



Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester NY 14614-1009
Tel: (585) 475-1440
Fax: (585) 272-1814

May 09, 2014
File: 190500751

Todd Caffoe, P.E
New York State Department of Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414

**Reference: Brownfield Cleanup Program
Monthly Progress Report #14
Site #C828184
Former Carriage Factory
33 Litchfield Street
Rochester, Monroe County, New York**

Dear Todd,

On behalf of Carriage Factory Special Needs Apartments, LP (CFSNA), Stantec Consulting Services Inc. (Stantec) has prepared this Monthly Progress Report #14 for the Brownfield Cleanup Program (BCP) at the Former Carriage Factory located at 33 Litchfield Street in the City of Rochester, Monroe County, New York (Site). This report covers activities that took place during the month of April 2014.

1. Actions During The Previous Month

- *Construction and Remediation-related Activities:*
 - Conducted site visits with NYSDEC project manager Mr. Todd Caffoe on April 16 and April 22.
 - On April 10, approximately 16-inches of crushed stone sub-slab material was placed over the bedrock floor in the elevator shaft. A 1-inch PVC pipe was installed beneath the stone as a way of pumping water from the shaft during construction activities. Water appeared to have seeped through the waterproofing material on the walls of the shaft in approximately four locations, and the reddish brown oil discussed in previous progress reports appeared to have seeped through in one location. Absorbent pads were placed over and below the oil seep area prior to initiating discharge of infiltrated groundwater to the sewer. As required by Monroe County Department of Environmental Services (MCDES) a sample of the discharge water was taken at the initiation of discharge activities. On April 16, the vapor intrusion mitigation system (VIMS) contractor arrived on site to apply the VIMS to the sub-slab floor and walls of the shaft. Delta-drain board was fastened to the walls of the shaft to direct water that



**Reference: Brownfield Cleanup Program
Monthly Progress Report #14
Site #C828184
Former Carriage Factory
33 Litchfield Street, Rochester, NY**

- seeps through the walls downward to the sub-slab stone. The drainage board was covered with the VIMS base fabric and sprayed with Liquid Boot. The floor application was enhanced to include a bentonite-containing base fabric in an effort to reduce water infiltration. Due to the bentonite base fabric installed beneath the VIMS in the elevator shaft, destructive thickness and smoke testing were not performed to avoid damaging the base fabric. All applications were sprayed thicker than usual to approximately 80 mils.

On April 17, the rebar-reinforced, 12-inch thick slab was poured in the elevator shaft and included a 2-foot square sump in the northern middle portion of the floor. The sump is approximately 16-inches deep. No damage to the VIMS was observed prior to the pour. On April 21, water was observed to have infiltrated the slab in the elevator shaft. The leak location is currently unknown. A sample was collected as required by MCDES for discharge to the sewer.

- During the period April 14 to April 18, asphalt and concrete along Litchfield Street and Wiley Street were stripped for new curbs and sidewalks to be installed. Stripped asphalt and concrete were transported to The Dolomite Group in Penfield, NY and Gates, NY for recycling. Crushed stone and urban fill materials were removed along the length of the sidewalk across a width of approximately four feet and to a depth of six inches to make room for the new sidewalks. No positive readings from a photo-ionization detector (PID) were observed from this material. Due to the presence of urban fill materials, all materials were added to an existing stockpile of contaminated soils containing material that had been excavated from south of the building during prior site grading activities.
- During the period April 21 to May 2, Stantec injected a sodium lactate solution into the subsurface as outlined in the Enhanced Reductive Dechlorination Interim Remedial Measures Work Plan (ERD IRMWP). In addition to the injection points proposed in the ERD IRMWP, solution was also injected into groundwater monitoring wells B108-MW, RW-3, and RW-6, with the approval of Mr. Todd Caffoe. One injection point, RW-4, was located adjacent to an open excavation and injection solution accumulated in the excavation, therefore injection into this location was suspended. Injection in this well will continue in May once the excavation is backfilled.
- On April 24, 628.84 tons of soil was transported offsite to Mill Seat Landfill in Bergen, NY under waste profile 110956 NY. The material was approved for off-site disposal as non-hazardous waste on April 8 by Mr. Henry Wilkie of the NYSDEC in Albany based on Contained-In Demonstration (CID) analytical results received on March 31, 2014 and submitted to NYSDEC as described below in Section 3.



**Reference: Brownfield Cleanup Program
Monthly Progress Report #14
Site #C828184
Former Carriage Factory
33 Litchfield Street, Rochester, NY**

- During the period April 25 to April 30 excavations took place adjacent to the building to the south for exterior foundation structures and for general site grading activities. Excavations south of the west corner of the building extended 3 to 4 feet below the surface to accommodate footing construction for a planter, stairs, and walls. With the exception of urban fill material that was removed from the area immediately south of the west corner of the building, and immediately south of the atrium, the material removed from this excavation was brown, sandy soil with no positive readings from a PID. This brown, sandy soil was added to the existing stockpile of non-impacted soil containing material previously removed from beneath Clark Alley during excavations for exterior VIMS application. The urban fill material was added to an existing stockpile of contaminated soil. Excavations that extended further to the south and east encountered gray-stained sandy soil with a petroleum odor and PID readings ranging from 25 to 100 ppm. This material was observed in two test pits described in Progress Report #8 and sampling results at that time indicated it contained weathered petroleum compounds. The gray-stained material that was encountered during excavations for footings or necessary cuts to reach sub-grade elevations was added to the existing contaminated soil stockpile. A new pile was started after the existing pile was sampled for disposal. Additionally, the gray-stained soil which was located in proposed landscaped areas was removed to 2 feet below sub-grade elevation and will be replaced with clean soils as required by NYSDEC.
- Sampled existing soil stockpiles on April 28. The contaminated stockpile which was estimated to contain 385 cubic yards (CY) of urban fill and contaminated soil was represented by grab samples LI-EXT-S6g1 through S6g4 and three-part composite samples LI-EXT-S6c1 and S6c2. The stockpile of non-impacted fill material was estimated to contain 185 CY and was represented by grab samples LI-Y-S14g1 through S14g3 and three-part composite sample LI-Y-S14c.

2. Data Received or Generated in the Previous Month

- Laboratory results were received as follows (QA/QC samples are not included in this tally):
 - Wastewater samples LI-EL-W4 (April 8), LI-EL-W5 (April 14), and LI-EL-W6 (April 30) to obtain approval for elevator water discharge to the Monroe County sanitary sewer; and
 - Preliminary baseline ERD groundwater sampling results from 13 wells sampled in March were received on April 11. The field parameter measurements and analytical results from this March sampling event and cumulative investigation and remediation groundwater analytical results are summarized in the attached Tables 1 and 2, respectively.



**Reference: Brownfield Cleanup Program
Monthly Progress Report #14
Site #C828184
Former Carriage Factory
33 Litchfield Street, Rochester, NY**

3. Deliverables Completed and Submitted during the Previous Month

- Submitted the draft Remedial Investigation Report to NYSDEC on April 2.
- Submitted analytical results and description of stockpiled soil to Mr. Henry Wilkie of NYSDEC in Albany as per the previously approved contained-in demonstration work plan (CIDWP) on April 8.
- Submitted Monthly Progress Report No. 13 to NYSDEC on April 10.
- Submitted ERD baseline groundwater sample results via email to Mr. Todd Caffoe at NYSDEC on April 16.

4. Actions Scheduled for the Next Reporting Period

The following activities are anticipated to occur in May 2014:

- Receipt of stockpiled soil sampling results.
- Preparation and submission of a CID report to the Department for approval to dispose of impacted stockpiled soil sampled in April as non-hazardous waste.
- Submission of non-impacted soil sampling results to the Department for approval to reuse the clean soil on-site.
- Monitoring of construction-related activities, which are expected to include elevator pit sump pump installation; off-site disposal of staged soil following CID approval; and final site grading and soil stockpiling in the parking lot area south of the building.
- Completion of the ERD groundwater remediation injection activities.
- Ongoing preparation of the draft Environmental Easement, IRM Construction Completion Report, Alternatives Analysis Report, and Site Management Plan.

5. Completion, Delays and Future Schedule

Construction delays occurred due to groundwater infiltration in the elevator shaft pit and the 28-day cure time for the waterproofing materials applied to the elevator shaft pit.



May 9, 2014
Todd Caffoe, P.E.
Page 5

**Reference: Brownfield Cleanup Program
Monthly Progress Report #14
Site #C828184
Former Carriage Factory
33 Litchfield Street, Rochester, NY**

Closing

If you have any questions or require further information, please call me at 585-413-5266.

Regards,

STANTEC CONSULTING SERVICES INC.

A handwritten signature in black ink, appearing to read "M. P. Storonsky".

Michael P. Storonsky
Managing Principal
Phone: (585) 413-5366
mike.storonsky@stantec.com

Attachments:

- Table 1 – Summary of Groundwater Field Parameters
- Table 2 – Summary of Analytical Results in Groundwater

cc: Bart Putzig (NYSDEC) Al Floro (Nixon Peabody)
 James Mahoney (NYSDEC) Jonathan Penna (Nixon Peabody)
 Justin Deming (NYSDOH) Mark Gregor (City of Rochester)
 Stephanie Selmer (NYSDOH) Eleonora Bershanskaya (Goldman Sachs)
 James Whalen (CFSNA) Daniel Alger (Goldman Sachs)
 Mark Fuller (CFSNA) Linda Kaiser (Goldman Sachs)
 Gillian Conde (CFSNA) Patrick Miller (CPC)
 Joy Cromwell (CFSNA) David Lent (IVI)
 Chris Betts (Betts Housing)

ATTACHMENTS

TABLE 1
Summary of Groundwater Field Parameters
Former Carriage Factory
33 Litchfield Street, Rochester, NY

Sample Location		B102-MW	B106-MW	B108-MW	RW-1	RW-2	RW-3	RW-4
Purge Date		27-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14
Purge Methodology		Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow
Purge Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Sample Date		27-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14	26-Mar-14
Sampling Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Field Parameters		Units						
Conductivity	mS/cm	0.90	1.08	1.06	1.07	1.08	1.09	0.878
Dissolved Oxygen	mg/L	0.12	0.07	0.13	0.01	0.03	0.06	0.17
Oxidation Reduction Potential	mV	73.6	90.8	137.1	179.0	156.8	157.6	132.4
pH	S.U.	7.02	7.05	7.04	7.05	7.11	7.07	7.08
Temperature	deg C	3.7	3.0	10.6	8.6	7.2	9.3	2.4
Turbidity	NTU	11.71	1.84	0.28	12.37	3.81	1.29	5.81
Volume Purged	gal	0.5	0.7	0.7	0.7	0.8	0.7	1.8

Sample Location		RW-5	RW-6	RW-7	RW-9	RW-11	RW-13
Purge Date		27-Mar-14	27-Mar-14	27-Mar-14	27-Mar-14	27-Mar-14	27-Mar-14
Purge Methodology		Low flow	Low flow	Low flow	Low flow	Low flow	Low flow
Purge Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Sample Date		27-Mar-14	27-Mar-14	27-Mar-14	27-Mar-14	27-Mar-14	27-Mar-14
Sampling Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Field Parameters		Units					
Conductivity	mS/cm	1.08	1.07	1.21	1.05	0.82	1.12
Dissolved Oxygen	mg/L	0.00	0.01	0.38	2.45	1.62	2.13
Oxidation Reduction Potential	mV	74.7	138.3	92.6	104.6	88.8	101.8
pH	S.U.	7.29	7.33	7.27	7.29	7.33	7.25
Temperature	deg C	5.7	6.1	6.7	9.4	5.1	6.0
Turbidity	NTU	1.22	5.46	1.36	0.50	1.31	1.86
Volume Purged	gal	3.2	1.1	0.9	1.2	0.7	2.0

Notes:

- deg c degrees Celsius
- gal gallons
- mg/l milligrams per liter
- mS/cm milliSiemens per centimeter
- mV millivolts
- NTU nephelometric turbidity unit
- AU attenuation unit (equivalent to NTU)
- S.U. standard units

TABLE 2
Summary of Analytical Results in Groundwater
Remedial Investigation
Former Carriage Factory
33 Litchfield Street, Rochester, New York

Area of Site Investigation Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	TOGS	QA/QC							
			DRILL WATER 14-Jun-12 DRILL WATER (DW) DECI PARAROCH 12:2523 12:2523-02	PUMP WATER 14-Jun-12 PUMP WATER (PW) DECI PARAROCH 12:2523 12:2523-04	Trip Blank 12-Jun-12 Trip Blank 7346 DECI PARAROCH 12:2486 12:2486-03	Trip Blank 20-May-13 21-May-13 STANTEC CCGE E2301-07 E2301-07		Trip Blank 27-Mar-14 STANTEC CCGE E2314-08 E2314-08		WATER TANK 2-Aug-12 03- WATER TANK DECI PARAROCH 12:3240 12:3240-04
General Chemistry										
Total Organic Carbon	µg/L	n/v	-	-	-	-	-	-	-	-
Metals										
Arsenic	µg/L	25 ^B	-	-	-	-	-	-	11	-
Iron	µg/L	300 ^B	-	-	-	-	-	-	23700 ^B	-
Manganese	µg/L	300 ^B	-	-	-	-	-	-	981 ^B	-
Sodium	µg/L	20000 ^B	-	-	-	-	-	-	78300 ^B	-
Volatile Organic Compounds										
Acetone	µg/L	50 ^A	-	-	-	25 U	25 U	10.0 U	-	143 ^A
Benzene	µg/L	1 ^B	-	-	-	5 U	5 U	0.700 U	-	0.700 U
Bromodichloromethane	µg/L	50 ^A	4.23	2.61	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Bromoform (Tribromomethane)	µg/L	50 ^A	5.00 U	5.00 U	5.00 U	5 U	5 U	5.00 U	-	5.00 U
Bromomethane (Methyl bromide)	µg/L	5 ^{-B}	2.00 U J	2.00 U J	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Carbon Disulfide	µg/L	60 ^A	-	-	-	5 U	5 U	2.00 U	-	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	2.00 U J	2.00 U J	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Chlorobenzene (Monochlorobenzene)	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Chlorobromomethane	µg/L	5 ^{-B}	-	-	-	5 U	5 U	5.00 U	-	-
Chloroethane (Ethyl Chloride)	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Chloroform (Trichloromethane)	µg/L	7 ^B	11.3 ^B	6.48	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Chloromethane	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Cyclohexane	µg/L	n/v	-	-	-	5 U J	5 U	10.0 U	-	-
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04 ^B	-	-	-	5 U	5 U	10.0 U	-	-
Dibromochloromethane	µg/L	50 ^A	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichlorobenzene, 1,2-	µg/L	3 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichlorobenzene, 1,3-	µg/L	3 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichlorobenzene, 1,4-	µg/L	3 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichlorodifluoromethane (Freon 12)	µg/L	5 ^{-B}	-	-	-	5 U	5 U	2.00 U	-	-
Dichloroethane, 1,1-	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloroethane, 1,2-	µg/L	0.6 ^B	2.00 U J	2.00 U J	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloroethane, 1,1-	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloroethylene, cis-1,2-	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloroethylene, trans-1,2-	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloropropane, 1,2-	µg/L	1 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloropropene, cis-1,3-	µg/L	0.4 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dichloropropene, trans-1,3-	µg/L	0.4 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Dioxane, 1,4-	µg/L	n/v	-	-	-	R	100 U	20.0 U	-	-
Ethylbenzene	µg/L	5 ^{-B}	-	-	-	5 U	5 U	2.00 U	-	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006 ^B	-	-	-	5 U	5 U	2.00 U	-	-
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50 ^A	-	-	-	25 U	25 U	5.00 U	-	5.00 U
Isopropylbenzene	µg/L	5 ^{-B}	-	-	-	5 U	5 U	2.00 U	-	-
Methyl Acetate	µg/L	n/v	-	-	-	5 U	5 U	2.00 U	-	-
Methyl Ethyl Ketone (MEK)	µg/L	50 ^A	-	-	-	25 U	25 U	10.0 U	-	10.0 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	-	-	-	25 U	25 U	5.00 U	-	5.00 U
Methyl tert-butyl ether (MTBE)	µg/L	10 ^A	-	-	-	5 U	5 U	2.00 U	-	-
Methylcyclohexane	µg/L	n/v	-	-	-	5 U	5 U	2.00 U	-	-
Methylene Chloride (Dichloromethane)	µg/L	5 ^{-B}	5.00 U	5.00 U	5.00 U	5 U	3.4 J	5.00 U	-	5.00 U
Styrene	µg/L	5 ^{-B}	-	-	-	5 U	5 U	5.00 U	-	5.00 U
Tetrachloroethane, 1,1,2,2-	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Tetrachloroethylene (PCE)	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Toluene	µg/L	5 ^{-B}	-	-	-	5 U	5 U	2.00 U	-	2.00 U
Trichlorobenzene, 1,2,3-	µg/L	5 ^{-B}	-	-	-	5 U	5 U	5.00 U	-	-
Trichlorobenzene, 1,2,4-	µg/L	5 ^{-B}	-	-	-	5 U	5 U	5.00 U	-	-
Trichloroethane, 1,1,1-	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Trichloroethane, 1,1,2-	µg/L	1 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Trichloroethylene (TCE)	µg/L	5 ^{-B}	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Trichlorofluoromethane (Freon 11)	µg/L	5 ^{-B}	2.00 U J	2.00 U J	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5 ^{-B}	-	-	-	5 U	5 U	2.00 U	-	-
Vinyl chloride	µg/L	2 ^B	2.00 U	2.00 U	2.00 U	5 U	5 U	2.00 U	-	2.00 U
Xylene, m & p-	µg/L	5 ^{-B}	-	-	-	10 U	10 U	2.00 U	-	2.00 U
Xylene, o-	µg/L	5 ^{-B}	-	-	-	5 U	5 U	2.00 U	-	2.00 U

Notes:

- TOGS NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
- ^A TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1): Guidance
- ^B TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1): Standards
- 6.5^A Concentration exceeds the indicated standard.
- 15.2 Concentration was detected but did not exceed applicable standards.
- 0.50 U Laboratory reportable detection limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory reportable detection limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- The standard for Iron and Manganese is 500 ug/L, which applies to the sum of these substances. As individual standards, the standard is 300 ug/L.
- The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
- p Applies to the sum of cis- and trans-1,3-dichloropropene.
- B Indicates analyte was found in associated blank, as well as in the sample.
- D Indicates reanalysis of sample with additional dilution to address exceedance of instrument calibration range.
- J The reported result is an estimated value.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- Q Indicates LCS control criteria did not meet requirements
- CCGE Chemtech Consulting Group, Mountainside, NJ
- PARAROCH Paradigm Environmental Services, Rochester, NY