S2C2 inc.

Streamlined Site Characterization & Closure

September 4, 2014

Mr. Gregory B. MacLean, P.E.
Environmental Engineer II
New York State Department of Environmental Conservation
Division of Environmental Remediation - Region 8
6274 East Avon-Lima Road
Avon, New York 14414

RE: Supplemental Remedial Investigation Activities at Carlson Park in Rochester, NY. (NYSDEC VCP Number V00514-8)

Dear Greg:

This letter addendum is intended to provide a description of additional supplemental Remedial Investigation (RI) activities that 100 Carlson Road, LLC proposes to conduct during the summer of 2014 as part of ongoing RI activities being implemented at the Carlson Park Site (Site). The proposed supplemental RI activities addressed herein have been discussed with you during recent telephone conversations. These activities represent an expansion of the Scope of Work outlined in the Supplemental Work Plan for Initial Bedrock Evaluation Activities dated February 28, 2010 (Supplemental Work Plan), and other supplemental Work Plan Addendum letters dated September 2010, August 2011, November 2011, June 2012, and June 2013, and June 2014. The Supplemental Work Plan, and subsequent addendum letters, are all addenda to the original Voluntary Cleanup Program Remedial Investigation Work Plan for Carlson Park, dated October 2004 (RI Work Plan). Accordingly, we request that this letter be considered an additional attachment to the Supplemental Work Plan.

The remainder of this letter provides an explanation of the rational for, and description of, the additional on-site RI activities currently being proposed. It is hoped that information obtained from these activities will help better define vertical extent of groundwater quality impacts observed to be present within bedrock beneath the northwest portion of the Site.

Rational for Proposed Supplemental RI Activities:

Information obtained during the completion of Supplemental RI activities during the summers of 2012, 2013, 2014 indicated the presence of TCE in shallow bedrock groundwater within an area beneath the northwest portion of the Site. Multiple attempts to identify the source of such groundwater quality impacts have been inconclusive. Two distinct (and apparently unrelated) locations indicated the highest dissolved TCE concentrations in shallow bedrock groundwater in this portion at the Site. These two locations were in the general vicinity of BR-12 and near BR-12X. (See the attached Figure)

A shallow bedrock groundwater monitoring well (MWBR-12A) was subsequently installed at the BR-12 location, while the installation of a shallow bedrock/overburden groundwater monitoring well at the BR-12X location was addressed under the June, 30, 2014 Work Plan Addendum letter.

The primary purpose for conducting the currently proposed supplemental RI activities is an attempt to help define the vertical extent of groundwater quality impacts within the bedrock underlying the two locations mentioned above. Previous shallow bedrock groundwater evaluation activities at these two locations extended to a depth of about 20 feet below ground. Accordingly, the currently proposed bedrock evaluation activities will commence from a depth of about 20 feet below ground.

In addition to the above-mentioned vertical bedrock groundwater evaluation activities, a complete round of all on-site groundwater monitoring well sampling will also be conducted approximately two to four weeks after the completion of said bedrock evaluation activities.

Description of Proposed Supplemental RI Activities:

Please note that all of the currently proposed supplemental on-site RI activities will be conducted using methods and procedures similar to those previously approved and used as part of the original RI Work Plan and/or the Supplemental Work Plan and addenda. The approximate locations of all currently proposed on-site supplemental RI activities are presented on the attached Figure. The currently proposed supplemental RI activities will be completed during two separate field events. As described in more detail below, the specific scope of work and the specific sequencing of activities will be somewhat dependent upon observations and/or information generated in the field. Accordingly, an element of the work scope associated with the subject RI activities will be dynamic in nature.

<u>Additional bedrock evaluation, and bedrock groundwater monitoring well installation.</u>

The first field event to be completed as part of the currently proposed supplemental RI work will include the completion of additional detailed bedrock evaluation activities, and the installation of additional bedrock wells at the subject two locations.

As described in detail in the Supplemental Work Plan (February 2010), additional detailed bedrock evaluation activities will include: bedrock coring and packer-testing, to be followed by bedrock groundwater monitoring well installation. Given the relatively limited vertical extent of anticipated bedrock-coring/packer-testing at these two locations, only limited geophysical logging is being considered after the groundwater monitoring wells have been installed. It is anticipated that bedrock coring and packer-testing will extend to a depth where minimal to no impacts are observed, or to a depth approaching the underlying natural gas accumulations as previously encountered, whichever is shallower.

All groundwater grab samples collected to undergo VOC analysis as part of the packer-testing program will either be analyzed/screened for VOCs using rapid turnaround at a fixed-base laboratory or within an on-site mobile laboratory in accordance with USEPA SW-846 Method 8260B-modified.

The actual depth of detailed bedrock evaluations to be conducted, and the subsequent depths of well screen settings will be dependent upon observations made and information obtained in the field. The locations and elevations of all permanent bedrock groundwater monitoring wells will subsequently be surveyed.

Comprehensive round of bedrock and overburden groundwater monitoring well sampling.

The second field event to be conducted as part of the currently proposed supplemental RI work will consist of a comprehensive round of groundwater sampling from all on-site bedrock groundwater monitoring wells and all accessible overburden groundwater monitoring wells. As part of this comprehensive groundwater monitoring well sampling event, a complete round of water level measurements will be made from all Site-related groundwater monitoring wells and piezometers.

In order to obtain representative groundwater samples from the wells to be sampled as part of this event, it is proposed that similar groundwater sampling methodology be used as in previous such sampling events. Accordingly, groundwater sampling from the on-site bedrock wells will be accomplished in general accordance with American Society of Testing Materials (ASTM) Standard D6771-02 (Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations). Initial purging will be accomplished with the use of a submersible bladder pump. The pump will typically be set in the center of the screened interval, unless a specific water-bearing fracture interval has been targeted during packer-testing activities. Water level drawdown will be monitored during all purging activities. In addition, purged water will pass through a low-flow cell and will be monitored for a variety of field parameters. Such field parameters will include: temperature, pH, specific conductance, dissolved oxygen (DO), oxidation reduction potential (ORP), and turbidity. All purge water will be containerized and subsequently treated on-site with the existing carbon treatment system.

An attempt will be made to allow all the above field parameters to stabilize to within specific variance ranges for three consecutive readings prior to initiating groundwater sample collection. Such ranges include: <0.3' for water level drawdown; +/- 3% for temperature and specific conductivity; +/- 0.1 unit for pH; +/- 10% for DO; +/- 10 millivolts for ORP; and +/- 1 NTU for turbidity.

In the event that well yields are too low to accommodate low-flow sampling in any of the overburden groundwater monitoring wells, any such wells will be purged three times prior to the collection of groundwater to undergo VOC analysis.

All groundwater samples collected as part of this event will be analyzed for the presence of VOCs by a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory in accordance with USEPA SW-846 Method 8260B. QA/QC samples consisting of a field duplicates, a field blanks, and a trip blanks will be included with the sampling event. Analytical results will be validated and a Data Usability Summary Report (DUSR) will be prepared.

Please note that it is anticipated that subsequent to this monitoring event, groundwater sampling activities conducted in these wells will be accomplished with the use of passive diffusion bags (PDBs), pending approval by NYSDEC.

Schedule

As recently discussed over the phone, it is currently anticipated that the subject supplemental bedrock evaluation activities will be conducted during the week of September 8, 2014. The subsequent comprehensive round of groundwater monitoring well sampling will be scheduled sometime within two to four weeks after the installation of the additional bedrock groundwater monitoring wells has is being completed.

Shortly after the completion of these supplemental RI activities, it is anticipated that another Supplemental RI Work Plan Addendum letter will be submitted to address additional field activities to be conducted during the Fall of 2014. Those activities are anticipated to include a variety of hydraulic monitoring and testing activities to be conducted at a variety of on-site locations. The actual scope and schedule for these additional field activities will be addressed in the subsequent Supplemental RI Work Plan Addendum letter.

As mentioned above, all supplemental RI activities proposed in this Work Plan addendum will be completed in a similar manner as previously conducted as part of the ongoing RI activities being completed at the Site, and will be consistent with the methodologies presented in prior Work Plans and/or addendums as previously approved by NYSDEC for this Site. Please feel free to contact me at (908) 625-3192 if you have any questions or comments concerning this matter, or if you require any additional information.

Sincerely,
S2C2 Inc.

Steven B. Gelb

Steven B. Gelb
Project Manager

CC: Jim Goff

W:\Projects\Rochester\ArcMap\2014utilityEval\BedrockWellLocationMap2014.mxd

BR12-VII
BR12-IV
BR12-II
BR12-VIII
BR12-XIV
BR12-XV
MWBR-12 A
BR12-I
BR12-IX
BR12-XIII
BR12-III
BR12-V
Building 5
Building 6
Humboldt Street
MW-06
BR12-XII
BR12-VI
BR12-X
BR12-XI
MWBR-08 A
Building 4
Building 8
MWBR-13 A

0 15 30 60 90 120 Feet

Legend

Bedrock Evaluation/GW Monitoring Locations - Sept 2014

Existing Locations

- Monitoring Well - OB
- Bedrock Monitoring Well
- Temp. Shallow Bedrock DNAPL Eval. Location

Utilities

- Cable
- Electrical
- Gas
- Sanitary
- Storm
- Telephone
- Water
- UtilityTunnel

Features

- Roads
- Railroad
- ConcretePads
- Buildings
- Property Boundary

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CARLSON PARK FACILITY
CARLSON ROAD
ROCHESTER, NEW YORK

TITLE
BEDROCK EVALUATION / GW MONITORING LOCATIONS - SEPTEMBER 2014

FIGURE 3

SCALE 1:600