



INVENTUM ENGINEERING, PC

Saginaw – Buffalo Site
320 Scajaquada St
Site Management Periodic Review Report

East Delavan Property, LLC
NYSDEC Site Number 915152

Dates Covered by Report:
May 4, 2018 to May 4, 2019

Rev. 2 – June 15, 2020

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Figures

Figure 1 – Site Layout

Appendices

Appendix A – Engineering Controls – December 2019 Annual Site Wide Inspection Forms

1 Executive Summary

Inventum Engineering, P.C. (Inventum) has prepared this Site Management (SM) Periodic Review Report (PRR) for the Saginaw-Buffalo Site (Site) located at 320 Scjacuada Street in the City of Buffalo, Erie County. The Site is defined as the former Parking Lot #4 associated with the former General Motors and American Axle & Manufacturing (AAM) facility that manufactured axles and drive-train components for cars and trucks. The Site covers an area of approximately 8.6 acres and is included in the New York Registry of Inactive Hazardous Waste Sites (Site No. 915152). Site Institutional Controls (ICs) and Engineering Controls (ECs) were adhered to over the PRR reporting period and continue to be effective in maintaining the remedial objectives. No changes to the established SMP or recommended during the next PRR reporting period.

1.1 Site Summary

General Motors (GM) purchased several parcels in the mid-1960s and constructed Parking Lot #4 which is the current listed Site. In 1989 during a spill cleanup of industrial oil by GM, excavated soil was found to contain Polychlorinated Biphenyls (PCBs). The Site was sold to AAM in 1994 along with the main facility west of the railroad right of way¹. As part of this conveyance, a deed restriction was placed on the property limiting it for use for industrial purposes only. GM-Saginaw Division, the previous owner of the Site, entered into a Consent Order in 1995 and a Final Site Investigation Report and Engineering Evaluation Report of Alternatives was completed in 1997. A Record of Decision (ROD) was issued in March 1998 which required: 1) The further removal of PCB contaminated soil, water and oil; 2) Maintenance of the pavement to reduce infiltration and provided a barrier to lead contaminated soil; and 3) Long-term monitoring and maintenance. Remediation (the "removal of PCB contaminated soil, water and oil") of the Site was completed in 1998 and a long-term operation and maintenance (O&M) plan is in place.

The Site is currently utilized periodically by the City of Buffalo for training school bus drivers.

1.2 Effectiveness of the Remedial Program

Remediation of the Site was completed in 1998 and included:

- Dewatering of an approximately 1-acre area surrounding the former Wastewater Treatment Plant² and on-site water treatment, confirmatory effluent sampling and analysis, and batch discharge to the Buffalo Sewer Authority (BSA) sanitary sewer system;
- Excavating fill/soil containing greater than the site cleanup goal of 10 parts per million (ppm) PCBs in the OU1 area, and confirmatory sampling;
- Transporting excavated materials off-site for treatment and disposal;
- Backfilling of the OU1 excavation with clay soil; and
- Paving the excavation area (OU1) and repaving of the OU2 area which was the remainder of the Parking Lot No. 4.

¹ The former GM/AAM main facility is now comprised of the East Delavan Ave Brownfield Cleanup Program Site No. 915916B and the 250 Colorado Street Site No. 915961

² This 1-acre area was referred to as Operable Unit 1 (OU1) as was the original NYSDEC Registry Listing for the Site

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The remedial program was effective and long-term site monitoring requirements were established requiring:

- Pavement inspection and maintenance conducted on an annual basis to ensure that the integrity of the asphalt surface has been maintained;
- Visual inspection of storm sewer manhole covers and manhole risers for structural damage;
- Groundwater sampling of Site monitoring wells for PCBs, Total Lead, and Soluble Lead (Figure 1); and
- Storm sewer sampling from Manhole #2 (Figure 1) for PCBs and Total Lead.

Groundwater and storm sewer sampling were initially conducted on a semi-annual basis and have been conducted on a biennial basis since 2008. Three (3) monitoring wells (MW-1, MW-201, and MW-205) were removed from the groundwater sampling program in 2004 (Figure 1).

Pavement inspection, storm sewer visual inspection, and storm sewer sampling is conducted on an annual basis.

1.2.1 Progress During the Reporting Period

The cover system is intact and functioning. Inventum understands that an annual inspection was completed during the PRR reporting period in accordance with the Site O&M plan; however, Inventum does not have a record of the date/time of the inspection or access to any inspection forms. Inventum performed an inspection in December 2019 and completed the required inspection form (Attachment A). Based on the conditions at the time of the December 2019 inspection we can infer the condition in 2018; however, no documentation from the previous consultant is available.

Inventum does not have results for analytical samples collected between May 2018 and May 2019 when this PRR would have applied. The previous consultant was under the understanding that the groundwater and sewer sampling were both conducted on a biennial basis.

1.2.2 Progress to Remedial Objectives for the Site

The Remedial Objectives (ROs) for the Site as established in the March 1998 Record of ROD) have been achieved and the Site has been in long-term monitoring since 2002.

1.3 Compliance

1.3.1 Potential Non-compliance

Two areas of potential non-compliance were identified during the reporting period:

- Documentation of the annual pavement and sewer system inspection is not available; and
- Documentation or results of collection of water samples from sewer Manhole #2 are not available.

1.3.2 Proposed Steps

Inventum has re-established O&M activities in accordance with the required frequencies and include:

- Pavement inspection and maintenance on an annual basis and completion of inspection forms;

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- Biennial groundwater sampling of nine (9) monitoring wells (MW-5, MW-202, MW-204, MW-203, MW-206, MW-208, MW-209, MW-210, and MW-211) as shown on Figure 1;
- Annual water sampling from sewer Manhole #2.

1.4 Recommendations

1.4.1 Recommended Changes to the SMP

There are no recommended changes to the SMP at this time.

1.4.2 Recommend Changes to the Frequency for Submittal of PRRs

There is no recommended change to the frequency of the PRRs at this time.

1.4.3 Recommend Whether the Requirements for Discontinuing Site Management

It is appropriate to continue Site Management.

2 Site Overview

2.1 Site Location

The Site is located at 320 Scajacuada Street in the City of Buffalo, Erie County. The Site is defined as the former Parking Lot #4 associated with the former General Motors and American Axle & Manufacturing (AAM) facility that manufactured axles and drive-train components for cars and trucks. The Site covers an area of approximately 8.6 acres and is included in the New York Registry of Inactive Hazardous Waste Sites (Site No. 915152).

2.2 Chronology of the Remedial Program

GM and NYSDEC entered on Order on Consent (Index #B9-0410-92-09), effective February 2, 1995, pursuant to which GM performed an Interim Remedial Measure (IRM) at OU1 and conducted a Site Investigation and Engineering Evaluation of Alternatives in both OU1 and OU2. Based upon the Engineering Evaluation of Alternatives Report prepared by Wehran-New York, Inc. (ENCOR), NYSDEC prepared a Proposed Remedial Action Plan, which it submitted for public comment in February 1998.

NYSDEC selected a final remedial alternative for the Site in a ROD that was issued in March 1998. A Remedial Design (RD) Report was prepared by EMCON to implement the ROD-selected remedial alternatives at the Site. The RD Report was approved by the NYSDEC and remedial activities were conducted between July 1998 and March 2000.

3 Evaluate Remedy Performance, Effectiveness, and Protectiveness

The performance, effectiveness, and protectiveness of the remedy are verified through evaluating each of the primary remedial measures.

- The pavement and structural integrity of the sewer system remain in good condition at the Site.
- Groundwater and sewer samples in accordance with the O&M plan will be collected during the next PRR period.

4 IC/EC Plan Compliance Report

4.1 IC/EC Requirements and Compliance

A series of IC have been developed and are being adhered to at the Site and include:

- Inspection and maintenance of Parking Lot #4.
- Groundwater and sewer monitoring in accordance with the April 2001 O&M Manual and subsequent modifications to the O&M Manual in January 2004 and September 2008.

4.1.1 Controls

Engineering controls (ECs) developed for the Site consist of an asphalt pavement cover system.

4.1.2 Status

The Site IC/ECs are all currently active and in force.

4.1.3 Corrective Measures

There are no corrective measures proposed at this time.

4.2 IC/EC Certification

The IC/EC certifications are provided in Enclosure A.

5 Monitoring Plan Compliance Report

5.1 Monitoring Plan Compliance Report

Routine Site Monitoring includes annual pavement inspection, annual visual inspection of sewer structure integrity, annual storm sewer sample collection, biennial groundwater sample collection, and periodic certification.

5.2 Monitoring Completed During Reporting Period

As stated in prior sections, Inventum does not have a record of the date/time of inspection completed during the reporting period. Inventum performed an inspection in December 2019 and completed the required inspection form (Attachment A). Based on the conditions at the time of the December 2019 inspection we can infer the condition in 2018; however, no documentation from the previous consultant is available.

There were no emergencies or unforeseen failures of established ECs that would require non-routine inspections.

5.3 Monitoring Deficiencies

There were no monitoring deficiencies during the reporting period.

5.4 Conclusions and Recommendations for Changes

No changes to the monitoring program are recommended.

6 Operation & Maintenance (O&M) Plan Compliance Report

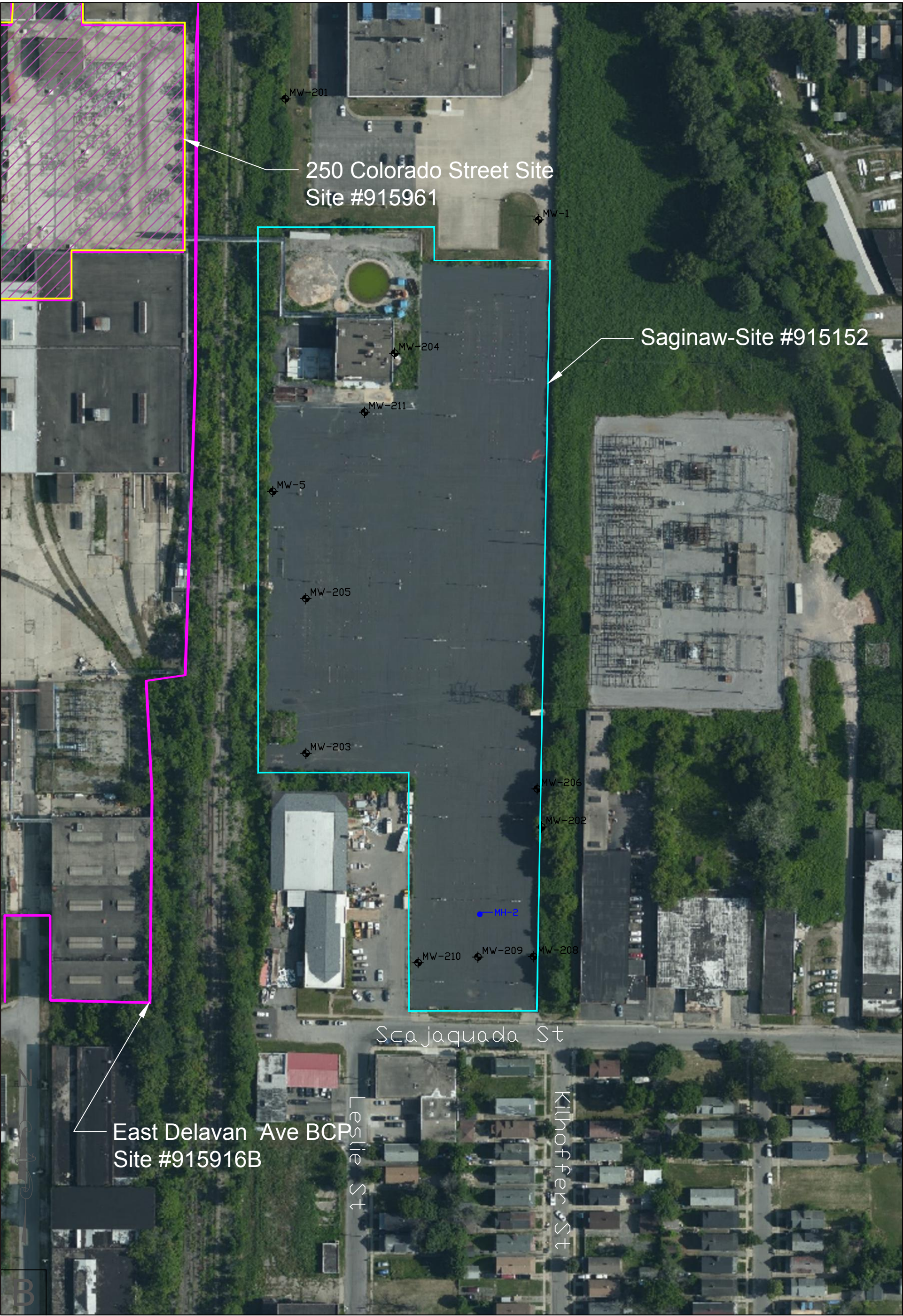
The Site remedy does not rely on any mechanical systems to protect public health and the environment; therefore, an O&M Plan Compliance Report is not applicable to this PRR.

7 Overall PRR Conclusions and Recommendations

Site IC/ECs remain in place and effective in maintaining the remedial objectives. No changes to the established SMP or recommended during the next PRR reporting period.

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Figures



NOT TO SCALE	FIGURE 1	INVENTUM ENGINEERING 481 CARLISLE DRIVE SUITE 202 HERNDON, VIRGINIA 20170 (703) 722-6049 www.InventumEng.com	FIGURE 1 Saginaw - Buffalo Site 320 Scajaquada St. NYSDEC Site No. 915152			DRAWING BY	
						CHECKED	
						APPROVED	
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Appendix A – Engineering Controls – December 2019 Annual Site-Wide Inspection Form



ANNUAL INSPECTION FORM

SAGINAW-BUFFALO SITE

Inspection Date: 12/10/2019

Inspected By: Todd Waldrop (Inventum Engineering)

PAVEMENT (Identify any damaged areas on site sketch)

1. Cracked Areas	Yes _____	No <u>x</u>
2. Settled Areas	Yes _____	No <u>x</u>
3. Potholes	Yes _____	No <u>x</u>
4. Heaving	Yes _____	No <u>x</u>
5. Plow Damage	Yes _____	No <u>x</u>
6. Drainage	Good <u>x</u>	Poor _____

Explain:

7. Condition of Surface Sealing

Good x Poor _____

Explain: Some linear cracking, but overall in good shape. No deep fissures in sealant. Photos collected.

STORM SEWERS

1. Condition of Manhole Risers

Good x Poor _____

Explain:

2. Sediment in Main

None x Avg (1-4") _____ High (>4") _____Comments: No sediment visible in MH #1 or MH#2. Trickle flow.

MONITORING WELLS

	MW-1	MW-5	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206	MW-208	MW-209	MW-210	MW-211
Is protective casing in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is flush mount casing in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are casing labeled?	No	No	No	No	No	No	No	No	No	No	No	No
Is concrete surface seal in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Is protected pad in good condition?	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Are locks present?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are lock in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is riser in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are J-plugs present?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Comments:

Casing survey/measurement markings are not visible. Re-mark during next semi-annual event.

MW-206 - Pad and well can need replacement.

MW-201 - Abovegrade concrete appears to have slipped and may be displaced. Above grade casing disconnected and displaced from belowgrade casing by at least 0.2".