ARCADIS of New York, Inc.
6723 Towpath Road
P O Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.446.8053
www.arcadis-us.com

ENVIRONMENT

Mr. Frank Sowers, P.E.
Division of Environmental Remediation
NYSDEC - Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

Subject:
Off-site Well Pilot Test
Former Bausch & Lomb Frame Center
Chili, New York
Site ID 828061

Date:
May 6, 2011

Contact:
Scott Powlin

Phone:
315.671.9456

Email:
Scott.Powlin@arcadis-us.com

Our ref:
B0034221.0000.00003

ARCADIS of New York, Inc.
TX Engineering License # F-7727

ARCADIS U.S., Inc.
TX Engineering License # F-533

Dear Mr. Sowers:

Pursuant to recent discussions with Frank Chiappone, this letter presents Bausch & Lomb's approach for performing a pilot test of the off-site portion of the groundwater collection and treatment system (GWCTS) at the Former Frame Center site located in Chili, New York. The rationale and proposed components and schedule for implementing the pilot test are given below.

Pilot Test Rationale

The neighboring (off-site) site property owner, Michael Batisti, is evaluating the possibility of developing a portion of the Carriage House Estates property that currently supplies utilities to off-site pumping wells, which are part of the GWCTS. As part of the Carriage House Estates property development, the site owner and developer would prefer GWCTS utilities are disconnected and removed. The GWCTS has been in operation at the site since 2000 to capture and treat on-site and off-site (on Carriage House Estates property) volatile organic compound- (VOC-) impacted groundwater. As presented in the *2010 Annual Report* (ARCADIS 2011), concentrations of VOCs in groundwater from off-site wells have been trending downward and have reached an asymptotic condition. Bausch & Lomb believes two scenarios could be causing this condition:

1) The off-site pumping wells could be pulling VOC-impacted groundwater from on-site, thus causing the low-level detections in the off-site wells; or

2) The asymptotic condition is a function of the desorption rate of VOCs from organic matter within the soil to the groundwater in the off-site area.

Bausch & Lomb is particularly interested if scenario #1 could be causing the asymptotic condition. If scenario #1 is the explanation for VOCs not cleaning up in the off-site area, then VOCs in off-site groundwater should cleanup within a relatively short period of time after shutting off the off-site pumps. The time required for the VOCs to cleanup would be a function of the groundwater flow velocity and natural attenuation processes. To evaluate the two scenarios and understand the potential to permanently disconnect the off-site pumping well utilities to facilitate removal and development, Bausch & Lomb is proposing a pilot test for the off-site GWCTS as described below.

Pilot Test Components

The proposed pilot test would consist of the following:

- Turn off power to off-site pumping wells EW-100 and EW-110 in mid- to late-May 2011.

- Perform monthly groundwater sampling of wells CH-3D, CH-6D, CH-8D, EW-100, and EW-110. Wells CH-3D, CH-6D, and CH-8D are downgradient from EW-100 and EW-100. Wells would be sampled for VOCs in accordance with the *Site Management Plan* (ARCADIS 2010), starting approximately 1 month after shut-down.

- Evaluate sampling results on a monthly basis once results are received from the laboratory. Off-site pumping wells EW-100 and EW-110 would be turned back on (reactivate) if either of the following two criteria are met:

    1) Individual VOCs in the downgradient monitoring wells (CH-3D, CH-6D, and CH-8D) are detected at levels above New York State Department of Environmental Conservation (NYSDEC) Class GA Drinking Water Standards for three consecutive monitoring events. Depending on the results, it may be possible to reactivate just one of the pumping wells. For example, if VOC concentrations at CH-6D exceed Standards for three consecutive monitoring events, but Standards are not exceeded at CH-3D or CH-8D, then Bausch & Lomb would recommend just reactivating pumping well EW-110.

    2) VOCs in the pumping wells (EW-100 and EW-110) show an increasing trend in concentration above Standards for three consecutive monitoring events. A similar approach would be taken for this scenario for possibly just reactivating one of the pumping wells.

- Provide monthly e-mail updates to the NYSDEC on the pilot test results and approach moving forward once groundwater sampling results have been evaluated.

- All sampling and operations will be performed consistent with the procedures set forth in the *Site Management Plan* (ARCADIS 2010).

Proposed Schedule

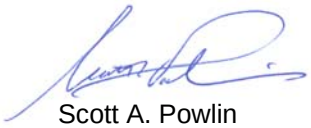
Bausch & Lomb proposes the pilot test begin in mid- to late-May 2011. Should the monthly sampling indicate that the two above-listed criteria are not being met, Bausch & Lomb proposes not to reactivate pumping wells EW-100 and EW-110. If after a period of six months (mid-May 2011 through mid-November 2011) the VOC concentrations do not suggest the pumping wells need reactivating, Bausch & Lomb proposes sampling the five pilot test wells on an every-other-month basis for another six months (from November 2011 through May 2012), or until VOC concentrations suggest the off-site wells need to be reactivated. If the VOC concentrations do not suggest the pumping wells need to be reactivated by May 2012, Bausch & Lomb will consult with the NYSDEC regarding the future monitoring and operation of the off-site GWCTS.

Upon completion of the one-year pilot study, Bausch & Lomb will discuss the approach/recommendations for the off-site area with NYSDEC. The approach/ recommendations will be subsequently documented in a letter or memorandum to NYSDEC.

Bausch & Lomb is prepared to begin the above-described pilot test upon NYSDEC review and approval. Please feel free to contact Frank Chiappone at 585.338.5087 with any questions.

Sincerely,

ARCADIS of New York, Inc.



Scott A. Powlin
Senior Geologist

Copies:
Jeffrey Kosmala, P.E., Monroe County Department of Health
Ms. Julia Kenney, New York State Department of Health
Mr. Frank Chiappone, Bausch & Lomb
Ms. Lindsay Preston, ARCADIS