling	Flint, MI
Non-Haz Weld Dust and Shot Dust/Blast	tons	3.50	Recycling	NA	Metals Management	Toledo, OH
TSCA WASTE						
Clay Filter Media (TSCA, remediation waste)	drums	10	Landfill	NA	EQ-Wayne	Bellleville, MI
PCB Oil (TSCA, remediation waste)	drums	15	Incineration	NA	Veolia	Port Arthur, TX
PCB Remediation Debris (TSCA, remediation waste)	drums	25	Landfill	NA	EQ-Wayne	Bellleville, MI

*Note: Numbers have been adjusted compared to 2008 volumes based on generator knowledge of special projects that occurred in 2008 and the future production here at the site.

Revision Date: 3/12/09

Storage or Container ID	Chemical Name and Product Name (& HMCS No.)	CAS Number	Location (Indoor or Outdoor)	Above or Below Ground	Typical Quantity Stored (gal)	Secondary Containment Description	Secondary Containment Capacity (gal)	Threshold Management Quantity (TMQ)	Threshold Reportable Quantity (TRQ)	Comment
43-01	Low Temp New Oil		Factory 05 (Building 43), Indoors	Above Ground	5825	Concrete dike surrounding tanks (45'x30'x2.5'); located within enclosed building; trench drain with sump that pumps to process waste	25,250			Sight level gauge; high level alarm at load/unload area; spill kits located at area
43-02	High Temp Used Oil 313870		Factory 05 (Building 43), Indoors	Above Ground	6750	Concrete dike surrounding tanks (45'x30'x2.5'); located within enclosed building; trench drain with sump that pumps to process waste	25,250			Sight level gauge; high level alarm at load/unload area; spill kits located at area
43-03	Low Temp Used Oil		Factory 05 (Building 43), Indoors	Above Ground	11650	Concrete dike surrounding tanks (45'x30'x2.5'); located within enclosed building; trench drain with sump that pumps to process waste	25,250			Sight level gauge; high level alarm at load/unload area; spill kits located at area
43-04	High Temp New Oil 313870		Factory 05 (Building 43), Indoors	Above Ground	11650	Concrete dike surrounding tanks (45'x30'x2.5'); located within enclosed building; trench drain with sump that pumps to process waste	25,250			Sight level gauge; high level alarm at load/unload area; spill kits located at area
43-05	Cold Header 195832		Factory 05 (Building 43), Indoors	Above Ground	6750	Concrete dike surrounding tanks (45'x30'x2.5'); located within enclosed building; trench drain with sump that pumps to process waste	25,250			Sight level gauge; high level alarm at load/unload area; spill kits located at area
43-09	Anhydrous Ammonia 203807		Factory 05 (Building 43), Indoors	Above Ground	0	Indoors, on concrete	N/A (Inside)			
43-10	Methanol 103458		Factory 05 (Building 43), Indoors	Above Ground	5000	Indoors, on concrete; concrete containment dike	N/A (Inside)			
43-11	Liquid Nitrogen 300746		Factory 05 (Building 43)	Above Ground	0	N/A	N/A			
43-13	Hydraulic Oil 346918		Factory 05 (Building 43), Indoors	Above Ground	4500	Located within enclosed building; trench drain in area drains to loading dock containment sump; sump pumps to process waste; trench (100'x1'x1.5')	1,525 + quick drainage to sump			Sight level gauge; spill kits located at area

43-14	Hydraulic Oil 346918	Factory 05 (Building 43), Indoors	Above Ground	4500	Located within enclosed building; trench drain in area drains to loading dock containment sump; sump pumps to process waste; trench (100'x1'x1.5')	1,525 + quick drainage to sump		Sight level gauge; spill kits located at area
43-15	Hydraulic Oil 346918	Factory 05 (Building 43), Indoors	Above Ground	4500	Located within enclosed building; trench drain in area drains to loading dock containment sump; sump pumps to process waste; trench (100'x1'x1.5')	1,525 + quick drainage to sump		Sight level gauge; spill kits located at area
43-17	Helium 323236	Factory 05 (Building 43), Indoors	Above Ground	0	N/A	N/A		
20-10 (20-E)	Synthetic Coolant 261397	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-11 (20-F)	Synthetic Hydraulic Fluid 124934	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-12 (20-L)	Waylube Oil 342582	Factory 10 (Building 20), Indoors	Above Ground	9000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-13 (20-K)	Spindle Oil 342987	Factory 10 (Building 20), Indoors	Above Ground	9000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-14 (20-J)	Cleaner - Cerfa Clean (Tank is Empty)	Factory 10 (Building 20), Indoors	Above Ground	9000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-15 (20-I)	Cutting Oil (Tank is Empty)	Factory 10 (Building 20), Indoors	Above Ground	9000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-16 (20-H)	LCO-224 (Cutting Oil) 191156	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area

20-17 (20-G)	LCO-200 (Cutting Oil) 196079	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-06 (20-B)	Hydraulic Oil 346918	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-07 (20-A)	Synthetic Coolant 125410 (Tank is Empty)	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-08 (20-D)	Synthetic Coolant	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
20-09 (20-C)	Lap Oil 350824	Factory 10 (Building 20), Indoors	Above Ground	15000	Concrete dike surrounding tanks (40'x80'x2'); located within enclosed building; trench drain with sump that pumps to IWTP	47,900		Sight level gauge; high level alarm at load/unload area; spill kits located at area
1-Oct	Hydraulic Oil	Factory 10 (Building 20), Indoors	Above Ground	330	Trench drains to building sump	N/A		Sight level gauge; high level alarm at load/unload area; spill kits located at area
2-Oct	Transmission Fluid 310441	Factory 10 (Building 20), Indoors	Above Ground	330		N/A		Sight level gauge; high level alarm at load/unload area; spill kits located at area
3-Oct	Motor Oil	Factory 10 (Building 20), Indoors	Above Ground	330	Trench drains to building sump	N/A		Sight level gauge; high level alarm at load/unload area; spill kits located at area
4-Oct	Gear Oil	Factory 10 (Building 20), Indoors	Above Ground	330	Trench drains to building sump	N/A		Sight level gauge; high level alarm at load/unload area; spill kits located at area
5-Oct	Hydraulic Oil	Factory 10 (Building 20), Indoors	Above Ground	500	Trench drains to building sump	N/A		Sight level gauge; high level alarm at load/unload area; spill kits located at area

	6-Oct	Lube Oil		Factory 10 (Building 20), Indoors	Above Ground	500	Trench drains to building sump	N/A		Sight level gauge; high level alarm at load/unload area; spill kits located at area
INF-1		Influent Make-Up Tank	N/A	Factory 10 (Building 20), Indoors	Above Ground	4000	Building walls	N/A		
ST-1		Sludge Thickener	N/A	Factory 10 (Building 20), Indoors	Above Ground	250	Building walls	N/A		
T-001		pH adjustment	N/A	Factory 10 (Building 20), Indoors	Above Ground	2000	Building walls	N/A		
T-002		Magnesium Hydroxide	N/A	Factory 10 (Building 20), Indoors	Above Ground	0	Building walls	N/A		
T-003		Clarifier Overflow Tank	N/A	Factory 10 (Building 20), Indoors	Above Ground	238	Building walls	N/A		
T-004		Oil Water Separator Overflow	N/A	Factory 10 (Building 20), Indoors	Above Ground	500	Building walls	N/A		
T-005		Oil Holding Tank	N/A	Factory 10 (Building 20), Indoors	Above Ground	4000	Building walls	N/A		
69A-1		Automatic Transmission Fluid 356509		Factory 81, Outdoors	Above Ground	20000	Concrete dike surrounding tank (74'x27'x3')		42,500	Sight level gauge; personnel present during loading activities; loading / unloading procedures in place
69A-2		Automatic Transmission Fluid 356509		Factory 81, Outdoors	Above Ground	20000	Concrete dike surrounding tank (74'x27'x3')		42,500	Sight level gauge; personnel present during loading activities; loading / unloading procedures in place
69A-3		Automatic Transmission Fluid 356509		Factory 81, Outdoors	Above Ground	20000	Concrete dike surrounding tank (74'x27'x3')		42,500	Sight level gauge; personnel present during loading activities; loading / unloading procedures in place
69A-4		Automatic Transmission Fluid 356509		Factory 81, Outdoors	Above Ground	20000	Concrete dike surrounding tank (74'x27'x3')		42,500	Sight level gauge; personnel present during loading activities; loading / unloading procedures in place
70-4		Nitrogen		Factory 81	Above Ground	0	N/A	N/A		
70-5		Helium 323236		Factory 81	Above Ground	0	N/A	N/A		
70-6		Helium 323236		Factory 81	Above Ground	0	N/A	N/A		
24-1		Fire Water	N/A	Factory 14 (Building 22), Indoors	Above Ground	400000	N/A	N/A		

24-2	Diesel Fuel 305763	Factory 14 (Building 22)	Above Ground	500	Double walled tank; building walls	N/A	
18-1	Carbon Dioxide 217457	Building 18	Above Ground	0			Average Capacity Stored = 4 ton
97-2	Helium 323236	Factory 09 (Building 21)	Above Ground	0	N/A	N/A	
97-4	Argon 300355	Factory 09 (Building 21)	Above Ground	0	N/A	N/A	
86-01	Diesel Fuel 305763	Building 25, Outdoors	Above Ground	2500		4,850	Sight level gauge; personnel present during loading activities; loading / unloading procedures in place
36-14	Coolant	Factory 36	Above Ground	2730	Indoors; on stilts; bottom accessible; Trench drains to building sump	Exceeds capacity of containers	
36-15	Carbon Dioxide	Factory 36	Above Ground	0	N/A	N/A	Average Capacity Stored: 4 ton
T37-1	Hydraulic Oil 346918	Factory 36 (Tank Farm 37), Outdoors	Above Ground	15000	Concrete dike surrounding tanks (87'x40'x~20'); area roofed; trench drain with sump that pumps to IWTP	Approx. 520,600	Level controls; spill kits located at area
T37-2	Hydraulic Oil 346918	Factory 36 (Tank Farm 37), Outdoors	Above Ground	15000	Concrete dike surrounding tanks (87'x40'x~20'); area roofed; trench drain with sump that pumps to IWTP	Approx. 520,600	Level controls; spill kits located at area
T37-3	Motor Oil (5W30) 1180667	Factory 36 (Tank Farm 37), Outdoors	Above Ground	15000	Concrete dike surrounding tanks (87'x40'x~20'); area roofed; trench drain with sump that pumps to IWTP	Approx. 520,600	Level controls; spill kits located at area
T37-4	Motor Oil (5W30) 1180667	Factory 36 (Tank Farm 37), Outdoors	Above Ground	15000	Concrete dike surrounding tanks (87'x40'x~20'); area roofed; trench drain with sump that pumps to IWTP	Approx. 520,600	Level controls; spill kits located at area
T37-6A	Regular Gasoline 194022	Factory 36 (Tank Farm 37), Outdoors	Above Ground	7500	Concrete dike surrounding tanks (87'x40'x~20'); area roofed; trench drain with sump that pumps to IWTP	Approx. 520,600	Level controls; spill kits located at area
T37-6B	Regular Gasoline 194022	Factory 36 (Tank Farm 37), Outdoors	Above Ground	7500	Concrete dike surrounding tanks (87'x40'x~20'); area roofed; trench drain with sump that pumps to IWTP	Approx. 520,600	Level controls; spill kits located at area

T37-8	Aqueous film-forming foam, alcohol type-concentrate		Factory 36	Above Ground	250	Building walls; set on concrete		
T-700	Recovered Oil	N/A	Factory 36, Indoors	Above Ground	1550	Double-walled containment	N/A	
86-2	Heavy Duty Motor Oil 111467		Building 86, Indoors	Above Ground	350	Located within building; area drains to building sump that pumps to IWTP	Approx. 1,000-gal. sump	Sight level gauge
86-3	Hydraulic Oil 236310		Building 86, Indoors	Above Ground	350	Located within building; area drains to building sump that pumps to IWTP	Approx. 1,000-gal. sump	Sight level gauge
86-4	ISO 68 Oil 347657		Building 86, Indoors	Above Ground	350	Located within building; area drains to building sump that pumps to IWTP	Approx. 1,000-gal. sump	Sight level gauge
T55-1 (East)	Skim Oil	N/A	Facility 60 (IWTP), Outdoors	Above Ground	20000	Concrete containment structure surrounds tank; similar to double-walled; 30'Dia x 20' deep	Approx 85,000	Level alarm and gauge; maintained via IWTP control room; spill kits located at area
T55-2 (West)	Skim Oil	N/A	Facility 60 (IWTP), Outdoors	Above Ground	20000	Concrete containment structure surrounds tank; similar to double-walled; 30'Dia x 20' deep	Approx 85,000	Level alarm and gauge; maintained via IWTP control room; spill kits located at area
T55-3 (North)	Skim Oil	N/A	Facility 60 (IWTP), Outdoors	Above Ground	60000	Concrete containment structure surrounds tank; similar to double-walled; 30'Dia x 20' deep	Approx 45,000	Level alarm and gauge; maintained via IWTP control room; spill kits located at area
East Tank (55A-5)	Liquid Alum 201884		Facility 60 (IWTP), Indoors	Above Ground	1925	Contained Indoors, tank sits on concrete		
West Tank (55A-10)	Cationic Polymer 311752		Facility 60 (IWTP), Indoors	Above Ground	1925	Contained Indoors, tank sits on concrete		
55A-11	Caustic (Sodium Hydroxide) 311752		Facility 60 (IWTP), Indoors	Above Ground	2500	Concrete containment dike; located indoors	N/A	
55A-24	Lime 114983		Facility 60 (IWTP), Indoors	Above Ground	20000	Contained indoors, 2nd floor, tank set on concrete	N/A	
55A-26	Lime 114983		Facility 60 (IWTP), Indoors	Above Ground	20000	Contained indoors, 2nd floor, tank set on concrete	N/A	
NA	Sodium Hypochlorite Solution (Bleach) 333257		Facility 60 (IWTP), Indoors	Above Ground	1100	Indoors, on stilts, bottom accessible, contained	N/A	
NA	Sodium Hypochlorite Solution (Bleach) 333257		Facility 60 (IWTP), Indoors	Above Ground	1100	Indoors, on stilts, bottom accessible, contained	N/A	
System 1	Recovered Oil / Ground Water	N/A	Recovery Well - Fac 5	Above Ground	350	Building walls; set on concrete	N/A (Inside)	

System 2	Recovered Oil / Ground Water	N/A	Recovery Well - Fac 5	Above Ground	350	Building walls; set on concrete	N/A (Inside)
System 3	Recovered Oil / Ground Water	N/A	Recovery Well - Fac 5	Above Ground	350	Building walls; set on concrete	N/A (Inside)
System 4	Recovered Oil / Storm Water	N/A	Oil Water Separator	Above Ground	500	Building walls; set on concrete	N/A (Inside)
System 5	Recovered Oil / Storm Water	N/A	Oil Water Separator	Above Ground	275	Building walls; set on concrete	N/A (Inside)
System 7	Recovered Oil / Ground Water	N/A	Recovery Well - Fac 81	Above Ground	300	Building walls; set on concrete	N/A (Inside)

APPENDIX F

Qualifications of Environmental Professionals

LFR an ARCADIS company

SEAN D. DRAIN

Staff I Scientist

environmental site assessments
industrial hygiene

Mr. Drain serves as a Staff I Scientist in the Environmental Department of LFR's office in Braintree, Massachusetts. His responsibilities include field services for environmental site assessments, ASTM phase I due diligence evaluations, industrial hygiene (including asbestos), and health and safety.

EDUCATION

B.S. Marine Safety and Environmental Protection, Massachusetts Maritime Academy, 2007

REPRESENTATIVE EXPERIENCE

- **Various Mold Remediation Projects**. Monitored the removal of mold and fungal contaminated material and build-back for numerous telecommunications facilities around the country. Completed closeout reports for the various job sites for the clients.
- **Conducted Various Building Inspections for Asbestos and Asbestos Monitoring.** Building inspections and asbestos project monitoring at various buildings and facilities located in Charlestown, MA, Cambridge, MA, and Danbury, CT. Completed inspection reports for clients.
- **Environmental Site Assessments.** Conducted various ASTM Phase I Due Diligence site assessments at various facilities. Completed report for site in Fall River, MA in the Airport Road Industrial park.
- **Environmental Site Cleanup.** Contaminated soil remediation at sites in Sandwich, MA, along Rt. 3 Northbound side in Plymouth, and Oxford, MA. Operated cleanup equipment to remove contaminated soil from sites. Assisted with emergency response call to Auburn, MA to cleanup a home heating oil tank rupture. Applied absorbent to remove bulk of oil from basement, along with contaminated building materials such as carpet, wall board, and flooring.
- **Braintree Power Plant, Braintree, MA.** Assisted with the cleaning of storm drain pipes using a jet-rod system and a vactor truck, to remove contaminated soils and water from the concrete pipes.

REGISTRATION/CERTIFICATIONS

HAZWOPER OSHA 40- Hour Worker Training

10-hr OSHA Construction and Supervisor Training

Asbestos Project Monitor Certification

Asbestos Inspector Certification

PROFESSIONAL HISTORY

LFR Inc., Staff I Scientist, May 2008 to Present

LFR Inc., Environmental Engineering Technician I, March 2007 to May 2008

Resource Options Inc. Environmental Technician, January 2007 to March 2007

Fleet Environmental Services, Environmental Technician, June 2006 to September 2006

LFR an ARCADIS company

STEPHEN P. MCCARTHY

Senior Associate Scientist

asbestos management
industrial hygiene
environmental investigations
environmental site assessments

As Director of Site Assessments at LFR Inc. (LFR) Braintree, Massachusetts office, Mr. McCarthy is responsible for the technical supervision of all personnel performing Phase I Environmental Site Assessments (ESAs). His responsibilities include technical oversight, logistics, scheduling and cost control, interface with clients and regulatory agencies, quality control of environmental assessments conducted within the branch and conducting Phase I ESAs throughout the United States.

With over 20 years of experience in the environmental consulting field, Mr. McCarthy has provided his technical expertise on a wide-range of projects for property owners, financial institutions, school departments, governmental agencies and hospitals. Mr. McCarthy has conducted environmental assessments on commercial/retail, residential and industrial properties in accordance with the American Society for Testing and Materials (ASTM) standard practice for Environmental Site Assessments E 1527 and client specific scopes of work. In addition, Mr. McCarthy has conducted asbestos identification surveys, prepared Operations and Maintenance programs, developed asbestos abatement technical specifications, monitored removal of asbestos-containing materials, performed indoor air quality investigations, managed the removal of underground petroleum storage tanks and prepared Spill Prevention, Control and Countermeasure (SPCC) plans.

EDUCATION

B.A. History, Providence College, 1986

REPRESENTATIVE EXPERIENCE

- **Various Properties (Client Confidential), Nationwide**. As Project Manager, Mr. McCarthy was responsible for the overall project management of multi-site/multi-state environmental assessment projects. These projects ranged in size from a single site up to 36 different sites located across the United States. Mr. McCarthy was responsible for project scheduling, cost control, technical oversight and review of all final reports prior to issuance to ensure they complied with ASTM standards and client specific requirements.
- **NationsBank, Dallas, TX.** As Project Manager, Mr. McCarthy was responsible for the overall project management of the performance of 50 Phase I ESAs of bank buildings located throughout the State of Texas within a six-week time frame. The ESAs consisted of inspections of current site operations and a reconnaissance of abutting/adjacent properties, historical research and review of federal, state and local regulatory records.
- **NationsBank, Corsicana, TX.** Performed a Phase I ESAs on three tracts of land in downtown Corsicana, TX. Project involved a detailed historical research on former uses of the tracts of

land revealed numerous suspect underground storage tank (UST) locations. Designed and coordinated performance of a geophysical survey on the three tracts of land to identify the likely presence of USTs to aid in the preparation of the scope of work for a Phase II subsurface investigation. The geophysical survey consisted of the use of a combination of electromagnetic induction (EM31) and ground magnetics. Based upon the findings of the geophysical survey, prepared a scope of work and cost estimates for the performance of the subsurface investigation.

- **NCNB Texas National Bank, Dallas, TX.** Provided asbestos identification surveys on 110 buildings containing over 8 million square feet of space located throughout the state of Texas. Responsibilities consisted of design of the survey strategy, on-site inspection and collection of bulk material samples, assessment of asbestos-containing materials, interpretation of data and preparation of final reports. Project included preparation of recommendations for further action at each facility, if warranted, and associated cost estimates.
- **First Republic Bank, Dallas, TX.** Managed a $2 million dollar asbestos abatement project at an occupied high rise office building. Responsibilities included project design, specification preparation, conducting pre-bid conferences, collection and analysis of air samples, daily inspections of abatement contractor's work practices and consultation with owner's representative on all aspects of the abatement project.
- **First Republic Bank, Dallas, TX.** Performed an asbestos-containing material survey of the 50-story, 1.8 million square foot, First Republic Bank complex in Dallas, Texas. Responsibilities consisted of design of the survey strategy, overall management of the five person survey team, on-site inspection and collection of bulk material samples, assessment of asbestos-containing materials, interpretation of data and preparation of a final report.
- **NationsBank, Dallas, TX.** Coordinated the emergency removal of four underground storage tanks, which were uncovered during construction of a highly publicized branch bank facility. Successfully coordinated with state regulatory officials and a tank removal contractor for the removal of the USTs within 48 hours of detection so as to not impede bank construction. Performed project oversight which included preparation of a health and safety plan, collection of appropriate soil samples from the tank excavation, interpretation of analytical data and preparation of the tank closure report for submission to state regulatory officials.
- **Spill Prevention Control and Countermeasures (SPCC) Plans, NYNEX, various locations throughout New England**. Performed facility inspections and prepared SPCC plans in compliance with regulations of the Environmental Protection Agency (EPA) for various NYNEX facilities located throughout New England.

SEMINARS/COURSES

Hazardous Waste Operations (OSHA 40-hour)

Asbestos Inspector Refresher Course

Asbestos Management Planner Refresher Course

Asbestos Contractors/Supervisor Course

Inspecting Buildings for Asbestos-Containing Materials, Environmental Sciences Inc.,

Managing Asbestos in Buildings, Environmental Sciences Inc.,

Microscopical Identification of Asbestos, Microne Research Institute

Sampling & Evaluating Airborne Asbestos Dust (582), NIOSH

Transport and Fate of Contaminants in the Subsurface, U.S. Environmental Protection Agency (U.S. EPA)

REGISTRATIONS/CERTIFICATIONS

Asbestos Management Planner, Certificate No. 9915171368104

Asbestos Inspector, Certificate No. 9915051068104

PROFESSIONAL HISTORY

LFR Inc., Senior Associate Scientist, 1995 to present

Recon Environmental, Operations Manager, Dallas, TX, 1988 to 1995

Recon Environmental, Project Manager, 1986 to 1988

RICHARD G. STROMBERG, CPG, LSP, LEP

Senior Associate

remedial designs and implementations
geoenvironmental investigations
soil re-use management
site planning and development
multi-media regulatory compliance audits

As a Senior Associate, Mr. Stromberg's responsibilities include working in multiple technical disciplines to complete geoenvironmental and regulatory compliance projects. His regulatory compliance experience includes work with hazardous waste management; the MassDEP – MCP Program; the CT DEP – RSR Program; multiple state and federal regulated programs; environmental auditing and facility compliance auditing; water resources and geotechnical evaluations; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Superfund Sites; and Resource Conservation and Recovery Act (RCRA) Part B and solid waste management.

Mr. Stromberg specializes in the creative management of excess soils from construction/demolition projects. Mr. Stromberg is responsible for review and approvals of several "<RCS-1" soil re-use sites and MassDEP permitted landfills in the Boston Area.

Mr. Stromberg has experience negotiating with regulatory agencies and preparing information in support of expert testimony. Mr. Stromberg's geoenvironmental experience includes conducting site investigations and remediations; hydrogeologic assessments, including groundwater flow modeling; performance evaluations; site planning and development; underground storage tank (UST) closures; facility closures; and environmental impact assessments, including large geohydrological investigations and remediations. In addition to the management of projects, he also manages technical practice groups and office staff.

EDUCATION

B.S. Geology, University of Massachusetts, Amherst, 1980

Graduate Level Courses, Syracuse University and Harvard University

REPRESENTATIVE EXPERIENCE

Mr. Stromberg has completed projects involving site audits, resource evaluations, and RCRA and CERCLA studies across the U.S. Project descriptions are available upon request. The following provides a representative list of comprehensive environmental projects in Massachusetts and Connecticut.

- **Terminal A Redevelopment, Logan International Airport, East Boston, Massachusetts.** Mr. Stromberg was the Project Licensed Site Professional (LSP) for

Delta's Terminal A Redevelopment Project at Logan International Airport in East Boston, Massachusetts. Mr. Stromberg coordinated environmental materials management, inspections, and reporting on behalf of Delta and their contractor Skanska USA Building, Inc. LFR also reported to the owner (Massport). The project included coordination with the Massachusetts Department of Environmental Protection (MassDEP), Massport, and Making Projects Work (MPW) on behalf of Delta. Site activities included dismantling a prior terminal/fuel distribution system (FDS), as well as construction of a new terminal and satellite terminal buildings.

Mr. Stromberg prepared a Construction Release Abatement Measure (CRAM) Plan for Massport and Delta for submittal to the MassDEP as required under the Massachusetts Contingency Plan (MCP). The plan was reviewed and approved by Delta/MPW and their consultants, Burns & McDonnell (B&M) and Ambient Engineering along with Massport.

The plan included a Risk Characterization for the project, which was reviewed by B&M to determine soil and groundwater "Cleanup Criteria," which would be safe for current workers and future workers/passengers at the Site. The plan identified key roles and responsibilities for Massport, Delta, Skanksa, and its subcontractors. In addition, the plan included provisions for Health & Safety, groundwater de-watering management through a National Pollutant Discharge Elimination System (NPDES) Permit granted by EPA Region I, and a Storm Water Pollution Prevention plan (SWPPP) also approved by EPA. LFR coordinated groundwater testing and reporting under NPDES for the project and trained Skanksa to implement the SWPPP.

The plan provided provisions for "Precharacterization Studies" to be conducted in-situ for soil and groundwater so that soil stockpiling was minimized and demolition/construction efforts were conducted efficiently. Once data was received and reviewed by LFR, reports were prepared for the team specifying the appropriate off-site disposal/recycling facilities that were utilized for soil management. These facilities were approved by Massport and Delta/AIG for the project. Shipping documents known as MCP Bills-of-Lading (BOLs) were also prepared by LFR for the T&D of soils.

The plan was utilized as the document-of-record to conduct field testing, inspection, and materials management/spill response for the project. LFR maintained a staff of 2-5 trained professionals at the Site to coordinate all aspects of the program through the LSP to Massport, Delta/MPW, and Skanska.

LFR also worked closely with Massport on behalf of Delta and Skanska to prepare a revised feasibility study and design plan (MCP-Phase III/IV documents) to demonstrate to MassDEP that efforts were undertaken during the project to implement a "permanent solution" for the Site, which is listed by MassDEP under the MCP. This document was reviewed and approved by MassDEP.

The environmental management project was performed from June 2002 to 2005. LFR submitted periodic "RAM Status Reports" to MassDEP and to the Project Team summarizing the findings and the quantities of materials managed to date.

- **Soil Re-use Management Plans and Approvals, Eastern Massachusetts.** Soil Re-use Management Plans for <RCS-1" soils were prepared for six re-use sites in eastern Massachusetts in accordance with "anti-degradation" provisions in the MCP. The plans were prepared for property developers and input/comments were received from MassDEP. Mr. Stromberg provides periodic review and approvals of certain candidate soils from various construction/demolition projects in eastern Mass for these sites. Mr. Stromberg also conducts LSP review of candidate soils for two MassDEP permitted landfills in eastern Mass under MassDEP's "COMM-97-001" soil disposal/re-use policy.
- **Power Developer, Eastern Massachusetts.** Mr. Stromberg served as Project LSP for the reconstruction of two power distribution facilities in Charlestown and Weymouth Mass. The work involved collection of a large amount of soils data during the project and preparation of RAM Plans and Status Reports and submittals to MassDEP. Work also involved on-call emergency spill response.
- **Lighting Manufacturer, Fall River, Massachusetts.** Prepared initial Class A-3 RAO/AUL in 1996 for solvent release to groundwater. RAO was audited by MADEP in 2000. Prepared Audit Response Plan approved by MassDEP. Conducted Supplemental Phase II investigations and demonstrated that plume was stable or decreasing, was discharging to nearby brook and Taunton River at safe levels, and posed no significant risk to on-site workers and downgradient facilities in the industrial park. MassDEP approved Supplemental Phase II Report. Concluded that no further monitoring was needed and RAO/AUL submittal made in winter 2004. Mr. Stromberg has also served as LSP-of Record for an on-going hydraulic oil release at the site. Phased Reports have been submitted and a Remedy Operation Status (ROS) Report submitted in May 2007. Worked with owner to delineate cracks in floor and pits to minimize oil loss and reconciliation of oil.
- **Residential Developer, Hingham, Massachusetts.** Mr. Stromberg was the LSP-of-Record to assess and remediate a contaminated fill area slated for residential development at the Hingham Shipyard. The fill area contained extensive PCBs and plans were prepared for submittal to MassDEP and U.S. Environmental Protection Agency (U.S. EPA) TSCA PCB Coordinator for approval. Several thousand tons of soils were delineated and excavated for off-site disposal at pre-approved facilities. Air samples were collected to protect residents nearby. An RAO Report was submitted to MassDEP and U.S. EPA and was approved. Another solvent release from a former storm drain was found on the site and an RAO is currently being prepared to demonstrate that there is no on-going source and that residuals will decline with time due to anaerobic degradation.
- **Industrial Metal Manufacturer, Worcester, Massachusetts.** Conducted Phase-I Limited Site Investigation, Release Abatement Measure (RAM), Tier Classification, Downgradient Property Status (DPS) LSP Opinion, Immediate Response Action (IRA) report, Phase-II Comprehensive Site Assessment (CSA) report, and Phase-III evaluation of remedial alternatives for an industrial site with multiple releases of solvents, oils, and metals.
- **City Housing Authority, Boston, Massachusetts.** Developed an Imminent Hazard Evaluation, and an Immediate Response Action (IRA) plan to address lead

contamination at a housing development. Also completed Phase I/Tier classification and IRA Status Reports. Completed Phase III feasibility study in consort with architect for landscaping as remedy. Finally, worked with landscape architect to prepare a Phase IV Final Design that included site re-landscaping as a remedy. Prepared technical specifications and design drawings for the plan. Coordinated work with a tenants group to disseminate information. Prepared RAO with an AUL for final closure.

- **Automotive Repair Facility, Brookline, Massachusetts.** Delineated gasoline plume on site and separated waste oil plume for remediation by facility tenant. Prepared Phase I/Tier Classification. Conducted Imminent Hazard/Critical Exposure Pathway evaluation for vapor migration to residences. Completed Phase II/III Reports. Evaluated in-situ aerobic biodegradation/chemical oxidation and natural attenuation as feasible remedial alternatives. Completed pilot scale studies to assess oxidation and it was found to be infeasible. Prepared Phase IV/V document and ROS for monitored natural attenuation (MNA) as the feasible alternative and monitoring is ongoing.
- **Electronics Manufacturer, Methuen, Massachusetts.** Delineated dissolved copper, nickel, and zinc plume and source in groundwater from a former plating operation. Prepared pilot scale study to demonstrate that 1 molar sodium hydroxide/bicarbonate was a feasible alternative to raise groundwater pH and precipitate metals. Prepared RAM Plan to inject heated solution into groundwater with subsequent monitoring. Determined that injection program was successful in lowering dissolved metal concentrations sufficiently so that a Class A-2 RAO submittal was made in 2005.
- **Westover AFB, Westfield, Massachusetts.** Conducted geophysical investigation (ground penetrating radar) at solid waste landfill to assess extent of disposal activities and migration of oils. Developed report of findings to be used in evaluation of remedial alternatives for landfill.
- **Electronics/ Lighting Manufacturer, Watertown, Connecticut.** Conducted Phase I and II investigations for solvent release to overburden and bedrock with potential migration to residential wells. Prepared environmental condition assessment form (ECAF) for submittal to CTDEP. CTDEP approval granted for investigation and remediation under RSRs.
- **AlliedSignal, West Hartford, Connecticut.** Conducted Phase II and III comprehensive site assessments and supplemental Phase III investigation for solvent DNAPL release to overburden and dissolved phase migration to bedrock. Completed ECAF for LEP oversight of remediation, which was approved by CTDEP. Prepared Phase III Remedial Action Plan (RAP) which consisted of shallow soil excavation, covering with a RCRA-compliant asphalt parking lot/cap, limited DNAPL recovery, and monitored natural attenuation in this industrial/commercial area. Solicited CTDEP approvals throughout process.
- **Office Building, Hartford, Connecticut.** Conducted site investigation under voluntary remediation program and approved ECAF. Conducted monitoring program and solicited CTDEP approval to terminate compliance monitoring with no post remediation monitoring required. Demonstrated upgradient contamination was not responsibility of site owner to remediate. Submitted LEP Verification of Remediation in January 2004.

REGISTRATIONS

Licensed Site Professional (LSP), Massachusetts No. 1008,

Certified Geologist, Maine, No. 276

Licensed Environmental Professional (LEP), Connecticut, No. 196

Licensed Environmental Professional (LEP), North Carolina, No. 199601717

Certified Professional Geologist (CPG), AIPG No. 8367

Registered Professional Geologist, Tennessee, No. TN-1797

PROFESSIONAL AFFILIATIONS AND COURSES

Mr. Stromberg is trained in OSHA HazWoper CFR 1910.120 and work at low-level radiation sites through U.S. Nuclear Regulatory Commission. Mr. Stromberg maintains professional affiliations with AIG, NWWA, GSA, EPOC, and LSPA. Mr. Stromberg is required to enroll in 4 to 5 professional training seminars each year to maintain LSP and LEP licensure.

PROFESSIONAL HISTORY

LFR Inc., Senior Associate, May 1999 to present

O'Brien & Gere, Managing Scientist, 1983 to May 1999

Haley & Aldrich, Inc. 1981 to 1983

Years with Other Firms: 18