

## DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

### RCRA Corrective Action Environmental Indicator (EI) RCRAInfo code (CA750) Migration of Contaminated Groundwater Under Control

**Facility Name:** Bausch & Lomb, Frame Center  
**Facility Address:** 465 Paul Road, Rochester, NY 14624-4722  
**Facility EPA ID #:** NYD002207744

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

  X   If yes - check here and continue with #2 below.

       If no - re-evaluate existing data; or

       if data are not available, skip to #8 and enter "IN" (more information needed) status code.

#### Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

#### Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRAs). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

#### Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo status codes must be changed when the regulatory authorities become aware of contrary information).

#### BACKGROUND

The Bausch & Lomb, Frame Center site is located on Paul Road in the Town of Chili, Monroe County, New York. The facility is an 89 acre industrial campus comprised of one main building (Building 40) located in the northern

portion of the property and a smaller building (Building 41) located adjacent to and south of Building 40. Building 40 is approximately 354,000 sq. ft. and housed the production area. Building 41 is approximately 5,000 sq. ft. and has been used for maintenance and storage. The Bausch & Lomb campus is bordered on the north by Paul Road, to the south by Conrail Railroad tracks, to the east by manufacturing facilities and to the west by residential properties. The area on the north side of Paul Road is also residential. Black Creek is located less than 0.5 miles south of the site. Homes and businesses near the site are connected to public water.

This site is currently listed as site number 8-28-061 on the Registry of Inactive Hazardous Waste Disposal Sites in New York State. It is currently listed as a Class 2 site on the Registry, indicating that the site constitutes a significant threat to public health or the environment. The Registry listing includes approximately 40 acres of the 89-acre campus. The listed area is south of Building 40 and includes Building 41, parking lot, and open field.

The Bausch & Lomb Frame Center was constructed in 1961 and enlarged in 1966. From 1961 to 1997, operations at the facility included production of plastic and metal eyeglass frames involving the use of solvents and plating metals. In 1997 the facility was sold to Paul Road Industrial Center, LLC. for development of an industrial park, but Bausch & Lomb retained responsibility for remediation of the site. Building 40 is currently occupied with workers (industrial/commercial tenants). Building 41 is not currently occupied, but is actively being marketed for use.

Between 1990 and 1997, Bausch & Lomb conducted a remedial investigation/feasibility study (RI/FS). The investigation involved sampling of sediment, soil, and groundwater. The primary contaminants found in on-site drainage ditch sediments were metals such as cadmium, chromium, lead, mercury, nickel, silver and zinc. In addition to metals, polycyclic aromatic hydrocarbons (PAHs) such as acenaphthene, phenanthrene, and fluoranthene were also found in the sediment of the on-site drainage ditch. In November 1995, Bausch & Lomb removed and disposed of approximately 1,175 cubic yards of contaminated sediment and soil from the on-site drainage ditch as an Interim Remedial Measure (IRM). The investigation also revealed that volatile organic compound (VOC) contaminated groundwater existed both in the shallow overburden soil and the overburden/top of bedrock interface zone at levels exceeding the New York State Groundwater Standards. The primary groundwater contaminants were chlorinated solvents such as trichloroethene (TCE), 1,1,1-trichloroethane, cis-1,2-dichloroethene, and vinyl chloride. Three different VOC source areas were identified.

A Record of Decision (ROD) was signed in February 1998. The ROD called for excavation of contaminated soil from three source areas and long-term groundwater monitoring. In October of 1998, an "Explanation of Significant Difference" (ESD) was signed which required groundwater extraction and treatment and excavation of a reduced volume of soil from the three source areas. Contaminated soil was excavated and removed in June of 1999. The groundwater extraction and treatment system, including on-site and off-site extraction wells, was constructed in the fall of 2000, and is currently operating.

#### **References:**

**Record Of Decision**, Bausch & Lomb Frame Center Site, Chili, Monroe County, New York, Site Number 8-28-061, February 1998.

**Feasibility Study Report**, Bausch & Lomb, Frame Center, Chili, New York, prepared by Blasland, Bouck & Lee, Inc., October 1997.

**Explanation of Significant Differences**, Bausch & Lomb Frame Center Site, Town of Chili, Monroe County, New York, Site Number 8-28-061, October 1998.

2. Is **groundwater** known or reasonably suspected to be "**contaminated**"<sup>1</sup> above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

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<sup>1</sup>"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

X   If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

\_\_\_\_\_ If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”

\_\_\_\_\_ If unknown - skip to #8 and enter “IN” status code.

### **Rationale:**

During the Remedial Investigation, thirty two (32) monitoring wells were installed on-site. Twenty (20) of the monitoring wells were used to monitor the shallow overburden (soil above bedrock) groundwater and the other twelve monitoring wells were used to monitor the base of overburden/top of bedrock interface zone groundwater. Sample results from these monitoring wells show that volatile organic compounds (VOCs) concentrations are locally above NYS Class GA Groundwater Standards in both the shallow overburden and the base of overburden/top of bedrock interface zones. To further define the groundwater contamination present at the site a Geoprobe investigation was performed. A total of 366 groundwater and/or ponded surface water samples were collected and analyzed on-site. Results from these samples identified three source areas identified as: the BL-16s source area (130,000 parts per billion (ppb) TCE in groundwater), the BL-9S source area (200,000 ppb TCE in groundwater) and the BL-11D source area (110,000 ppb TCE in groundwater).

In 1998, Bausch & Lomb completed a pre-design study to define the extent of the groundwater contamination associated with the three plumes. The results indicated that the western edge believed to originate from the BL-11D source area was not sufficiently defined as concentrations of VOCs were detected above NYSDEC Class GA groundwater standards at a depth of 31-36 ft. below ground surface in a monitoring well near the western property boundary. In response to these results, approximately 9 monitoring wells were installed off-site to the west and ten additional monitoring wells were installed on-site. A groundwater extraction and treatment system with two extraction wells was also installed.

### **References:**

**Record Of Decision**, Bausch & Lomb Frame Center Site, Chili, Monroe County, New York, Site Number 8-28-061, February 1998.

**Western Boundary Investigation Report**, Bausch & Lomb, Frame Center, Chili, New York, prepared by Blasland, Bouck & Lee, Inc., April 1999.

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”<sup>2</sup> as defined by the monitoring locations designated at the time of this determination)?

  X   If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the

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<sup>2</sup>“existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

“existing area of groundwater contamination”<sup>2</sup>).

\_\_\_\_\_ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”<sup>2</sup>) - skip to #8 and enter “NO” status code, after providing an explanation.

\_\_\_\_\_ If unknown - skip to #8 and enter “IN” status code.

**Rationale:**

The groundwater extraction and treatment system was expanded to include seven (7) groundwater extraction wells and the system has been in long-term Operations, Monitoring and Maintenance since 2000. Approximately 21 wells are sampled at frequencies ranging from quarterly to annually. The most recent report for the site was issued in October 2006. The most recent site inspection was in November 2006. Based on the information in the report and the visual inspection of the system, it was determined that the remedy continues to perform properly and is effective. Based on the groundwater monitoring results, contaminant concentration contours, and groundwater elevation contours presented in the October 2006 annual report, it appears that the groundwater contaminant plume is not expanding.

**References:**

**Final Engineering Report Ground-Water Remedial Design/Remedial Action**, Former Bausch & Lomb Frame Center Site, Chili, New York, prepared by Blasland, Bouck & Lee, Inc., January 2001.

**Groundwater Collection and Treatment System Operation and Maintenance Manual**, Former Bausch & Lomb Frame Center Site, Chili, New York, prepared by Blasland, Bouck & Lee, Inc., May 2002.

**Annual Report**, Former Bausch & Lomb Frame Center Site, Chili, New York, prepared by Blasland, Bouck & Lee, Inc., October 2006.

4. Does “contaminated” groundwater **discharge** into **surface water** bodies?

\_\_\_\_\_ If yes - continue after identifying potentially affected surface water bodies.

**X** If no - skip to #7 (and enter a “YE” status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater “contamination” does not enter surface water bodies.

\_\_\_\_\_ If unknown - skip to #8 and enter “IN” status code.

**Rationale:**

There is a shallow stormwater drainage ditch off-site to the west that bisects the groundwater plume. Four surface water and sediment samples were collected from the ditch in July 2000. No site-related contaminants were detected in any of the samples. Additionally, there are shallow/deep well pairs on each side of the ditch. Wells MW-6S and MW-6D are east of the ditch and MW-3S and MW-3D are west of the ditch. In each case the shallow wells have consistently met groundwater standards for site-related contaminants while the deep wells have been impacted. This indicates that the contaminant plume migrated under the drainage ditch but contaminants have not discharged to the surface water.

**References:**

Letter from Frank Chiappone of Bausch & Lomb to Dylan Keenen of NYSDEC regarding Surface-Water and Sediment Sampling Results, Former Bausch & Lomb Frame Center Site, Chili, New York, dated November 27, 2000.

5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration<sup>3</sup> of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

\_\_\_\_\_ If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

\_\_\_\_\_ If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations<sup>3</sup> greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

\_\_\_\_\_ If unknown - enter “IN” status code in #8.

**Rationale:**

**References:**

6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented<sup>4</sup>)?

\_\_\_\_\_ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,<sup>5</sup> appropriate to the potential for

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<sup>3</sup>As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

<sup>4</sup>Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

<sup>5</sup>The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

\_\_\_\_\_ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

\_\_\_\_\_ If unknown - skip to 8 and enter "IN" status code.

**Rationale:**

**References:**

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

  X   If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

\_\_\_\_\_ If no - enter "NO" status code in #8.

\_\_\_\_\_ If unknown - enter "IN" status code in #8.

**Rationale:**

Periodic groundwater monitoring throughout the plume will continue in accordance with the document entitled "**Groundwater Collection and Treatment System Operation and Maintenance Manual**, Former Bausch & Lomb Frame Center Site, Chili, New York, prepared by Blasland, Bouck & Lee, Inc., May 2002" and subsequent updates.

8. Check the appropriate RCRAInfo status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

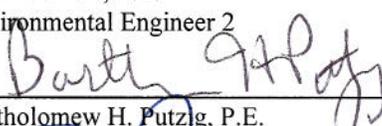
  X   YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Bausch & Lomb Frame Center facility, EPA ID # NYD002207744, located at 465 Paul Road, in the Town of Chili, NY. Specifically, this determination indicates that the migration of "contaminated"

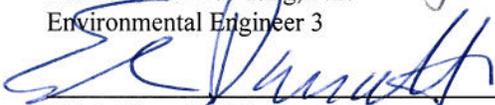
groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

\_\_\_\_\_ NO - Unacceptable migration of contaminated groundwater is observed or expected.

\_\_\_\_\_ IN - More information is needed to make a determination.

Completed by:  \_\_\_\_\_ Date: 6-28-2007  
Frank Sowers, P.E.  
Environmental Engineer 2

Supervisor: \*  \_\_\_\_\_ Date: 6-28-2007  
Bartholomew H. Putzig, P.E.  
Environmental Engineer 3

Director:  \_\_\_\_\_ Date: \_\_\_\_\_  
Edwin Dassatti, P.E.  
Bureau of Hazardous Waste and Radiation Management  
Division of Solid and Hazardous Materials

Locations where References may be found:

Region 8  
New York State Department of Environmental Conservation  
6274 E. Avon-Lima Road  
Avon, New York 14414-9519

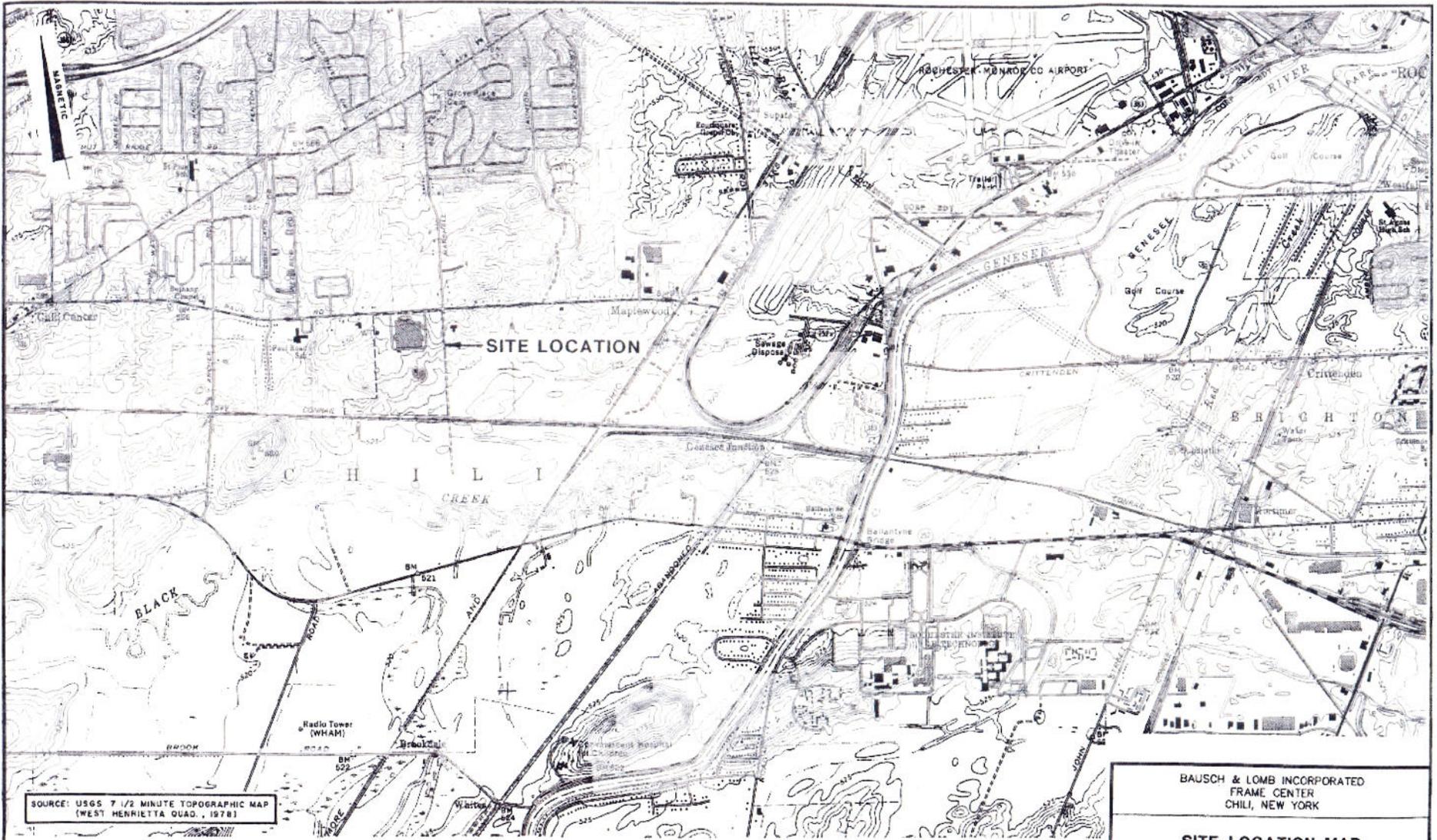
Contact, telephone number and e-mail:

Mr. Frank Sowers  
(585) 226-5357  
[flsowers@gw.dec.state.ny.us](mailto:flsowers@gw.dec.state.ny.us)

**FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.**

# **FIGURES**

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SOURCE: USGS 7 1/2 MINUTE TOPOGRAPHIC MAP  
(WEST HENRIETTA QUAD., 1978)

8/28/84 SA-CMW  
347854.78/247055.1.DWG



BAUSCH & LOMB INCORPORATED  
FRAME CENTER  
CHILI, NEW YORK

**SITE LOCATION MAP**

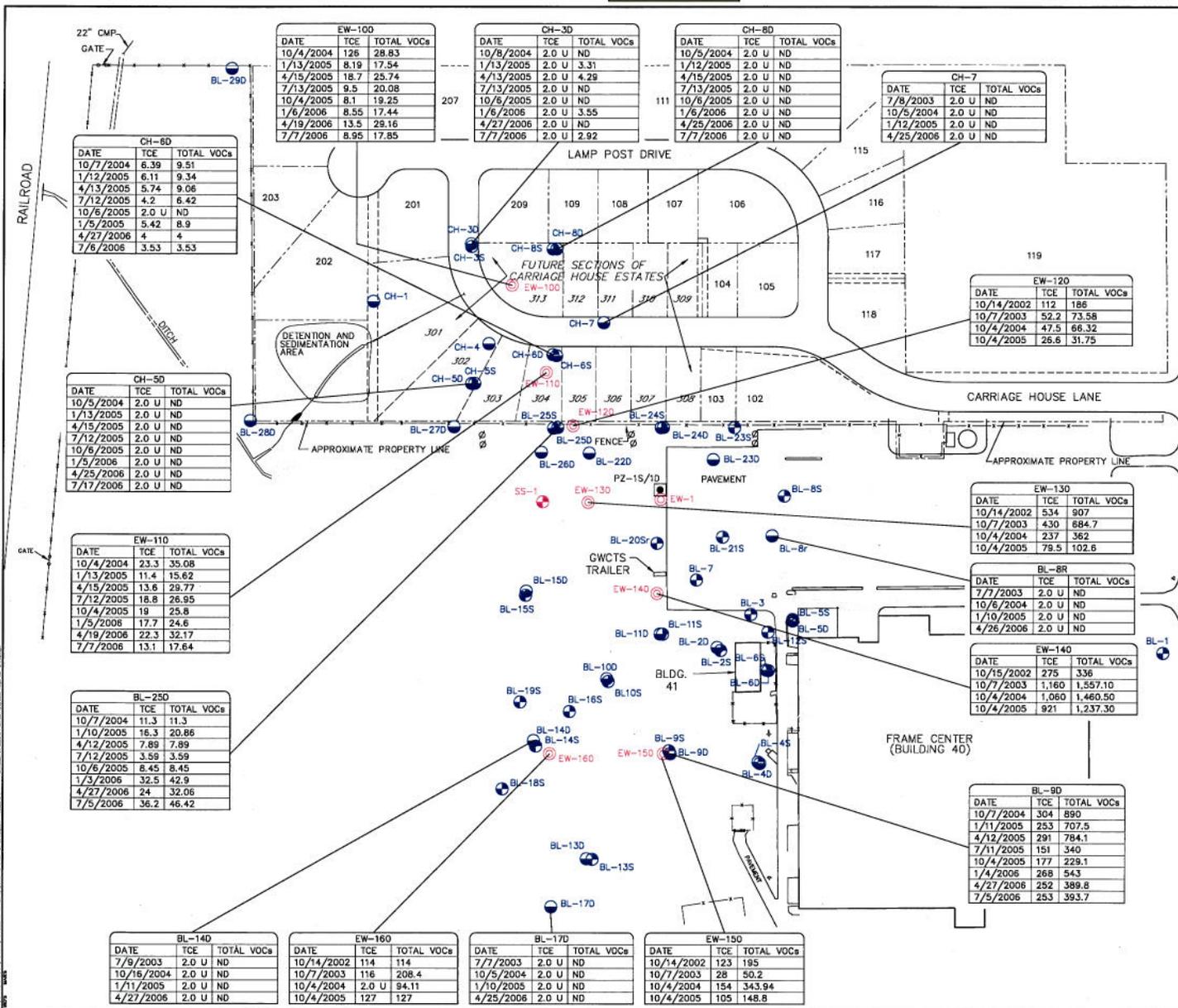
**BBL** BLASLAND, BUCK & LEE, INC.  
engineers & scientists

FIGURE  
**1**





QUESTIONS 2 and 3



**LEGEND:**

- MONITORING WELL INSTALLED IN SHALLOW OVERBURDEN
- MONITORING WELL INSTALLED AT BASE OF OVERBURDEN/TOP OF ROCK
- STAINLESS STEEL WELL POINT
- CATCH BASIN
- MANHOLE
- 6" EXTRACTION WELL
- 1" NESTED PIEZOMETER
- APPROXIMATE ADJACENT TRACT BOUNDARY
- APPROXIMATE PROPOSED LOT BOUNDARY
- APPROXIMATE EXISTING LOT BOUNDARY
- APPROXIMATE EASEMENT BOUNDARY
- FENCE
- RG&E POWER POLE

ALL CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L) EQUIVALENT TO PARTS PER BILLION (ppb)

ND = NOT DETECTED  
U = NOT DETECTED BELOW GIVEN INSTRUMENT DETECTION LIMIT

- NOTES:**
- SITE PLAN FOR THE ON-SITE AREAS COMPILED FROM EXISTING SITE PLANS PROVIDED BY BAUSCH & LOMB AND SITE SURVEYS TO LOCATE ALL MONITORING WELLS BY BB&L DATED 6/17/92, REVISED 4/13/94, 8/13/98, 10/28-29/98, AND 10/11/00.
  - LOCATIONS OF PROPERTY LINES, SUBSURFACE UTILITIES AND LIMITS OF BUILDINGS AND PARKING AREAS ARE APPROXIMATE.
  - ADJACENT PROPERTY INFORMATION FROM TRACT MAPS PREPARED BY LADUE ASSOCIATES P.C.; LOT NUMBERS 101 TO 118 AND 201 TO 208 WERE DESIGNATED BY LADUE ASSOCIATES P.C.; LOTS IDENTIFIED AS 301 TO 313 ARE IDENTIFIED HERE FOR CONVENIENCE ONLY. INVERT ELEVATION DATUM IS UNKNOWN.



BAUSCH & LOMB INCORPORATED  
FORMER FRAME CENTER  
CHILI, NEW YORK

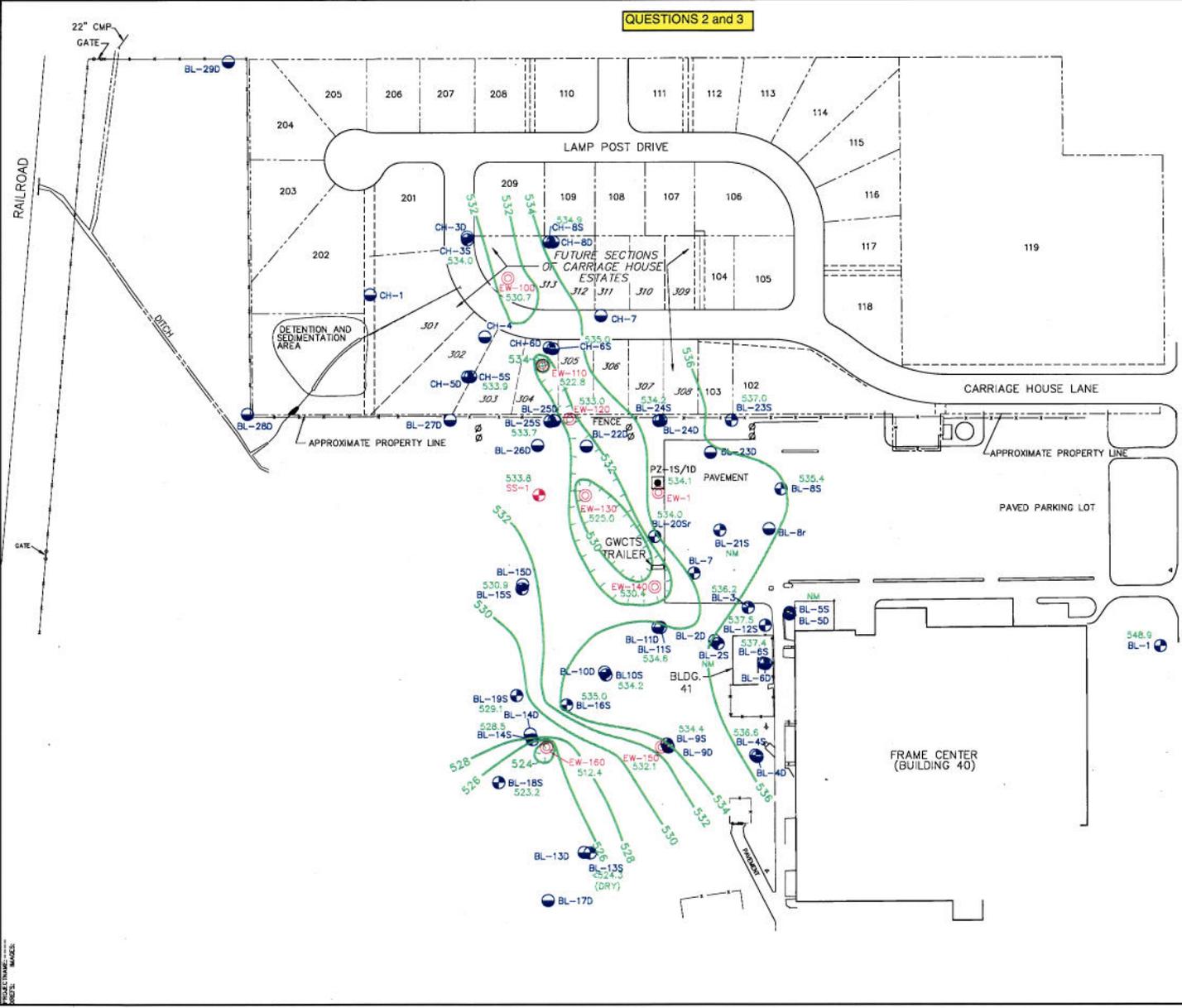
**ANNUAL REPORT**

**QUARTERLY GROUNDWATER ANALYTICAL RESULTS SUMMARY DEEP OVERBURDEN**

**BBL**  
an ARCADIS company

FIGURE **3**

QUESTIONS 2 and 3



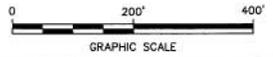
**LEGEND**

- MONITORING WELL INSTALLED IN SHALLOW OVERBURDEN
- MONITORING WELL INSTALLED AT BASE OF OVERBURDEN/TOP OF ROCK
- STAINLESS STEEL WELL POINT
- CATCH BASIN
- MANHOLE
- 6" EXTRACTION WELL
- 1" NESTED PIEZOMETER
- APPROXIMATE ADJACENT TRACT BOUNDARY
- APPROXIMATE PROPOSED LOT BOUNDARY
- APPROXIMATE EXISTING LOT BOUNDARY
- APPROXIMATE EASEMENT BOUNDARY
- FENCE
- RG&E POWER POLE
- WATER LEVEL ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- NOT MEASURED
- 538 INFERRED SHALLOW OVERBURDEN WATER TABLE ELEVATION CONTOURS (FT. AMSL)

**NOTES:**

1. SITE PLAN FOR THE ON-SITE AREAS COMPILED FROM EXISTING SITE PLANS PROVIDED BY BAUSCH & LOMB AND SITE SURVEYS TO LOCATE ALL MONITORING WELLS BY BB&L DATED 6/17/92, REVISED 4/13/94, 8/13/98, 10/28-29/98, AND 10/11/00.
2. LOCATIONS OF PROPERTY LINES, SUBSURFACE UTILITIES AND LIMITS OF BUILDINGS AND PARKING AREAS ARE APPROXIMATE.
3. ADJACENT PROPERTY INFORMATION FROM TRACT MAPS PREPARED BY LADUE ASSOCIATES P.C.; LOT NUMBERS 101 TO 118 AND 201 TO 208 WERE DESIGNATED BY LADUE ASSOCIATES P.C.; LOTS IDENTIFIED AS 301 TO 313 ARE IDENTIFIED HERE FOR CONVENIENCE ONLY. INVERT ELEVATION DATUM IS UNKNOWN.

PAUL ROAD  
(N.Y.S. ROUTE 252A)



**BAUSCH & LOMB INCORPORATED**  
 FORMER FRAME CENTER  
 CHILI, NEW YORK  
**ANNUAL REPORT**  
**SHALLOW OVERBURDEN WATER**  
**TABLE ELEVATION CONTOURS**  
**OCTOBER 3, 2005**

FIGURE  
**4**

10/13/2005 10:45:11 AM 11/24/2005 11:34 AM LAYOUT/LEGEND PAGESETUP...  
 PROJECT NAME: ...  
 PROJECT: ...



QUESTION 4

**BAUSCH  
& LOMB**

*Transmitted Via US Mail*

November 27, 2000

Mr. Dylan Keenan, P.E.  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
50 Wolf Road  
Albany, New York 12233-7010

Re: Surface-Water and Sediment Sampling Results  
Former Bausch & Lomb Frame Center, Site #8-28-061  
Chili, New York

Dear Mr. Keenan:

This letter serves to notify you of results for surface-water and sediment samples collected on the Carriage House Estates Property located immediately west of the former Bausch & Lomb Frame Center Site, Chili, New York. This sampling was conducted in accordance with my June 26, 2000 letter to you which was prepared in response to the New York State Department of Environmental Conservation's (NYSDEC's) June 19, 2000 conditional approval of the Ground-Water Remedial Design/Remedial Action (RD/RA) Work Plan.

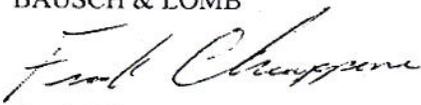
Surface-water and sediment samples were collected by a geologist from Blasland, Bouck & Lee, Inc. (BBL) on July 5, 2000 under the supervision of Mr. John Grathwol of the NYSDEC. Mr. Grathwol also collected split samples at each of the surface-water and sediment sampling locations. The sampling locations are shown on Figure 1. Each sample was collected using the procedures outlined in Attachment 2 of my June 26, 2000 response letter to you. Sample locations were staked immediately following sample collection to facilitate a future locational survey. On the date of sample collection, samples were hand-delivered to Columbia Analytical Services (CAS) for analysis of volatile organic compounds (VOCs) using NYSDEC Analytical Services Protocol (ASP) 95-1 Methods with a standard turn-around-time. The analytical data was validated following receipt of the full data packages from CAS. The analytical data tables are provided in Table 1.

As discussed in my June 27, 2000 letter and as agreed upon during a telephone conference call between you, Mr. Joseph Crua of the New York State Department of Health (NYSDOH), Mr. George Thomas of BBL, and the undersigned, samples were analyzed for only VOCs that were previously detected in ground water beneath the Carriage House Estates property. The list of VOCs that were analyzed for are provided in Table 1.

Please feel free to contact me or George Thomas of BBL if you have any questions regarding these results.

Sincerely,

BAUSCH & LOMB



Frank Chiappone  
Manager, Global Environmental Affairs

Xc: J. Grathwol (NYSDEC)

J:\BAUSCH\FRAMECTR\SWS\ED.WPD

Table 1

Volatile Organic Compounds in Surface Water and Sediment  
Former Bausch & Lomb Frame Center  
Chili, New York

Sample Location	SW-1	SW-2	SW-3	SW-3 SW-DUP	SW-4
Date Sampled	7/5/00	7/5/00	7/5/00	7/5/00	7/5/00
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U
Methylene chloride	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	10 U	10 U	10 U	10 U	10 U

Sample Location	SED-1	SED-2	SED-3	SED-3 Duplicate	SED-4
Date Sampled	7/5/00	7/5/00	7/5/00	7/5/00	7/5/00
1,1-Dichloroethane	14 U	12 U	12 U	12 U	12 U
1,1-Dichloroethene	14 U	12 U	12 U	12 U	12 U
2-Butanone	14 U	12 U	12 U	12 U	12 U
Acetone	<b>18</b>	<b>8 J</b>	12 U	12 U	<b>10 J</b>
Chloroform	14 U	12 U	12 U	12 U	12 U
cis-1,2-Dichloroethene	14 U	12 U	12 U	12 U	12 U
Methylene chloride	14 U	12 U	12 U	12 U	12 U
Tetrachloroethene	14 U	12 U	12 U	12 U	12 U
trans-1,2-Dichloroethene	14 U	12 U	12 U	12 U	12 U
Trichloroethene	14 U	12 U	12 U	12 U	12 U
Vinyl chloride	14 U	12 U	12 U	12 U	12 U

**Notes:**

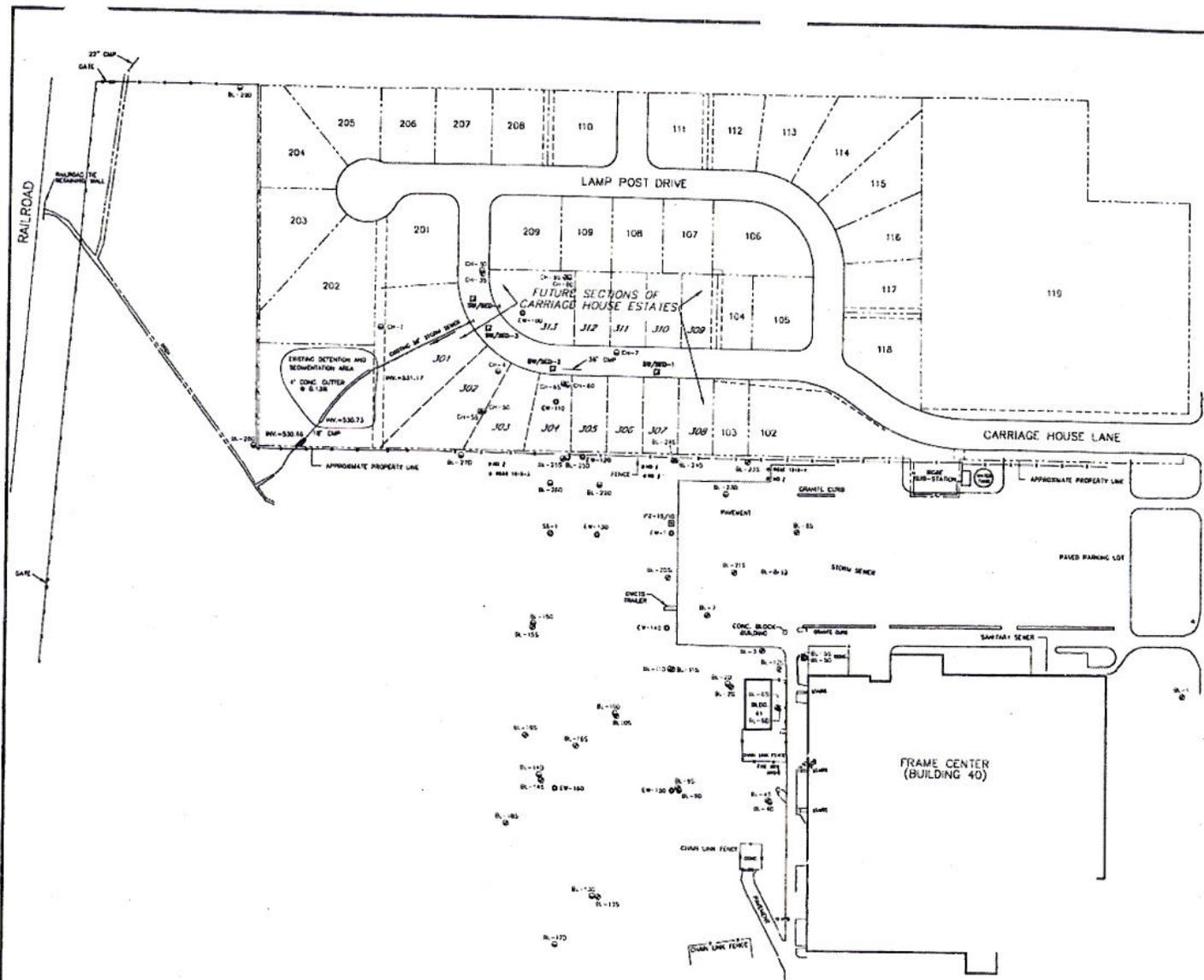
Sediment results are given in ug/Kg (micrograms per kilogram); equivalent to parts per billion (ppb).

Surface water results are given in ug/L (micrograms per liter); equivalent to ppb.

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Detections are bolded.



**LEGEND**

- MONITORING WELL INSTALLED IN SHALLOW OVERBURDEN
- MONITORING WELL INSTALLED AT BASE OF OVERBURDEN/TOP OF ROCK
- STAINLESS STEEL WELL POINT
- CATCH BASIN
- MANHOLE
- 6" EXTRACTION WELL
- 1" NESTED PIEZOMETER
- SURFACE WATER-SEDIMENT SAMPLE
- APPROXIMATE ADJACENT TRACT BOUNDARY
- APPROXIMATE PROPOSED LOT BOUNDARY
- APPROXIMATE EXISTING LOT BOUNDARY
- APPROXIMATE EASEMENT BOUNDARY
- FENCE

**NOTES**

1. SITE PLAN FOR THE ON-SITE AREAS COMPILED FROM EXISTING SITE PLANS PROVIDED BY BAUSCH & LOMB AND SITE SURVEYS TO LOCATE ALL MONITORING WELLS BY BBL DATED 6/17/92, REVISED 4/13/94, 8/13/98, 10/28-29/98, AND 10/11/00.
2. LOCATIONS OF PROPERTY LINES, SUBSURFACE UTILITIES AND LIMITS OF BUILDINGS AND PARKING AREAS ARE APPROXIMATE.
3. ADJACENT PROPERTY INFORMATION FROM TRACT MAPS PREPARED BY LADUE ASSOCIATES P.C.; LOT NUMBERS 101 TO 118 AND 201 TO 208 WERE DESIGNATED BY LADUE ASSOCIATES P.C.; LOTS IDENTIFIED AS 301 TO 308 ARE IDENTIFIED HERE FOR CONVENIENCE ONLY. INVERT ELEVATION DATUM IS UNKNOWN.

PAUL ROAD (N.Y.S. ROUTE 252A)



BAUSCH & LOMB INCORPORATED  
FORMER FRAME CENTER  
CHILI, NEW YORK

**SURFACE WATER AND SEDIMENT  
SAMPLING LOCATIONS**

**BBL** BLASLAND, BUCK & LEE, INC.  
engineers & scientists

FIGURE  
**1**

P:\02-DL-PCP OR BML\PCP  
L1.DWG - SHEET 1 OF 2  
11/17/00 6:18:54 - RCB/SCA  
34716090/14718822.DWG