EAST DELAVAN PROPERTY, LLC

333 Ganson Street • Buffalo, New York 14203 | Phone 716.856.3333 • FAX 716.842.1785

MEMORANDUM

TO: Mr. Patrick Foster

FROM: Jon M. Williams

RE: Site No. 915196 – Summary of Work to Date

DATE: December 3, 2015

Patrick,

Attached is the initial package. We are currently developing two additional drawings - one will show all the locations of the former pits, trenches and sub-surface process areas. The second will show the above grade structures that have been remediated and demolished. Both of these will be into the agency by Thursday of next week. I want these drawings to be comprehensive and it will just take a few more days to transpose the field measurements into the CAD drawings.

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BY Electronic-Mail and Overnight Carrier

December 3, 2015

Mr. Patrick Foster
Senior Attorney
Office of General Counsel
New York State Department of Environmental Conservation
625 Broadway
14th Floor
Albany, New York 12233-1500

Re: Summary of Work to Date
Former General Motors and American Axle and Manufacturing Site
Portion of 1001 East Delavan Avenue, 1001 East Delavan Avenue, Buffalo, NY
Site Number 915196

Dear Mr. Foster:

In your November 18, 2015 e-mail on behalf of the New York State Department of Environmental Conservation (NYSDEC) you requested the following "…by Thursday, December 3":

- "…summary of work completed at the Site, including a Site Plan noting where activities have been undertaken…." and
- "a bulleted list of conditions to be reviewed at a Site visit…"

The American Axle Plant Site (Site) is a 5-acre area listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915196 (Photograph 1), with a Classification of 2. The Site was listed as a result of releases to the environment by General Motors (GM). EDP purchased the facility with the knowledge and understanding that General Motors (GM) was responsible and under the 2006 Order with the NYSDEC to remediate the conditions caused by more than four decades of automotive parts manufacturing at the site. Approximately one year later, GM filed for protection under bankruptcy laws and stopped all activity at the Site. AAM, the subsequent owner and operator of the manufacturing facility declined to fulfill the responsibilities of the 2006 Order. East Delavan Property (EDP), the current owner of the Site and surrounding property, has never manufactured automotive parts at the Site, operated any of the manufacturing equipment that caused the releases to the environment, was not identified in the Order. EDP is a not a party to or a signatory to the Order.

Work Completed

EDP has been cooperating with the NYSDEC since its purchase of the facility containing the Site in October 2008. Rather than allow the conditions below the Site to deteriorate, EDP voluntarily stepped in and upgraded the groundwater treatment plant and has expended more than $3,000,000 to remediate portions of the Site and eliminate the potential releases to the environment associated with materials left at the Site by GM and AAM (see EDP Actions below).

EDP has attended meetings with the NYSDEC since September 2009; at the Site, at the NYSDEC headquarters in Albany, and in the NYSDEC Buffalo Offices. EDP has voluntarily prepared an RI/FS Work Plan which was submitted to the NYSDEC in May 2012. In November 2013, EDP was told that NYSDEC had secured funds to contribute to the remediation and asked both AAM and EDP to attend a meeting at the Buffalo Office. EDP and AAM attended the meeting to discuss a draft Order. EDP reviewed and offered comments on the Order; AAM refused to contribute or be a party to any activity at the Site.

Voluntary Environmental Response by EDP

EDP acquired the property prior to GM's bankruptcy with the full understanding that GM was responsible for the environmental conditions at the property and that AAM would convey a broom clean property. After both GM and AAM abandoned their responsibilities to NYSDEC, EDP has continued to address the conditions at the Site. EDP continues to address the site environmental issues voluntarily, and in fact, has done much more than the limited work GM was completing under the Order, which was limited to periodically hand-bailing light non-aqueous phase liquids (LNAPL) from the subsurface, while much more significant quantities of oil and wastewater filled pits and pipes throughout the property.

EDP has been following a multi-stage program to ensure the conditions remaining following the GM abandonment of their remedial program and RI/FS process do not deteriorate, and in fact EDP has significantly improved site conditions (Figure 1):

1. Eliminated Active Sources – At the time EDP acquired the property from AAM, there were still numerous subsurface pits, sumps and trenches filled with process water and free oil. Although GM had a consultant bailing free product from wells at the site, EDP elected to spend in excess of $1 Million to eliminate the sources of water and oil rather than allow the liquids to move into the environment. EDP removed all free liquids; decontaminated the walls and bases of the pits, sumps and trenches; backfilled the voids with clean stone; and capped the openings with concrete. This work was completed before the GM bankruptcy, so there had been no legal discharge of their responsibilities at that point in time.
2. Eliminated Discharges to the 5 x 9 Sewer – In addition to eliminating Pits, Sumps and Trenches (Photographs 2 to 6) that potentially contributed to the conditions in soil and groundwater; EDP eliminated a number of drains and laterals that discharged directly to the combined sewer from the site. The elimination of these drains and laterals, reduces the hydraulic loading to the combined sewer, reducing the potential for overflow events; and eliminates migration pathways for Site constituents to the sewer.

3. Operating the B-26 Coolant Pit Recovery System – EDP upgraded and continues to operate the recovery system in the coolant pit left by GM. The recovered oil and water are sampled on a quarterly basis and have shown that the recovered oil has relatively low concentrations of Polychlorinated Biphenyl's (PCBs) and the PCB concentration in the aqueous phase is not detected. The continued operation of the recovery system has removed free oil from the environment.
4. Stabilization of Site Conditions – During previous GM investigations active manufacturing and active sources were prevalent at and around the Site. EDP has eliminated the active sources and all current operations are carefully managed to avoid any contribution to the subsurface. As a result, the Site has been allowed to come into equilibrium during the period while the NYSDEC has negotiated for funding of the GM obligations. This stabilization of conditions provides the opportunity to perform a proper RI/FS to characterize the site conditions as they exist, rather than as they were being actively influenced by ongoing releases.

In Summary:

Condition	Prior to EDP	Current
Pits and Sumps	Filled with up to 10 feet of cooling water, cutting oils, and sludge	Sumps emptied, cleaned and backfilled
Roof Drains	Drains throughout Site discharging to the BSA 5 by 9 sewer, and potential conduits	Disconnected from roof system and sealed, eliminating discharge
Recovery System	The recovery system was operated remotely	EDP upgraded the recovery and treatment system and has operated it continuously since it was abandoned by GM
Active Operations	There were active operations within the boundaries of the listed Site	All EDP tenant operations are outside the boundaries of the Site, eliminating any potential for contribution by EDP
Site Equilibrium	The Site was in a dynamic condition with active sources, intermittent remedial actions, and potential contributions from and along utilities	Since 2009 the Site has been stabilized. The elimination of sources of oil and wastewater, in combination with continuous operation of the recovery system by EDP has allowed the site conditions to reach a state of relative equilibrium.

Site Visit

EDP would like to provide NYSDEC an opportunity to visit the Site to see the current conditions. While it may be impossible to appreciate the dramatic changes from the conditions abandoned by GM and AAM, the Site walk will allow NYSDEC to envision that conditions today and understand the scope of what has been accomplished. EDP would propose the following key observation locations:

- The Site – The Site is a 5-acre area within the 1001 East Delavan Property. It is important to visit the Site and understand its relationship to the property.
- Closed Pits and Downspouts – A general tour of the locations of pits, sewers and downspouts that have been closed, eliminating ongoing releases to the environment and the 5x9 sewer.
- The 5x9 sewer – Although it is not practicable to see the 5x9 sewer itself, EDP will identify the surface along the alignment to gain a perspective on its position relative to the Site.
- The Treatment System – The existing treatment system was upgraded from that left by GM.
- The B-26 Coolant Pit – The location of the B-26 Coolant Pit is an important recovery landmark.
- Monitoring Wells – The monitoring wells (Table 1) that have been located on the property will be toured.

Summary

As requested in your November 18, 2015 e-mail, East Delavan Property has provided a summary of the work completed at the Site and a Site Plan. We are looking forward to your visit next week and are prepared to submit a Scope of Work for a proposed Remedial Investigation by December 17, 2015.

Please provide the date and time you wish to visit the Site.

Sincerely yours,

Jon M. Williams
Manager

Table 1
Monitoring Well Summary
Former GM and AMM Facility
East Delavan Avenue, Buffalo, New York

WELL ID	RISER DIAMETER (in.)	MONITORED ZONE	BORING DTB (ft.)	WELL DTB (ft.)	SCREEN LENGTH (ft.)
CP-8	2	FILL	8.0	7.30	5.0
CP-8 A	2	CLAY	16.0	NA	5.0
CP-8 B	4	BR	22.9	21.65	5.0
CP-13	2	FILL	8.9	8.90	5.0
CP-13 A	2	CLAY	18.1	17.85	5.0
CP-14 A	2	CLAY	16.2	15.94	5.0
CP-14 AR	2	CLAY	16.9	16.45	5.0
CP-14 B	4	BR	24.0	23.22	5.0
CP-14	2	FILL	10.0	NA	5.0
CP-15 A	2	CLAY	17.0	16.62	5.0
CP-20 B	4	BR	24.5	24.23	5.5
CP-22 B	4	BR	29.2	29.00	5.0
CP-23	2	FILL	6.0	5.45	5.0
CP-23B	4	BR	23.5	23.25	5.0
CP-24	2	FILL	7.0	6.70	5.0
CP-24A	2	CLAY	18.0	16.70	5.0
CP-24B	4	BR	25.7	22.30	5.0

WELL ID	RISER DIAMETER (in.)	MONITORED ZONE	BORING DTB (ft.)	WELL DTB (ft.)	SCREEN LENGTH (ft.)
CP-25	2	FILL	7.0	6.41	5.0
CP-25A	2	CLAY	18.0	16.35	5.0
CP-25B	4	BR	26.1	25.35	5.5
CP-26	2	FILL	8.0	7.20	5.0
CP-26A	2	CLAY	16.0	15.35	5.0
CP-26B	4	BR	26	25.95	5.0
CP-27	2	FILL	7.0	7.33	5.0
CP-27A	2	CLAY	16.0	14.75	5.0
CP-27B	4	BR	24.0	22.05	5.0
CP-30	2	FILL	7.0	6.60	4.0
CP-34	2	FILL	8.5	8.05	5.5
CP-34A	2	CLAY	18.1	17.75	7.9
M-1	2	FILL	10.0	9.70	5.0
M-1A	2	CLAY	18.3	16.35	5.0
M-2	2	FILL	10.3	9.58	5.0
M-2A	2	CLAY	18.0	17.55	5.0
M-3	2	FILL	11.0	10.15	5.0
M-3A	2	CLAY	16.7	16.30	5.0

WELL ID	RISER DIAMETER (in.)	MONITORED ZONE	BORING DTB (ft.)	WELL DTB (ft.)	SCREEN LENGTH (ft.)
MW-400	2	CLAY	18.8	17.90	5.0
MW-401	2	FILL	7.0	6.41	5.0
MW-401B	4	BR	29.8	28.00	10.3

Figure 1

BAILEY AVE.

KIRKPATRICK

WECKER

BARNETT

NORTHLAND

WENDE ST.

SCAJAQUADA ST.

OLYMPIC AVE.

TTARP

ZENNER ST.

ELEC TWR

DELAVAN LEASING,LLC PROPERTY

KILHOFFER ST.

WSTE TRTMNT PLNT

WILLIAM GAITER PARKWAY

DELAVAN LEASING,LLC PROPERTY

MAUCK HILL CORP

LESLIE ST.

EDP PROPERTY

DELAVAN LEASING, LLC PROPERTY

GUARD HOUSE

PLANT 5

FORMER PITS IN SOUTH YARD

SUB 1

GATE

COLORADO AVE.

NORFOLK AVE.

DELAVAN AVE.

B-26
COOLANT PIT

NYSDEC
LISTED
SITE
(L,AA-19,37)

5'x9'
SEWER PIPE

SCAJAQUADA ST.

EDP PROPERTY

NORTHUMBERLAND AVE.

NORTHUMBERLAND AVE.

EDP PROPERTY

AREA #2 PARKING- BLACKTOP

CORNWALL AVE.

CORNWALL AVE.

EDP PROPERTY

NORTHLAND AVE.

CAMBRIDGE AVE.

CAMBRIDGE AVE.

WORK COMPLETED BY EDP TO DATE		
FORMER GENERAL MOTORS AND AMERICAN AXLE PLANT 1001 EAST DELEVAN AVE BUFFALO, NY 14215.		
SIZE B	DWG NO. FIGURE 1	REV 1
SCALE:NTS	SHEET: 1 of 1	

BAILEY AVE.

KIRKPATRICK

WECKER

BARNETT

NORTHLAND

WENDE ST.

SCAJAQUADA ST.

OLYMPIC AVE.

TTARP

ELEC PWR

ZENNER ST.

DELAVAN LEASING,LLC PROPERTY

KILHOFFER ST.

WSTE TRTMNT PLNT

WILLIAM GAITER PARKWAY

DELAVAN LEASING,LLC PROPERTY

MAUCK HILL CORP

LESLIE ST.

EDP PROPERTY

DELAVAN LEASING, LLC PROPERTY

NYSDEC LISTED SITE (L,AA-19,37)

PITS, SUMPS, PIPES AND TRENCHES REMOVED THROUGHOUT THIS AREA

GUARD HOUSE

B126

COOLANT PIT

PLANT 5

FORMER PITS IN SOUTH YARD

SUB 1

GATE

COLORADO AVE.

5'x9' SEWER PIPE

NORFOLK AVE.

DELAVAN AVE.

EDP PROPERTY

NORTHUMBERLAND AVE.

AREA #2 PARKING- BLACKTOP

CORNWALL AVE.

EDP PROPERTY

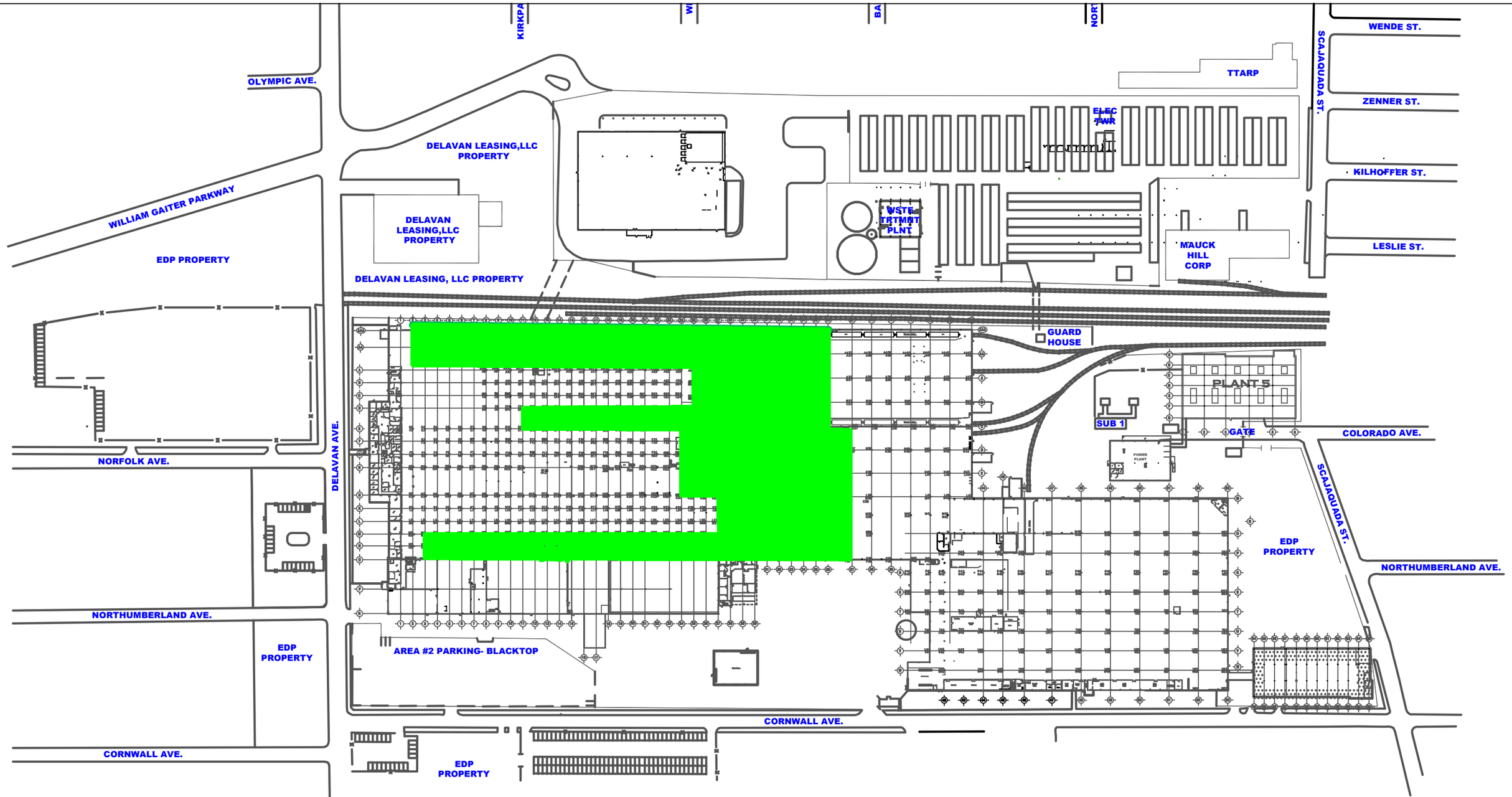
CORNWALL AVE.

CAMBRIDGE AVE.

PIPES, PITS, AND SUMPS CLEANED AND SEALED BY EDP

FORMER GENERAL MOTORS AND AMERICAN AXLE PLANT
1001 EAST DELEVAN AVE
BUFFALO, NY 14215.

SIZE	DWG NO.	REV
B	FIGURE 2	1
SCALE:NTS	SHEET: 1 of 1	



INTERIOR AREA PRE-DEMOLITION: 1,210,323 SQ. FT.
TOTAL AREA DEMOLISHED: 230,012 SQ. FT.
INTERIOR AREA POST-DEMOLITION: 980,311 SQ. FT.

DEMOLITION WORK BY EDP TO DATE

FORMER GENERAL MOTORS AND AMERICAN AXLE PLANT
1001 EAST DELEVAN AVE
BUFFALO, NY 14215.

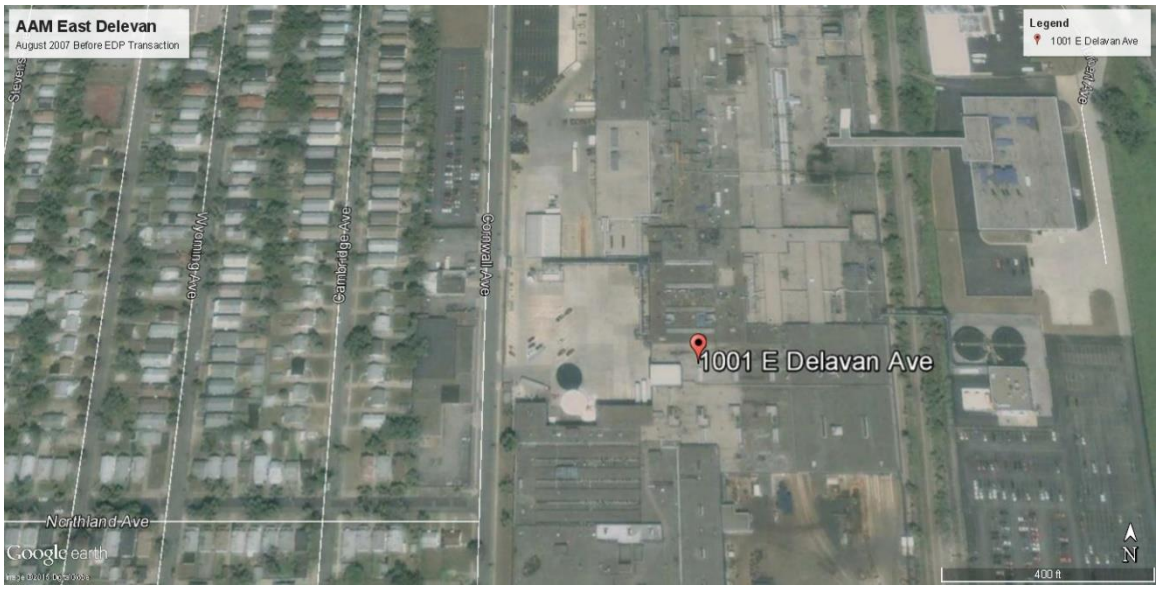
SIZE	DWG NO.	REV
B	FIGURE 1	1

SCALE:NTS | SHEET: 1 of 1

Attachments

Attachment A

Photographs



Circa 2007

Photograph 1

Oblique View of Site

(Looking North)

Circa 2014

Photograph 2

View of Interior After Equipment Removed

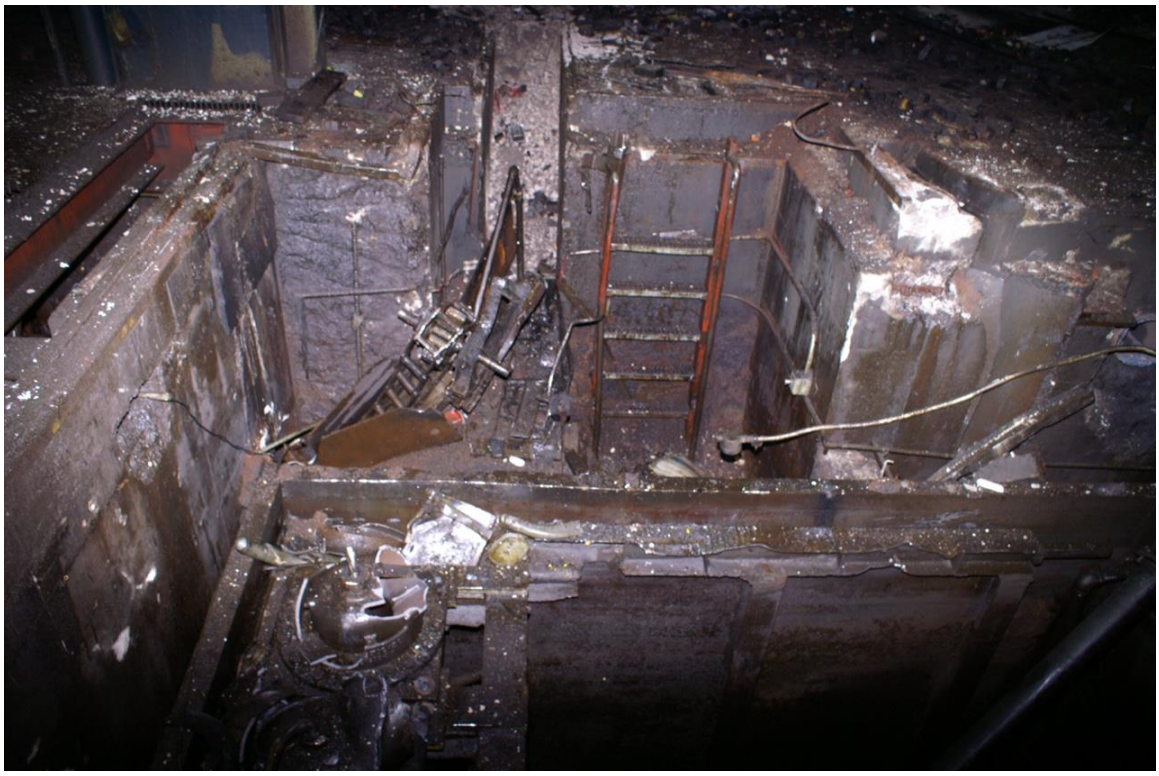
Circa 2009

Photograph 3

Pit Containing Oily Substance and Wastewater

Circa 2009

(Before GM Bankruptcy)



Photograph 4

Pit During Cleaning

Circa 2009

(Before GM Bankruptcy)

Photograph 5

Pit During Cleaning

Circa 2009

Note: Height of Worker Relative to Height of Staining of Wall; Indicative of Oily Wastewater Elevation and Pressure on Concrete

(Before GM Bankruptcy)

Photograph 6

Pit During Cleaning

Circa 2009

Notes: (1) Height of Staining of Wall; Indicative of Oily Wastewater Elevation and Pressure on Concrete

(2) Pipe Through Wall; Indicative of Possible Transport/Release Pathway

(Before GM Bankruptcy)

Attachment B

Site Description and Relevant Background

Introduction

The Site was listed because of historic conditions remaining on a portion of the property located at 1001 East Delavan Avenue, Buffalo, New York as a result of operations by General Motors Corporation (GM) and American Axle & Manufacturing, Inc. (AAM). The American Axle Plant Site (Site) is a 5-acre area listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915196, with a Classification of 2.

An Administrative Order on Consent (AOC), Index No. B9-0681-04-12, was executed on August 31, 2006 between New York State Department of Environmental Conservation (NYSDEC), and the former Site owners and operators, GM and AAM, to address environmental concerns at the Site. As a result of the bankruptcy, GM has terminated their contract with their consultants and stopped all work required by their signing the Order. AAM, also a signatory of the Order, have also refused to complete their obligations.

The current Site owner, East Delavan Property, LLC, (EDP) which acquired the property prior to GM's bankruptcy with the full understanding that GM was responsible for the environmental conditions at the property, continues to address the Site environmental issues voluntarily, and in fact, has done much more than the limited work GM and AAM was completing. GM's efforts were primarily limited to having a consultant periodically hand-bail light non-aqueous phase liquids (LNAPL) from the subsurface. EDP has been following a multi-stage program to ensure the conditions remaining following the GM abandonment of their remedial program and RI/FS process do not deteriorate, and in fact EDP has significantly improved site conditions:

1. Eliminated Active Sources – At the time EDP acquired the property from AAM, there were still numerous subsurface pits, sumps and trenches filled with process water and free oil. Although GM had a consultant bailing the free product from wells at the site, EDP elected to spend in excess of $3 Million to eliminate the sources of water and oil rather than allow the liquids to move into the environment. EDP removed all free liquids; decontaminated the walls and bases of the pits, sumps and trenches; backfilled the voids with clean stone; and capped the openings with concrete.
2. Eliminated Discharges to the 5x 9 Sewer – In addition to eliminating Pits, Sumps and Trenches that potentially contributed to the conditions in soil and groundwater; EDP eliminated a number of drains and laterals that discharged directly to the combined sewer from the site. The elimination of these drains and laterals, reduces the hydraulic loading to the combined sewer, reducing the potential for overflow events; and eliminates migration pathways for Site constituents to the sewer.
3. Operated the B-26 Coolant Pit Recovery System – EDP upgraded and continues to operate the recovery system in the coolant pit left by GM. The recovered oil and water are sampled on a quarterly basis and have shown that the recovered oil has relatively low

concentrations of Polychlorinated Biphenyl's (PCBs) and the PCB concentration in the aqueous phase is not detected. The continued operation of the recovery system has removed free oil from the environment.

4. Stabilization of Site Conditions – During previous GM investigations active manufacturing and active sources were prevalent at the site. EDP has eliminated the active sources and all current operations are carefully operated to avoid any contribution to the subsurface. As a result, the site has been allowed to come into equilibrium during the period while the NYSDEC has negotiated for funding of the GM obligations. This stabilization of conditions by EDP provides the opportunity to characterize the site conditions as they exist, rather than as they were being actively influenced by ongoing releases from conditions during operations and as left by GM and AAM.

Site Description and History

The 5-acre Site is located within a larger property at 1001 East Delavan Avenue in the City of Buffalo, Erie County, New York, and is currently owned by East Delavan Property, LLC (EDP). The EDP facility occupies an area of approximately 52 acres and consists of the following general areas:

- NYSDEC classified Site (5 acres): 9 percent (Note: within the area covered with buildings and pavement)
- existing buildings: 50 percent
- paving or other impervious surfaces: 40 percent
- covered with grass or other pervious surfaces: 10 percent

The Site is a 5-acre area within the facility in the area that contained LNAPL in fill, clay soil and potentially bedrock during GM and AAMs period of operation and ownership.

The Site is bisected by an underground combined sewer, owned by the Buffalo Sewer Authority (BSA). The sewer is a combined storm and sanitary utility, which can overflow to the Scajaquada Creek Drain (storm water flow) during periods of high flow. The BSA sewer is approximately 7 feet below the ground surface (bgs) at the facility (sewer crown) and is a brick and mortar tunnel that measures approximately 5 feet high by 9 feet wide, at its highest and widest points. The sewer is historically referred to as the "5x9 sewer". The 5x9 sewer conveys wastewater and stormwater from a huge area of the City of Buffalo (reportedly 55 SPDES permitted discharges enter the 5x9 sewer upstream of the Former GM and AAM Site) and at times flow in the tunnel is in excess of the pipes capacity and discharges onto the ground surface. Due to the age and limits on capacity, no work will be allowed to affect the integrity or aperture of the tunnel.

Scajaquada Creek flows through an aboveground channel from its source approximately 7 miles east of the property, to a location on Pine Ridge Road, where the creek channel discharges into an underground conduit (Scajaquada Creek Drain). The Scajaquada Creek Drain measures approximately 33 feet wide by 14 feet in height, and extends from approximately 1 mile east, to 2 miles west of the property. Immediately to the south of the property, the 5x9 sewer crosses the Scajaquada Creek Drain, where an emergency overflow device is located.

Site Background

GM owned the property including the Site and operated the manufacturing facility from original development in the 1920s until February 1994 when it was sold to AAM. AAM operated the same manufacturing equipment from 1994 until they closed. AAM ceased operations in December 2007 and sold the Property and structures to EDP in October 2008. EDP purchased the property with protections offered by AAM and GM against the environmental conditions that they caused through past site operations. GM and AAM have refused to complete their responsibilities under the AOC with NYSDEC and the contractual provisions with EDP, partly because GM was not held responsible during the bankruptcy proceedings by the state or federal governments. EDP understands that the NYSDEC have negotiated funding for the GM obligations although EDP does not have documentation on how the NYSDEC resolved the previous Order with GM and AAM.

EDP voluntarily completed selective decommissioning, and repurposing and rehabilitation at the facility in an effort to ensure the environmental conditions at the Site were not affected during their ownership and to attract industrial tenants and jobs to the Property. In the process of decommissioning the residuals left by GM and AAM, EDP have removed liquids and sludge's from pits and drains at the site, have removed a number of storm water drains to the 5 x 9 sewer, and have continued to recover LNAPL from the B-26 Coolant Pit. The effect of EDP's efforts have reduced the potential for releases to the environment, reduced the potential for LNAPL flow to the 5x9 sewer, have allowed the site conditions to stabilize, and have reduced the hydraulic loading on the 5x9 sewer (thereby reducing the frequency and magnitude of Combined Sewer Overflow (CSO) events.

Site Investigation History

The environmental conditions of the site had been investigated for more than 10 years prior to GM and AAMs abandonment of their responsibilities under the NYSDEC Order. The majority of the investigations took place while GM and AAM operations were active at the Site.

Pre-RI Investigations

In 1991, during construction activities within the Facility, GM observed LNAPL seeping into a large sump located in Bay B-26. This sump is referred to as the B-26 Coolant Pit. The presence of LNAPL in the B-26 Coolant Pit was reported to NYSDEC in 1991 and Spill Report No. 9104671 was subsequently assigned. LNAPL presence beneath the Facility was identified in soil borings advanced in 1993 and 1994 during due diligence investigations. The presence of LNAPL beneath the Site was addressed in a second Spill Report, No. 9400483, opened in 1994.[1]

In 2000, AAM experienced an excursion of the oil and grease limits of its Buffalo Pollutant Discharge Elimination System (BPDES) discharge permit in the effluent to the combined sewer which traverses the property from Delavan Avenue to Scajaquada Street. In response to the excursion, AAM and GM jointly performed an investigation to determine the source of the oil.[1]

[1] CRA 2006. Remedial Investigation Report, American Axle Plant, NYSDEC Site No. 915196. November

In general, the pre-RI investigations identified four areas of historic operations as potential sources of LNAPL beneath the Site that warranted further investigation and remedial action:

- Former Tank No. 11
- Former Tank No. 5
- Former B-26 Coolant Pit
- Gleason Machine Area

The 5x9 sewer was identified as a potential receptor.[1]

The RI work (discussed below) began in 2001 in response to the subsurface LNAPL discoveries and the BPDES exceedance. As discussed in the Introduction, an AOC for the RI/FS was signed in August 2006 between NYSDEC, GM, and AAM, and the initial RI Report was subsequently submitted to NYSDEC in November 2006.

Remedial Investigation

Beginning in 2001, RI activities were undertaken at the Site. The RI activities focused on the following key areas:

- inspection of and collection of water and wall scraping samples from, the 5x9 sewer beneath the Site
- installation of soil borings for the collection of subsurface soil samples and screening of soils for LNAPL presence
- installation of groundwater monitoring wells and collection of groundwater and LNAPL samples
- hydraulic monitoring and measurement of free-phase liquids on groundwater

The results of this initial RI are presented in detail in the November 2006 RI Report. This report was subsequently disapproved as incomplete by NYSDEC and further investigation was ordered. A Supplemental RI Program was then undertaken as discussed below.

Supplemental Remedial Investigation

In February 2007, the NYSDEC disapproved the 2006 RI Report submitted by GM as incomplete, and provided comments that outlined four "areas" that would require additional investigation:

- polychlorinated biphenyls (PCB)-containing LNAPL identified at select locations would require further investigation and delineation
- impacts to bedrock would require further delineation
- potential impacts to the Scajaquada Creek Drain from the Site would require further investigation
- a more extensive sampling for the target compound list (TCL) suite of parameters to confirm the absence of other contaminants of concern would need to be performed.

Based on NYSDECs comments, a Supplemental RI Work Plan was prepared and submitted for approval. The work plan was implemented in the spring of 2008; however, during the investigation it was determined that further investigation was needed to delineate the nature and

extent of contamination in areas within and at the perimeter of the Site. A meeting was held with the NYSDEC in November 2008 and an addendum to the Supplemental RI Work Plan was submitted to NYSDEC in December 2008. This addendum required:

1. installation of fill and clay borings around the perimeter of the Site to delineate the extent of contamination due to Site sources
2. installation of additional bedrock wells north of the Site in the portion of the Facility known as the Carrier Job Area to delineate the extent of PCBs and LNAPL in the bedrock in this area
3. installation of additional soil borings to the base of the clay unit and installation of monitoring wells to delineate the extent of impacts in the South Yard of the Facility
4. installation of an additional deep bedrock monitoring well at the south end of the Facility to confirm that PCBs are not migrating though the bedrock toward the Scajaquada Creek Drain
5. completion of additional sampling within the Scajaquada Creek Drain further downstream of its confluence with the 5x9 sewer to determine water and sediment quality within the drain
6. completion of additional studies of the 5x9 sewer to determine if tributaries to the sewer might be eliminated due to the change in use of the Site

The investigation activities that were completed in 2008 and 2009 are discussed in detail in the report entitled "Remedial Investigation Report Addendum, American Axle Plant Site, NYSDEC Site No. 915196," dated June 2009 and prepared by CRA.

Supplemental RI Conclusions

The results of the RI and Supplemental RI activities performed at the Site (as presented in the RI Report Addendum) indicate that PCB-containing LNAPL was present beneath the Site in the fill, clay, and shallow bedrock, and that the limits of the LNAPL plume(s) have been defined.[2] The maximum measured PCB concentrations beneath the site were approximately 50 parts per million (ppm) in LNAPL, except for a small area east of the sewer surrounding CP-26 and CP-28, where LNAPL was found with PCB concentrations above 50 ppm. The LNAPL plumes in the clay and bedrock beneath the site also were represented to connect with the LNAPL in these same units beneath a Carrier Job Area.

It should be noted that the RI Report Addendum determined that the LNAPL in the bedrock wells had diminished between 2006 and 2009, and attributes this decrease to the LNAPL recovery program as well as work associated with the B-26 Coolant Pit system.

The results of the investigations performed at the Carrier Job Area suggested that the delineation was complete, as samples from perimeter wells did not contain LNAPL or PCBs. The results indicated that the area was largely absent of groundwater and LNAPL, although some "oily" soils were isolated within the fill. LNAPL and PCBs were identified in samples of the clay soil and in the bedrock units adjacent to and east of the 5x9 sewer. The RI Report Addendum suggested that a secondary source of LNAPL and oily soils may have been present to the north

[2] These measured oil thicknesses continued to decline throughout the IRM OM&M period. These measurements and data will be discussed in detail in the Final RI Report.

of the Carrier Job Area. EDPs elimination of the pits and trenches in this area would have removed the possibility that such a source remains.

The RI Report Addendum concluded that prior to 2008 infiltration of PCB-containing LNAPL occurred sporadically through the 5x9 sewer walls and around laterals beneath the Site. It should be noted that EDP has subsequently removed, sealed, plugged, or otherwise cleaned and closed numerous subsurface sumps and sewer laterals in an effort to reduce the infiltration volume. These will be used to provide a basis for the sewer infiltration remedy in the IRM and FS. In addition, the 2008 Report provided a comparison of samples collected from the same locations between 2006 and 2008, and suggested that the concentration of PCBs in dry weather flow within the 5x9 sewer had decreased since 2006. These data provided evidence that, even before the work completed by EDP, the impacts caused by GM and AAM operations were diminishing.

In terms of the Scajaquada Creek Drain, PCBs were detected in water and sediment samples within the Drain downstream of the 5x9 sewer overflow in 2008 (water sample) and 2009 (sediment sample). The report concluded that these samples were not collected during overflow conditions and therefore were likely not indicative of impacts from the 5x9 sewer. These data suggest, therefore, that there are other sources of PCBs to the Scajaquada Creek Drain upstream of the facility.

Due to the inability to sample the drain during an active overflow in addition to the uncertainties surrounding the sources of sediments with numerous CSOs contributing to the drain, additional samples from the Scajaquada Creek Drain would be inconclusive at best.

In terms of Site delineation, the following conclusions were presented in the RI Report Addendum (samples collected in 2008 and earlier): [3]

- LNAPL is not present in samples from perimeter fill wells located downgradient of the Site.
- LNAPL has been detected in samples from a fill well located upgradient of the Site at the northeast corner of the Facility; however, this presence is due to a localized release.
- LNAPL is not present in samples from perimeter clay wells.
- PCBs in groundwater samples from perimeter clay wells are either non-detect or at concentrations below the standard for Class GA (potable) groundwater.
- LNAPL is not present in samples from perimeter bedrock wells.
- PCBs were present in groundwater samples from the deep bedrock perimeter well (MW-2B) at concentrations above the standard for Class GA (potable) groundwater. This well is located approximately 600 feet to the south (cross-gradient) of the 2009 bedrock plume delineation. This detection is based on data from a single monitoring event and requires further sampling before a conclusion on impacts can be drawn.
- Low concentrations of cis-1,2-dichloroethene and vinyl chloride above the standard for Class GA (potable) groundwater (5 µg/l and 2 µg/l, respectively) were detected in samples from bedrock at the eastern down gradient perimeter well, MW-409B.

[3] CRA 2009. "Remedial Investigation Report Addendum, draft, American Axle Plant Site, NYSDEC Site No. 915196", prepared by CRA. June, bulleted list also.

It should be noted that, when detected, cis-1,2-dichloroethene and vinyl chloride had been consistently below the respective standards at the B-26 Coolant Pit Sump.

EDP Ongoing Data Collection

Following the abandonment of the remedial system by GM, EDP has voluntarily upgraded the recovery system, has continued to operate the IRM, has collected water and recovered oil samples, has contracted for the analysis of the samples and has reported the data to the NYSDEC and the Buffalo Sewer Authority (BSA).