

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

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In the Matter of the Implementation of a Voluntary Cleanup Agreement for Remedial Investigation/Remedial Action by:

**Lockheed Martin Corporation, "Volunteer".**

Index #: D7-0001-01-09

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**WHEREAS**, the Department is responsible for enforcement of the ECL and the NL and such laws provide the Department authority to enter into this Agreement;

**WHEREAS**, the Department has established a Voluntary Cleanup Program to address the environmental, legal and financial barriers that hinder the redevelopment and reuse of contaminated properties;

**WHEREAS**, Volunteer represents, and the Department has relied upon such representations in entering into this Agreement, that Volunteer's involvement with the Site is limited to the following: Volunteer has not taken title to the Site, has not previously owned the Site, but the Department, based on its review of available records, including analytical data, has determined that Volunteer is potentially responsible under law to remediate the Existing Contamination;

**WHEREAS**, the parties are entering into this Agreement in order to set forth a process through which the Department will approve and the Volunteer will implement activities designed to address in whole or in part environmental contamination at the Site; and

**WHEREAS**, the Department has determined that it is in the public interest to enter into this Agreement as a means to address environmental issues at the Site with private funds while ensuring the protection of human health and the environment;

**NOW, THEREFORE**, IN CONSIDERATION OF AND IN EXCHANGE FOR THE MUTUAL COVENANTS AND PROMISES, THE PARTIES AGREE TO THE FOLLOWING:

**I. Site Specific Definitions**

For purposes of this Agreement, the terms set forth in the Glossary attached to, and made a part of, this Agreement shall have the meanings ascribed to them in that Glossary. In addition, for purposes of this Agreement, the following terms shall have the following meanings:

A. "Contemplated Use": Unrestricted. Site conditions after remediation will be such that, with the exception of storm water management controls, no engineering controls, deed restrictions, or any other institutional controls are needed to make the site protective of public health and the environment. Upon information and belief, the parties understand the Site is currently located in the Bloody Brook Drainage District maintained by Onondaga County and is currently being used and is expected to continue to be used on a nonexclusive basis as a storm water management conveyance by Onondaga County.

B. "Existing Contamination": A series of environmental investigations of surface water and sediment quality in Bloody Brook, including the West and Middle Branches, have been performed. In September 1994, the Department conducted studies of water quality and collected biological samples in Bloody Brook. The biological sample (crayfish) analysis identified copper, cadmium, mercury and PCBs as contaminants of concern in the West and Middle Branches of Bloody Brook. The Department collected sediment samples upstream of Vine Street in the West Branch of Bloody Brook in November 1996 and October 1997, and in the East Branch of Bloody Brook in June of 1998. Volunteer has completed several phases of investigations in the West and Middle Branches of Bloody Brook.

In May 1996, Volunteer performed sediment and surface water sampling and analysis in the West and Middle branches of Bloody Brook for copper, cadmium, mercury and PCBs. This work was followed by additional sediment sampling and analysis in July 1996 and April 1997 focused on constituents identified by the Department: copper, cadmium, mercury and PCBs. Based on these investigations Volunteer performed an Interim Corrective Measure (ICM) pursuant to the Resource Conservation and Recovery Act (42 U.S.C. § 6902, *et seq.*) (RCRA) which consisted of the removal and off-site disposal of contaminated sediment from a portion of the West Branch (approximately 750 feet in length immediately downstream of the Thruway) in April 1997. The results of the RCRA investigations are summarized in the January 1997 RCRA Statement of Basis and February 1997 RCRA Final Decision, which are annexed hereto as Exhibit F.

In May, 1999, Volunteer collected additional sediment samples from Bloody Brook which were analyzed for copper and cadmium; also, two samples were analyzed for Target Analyte List and Target Compound List constituents. In July 2001, Volunteer collected four additional sediment samples from two locations downstream of the Penn Central Railroad culvert and analyzed them for the presence of cadmium. Cadmium was detected in sediment samples collected by Volunteer on these occasions. With the exception of those sediments removed by Volunteer during the ICM and by Onondaga County during its activities in the Drainage District, certain contaminated sediments remain in Bloody Brook.

In addition to the surface water and sediment sampling referenced above, limited soil sampling was performed by the Department along the banks of Bloody Brook on October 11, 2001 and cadmium was detected. Thereafter, Volunteer performed supplemental soil sampling of the banks in the West Branch and downstream of the confluence of the West and Middle Branches of Bloody Brook on November 15, 2001 and cadmium was also detected during that investigation. Additional investigation and, if necessary, remediation of the soil located in the banks of the West Branch and downstream of the confluence of the West and Middle branches of Bloody Brook is planned under this agreement.

The term "Existing Contamination" also includes contamination identified during the implementation of this Agreement, the nature and extent of which were unknown or not completely characterized as of the effective date of this Agreement, but which shall have been fully characterized and addressed to the Department's satisfaction.

C. "Site": a portion of the banks, surface waters and sediments of the West and Middle Branches of Bloody Brook located in the Town of Salina, which commences downstream

of Interstate 90, the New York State Thruway, and which extends generally southward past the confluence of the West Branch and the Middle Branch of Bloody Brook, and ends on the upstream side of Onondaga Lake Parkway. Bloody Brooks is one of nine tributaries to Onondaga Lake and contributes less than 1% of the total annual flow to the Lake from its tributaries. The Site consists of parcels of real property identified on the Town of Salina Section Maps 3, 28, 29, 30, 75, 90 and 91. Exhibit "A" of this Agreement is a map of the Site showing its general location.

D. "Volunteer": Lockheed Martin Corporation, a corporation organized and existing under the laws of the State of Maryland, operates businesses on portions of property at the Electronics Park facility in the Town of Salina, Onondaga County, New York.

## II. Development, Performance and Reporting of Work Plans

### A. Work Plan Labels

The work plans ("Work Plan" or "Work Plans") under this Agreement shall be captioned as follows:

1. "Investigation Work Plan" if the Work Plan provides for the investigation of the nature and extent of contamination at the Site;
2. "IRM Work Plan" if the Work Plan provides for an interim remedial measure;
3. "Remedial Action Work Plan" if the Work Plan provides for the Site's remediation to cleanup levels sufficient to allow for the Contemplated Use of the Site; or
4. "OM&M Work Plan" if the Work Plan provides for post-remedial construction operation, monitoring and/or maintenance.

### B. Submission/Implementation of Work Plans

1. The first proposed Work Plan to be submitted under this Agreement shall be submitted within 40 Days after the effective date of this Agreement. Thereafter, the Volunteer can submit such other and additional work plans it deems appropriate.

2. A proposed Work Plan shall be submitted for the Department's review and approval and shall include, at a minimum, a chronological description of the anticipated activities, a schedule for performance of those activities, and sufficient detail to allow the Department to evaluate that Work Plan. A Professional Engineer must prepare, sign, and seal all Work Plans other than an Investigation Work Plan. Upon the Department's written approval of a Work Plan, such Department-approved Work Plan shall be incorporated into and become an enforceable part of this Agreement and shall be implemented in accordance with the schedule contained therein. In the event the Department disapproves a Work Plan, within 20 Days after receiving written notice of such disapproval, Volunteer shall elect in writing to: (i) modify or expand it; (ii) complete any other Department-approved Work Plan(s); (iii) invoke dispute resolution pursuant to Paragraph XIII; or (iv) terminate this Agreement pursuant to Subparagraph XII.A.

3. During all field activities, Volunteer shall have on-Site a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained by Volunteer to perform such supervision.

C. Revisions to Work Plans

If revisions to a Work Plan are required to satisfy the objectives of such Work Plan, the parties will negotiate revisions which shall be attached to and incorporated into the relevant Work Plan and which shall be enforceable under this Agreement. If the parties cannot agree upon revisions to the relevant Work Plan, then unless the Volunteer invokes dispute resolution pursuant to Paragraph XIII, either party may terminate this Agreement pursuant to Subparagraph XII.A.

D. Submission of Final Reports

1. In accordance with the schedule contained in a Work Plan, Volunteer shall submit a final report which includes the caption of that Work Plan on the cover page. The final report pertaining to that Work Plan's implementation shall include but not be limited to: all data generated relative to the Site and all other information obtained as part of the implementation of the subject Work Plan; all of the assessments and evaluations required by the subject Work Plan; a statement of any additional data that must be collected; and "as-built" drawings, to the extent necessary, showing all changes made during construction. Additionally, the final report for an Investigation Work Plan shall contain a certification by the person with primary responsibility for the day to day performance of the activities under this Agreement that those activities were performed in full accordance with the Investigation Work Plan, and all other final reports must contain such certification made by a Professional Engineer with primary responsibility for the day to day performance of the activities under this Agreement.

2. An OM&M Work Plan, if necessary, shall be submitted in accordance with the schedule set forth in the IRM Work Plan or Remedial Action Work Plan.

E. Review of Submittals other than Work Plans

1. The Department shall timely notify Volunteer in writing of its approval or disapproval of each submittal other than a Work Plan. All Department-approved submittals shall be incorporated into and become an enforceable part of this Agreement.

2. If the Department disapproves a submittal covered by this subparagraph, it shall specify the reasons for its disapproval and may request Volunteer to modify or expand the submittal. Within 20 Days after receiving written notice that Volunteer's submittal has been disapproved, Volunteer shall elect in writing to either (i) modify or expand it; (ii) complete any other Department-approved Work Plan(s); (iii) invoke dispute resolution pursuant to Paragraph XIII; or (iv) terminate this Agreement pursuant to Subparagraph XII.A. If Volunteer submits a revised submittal and it is disapproved, the Department and Volunteer may pursue whatever remedies may be available under this Agreement or under law.

3. Within 60 Days of the Department's approval of a final report, Volunteer shall submit such additional Work Plans as it proposes to implement. Failure to submit any additional Work Plans within such period shall, unless other Work Plans are under review by the Department or being implemented by Volunteer, result in the termination of this Agreement pursuant to Subparagraph XII.B.

4. All approved final reports shall be submitted to the Department in an electronic format acceptable to the Department within 30 Days of approval of such final report.

F. Department's Determination of Need for Remediation

The Department will determine upon its approval of each final report dealing with the investigation of the Site whether remediation, or additional remediation as the case may be, is needed to allow the Site to be used for the Contemplated Use.

1. The Department shall timely notify Volunteer if it determines that remediation, or additional remediation, is not needed to allow the Site to be used for the Contemplated Use. If the Department determines that additional remediation is not needed and such determination is based upon use restrictions, Volunteer shall file a Declaration of Covenants and Restrictions in accordance with Paragraph X within 60 Days of receipt of the Department's determination. Upon receipt of a copy of such instrument, the Department will provide Volunteer with the Release described in Subparagraph II.H.

2. If the Department determines that remediation, or additional remediation, is needed to allow the Site to be used for the Contemplated Use, Volunteer may elect to submit for review and approval a proposed Work Plan (or a revision to an existing Remedial Action Work Plan for the Site) which addresses the remediation of Existing Contamination. Such proposed Work Plan shall include, among other requirements, an evaluation of the proposed remedy considering the factors set forth in 6 NYCRR 375-1.10(c)(1) through (c)(6), excluding consideration of cost-effectiveness. At a minimum, the remedial activities contemplated by the proposed Work Plan must eliminate or mitigate all significant threats to the public health and/or the environment and must result in the Site being protective of public health and the environment for the Contemplated Use. The Department will notice a proposed Work Plan addressing the Site's remediation for public comment in accordance with Subparagraph II.G of this Agreement. If Volunteer elects not to develop a Work Plan under this Subparagraph or either party concludes that a mutually acceptable Work Plan under this Subparagraph cannot be negotiated, then this Agreement shall terminate in accordance with Subparagraph XII.A

G. Notice of Proposed Work Plan for the Site's Remediation

Whenever a Work Plan for the Site's remediation (other than an IRM Work Plan) is proposed, the Department will publish a notice in the Environmental Notice Bulletin to inform the public of the opportunity to submit comments on the proposed Work Plan within 30 Days after the date of the issue in which the notice appears. The Department shall mail an equivalent notice to the Village of Liverpool, the Town of Salina and Onondaga County. The Department will notify Volunteer following the close of the public comment period whether the proposed Work Plan needs to be revised. If the Department determines that revisions are necessary for

Site conditions to be protective of the public health or the environment based upon the Contemplated Use, Volunteer agrees to negotiate revisions to the proposed Work Plan in accordance with Paragraph II.C. If the Department determines that no revisions are required, then the Work Plan shall be attached hereto as Exhibit "B."

#### H. Release and Covenant Not To Sue

Upon the Department's determination that (i) Volunteer is in compliance with the Agreement; (ii) no requirements other than those remedial actions, exclusive of OM&M activities, already conducted at the Site, if any, are necessary to assure that Site conditions are protective of the public health and the environment based upon the Contemplated Use; and (iii) Volunteer has complied, if required, with Paragraph X, the Department shall provide Volunteer with the Release and Covenant Not to Sue attached hereto as Exhibit "C," subject to the terms and conditions stated therein.

#### I. Submission of Annual Reports, if required

If institutional or engineering controls are relied upon as part of the remedy implemented under this Agreement, Volunteer shall cause the filing of an annual report by January 15<sup>th</sup> until the Department notifies Volunteer in writing that the remedial process is concluded. Such annual report shall be signed by a Professional Engineer and shall contain a certification that the institutional and engineering controls put in place pursuant to this Agreement are still in place, have not been altered and are still effective.

#### III. Progress Reports

Volunteer shall submit a written progress report of its actions under this Agreement to the parties identified in Subparagraph XI.A.1 by the 10<sup>th</sup> Day of each month commencing with the month subsequent to the approval of the first Work Plan and ending with the Termination Date, unless a different frequency is set forth in a Work Plan. Such reports shall, at a minimum, include: all actions relative to the Site during the previous reporting period and those anticipated for the next reporting period; all approved activity modifications (changes of work scope and/or schedule); all results of sampling and tests and all other data received or generated by or on behalf of Volunteer in connection with this Site, whether under this Agreement or otherwise, in the previous reporting period, including quality assurance/quality control information; information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule, efforts made to mitigate such delays, and information regarding activities undertaken in support of the Citizen Participation Plan during the previous reporting period and those anticipated for the next reporting period.

#### IV. Enforcement

This Agreement shall be enforceable as a contractual agreement under the laws of the State of New York. Volunteer shall not suffer any penalty or be subject to any proceeding or action if it cannot comply with any requirement of this Agreement as a result of a Force Majeure Event provided it notifies the Department in writing within 10 Working Days of when it obtains knowledge of any such event. Volunteer shall include in such notice the measures taken and to

be taken to prevent or minimize any delays and shall request an appropriate extension or modification of this Agreement. Volunteer shall have the burden of proving by a preponderance of the evidence that an event qualifies as a defense to compliance pursuant to this Paragraph.

V. Entry upon Site

A. Volunteer hereby consents, upon reasonable notice under the circumstances presented, to entry upon the Site or areas in the vicinity of the Site which may be under the control of Volunteer, by any duly designated officer or employee of the Department or any State agency having jurisdiction with respect to the matters addressed in a Department-approved Work Plan, and by any agent, consultant, contractor or other person so authorized by the Commissioner, all of whom shall abide by the health and safety rules in effect for the Site, for (i) inspecting, sampling, and copying records related to the contamination at the Site; (ii) implementing the activities under this Agreement; and (iii) testing and any other activities necessary to ensure Volunteer's compliance with this Agreement. Volunteer shall provide the Department with suitable office space at the Site, including access to a telephone, to the extent same are available. Upon request, Volunteer shall permit the Department full access to all non-privileged records relating to matters addressed by this Agreement. Raw data is not considered privileged and that portion of any privileged document containing raw data must be provided to the Department.

B. The Department shall have the right to take its own samples and scientific measurements and the Department and Volunteer shall have the right to obtain samples, duplicate samples, or both, of all substances and materials sampled. The Department shall make the results of all sampling and scientific measurements taken under this Subparagraph available to Volunteer.

VI. Payment of State Costs

A. Within 45 Days after receipt of an itemized invoice from the Department, Volunteer shall pay to the Department a sum of money which shall represent reimbursement for State Costs for work performed at or in connection with the Site prior to the effective date of this Agreement, as well as for negotiating this Agreement, and all costs associated with this Agreement, through and including the Termination Date.

B. Personal service costs shall be documented by reports of Direct Personal Service, which shall identify the employee name, title, biweekly salary, and time spent (in hours) on the project during the billing period, as identified by an assigned time and activity code. Approved agency fringe benefit and indirect cost rates shall be applied. Non-personal service costs shall be summarized by category of expense (e.g., supplies, materials, travel, contractual) and shall be documented by expenditure reports. The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with, Article 6 of the Public Officers Law.

C. Such invoice shall be sent to Volunteer at the following address:  
Patrick D. Salvador, P.E., Principal Engineer  
Lockheed Martin Corporation

Naval Electronics & Surveillance Systems  
EP6 Room 48  
P.O. Box 4840  
Syracuse, NY 13221-4840

D. Each such payment shall be made payable to the Department of Environmental Conservation and shall be sent to: Bureau of Program Management, Division of Environmental Remediation, New York State Department of Environmental Conservation, 625 Broadway, Albany, NY 12233-7010.

E. Each party shall provide written notification to the other within 90 Days of any change in the foregoing addresses.

F. Volunteer may contest, in writing, invoiced costs under Subparagraph VI.A if it believes (i) the cost documentation contains clerical, mathematical, or accounting errors; (ii) the costs are not related to the State's activities reimbursable under this Agreement; or (iii) the Department is not otherwise legally entitled to such costs. If Volunteer objects to an invoiced cost, Volunteer shall pay all costs not objected to within the time frame set forth in Subparagraph VI.A and shall, within 30 Days of receipt of an invoice, identify in writing all costs objected to and identify the basis of the objection. This objection shall be filed with the Division of Environmental Remediation's Director of the Bureau of Program Management. The Director or the Director's designee shall have the authority to relieve Volunteer of the obligation to pay invalid costs. Within 45 Days of the Department's determination of the objection, Volunteer shall pay to the Department the amount which the Director or the Director's designee determines Volunteer is obligated to pay or commence an action or proceeding seeking appropriate judicial relief.

G. In the event any instrument for the payment of any money due under this Agreement fails of collection, such failure of collection shall constitute a violation of this Agreement, provided (i) the Department gives Volunteer written notice of such failure of collection, and (ii) the Department does not receive from Volunteer a certified check or bank check within 14 Days after the date of the Department's written notification.

## VII. Reservation of Rights

A. 1. Except as provided in the Release and Covenant Not to Sue (Exhibit "C") after its issuance and except as provided in Subparagraph VII.A.2, nothing contained in this Agreement shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities, including, but not limited to, the right to recover natural resource damages, the right to take any investigatory or remedial action deemed necessary, and the right to exercise summary abatement powers with respect to any party, including Volunteer.

2. Except for the Department's right to take any investigatory or remedial action deemed necessary as a result of a significant threat resulting from the Existing Contamination or to exercise summary abatement powers, the Department shall not take any enforcement action under ECL Article 27, Titles 9 and 13, under CERCLA, under the NL, or under comparable statutory or common law theories of remedial liability with respect to the



Existing Contamination, to the extent that such contamination is being addressed under the Agreement, against Volunteer or Volunteer's grantees, successors or assigns during the implementation of this Agreement, provided such party is in compliance with the terms and provisions of this Agreement, including, without limitation, the requirements of all Work Plans and amendments thereto.

B. Except as otherwise provided in this Agreement, Volunteer specifically reserves all rights and defenses under applicable law to contest, defend against, dispute or disprove any actions, proceedings, allegations, assertions, determination or order of the Department, including any assertion of remedial liability by the Department against Volunteer, and further reserves all rights including the rights to notice, to be heard, to appeal, and to any other due process respecting any action or proceeding by the Department, including the enforcement of this Agreement. The existence of this Agreement or Volunteer's compliance with it shall not be construed as an admission of liability, fault, wrongdoing or violation of law by Volunteer, and shall not give rise to any presumption of law or finding of fact which shall inure to the benefit of any third party.

C. Except as provided in Subparagraph XIV.O, Volunteer reserves such rights as it may have to seek and obtain contribution, indemnification and/or any other form of recovery from its insurers and from other potentially responsible parties or their insurers, for past or future response and/or cleanup costs or such other costs or damages arising from contamination at the Site as provided under applicable law.

#### VIII. Indemnification

Volunteer shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages, and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Agreement by Volunteer prior to the Termination Date except for liability arising from (i) vehicular accidents occurring during travel to or from the Site; or (ii) from willful, wanton or malicious acts or acts constituting gross negligence or criminal behavior by the Department, the State of New York, and/or their representatives and employees during the course of any activities conducted pursuant to this Agreement. The Department shall provide Volunteer with written notice no less than 30 Days prior to commencing a lawsuit seeking indemnification pursuant to this Paragraph.

#### IX. Public Notice

A. Within 30 Days after the effective date of this Agreement, Volunteer shall cause to be filed a Department-approved Notice of Agreement, which Notice shall be substantially similar to the Notice of Agreement attached to this Agreement as Exhibit "D," with the County Clerk in the county in which the Site is located (or the City Register if the Site is located in Manhattan, Bronx, Kings or Queens County) to give all parties who may acquire any interest in the Site notice of this Agreement. Within 30 Days of such filing (or such longer period of time as may be required to obtain a certified copy provided Volunteer advises the Department of the status of its efforts to obtain same within 30 Days), Volunteer shall provide the Department with a copy of such instrument certified by such County Clerk (or the City Register) to be a true and

faithful copy. Volunteer may terminate such Notice on or after the Termination Date of this Agreement.

B. If Volunteer proposes to convey the whole or any part of Volunteer's ownership interest in the Site, or becomes aware of such conveyance, Volunteer shall, not fewer than 45 Days before the date of conveyance or within 45 Days after becoming aware of such conveyance, notify the Department in writing of the identity of the transferee and of the nature and proposed date of the conveyance, and shall notify the transferee in writing, with a copy to the Department, of the applicability of this Agreement. However, such obligation shall not extend to the granting of any rights under any mortgage, deed, trust, assignment, judgment, lien, pledge, security agreement, lease or any other right accruing to a person not affiliated with Volunteer to secure the repayment of money or the performance of a duty or obligation.

#### X. Declaration of Covenants and Restrictions

A. Within 30 Days after the Department's approval of a Remedial Action Work Plan which relies upon one or more institutional controls, or within 30 Days after the Department's determination pursuant to Subparagraph II.F.1 that additional remediation is not needed based upon use restrictions, Volunteer shall submit to the Department for approval a Declaration of Covenants and Restrictions to run with the land which provides for covenants and restrictions consistent with the Work Plan. The submittal shall be substantially similar to Exhibit "E." Volunteer shall cause such instrument to be recorded with the County Clerk (or the City Register) in the county in which the Site is located within 30 Days of the Department's approval of such instrument. Volunteer shall provide the Department with a copy of such instrument certified by the County Clerk (or the City Register) to be a true and faithful copy within 30 Days of such recording (or such longer period of time as may be required to obtain a certified copy provided Volunteer advises the Department of the status of its efforts to obtain same within such 30 Day period).

B. Volunteer or the owner of the Site may petition the Department to modify or terminate the Declaration of Covenants and Restrictions filed pursuant to this Paragraph at such time as it can certify that the Site is protective of human health and the environment for residential uses without reliance upon the restrictions set forth in such instrument. Such certification shall be made by a Professional Engineer. The Department will not unreasonably withhold its consent.

#### XI. Communications

A. All written communications required by this Agreement shall be transmitted by United States Postal Service, by private courier service, or hand delivered.

1. Communication from Volunteer shall be sent to:

David Smith, Bureau Chief  
New York State Department of Environmental Conservation

625 Broadway  
Albany, NY 12233-7010

Note: four copies (one unbound) of work plans are required to be sent.

Michael Komoroske, Central Office VCP Coordinator  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7010

Gary Litwin  
Bureau of Environmental Exposure Investigation  
New York State Department of Health  
Flanigan Square  
547 River Street  
Troy, New York 12180-2216

Note: two copies of work plans are required to be sent, and

Henrietta Hamel  
New York State Department of Health  
217 South Salina Street, 3<sup>rd</sup> Floor  
Syracuse, NY 13202

Richard Mustico, Project Manager  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7010

Carol Conyers, Esq.  
New York State Department of Environmental Conservation  
625 Broadway, 14<sup>th</sup> Floor  
Albany, NY 12233-5500

2. Communication from the Department to Volunteer shall be sent to:

Sandra Lee Fenske, Esq.  
Vice President and General Counsel  
Lockheed Martin Corporation  
Naval Electronics & Surveillance Systems  
EP7-110, MD19  
P.O. Box 4840  
Syracuse, NY 13221-4840

Mr. Brian A. Kent  
Manager, Environment, Safety & Health  
Lockheed Martin Corporation

Naval Electronics & Surveillance Systems  
EP6-48  
P.O. Box 4840  
Syracuse, NY 13221-4840

Patrick D. Salvador, P.E., Principal Engineer  
Lockheed Martin Corporation  
Naval Electronics & Surveillance Systems  
EP-6 Room 48  
P.O. Box 4840  
Syracuse, NY 13221-4840

Virginia C. Robbins, Esq.  
Bond, Schoeneck & King  
One Lincoln Center  
Syracuse, NY 13202

B. The Department and Volunteer reserve the right to designate additional or different addressees for communication on written notice to the other.

C. Each party shall notify the other within 90 Days after any change in the addresses listed in this Paragraph XI or in Paragraph VI.

## XII. Termination of Agreement

A. 1. Volunteer may elect in writing to terminate this Agreement without cause while the Department may only elect to terminate this Agreement for cause, which shall be established so long as the Department's stated reason is not arbitrary and capricious. The Department shall include in its notice of termination the basis for its election to terminate this Agreement.

2. In the event of either party's election to terminate this Agreement, this Agreement shall terminate effective the 5th Day after the non-terminating party's receipt of the written notification terminating this Agreement, except that such termination shall not affect the provisions contained in Paragraphs IV, VI and VIII and in Subparagraph XIV.O, nor Volunteer's obligation to ensure that it does not leave the Site in a condition, from the perspective of human health and environmental protection, worse than that which prevailed before any activities were commenced under this Agreement, which provisions and obligation shall survive the termination of this Agreement.

B. Notwithstanding Subparagraph XII.A, this Agreement shall terminate without notice in the event that Volunteer fails to submit additional Work Plans in accordance with Subparagraph II.E, unless other Work Plans are under review by the Department or being implemented by Volunteer.

### XIII. Dispute Resolution

A. If Volunteer disagrees with the Department's notice of disapproval of a submittal or a proposed Work Plan, disapproval of a final report, nullification of this Agreement pursuant to Subparagraph XIV.A.2, or rejection of Volunteer's assertion of a Force Majeure Event, Volunteer shall, within 30 Days of receipt of such notice, request in writing informal negotiations with the Department in an effort to resolve the dispute. A copy of such request shall be sent by Volunteer to the appropriate Remedial Bureau Chief in the Department's Central Office. The Department and Volunteer shall consult together in good faith and exercise best efforts to resolve any differences or disputes without resort to the procedures described in Subparagraph XIII.B. The period for informal negotiations shall not exceed 30 Days from Volunteer's request for informal negotiations. If the parties cannot resolve a dispute by informal negotiations during this period, the Department's position shall be considered binding unless Volunteer notifies the Department in writing within 30 Days after the conclusion of the 30 Day period for informal negotiations that it invokes the dispute resolution provisions provided under Subparagraph XIII.B.

B. 1. Volunteer shall serve upon the ADD a request for formal dispute resolution and a written statement of the issues in dispute, the relevant facts upon which the dispute is based, factual data, analysis or opinion supporting its position, and all supporting documentation upon which Volunteer relies (hereinafter called the "Statement of Position"). A copy of such request and written statement shall be provided to the parties listed under Subparagraph XI.A.

2. The Department shall serve its Statement of Position no later than 20 Days after receipt of Volunteer's Statement of Position.

3. Volunteer shall have the burden of proving by a preponderance of the evidence that the Department's position is not in accordance with law or otherwise should not prevail. The ADD can conduct meetings, in person or via telephone conferences, and request additional information from either party if such activities will facilitate a resolution of the issues.

4. The ADD will issue a final decision resolving the dispute in a timely manner. The final decision shall constitute a final agency action and Volunteer shall have the right to seek judicial review of the decision pursuant to Article 78 of the CPLR provided that Volunteer commences such proceeding within 45 Days after receipt of a copy of the decision. Volunteer shall be in violation of this Agreement if it fails to comply with the final decision resolving this dispute within 45 Days after the date of such final decision, or such other time period as may be provided in the final decision, unless it seeks judicial review of such decision within the 45 Day period provided. In the event that Volunteer seeks judicial review, Volunteer shall be in violation of this Agreement if it fails to comply with the final order or settlement within 30 Days after its effective date, unless otherwise directed by the Court. For purposes of this Subparagraph, a determination shall not be final until the time to perfect an appeal of that determination has expired.

5. The invocation of dispute resolution shall not extend, postpone or modify Volunteer's obligations under this Agreement with respect to any item not in dispute unless or until the Department agrees or a court determines otherwise.

6. The Department shall keep an administrative record which shall be available consistent with Article 6 of the Public Officers Law.

#### XIV. Miscellaneous

A. 1. Volunteer hereby certifies that all information known to Volunteer and all information in the possession or control of Volunteer and its agents which relates in any way to the contamination existing at the Site on the effective date of this Agreement, and to any past or potential future release of hazardous substances, pollutants, or contaminants at or from the Site, and to its application for this Agreement, has been fully and accurately disclosed to the Department in conjunction with the Volunteer's application for the Voluntary Cleanup Program.

2. If the information provided and certifications made by Volunteer are not materially accurate and complete, this Agreement, except with respect to the provisions of Paragraphs IV, VI and VIII and Subparagraph XIV.L, at the sole discretion of the Department, shall be null and void *ab initio* 15 Days after the Department's notification of such inaccuracy or incompleteness and the Department shall reserve all rights that it may have, unless, however, Volunteer submits information within that 15 Day time period indicating that the information provided and the certifications made were materially accurate and complete.

B. Volunteer shall allow the Department to attend, and shall notify the Department at least 7 Working Days in advance of, any field activities to be conducted pursuant to this Agreement, as well as any pre-bid meetings, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting.

C. Volunteer shall use "best efforts" to obtain all Site access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls, or authorizations necessary to perform Volunteer's obligations under this Agreement, except that the Department may exempt Volunteer from the requirement to obtain any permit issued by the Department for any activity that is conducted on the Site and that the Department determines satisfies all substantive technical requirements applicable to like activity conducted pursuant to a permit. If, despite Volunteer's best efforts, any access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls, or authorizations required to perform this Agreement are not obtained within 45 Days after the effective date of this Agreement or within 45 Days after the date the Department notifies Volunteer in writing that additional access beyond that previously secured is necessary, Volunteer shall promptly notify the Department, and shall include in that notification a summary of the steps Volunteer has taken to obtain access. The Department may, as it deems appropriate and within its authority, assist Volunteer in obtaining access. If an interest in property is needed to implement an institutional control required by a Work Plan and such interest cannot be obtained, the Department may require that Volunteer modify the Work Plan pursuant to Subparagraph II.C of this Agreement.

D. Volunteer shall not be considered an operator of the Site solely by virtue of having executed and/or implemented this Agreement.

E. Volunteer shall provide a copy of this Agreement to each contractor hired to perform work required by this Agreement and shall condition all contracts entered into to carry out the obligations identified in this Agreement upon performance in conformity with the terms of this Agreement. Volunteer or its contractor(s) shall provide written notice of this Agreement to all subcontractors hired to perform any portion of the work required by this Agreement. Volunteer shall nonetheless be responsible for ensuring that Volunteer's contractors and subcontractors perform the work in satisfaction of the requirements of this Agreement.

F. The paragraph headings set forth in this Agreement are included for convenience of reference only and shall be disregarded in the construction and interpretation of any provisions of this Agreement.

G. 1. The terms of this Agreement shall constitute the complete and entire agreement between the Department and Volunteer concerning the implementation of the Work Plan(s) attached to this Agreement. No term, condition, understanding or agreement purporting to modify or vary any term of this Agreement shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department shall be construed as relieving Volunteer of Volunteer's obligation to obtain such formal approvals as may be required by this Agreement. In the event of a conflict between the terms of this Agreement and any Work Plan submitted pursuant to this Agreement, the terms of this Agreement shall control over the terms of the Work Plan(s) attached as Exhibit "B." Volunteer consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Agreement.

2. i. Except as set forth herein, if Volunteer desires that any provision of this Agreement be changed, other than a provision of a Work Plan or a time frame, Volunteer shall make timely written application to the Commissioner with copies to the parties listed in Subparagraph XI.A.1. The Commissioner or the Commissioner's designee shall timely respond.

ii. Changes to the Work Plan shall be accomplished as set forth in Subparagraph II.C of this Agreement.

iii. Changes to a time frame set forth in this Agreement shall be accomplished by a written request to the Department's project attorney and project manager, which request shall be timely responded to in writing. The Department's decision relative to a request for a time frame change shall be subject to dispute resolution pursuant to Paragraph XII.

H. 1. If there are multiple parties signing this Agreement, the term "Volunteer" shall be read in the plural where required to give meaning to this Agreement. Further, the obligations of the Volunteers under this Agreement are joint and several and the "bankruptcy" or failure by any Volunteer to implement the obligations under this Agreement

shall not affect the obligations of the remaining Volunteer(s) to carry out the obligations under this Agreement.

2. If Volunteer is a partnership, the obligations of all general partners, including limited partners who act as general partners, to finance and perform obligations under this Agreement and to pay amounts owed the Department under this Order are joint and several. In the event of the insolvency or other failure of any one or more of the general partners to implement the requirements of this Agreement, the remaining general partners shall complete all such requirements.

3. Notwithstanding the foregoing Subparagraphs XIV.H. 1 and 2, if multiple parties sign this Agreement as Volunteers but not all of the signing parties elect, pursuant to Subparagraph II.F.2, to implement a Work Plan, then all Volunteers are jointly and severally liable for each and every obligation under this Agreement through the completion of activities in such Work Plan that all such parties consented to; thereafter, only those Volunteers electing to perform additional work shall be jointly and severally liable under this Agreement for the obligations and activities under such additional Work Plan(s). The parties electing not to implement the additional Work Plan(s) shall have no obligations under this Agreement relative to the activities set forth in such Work Plan(s). Further, only those Volunteers electing to implement such additional Work Plan(s) shall be eligible to receive the release and covenant not to sue as provided under Subparagraph II.H.

I. Except as provided in Subparagraph XIV.K., and to the extent authorized under 42 U.S.C. Section 9613, New York General Obligations Law Section 15-108, and any other applicable law, Volunteer shall be deemed to have resolved its liability to the State for purposes of contribution protection provided by CERCLA Section 113(f)(2) for "matters addressed" pursuant to and in accordance with this Agreement. "Matters addressed" in this Agreement shall mean all response actions taken to implement this Agreement for the Site and all response costs incurred and to be incurred by any person or party in connection with the work performed under this Agreement, including reimbursement of the State's costs pursuant to this Agreement.

J. Volunteer, Volunteer's grantees, lessees, sublessees, successors, and assigns shall be bound by this Agreement. Any change in ownership of Volunteer including, but not limited to, any transfer of assets or real or personal property, shall in no way alter Volunteer's responsibilities under this Agreement.

K. All activities undertaken by Volunteer pursuant to this Agreement shall be performed in accordance with the requirements of all applicable federal and State laws and regulations.

L. Unless otherwise expressly provided herein, terms used in this Agreement which are defined in ECL Article 27, Title 13 or in regulations promulgated under such statute shall have the meaning assigned to them under said statute or regulations. Whenever terms listed in the Glossary attached hereto are used in this Agreement or in the attached Exhibits, the



definitions set forth in the Glossary shall apply. In the event of a conflict, the definition set forth in the Glossary shall control.

M. Volunteer's obligations under this Agreement represent payment for or reimbursement of response costs, and shall not be deemed to constitute any type of fine or penalty.

N. This Agreement may be executed for the convenience of the parties hereto, individually or in combination, in one or more counterparts, each of which shall be deemed to have the status of an executed original and all of which shall together constitute one and the same.

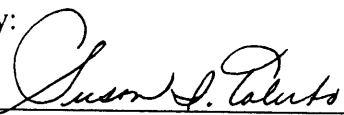
O. Volunteer and Volunteer's employees, servants, agents, lessees, sublessees, grantees, successors, and assigns hereby waive any right to pursue reimbursement of monies expended by Volunteer prior to the Termination Date as against the State or the Spill Fund, and agree to indemnify and hold harmless the Spill Fund from any and all legal or equitable claims, suits, causes of action, or demands whatsoever with respect to the Site that any of same has or may have as a result of Volunteer's entering into or fulfilling the terms of this Agreement with respect to the Site.

P. The effective date of this Agreement is the Day after the date it is signed by the Commissioner or the Commissioner's designee.

DATED: *July 19, 2002*

ERIN M. CROTTY, COMMISSIONER  
NEW YORK STATE DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION

By:



Susan I. Taluto  
Deputy Commissioner  
Water Quality and Environmental Remediation

CONSENT BY VOLUNTEER

Volunteer hereby consents to the issuing and entering of this Agreement, waives Volunteer's right to a hearing herein as provided by law, and agrees to be bound by this Agreement.

Volunteer's Name

By:

Title: Naval Electronics +  
President, Surveillance Systems

Company: Radar Systems  
Lockheed Martin

Date: June 12, 2002

STATE OF NEW YORK     )  
  ) ss:  
COUNTY OF Onondaga     )

On the 12 day of June, in the year 2002, before me, the undersigned, personally appeared Michael A. Smith, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Brenda K. Arnault  
Signature and Office of individual  
taking acknowledgment

BRENDA K. ARNAULT  
Notary Public in the State of New York  
Qualified in Onondaga County No. 4733047  
My Commission Expires March 30, 2003

**EXHIBIT "A"**

**Map of Site**

DRAWING  
NUMBER 824446A3

APPROVED BY

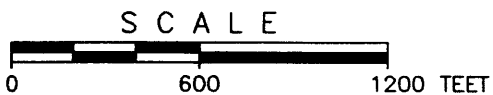
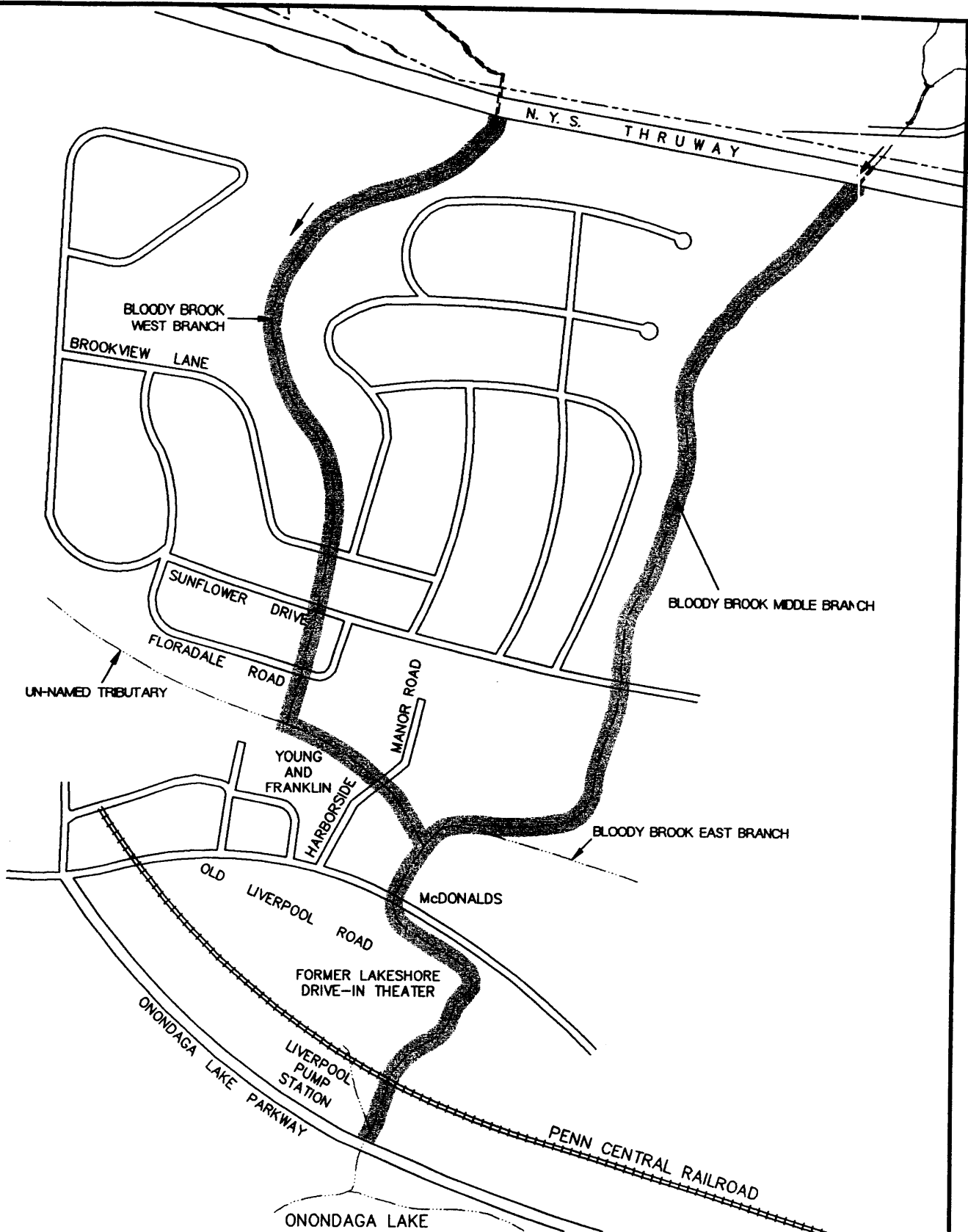
CHECKED BY

DRAWN BY  
S. SHKOLNIK 06-07-02



OFFICE  
ALBANY, NY

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**LEGEND**

-  SURFACE WATER
-  APPROXIMATE SITE BOUNDARY



BLOODY BROOK  
ONONDAGA COUNTY, NEW YORK

SITE MAP

**EXHIBIT "B"**

**Department-Approved Work Plan(s)**

## **EXHIBIT "C"**

### **Release and Covenant Not to Sue**

Unless otherwise specified in this letter, all terms used in this letter shall have the meaning assigned to them under the terms of the Voluntary Cleanup Agreement entered into between the New York State Department of Environmental Conservation (the "Department") and \_\_\_\_\_ ("Volunteer"), Index No. \_\_\_\_\_ (the "Agreement").

The Department is pleased to report that the Department is satisfied that the Agreement's Work Plan(s) relative to the Site, located at \_\_\_\_\_ has been successfully implemented.

The Department, therefore, hereby releases, covenants not to sue, and shall forbear from bringing any action, proceeding, or suit pursuant to the Environmental Conservation Law, the NL or the State Finance Law, and from referring to the Attorney General any claim for recovery of costs incurred by the Department, against Volunteer and Volunteer's lessees and sublessees, grantees, successors and assigns, and their respective secured creditors, for the further investigation and remediation of the Site, based upon the release or threatened release of Covered Contamination, provided that (a) timely payments of the amounts specified in Paragraph VI of the Agreement continue to be or have been made to the Department, (b) appropriate deed restrictions remain recorded in accordance with Paragraph X of the Agreement, and (c) Volunteer and/or its' lessees, sublessees, successors, or assigns promptly commence and diligently pursue to completion the Work Plan providing for OM&M, if any. Nonetheless, the Department hereby reserves all of its respective rights concerning, and such release, covenant not to sue, and forbearance shall not extend to natural resource damages or to any further investigation or remedial action the Department deems necessary:

- due to migration off-Site of contaminants resulting in impacts that are not inconsequential to environmental resources, to human health, or to other biota and to off-Site migration of petroleum;
- due to environmental conditions or information related to the Site which were unknown at the time this Release and Covenant not to Sue was issued and which indicate that the Contemplated Use cannot be implemented with sufficient protection of human health and the environment;

- due to Volunteer's failure to implement the Agreement to the Department's satisfaction; or
- due to fraud committed by Volunteer in entering into or implementing this Agreement.

Additionally, the Department hereby reserves all of its respective rights concerning, and any such release, covenant not to sue, and forbearance shall not extend to Volunteer nor to any of Volunteer's lessees, sublessees, successors, or assigns who cause or allow a release or threat of release at the Site of any hazardous substance (as that term is defined at 42 USC 9601[14]) or petroleum (as that term is defined in Navigation Law § 172[15]), other than Covered Contamination; or cause or allow the use of the Site to change from the Contemplated Use to one requiring a lower level of residual contamination before that use can be implemented with sufficient protection of human health and the environment; nor to any of Volunteer's lessees, sublessees, successors, or assigns who is otherwise a party responsible under law for the remediation of the Existing Contamination independent of any obligation that party may have respecting same resulting solely from the Agreement's execution.

Notwithstanding the above, however, with respect to any claim or cause of action asserted by the Department, the one seeking the benefit of this release, covenant not to sue, and forbearance shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable solely to Covered Contamination.

Notwithstanding any other provision in this release, covenant not to sue, and forbearance,

- if with respect to the Site there exists or may exist a claim of any kind or nature on the part of the New York State Environmental Protection and Spill Compensation Fund against any party, nothing in this letter shall be construed or deemed to preclude the State of New York from recovering such claim.
- except as provided in this letter and in Agreement, nothing contained in the Agreement or in this letter shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights (including, but not limited to, the right to recover natural resources damages) with respect to any party, including Volunteer.
- nothing contained in this letter shall prejudice any rights of the Department to take any investigatory or remedial action it deems necessary if Volunteer fails to comply with the Agreement or if contamination other than Existing Contamination is encountered at the Site.

- nothing contained in this letter shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.
- nothing contained in this letter shall be construed to affect the Department's right to terminate the Agreement under the terms of the Agreement at any time during its implementation if Volunteer fails to comply substantially with the Agreement's terms and conditions.

In conclusion, the Department is pleased to be part of this effort to return the Site to productive use of benefit to the entire community.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION

By: \_\_\_\_\_

Date: \_\_\_\_\_



**Appendix "A"**

**(to Exhibit "C")**

**Map of the Site**

## **Exhibit "D"**

### **NOTICE OF AGREEMENT**

**This Notice** is made as of the \_\_\_\_ day of May, 2002 by Lockheed Martin Corporation regarding the following parcels of real property located in the Town of Salina and/or the Village of Liverpool (the "Property"): **[Add tax map references here to parcels affected]**; and

**WHEREAS**, Lockheed Martin Corporation ("Volunteer"), completed several phases of investigations in the West and Middle Branches of Bloody Brook between May 1996 and November 2001. During the investigations, Volunteer performed sediment, surface water and side bank soil sampling in portions of the West and Middle Branches of Bloody Brook. The most recent investigations have focused on the potential presence of cadmium in stream sediments and side bank soils in the portion of Bloody Brook commencing downstream of the New York State Thruway on the West Branch and ending at Onondaga Lake Parkway.

**WHEREAS**, Volunteer has entered into an agreement with the Department of Environmental Conservation, Index # \_\_\_\_\_ (the "Agreement"), to continue, with the Department's oversight, the investigation of cadmium and, if necessary, the remediation of cadmium which is or may be present on the Property, which Agreement was executed on behalf of the Department on \_\_\_\_\_; and

**WHEREAS**, in return for the remediation of the Property pursuant to the Agreement to the satisfaction of the Department, the Department will provide Volunteer and its lessees and sublessees, grantees, successors and assigns, including their respective secured creditors, with a release, covenant not to sue, and forbearance from bringing any action, proceeding, or suit related to the Site's further investigation or remediation, subject to certain reservations set forth in the Agreement; and

**WHEREAS**, pursuant to the Agreement, Volunteer agreed to cause the filing of a notice of the Agreement with the \_\_\_\_\_ County Clerk,

**NOW, THEREFORE**, Volunteer, for itself and for its successors and assigns, declares that:

1. This Notice of the Agreement is hereby given to all parties who may acquire any interest in the Property; and

2. This Notice shall terminate upon the filing of a Notice of Termination of this Agreement after having first received approval to do so from the New York State Department of Environmental Conservation or having terminated the Agreement pursuant to its Paragraph XII.

**IN WITNESS WHEREOF**, Volunteer has executed this Notice of Agreement by its duly authorized representative.

Dated:

By: \_\_\_\_\_

STATE OF NEW YORK

)

) ss:

COUNTY OF

)

On the \_\_\_\_\_ day of \_\_\_\_\_, in the year 2001, before me, the undersigned, personally appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

\_\_\_\_\_  
Signature and Office of individual  
taking acknowledgment

**Appendix "A"**  
**(to Exhibit "D")**  
**Map of the Property**

**Exhibit "E"**

**DECLARATION of COVENANTS and RESTRICTIONS**

**THIS COVENANT**, made the \_\_\_\_ day of \_\_\_\_\_ 2001, by {property owner name}, a {natural person residing at / partnership organized and existing under the laws of the State of [state name] and having an office for the transaction of business at / corporation organized and existing under the laws of the State of [state name] and having an office for the transaction of business at} {address}:

WHEREAS, {property owner name} is the owner of a parcel of real property which is participating in the New York State Department of Environmental Conservation's (the "Department's) Voluntary Cleanup Program, namely, the [ ] Site, located on \_\_\_\_\_ in the \_\_\_\_\_ of \_\_\_\_\_, County of \_\_\_\_\_, State of New York, which is part of lands conveyed by { } to { } by deed dated { } and recorded in the \_\_\_\_\_ County Clerk's Office on {date} in Book \_\_\_\_ of Deeds at Page \_\_\_\_ and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Property is the subject of a voluntary cleanup agreement entered into by \_\_\_\_\_ and the Department; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property such remedy requires that the Property be subject to restrictive covenants.

**NOW, THEREFORE**, \_\_\_\_\_, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions, is as shown on a map attached to this declaration as Appendix "B" and made a part hereof, and consists of [insert metes and bounds description]

Second, unless prior written approval by the New York State Department of Environmental Conservation or if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation

of the Property, which threatens the integrity of the soil cap, or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall maintain the cap covering the Property by maintaining its grass cover or, after obtaining the written approval of the Relevant Agency, by capping the Property with another material.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for [define Use] without the express written waiver of such prohibition by the Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.

Sixth, the owner of the Property shall continue in full force and effect any institutional and engineering controls required under the Agreement and maintain such controls unless the owner first obtains permission to discontinue such controls from the Relevant Agency.

Seventh, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property and shall provide that the owner, and its successors and assigns, consent to the enforcement by the Relevant Agency, of the prohibitions and restrictions that Paragraph X of the Agreement requires to be recorded, and hereby covenants not to contest the authority of the Department to seek enforcement.

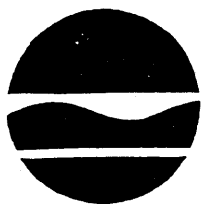
Eighth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and restrictions, that the said conveyance is subject to this Declaration of Covenants and Restrictions.

**IN WITNESS WHEREOF**, the undersigned has executed this instrument the day written below.

[acknowledgment]

**Exhibit "F"**

**1997 Statement of Basis and Final Decision**



**NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
Division of Solid & Hazardous Materials**

# **FINAL DECISION and RESPONSE TO COMMENTS**

## **SELECTION OF REMEDIES TO ADDRESS CONTAMINATION AT ELECTRONICS PARK AND IN THE WEST BRANCH OF BLOODY BROOK**

\_\_\_\_\_for the  
**LOCKHEED MARTIN CORPORATION  
ELECTRONICS PARK FACILITY  
TOWN OF SALINA, ONONDAGA COUNTY  
NEW YORK**

USEPA ID No.: NYD059385120

**February 1997**

### **INTRODUCTION**

The New York State Department of Environmental Conservation (Department) has selected the Final Corrective Remedies to address the presence of contaminated media at the Lockheed Martin Corporation (LMC), Electronics Park (EP) facility and in the West Branch of Bloody Brook immediately south of the New York State Thruway. The remedies selection was made after the public comment period ended February 3, 1997, and the submitted written comments were reviewed and considered. The Department and LMC will enter into an Order on Consent which will be the mechanism to implement the final remedies and perform long-term monitoring.

The purpose of this document serves as the following:

- Addresses the written comments received during the public review and comment period;
- Briefly describes the areas impacted at the EP facility and in the West Branch of Bloody Brook;
- Briefly describes the selected remedies and clean-up goals that are to be achieved;
- Briefly describes the continued monitoring and post-remedial monitoring that will be required to verify the selected remedies achieve the clean-up goals.



## **SUMMARY OF COMMENTS RECEIVED**

The Department set a public comment period from January 1, 1997 to February 3, 1997 for the review and comment of proposed remedies that are to address contamination at the EP facility and in the West Branch of Bloody Brook. These proposed remedies were published in a "Statement of Basis" dated January 1997. In addition, two public information meetings were held (December 17, 1996 and January 13, 1997) to inform the public of the proposed selected remedies. Written comments were received from two parties during the public comment period. One party included two concerned citizens, the other party was Lockheed Martin Corporation (LMC). Below is a summation of the comments received, and the Department's responses to those comments. Copies of the comments, and response to comments are included as an attachment to this document.

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### **Comment Summary received from concerned citizens**

The commenter indicated that the Department "had knowledge of this issue [contamination in Bloody Brook] as early as 1994 and should have notified the public sooner." The commenter did not like the use of "on-site testing" for Volatile Organic Constituents (solvents) because the company would be aware of the Department's presence and could alter contaminant levels. The commenter indicated that "residents are not happy with the [proposed] dictated solution" and that the Department should "allow more time to study alternative solutions and collect accurate information."

### **Department's Summary Response**

The Department recognizes that they could have done a better job in informing residents of the ongoing investigation of the stream. However, in the case of Bloody Brook, as in other cases like it, the agencies attempt to understand the nature and magnitude of a problem before initiating a public outreach program. The timing of public outreach is also related to the Agencies' perception of the threat posed by the problem. Neither the New York State Department of Health (NYSDOH), nor the Onondaga County Health Commissioner considered the presence of the contaminated sediments in Bloody Brook an imminent threat to residents in the vicinity of the stream. Consequently, the Agencies waited until we had a clear understanding of the nature of the problem and an appropriate means of remediating it before holding a public meeting about the stream.

The Department believes that additional time to study alternatives will only delay the clean-up. Data collection of groundwater and soils has been ongoing since 1990. The Department believes that the data collected accurately represents conditions on-site and in Bloody Brook. It is acknowledged that contamination exists from past operations and practices. These past releases have contaminated the soil and groundwater. The company cannot alter or change the contaminant level in the soil or groundwater. In addition, this contaminated groundwater infiltrates (flows into) old pipes that flow into Bloody Brook. This contamination was discovered by on-site sampling. Repairs made to this system will minimize contaminated groundwater from entering these pipes. Continuation of the pumping and treating of contaminated groundwater will reduce the concentration of contamination. Routine on-site monitoring was, and will continue to be critical to determine if the final measures are doing the job.

#### **Comment Summary received from Lockheed Martin Corporation (LMC)**

LMC's comments were directed towards clarification of the "Statement of Basis" dated January 1997. The Statement of Basis was published to describe current conditions and describe the proposed remedies that would address on-site contamination and elevated levels of cadmium found in the West Branch of Bloody Brook. In this document, the Department lumped groundwater treatment into one category and did not segregate out the separate groundwater treatment unit operating in Building EP-10. The Statement of Basis indicated that low-level polychlorinated biphenyls (PCBs) were being treated as part of the facilities groundwater treatment unit, but it did not specifically indicate that groundwater entering the Building EP-10 sump is treated using activated carbon (to remove PCBs); then discharged to the Onondaga County sanitary sewer system pursuant to LMC's industrial wastewater discharge permit.

#### **Department's Summary Response**

The Building EP-10 sump, treatment unit and discharge is further clarified in this "Final Decision" Document. Although the treatment units could have been delineated better in the "Statement of Basis," the goal of the EP treatment system(s) as a whole will function to prevent the off-site migration of VOC contaminated groundwater and the PCB-impacted groundwater in the Building EP-10 sump. In addition to the "Statement of Basis," the "Corrective Measures Implementation Plan" (pages 6 through 9), public noticed at the same time, did clearly describe the Building EP-10 sump and the treatment system.

## CONCLUSIONS

Changes to the proposed remedies, or the selection of alternative remedies may be made if comments or additional data indicate that such changes would result in a more appropriate solution. Neither party had specific concerns or comments directly related to the proposed final remedies for Electronics Park or Bloody Brook. No other options or solutions were presented or discussed, nor were specific reasons given for not implementing the proposed final remedies. Therefore, the proposed remedies outlined in the Statement of Basis will be the selected final remedies for the Electronics Park Facility and the West Branch of Bloody Brook.

Included below, are Tables that outline areas that have been impacted by contamination, a summary of the selected remedies to address the contamination, and the anticipated goal for each remedial area.

The Department will now enter into an Order on Consent with Lockheed Martin. Pursuant to the authority under "Environmental Conservation Law, Article 27, Title 9 and §71-2727(3), the clean-up activities will begin or continue as outlined in the Order on Consent and its attachments.

### **AREAS IMPACTED at the EP FACILITY and the WEST BRANCH OF BLOODY BROOK**

As a result of past manufacturing and operations, a variety of chemicals used at the EP facility have impacted soils, sediment and groundwater. These include volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), heavy metals, and hazardous constituents found in petroleum based products (BTEX). Below is a summary of the locations and type of contaminants found at the EP facility. These areas are outlined in the Table below:

### AREAS IMPACTED at the EP FACILITY

Location	Type of Impacts found	Media Impacted
Groundwater at the EP facility	VOCs (including trichloroethene, 1,2,dichloroethene, and vinyl chloride). Groundwater entering the Building 10 basement sump is also contaminated with low levels of PCB's.	Groundwater
Former EP Gasoline Storage Area	Petroleum based compounds (benzene, toluene, ethylbenzene, and xylene)	Soil & Groundwater
Former EP Drum Storage Area	VOCs and Petroleum based compounds	Soils
EP Storm Sewers	VOCs	Groundwater & Surface Water

### AREAS IMPACTED in the WEST BRANCH OF BLOODY BROOK

Location	Type of Impacts Found	Media Impacted
West Branch of Bloody Brook	Cadmium, PCBs	Stream Sediments

## PROPOSED FINAL REMEDIES AND GOALS

The selected final remedies were based on achieving a goal that is protective of human health and the environment. Specific clean-up goals have been established for each environmental media (soil, sediment and groundwater). The chosen remedies and goals are outlined in the Table below:

### SELECTED REMEDIES AND REMEDIAL GOALS FOR SOIL, SEDIMENT, AND GROUNDWATER

Location	Final Selected Remedies and Goals
Groundwater at the EP Facility	Clean up and prevent the off-site migration of VOC-impacted groundwater and PCB impacted groundwater in Building EP-10 Basement sump. Continue to pump and treat VOC impacted groundwater using the two existing on-site air strippers and continue to pump and treat PCB impacted groundwater entering the Building EP-10 sump using a carbon treatment system (to remove PCBs); then discharged to the Onondaga County sanitary sewer system.
Former EP Gasoline Storage Area	Clean up VOC-impacted soils at the Former EP Gasoline Storage Tank Area. Soils will be treated to remove VOCs using in-situ bioremediation.
Former EP Drum Storage Area	Clean up VOC-impacted soils at the Former EP Drum Storage Area. Soils will be treated to remove VOCs using in-situ vapor extraction.
EP Storm Sewers	Prevent the off-site discharge of VOC-impacted groundwater. Continue the repair and maintenance of the storm sewer system to eliminate the infiltration of VOC-impacted groundwater.
West Branch of Bloody Brook	Clean an impacted section of Bloody Brook. Removed and disposed off-site PCB and cadmium-impacted sediment found in a 750-foot segment of the West Branch of Bloody Brook immediately downstream of the NYS Thruway.

## POST-REMEDIAL MONITORING

To be sure the selected final remedies have worked appropriately, monitoring at both the EP facility and of Bloody Brook will continue. Results of this monitoring will show if the goals of the implemented remedies are being accomplished. A brief description of the continued monitoring to be performed during, and after the initiation of the remedial activities are described below:

*Groundwater Monitoring:* Routine sampling of on-site and perimeter groundwater monitoring wells will continue. Also collection of groundwater elevations. This data will confirm that the concentrations of groundwater contamination are being reduced, and that groundwater contamination is not leaving the EP facility.

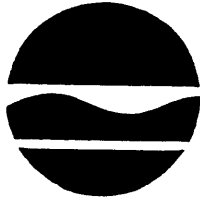
*Former Gasoline Storage Tank Area:* Monitoring will include vapor phase measurements of volatile organic compounds (VOCs) in the soils. This will monitor the progress of the remedial activity (in-situ bioremediation) as it is expected to reduce or eliminate the presence of VOCs in the unsaturated soils.

*Former Drum Storage Area:* Monitoring here will also include vapor phase measurements of VOCs in the soils to evaluate the progress of the remedial activity (in-situ soil vapor extraction) in the unsaturated soils. This remedy is expected to reduce or eliminate the presence of VOCs in the unsaturated soils.

*Storm Sewers:* Monitoring at storm sewer locations on-site and in Bloody Brook will continue to evaluate the progress of the repair and maintenance program. As repairs continue, infiltration of VOC-impacted groundwater should be minimized.

*Bloody Brook:* Confirmation sampling of the stream will be performed to ensure sediments containing elevated levels of Cadmium have been removed. In order to evaluate whether the sediment removal program has effectively addressed the potential threat to stream organisms, long-term monitoring of crayfish for Cadmium and PCBs will be performed. It is anticipated that over time, the impacts of the residual sediment contamination on the stream organisms will diminish. If, however, the monitoring data indicate

that the residual sediment contamination represents an unacceptable threat to these stream organisms, additional investigation and remediation of the stream will be necessary.



NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
Division of Solid & Hazardous Materials

# STATEMENT OF BASIS

FOR

**LOCKHEED MARTIN CORPORATION**

Electronics Park Facility

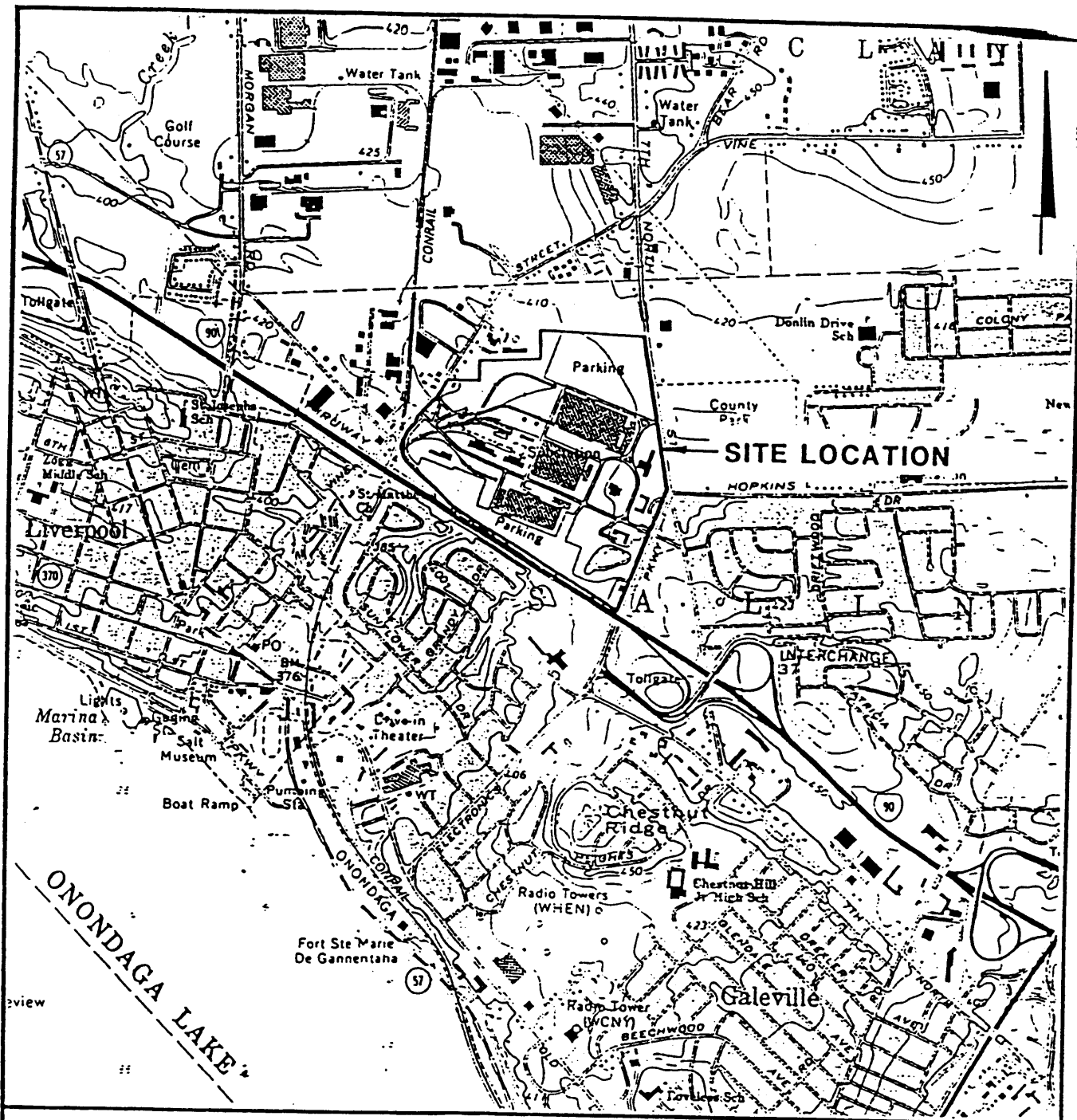
Town of Salina, Onondaga County

New York

USEPA ID No.: NYD059385120

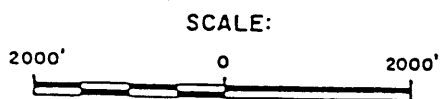
January 1997





ELECTRONICS PARK FACILITY  
SYRACUSE, NEW YORK

## SITE LOCATION MAP



SOURCE: USGS 7 1/2 MINUTE TOPOGRAPHIC QUADRANGLE:  
SYRACUSE WEST, NY, 1978



BLASLAND & BOUCK ENGINEERS, P.C.

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NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
Division of Solid & Hazardous Materials

**STATEMENT OF BASIS**

January 1997

for

**LOCKHEED MARTIN CORPORATION  
ELECTRONICS PARK FACILITY  
TOWN OF SALINA, ONONDAGA COUNTY  
NEW YORK**

USEPA ID No.: NYD059385120

**INTRODUCTION**

The purpose of this Statement of Basis is to provide a meaningful opportunity for the public to be informed of and to participate in cleanup decisions that affect them and their communities. Public input on proposed facility-specific corrective action decisions will be finalized through issuance of a RCRA Order on Consent to Lockheed Martin Corporation. The Order on Consent will be the mechanism used to implement the final remedial program.

**SCOPE OF DOCUMENT**

This document:

- Describes the contamination found at the Electronics Park (EP) facility and in the West Branch of Bloody Brook immediately south of the New York State (NYS) Thruway;
- Describes the remedial goals for contamination clean up at the EP facility and West Branch of Bloody Brook;
- Identifies the proposed corrective action remedies that may be used for cleaning up impacted media;
- Provides a brief overview of the regulatory requirements, site history and site investigations which were conducted at the EP Facility and the Middle and West Branches of Bloody Brook; and
- Solicits public review and comment on the proposed remedies.

## PUBLIC COMMENT OPPORTUNITY

It should be noted that the New York State Department of Environmental Conservation (Department) has only selected proposed remedies. Changes to the proposed remedies, or the selection of an alternative remedies may be made if public comments or additional data indicate that such changes would result in a more appropriate solution. The Department will select final remedies for the EP facility and the West Branch of Bloody Brook only after the public comment period has ended and the comments have been reviewed and considered.

We stress the importance of public comment, and encourage input on all alternatives, including options not previously studied. The Department will choose, or modify the final remedy for the EP facility and the West Branch of Bloody Brook after the public comment period has ended and the comments have been reviewed and considered. The Department has set a public comment period from January 1, 1997 to February 3, 1997. See the "Public Notice" or "Fact Sheet" for further details on the public comment period, scheduled public meeting and on how to provide comments. (Also see page 21).

### Document Availability

This document summarizes information that can be found in greater detail in the administrative record for the facility. Many reports, including investigative, groundwater and pilot study reports were utilized to support the basis of the proposed remedy. Each report is referenced in the appropriate sections of this Statement of Basis (SB), and is available for review. The Department encourages the public to review these documents in order to gain a more comprehensive understanding of the nature and extent of contamination at the EP facility and the West Branch of Bloody Brook and apply that to the corrective remedies proposed for clean up.

Copies of the Reports, Fact Sheet and Public Notice are available for inspection at the:

Dept. of Environmental Conservation  
Region 7 Offices  
615 Erie Boulevard West  
Syracuse, New York 13204-2400  
Contact Person: Leland Flocke  
Telephone: 315/426-7551

Dept. of Environmental Conservation  
Bureau of Hazardous Waste Facilities  
50 Wolf Road - Room 460  
Albany, New York 12233-7252  
Contact Person: Timothy DiGiulio  
Telephone: 518/457-9253

and

Lockheed Martin Corporation  
Bldg. EP-7, MD 48  
P.O. Box 4840  
Syracuse, NY 13221-4840  
Contact person: Robert Maciel  
Telephone: 315/456-1714

Liverpool Public Library  
310 Tulip Street  
Liverpool, NY 13088  
Contact person: Elaine Lyon  
Telephone: 315/457-0310

## **BACKGROUND**

### **Regulatory Overview**

RCRA corrective action requires owners or operators of hazardous waste treatment, storage, and disposal facilities to clean up impacted media (i.e., surface water, groundwater, soil and sediment) that has resulted from any past waste management practices at the facility. The EP facility, formerly owned by General Electric Company, was utilized for the storage of hazardous waste subject to Hazardous Waste Regulations 6NYCRR Parts 370.

After public review and comment, the Department will enter into an Order on Consent with Lockheed Martin. Pursuant to the authority under "Environmental Conservation Law, Article 27, Title 9 and §71-2727(3), the clean up activities will begin or continue as outlined in the Order on Consent and its attachments.

### **Site History**

The Lockheed Martin EP facility is located on Electronics Parkway in the Town of Salina, New York. The EP facility was constructed in the mid-1940's by the General Electric (GE) Company. The ownership was transferred by GE to Martin Marietta Corporation in April 1993. In March 1995, Martin Marietta merged with Lockheed Corporation. As a result, the Martin Marietta Corporation (MMC) became a wholly-owned subsidiary of Lockheed Martin Corporation, but MMC continued to own and operate the EP Facility. Effective January 1996, MMC merged into Lockheed Martin Corporation and MMC ceased to exist. In September 1996, ownership of the EP facility was transferred to the Empire State Development Corporation; however, Lockheed Martin is responsible for completing the necessary corrective actions and for addressing impacted media associated with EP facility operations.

In the past, various electronic components were manufactured at the EP facility. These included television picture tubes, semi-conductors, transmitters and receivers, and specialty products. Presently, sonar and radar systems are manufactured at the facility.

### **IMPACTED MEDIA at the EP FACILITY and in the WEST BRANCH OF BLOODY BROOK**

As a result of past manufacturing and operations, a variety of chemicals used at the EP facility have impacted soils, sediment and groundwater. These include volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), heavy metals, and hazardous constituents found in petroleum based products (BTEx). Below is a summary of the locations and type of contaminants found at the EP facility.

Table 1

## AREAS IMPACTED at the EP FACILITY

Location	Type of Impacts found	Media Impacted
Groundwater	VOCs (including trichloroethene, 1,2,dichloroethene, and vinyl chloride). Groundwater entering the Building 10 basement sump is also contaminated with low levels of PCB's.	Groundwater
Former Gasoline Storage Area	Petroleum based compounds (benzene, toluene, ethylbenzene, and xylene)	Soil & Groundwater
Former Drum Storage Area	VOCs and Petroleum based compounds	Soils
Storm Sewers	VOCs	Groundwater & Surface Water

Investigations conducted by the Department and Lockheed Martin identified the presence of polychlorinated biphenyls (PCBs) and cadmium in sediments in the West Branch of Bloody Brook immediately south of the NYS Thruway. Below is a summary of the location and type of contaminants found in the West Branch of Bloody Brook.

Table 2

## AREAS IMPACTED in the WEST BRANCH OF BLOODY BROOK

Location	Type of Impacts Found	Media Impacted
West Branch of Bloody Brook	Cadmium, PCBs	Stream Sediments

## GOALS OF THE CORRECTIVE ACTION REMEDIES

The goal of a corrective measure is the protection of human health and the environment. Specific clean up goals have been established for each environmental media (soil, sediment and groundwater). The goals are outlined below in Table 3:

Table 3

### REMEDIAL GOALS FOR SOIL, SEDIMENT, AND GROUNDWATER

Location	Goal and Type of Remediation to be Performed
EP Storm Sewers	Prevent the off-site discharge of VOC-impacted groundwater. Repair and replacement of EP storm sewers to eliminate the infiltration of VOC-impacted Groundwater will continue (as-needed) to prevent the discharge of VOC-impacted groundwater.
Groundwater	Clean up and prevent the off-site migration of VOC-impacted groundwater. Continue to pump contaminated groundwater and treat it through existing EP facility treatment units.
Former EP Gasoline Storage Area	Clean up VOC-impacted soils at the Former EP Gasoline Storage Tank Area. Soils will be treated to remove VOCs to an acceptable action level.
Former EP Drum Storage Area	Clean up VOC-impacted soils at the Former EP Drum Storage Area. Soils will be treated to remove VOCs to an acceptable action level.
West Branch of <sup>2</sup> Bloody Brook	Clean an impacted section of Bloody Brook. PCB- and cadmium-impacted sediment found in a 750-foot segment of the West Branch of Bloody Brook will be removed and disposed off-site.

## RCRA FACILITY INVESTIGATION

To determine the corrective actions necessary at the EP facility, Lockheed Martin initiated a series of voluntary investigations to identify the impacts from hazardous waste or constituents. Extensive soil and groundwater investigations were conducted to evaluate all Solid Waste Management Units (SWMUs) and process areas at the EP facility. In addition a sediment sampling program was conducted in both the Middle and West Branches of Bloody Brook at locations upstream and downstream of the facility and

within the facility boundaries. The purpose of these investigations was to determine the presence, nature, rate, and extent of releases of contamination at the EP facility and in Bloody Brook. Once enough data was gathered to define the extent of any impacts at the EP facility so that corrective measure alternatives could be chosen, RCRA Facility Investigation (RFI) Reports were completed, summarizing this information. With respect to Bloody Brook, a separate technical evaluation was completed. This information was used to help make the final recommendations for corrective measures at the EP facility and Bloody Brook. The following gives a summary of previous investigations and the results of those investigations:

### EP Facility Investigations

Lockheed Martin has voluntarily undertaken a series of soil and groundwater investigations at and near the EP facility. A Phase I groundwater investigation was conducted to evaluate groundwater conditions near Building EP-7A. The findings of this investigation are presented in the "Phase I Ground-Water Investigation Report" prepared by Malcolm Pirnie, Inc., dated September 1990. A Phase II groundwater investigation was conducted to evaluate the foundation drain and sump systems throughout the facility. A "Phase II Ground-Water Investigation Report", dated August 1991, summarizing the findings of this investigation was prepared by Law Environmental. A Phase III investigation was conducted by Blasland, Bouck & Lee, Inc. (BB&L) in 1992. This investigation included the evaluation of the physical, chemical, and hydraulic characteristics of the overburden groundwater system at the facility. The results of the Phase III investigation are presented in the "Phase III Ground-Water Investigation Report", dated April 1993, and the "Supplemental Phase III Ground-Water Investigation Report", dated October 1993.

Several additional groundwater-related investigations were conducted by BB&L from 1992 to 1994. The results of these investigations are documented in the following reports: "Storm Sewer Action Plan", dated October 1992; "Storm Sewer Investigations", dated December 1992; "West Electronics Park Ground-Water Investigation Report", dated February 1994; the "Supplemental West Electronics Park Ground-Water Investigation Report", dated September 1994; and "Additional Ground-Water Investigation Report, Building EP-5", dated November 1996. These reports are collectively referred to as the 'previously referenced reports' in subsequent sections of this Statement of Basis (SB). Lockheed Martin is continuing to monitor site-wide groundwater quality on a periodic basis through a sampling and analysis program conducted at select monitoring wells and sumps.

The investigations identified above have provided a hydrogeologic database consisting of soil gas, subsurface geologic, groundwater hydraulic and groundwater quality data, as well as information pertaining to the hydraulic influence of building sumps and subsurface utilities at the EP facility.



## Site Geology

Based on the results of the investigations listed above, the general stratigraphy beneath the site is interpreted as consisting of the following geologic units (in descending order from ground surface):

- A heterogeneous upper overburden unit composed primarily of brown silt, sand, and gravel;
- Greenish-gray shaley/silty till;
- Brown silty to clayey till; and
- Gray to green Vernon Shale bedrock.

The site geology is detailed in the previously referenced reports.

## Site Hydrogeology

Groundwater investigations at the site have generated data on the upper silt, sand, and gravel overburden unit of the site as well as the underlying Vernon Shale bedrock.

In general, the overburden groundwater flow system at the site is comprised primarily of the silt, sand and gravel unit underlain by a till unit. Owing to its density, fine grain size, and compact nature, the till unit acts as a hydraulic confining unit between the silt, sand and gravel unit, and the underlying bedrock formation.

Overburden groundwater elevation data obtained from the existing groundwater monitoring network (including monitoring wells, piezometers and sumps) demonstrates that groundwater underlying the central portion of the site converges upon the upper/lower sump located in Building EP-7. This hydraulic control, evidenced by a continuous groundwater depression centered near the upper/lower sump, is attributed to the active pumping (at approximately 30-50 gallons per minute) from the sump. Water pumped from the upper/lower sump, as well as other building sumps, is combined and treated in the Long Term Treatment System (discussed below).

Groundwater elevation data indicates that the hydraulic control of the sump network influences overburden groundwater flow throughout interior areas of the site, including the Former Gasoline Storage Tank Area, and the Storm Sewers. Overburden groundwater is not present in the western portion of the site known as the Former Drum Storage Area. (See Figure 1 - Groundwater Elevation Contours).

Bedrock monitoring wells installed along the southern and western boundaries of EP indicate that the top of the Vernon Shale is highly fractured but has a relatively low permeability.

The site hydrogeology is detailed in the previously referenced reports. Variations to the general site hydrogeology may be encountered in each area of the site; pertinent hydrogeologic variations will be described in subsequent sections.

### Site Chemical Characterization

#### Groundwater

Previous investigations have identified VOCs, including trichloroethylene (TCE) and potential degradation products (1,2-dichloroethene [1,2-DCE] and vinyl chloride [VC]) in water samples collected from the building sumps and storm sewers at the site and in overburden groundwater samples obtained from the monitoring wells located within the site boundaries. Other VOCs, including petroleum-related compounds (benzene, toluene, ethylbenzene, and xylenes, collectively referred to as BTEX), were detected in groundwater near the former location of two underground storage tanks used for gasoline and diesel fuel storage near EP-9 (known as the Former Gasoline Storage Tank Area). Based on analytical data obtained from monitoring wells installed at the perimeter of the site, the Department believes that VOC-impacted groundwater has not migrated off-site.

Semi-volatile organic compounds (SVOCs) have been detected in the overburden groundwater at monitoring wells located near Building EP-15 and EP-9, and at an upgradient monitoring well location at the eastern perimeter of the facility. No organochlorine pesticides have been detected in the groundwater at the facility. PCBs have been detected at two monitoring wells located near Buildings EP-15 and EP-5; the PGBs were identified in unfiltered water samples and may be related to PCB-impacted soils.

Groundwater samples obtained from the bedrock formation contained no VOCs (except for common laboratory contamination), SVOCs, pesticides or PCBs. No dissolved inorganics were present at concentrations exceeding Department Class GA standards. The bedrock groundwater analytical results support the interpretation that VOC impacts to groundwater are limited to the overburden (primarily the silt, sand and gravel unit above the till) groundwater system within the site perimeter.

The groundwater chemical characterization for each SWMU is described in detail in the previously-referenced reports and is described further in subsequent sections of this SB.

## Soils

Previous investigations have identified chlorinated solvents (i.e., TCE, 1,2-DCE, tetrachloroethene [PCE] and 1,2-dichlorobenzene) and BTEX compounds in soil samples collected from the Former Drum Storage Area. Petroleum-related BTEX compounds were also detected in the unsaturated soil zone near the gasoline storage tank area. No SVOCs, pesticides or PCBs were identified in the site soils. In addition, there is no evidence of elevated concentrations of inorganics in the site soils.

The soil chemical characterization for each of the SWMU is described in detail in the previously-referenced reports and is described further below.

## **SWMU-Specific Existing Conditions**

### Site-Wide Groundwater

Lockheed Martin's voluntary investigations have identified specific areas of the EP facility which have been impacted by past activities; these areas are addressed as part of this SB. As described above, overburden groundwater present in select areas (including the Former Gasoline Storage Tank Area, the Storm Sewers and the sump network) within the site boundaries is impacted by VOCs, and is hydraulically connected and controlled by the continuous pumping of water from the existing network of building sumps (See Figure 2- Volatile Organic Compounds at Building Sumps). The water pumped from these sumps is treated in the existing Long Term Treatment System and discharged to the storm sewer (described below), under the terms of a State Pollutant Discharge Elimination System (SPDES) permit.

Since the VOC-impacted, overburden groundwater in the areas listed above is hydraulically linked, the overburden groundwater (and the areas through which it passes) receives consideration in this SB under the heading of "Site-Wide Groundwater".

VOC impacts to Site-Wide Groundwater at EP have been associated with three discrete areas of the facility: the Building Sumps/Long-Term Treatment System; the Storm Sewers; and the Gasoline Storage Tank Area. As a result of these identified VOC impacts to groundwater, Lockheed Martin has undertaken a series of voluntary remedial measures which address impacted groundwater capture and control. As a result of these actions, contaminated groundwater has been contained within the facility boundary. (See Figure 3 - Volatile Organic Compounds at Monitoring Wells).

### Storm Sewers

An on-site network of storm sewers exists at Electronics Park which discharges to the Middle and West Branches of Bloody Brook, both of which are Class C streams. Currently, surface water discharges to the storm sewers are regulated under the terms of SPDES Permit No. NYD002101.

Sampling and analysis of dry weather flows within the storm sewers at Electronics Park identified specific sections which were being impacted by the infiltration of VOC contaminated groundwater. The storm sewer sampling program identified four sections of pipeline that were being impacted by VOC-contaminated groundwater. These sections included:

1. An 18-inch diameter section located north of Building EP-10;
2. A 36-inch diameter section located west of Building EP-7;
3. A 27-inch diameter section located east of Building EP-6; and
4. Two 36-inch diameter sections and one 48-inch diameter section located west of Building EP-15 (West Branch of Bloody Brook).

As a result of these identified VOC impacts to the storm sewers, Lockheed Martin has undertaken a series of voluntary remedial measures which address impacted groundwater infiltration and discharge. In addition, Lockheed Martin is required to routinely monitor the storm sewer network to ensure that surface-water discharges from the facility meet applicable New York State surface-water quality standards, State Pollution Discharge Elimination System (SPDES) discharge limitations, and Department guidance levels.

#### Former Gasoline Storage Tank Area

Previous investigations conducted at the EP site have included investigatory work related to the Gasoline Storage Tank Area. Specifically, the Phase III Ground-Water Investigation (BB&L, April 1993) and the Supplemental Phase III Ground-Water Investigation (BB&L, February 1994) included soil and groundwater investigations in this area.

Two 4,000-gallon underground storage tanks (USTs), located near Building EP-9, were used for bulk storage of petroleum products, specifically gasoline and diesel fuel. These tanks were taken out of service in August 1996 and abandoned in-place through the removal of product and filling with concrete. As detailed below, subsurface investigations conducted in and around this area have revealed the presence of petroleum-related VOCs, including BTEX in soils and groundwater, due to past leakage from the piping associated with the gasoline storage tank. Upon discovery of the leakage, this piping was repaired during retrofitting activities conducted pursuant to Department petroleum bulk storage regulations (6NYCRR Part 613). Furthermore, approximately 260 cubic yards of soil, visually impacted or

containing petroleum odors, was excavated and disposed of at an off-site location. The excavated area was lined with plastic and backfilled.

#### Former Drum Storage Area

Based on a review of historical documents, a former drum storage area was identified near the former location of Buildings EP-11 and EP-12 (demolished in 1988). Reportedly, chemical wastes, including spent halogenated and non-halogenated solvents, were stored in steel, 55-gallon drums which were placed in paved and/or gravel areas. No drums or waste materials are currently stored and no remedial measures are currently underway in this area. Based on data obtained from previous soil boring investigations (see below), overburden groundwater does not occur in the Former Drum Storage Area. The results of completed investigations in this area are summarized below.

Previous investigations (BB&L, February 1994) undertaken in the Former Drum Storage Area revealed the presence of VOCs in unsaturated soils near the existing ground surface. To further characterize the nature of VOC contamination, 32 soil borings were completed in the area as part of the Supplemental West Electronic Park Ground-Water Investigation (BB&L, September 1994).

VOCs detected in the soil samples include chlorinated solvents [TCE, 1,2-DCE, PCE, and 1,2-dichlorobenzene] as well as non-chlorinated hydrocarbons (BTEX). The identified VOCs are compatible with the reported contents of the drums formerly stored at the EP-11/EP-12 area (GE, 1987). VOCs were detected above the Department-issued Technical Administrative Guidance Memorandum (TAGM): Determination of Soil Cleanup Objectives and Cleanup Objectives (TAGM No. 4046) cleanup objectives only in shallow samples obtained within 4 feet of ground surface.

The soil samples obtained at borings performed on the margins of the 50-foot by 50-foot sampling grid, as well as the four borings performed along the roadway south of the Former Drum Storage Area, contained either low concentrations or no detectable VOCs.

The analysis of VOC concentrations in these soil samples allows horizontal and vertical delineation of the zone of impacted soils within the Former Drum Storage Area. Two limited areas of soil were delineated with VOC concentrations equal to or above the TAGM soil cleanup objectives,

## Bloody Brook Investigations

As part of an ongoing study, the Department sampled the tributaries to Onondaga Lake, including Bloody Brook, in 1994 and 1995. In certain areas of the stream, the water quality and wildlife were affected at some metals and PCBs.

Based on Departments findings and in consideration of the pending real-estate transfer of the EP facility, Lockheed Martin elected to collect and analyze surface water and sediment samples from within the Middle and West Branches of Bloody Brook at select locations. The objective of this initial investigation (the Phase I investigation) was to provide data that could be used to assess the presence or absence of PCBs, cadmium, copper or mercury in surface water and sediments. The results of this investigation indicated the presence of PCBs, cadmium, copper and mercury in sediments collected from the Middle and West Branches of Bloody Brook; no surface-water impacts were identified. Based on the results of the Phase I investigation, Department and the New York State Department of Health (NYSDOH) requested that Lockheed Martin conduct additional sampling and analysis (the Phase II investigation) to assess the extent of PCBs, cadmium, copper and mercury in sediments.

(See Figure 4 - Bloody Brook Sediment Sampling Cadmium and PCBs)

The sampling data show that elevated concentrations of cadmium are in the sediments of the West Branch of Bloody Brook. The samples from the segment of the West Branch of Bloody Brook immediately downstream of the Thruway contain the most elevated concentrations of cadmium. The investigation has also shown the presence of trace levels of copper, mercury and PCBs in sediment samples from the stream and these levels do not pose a human health concern.

## INTERIM CORRECTIVE MEASURES (ICM)

If at any time during the RCRA Facility Investigation, it becomes apparent that corrective actions should be taken to immediately address the spread of contamination, interim corrective measures must be taken. The design emphasis is to construct an ICM as close to a permanent system or final remedy as possible. Based on the results of previous investigations, Lockheed Martin has voluntarily implemented several interim corrective measures at the EP facility, with oversight and approval from the Department. The Department has determined that the ICMs have been effective in containing contaminated groundwater within the facility boundary. Eventually, through continued operations of the groundwater collection and treatment system, the contaminated groundwater will be cleaned up. Therefore, the Department believes that these measures could serve as the final remedial measures for the EP facility. In addition, the Department has determined that the corrective measure planned for the West Branch of Bloody Brook will minimize the impact of contamination to the environment in a way that is protective to human health and the environment and therefore believes these measures may constitute the final

remedial measure for the West Branch of Bloody Brook. A long term monitoring program for both the Bloody Brook and the EP facility will be implemented to ensure that these measures are effective.

### Groundwater Pump & Treatment

A series of foundation drains and sumps exist throughout the EP facility. The purpose of these drains and sumps is to collect and control groundwater in and around subgrade structures (primarily utility tunnels and basements) at the facility. Originally, groundwater collected in these sumps was discharged to the storm or sanitary sewer systems. Based on these findings, Lockheed Martin designed and constructed the Long-Term Treatment System which is intended to collect and treat groundwater from those building sumps found to be impacted by VOCs. The Long-Term Treatment System consists of duplex pumping systems installed in the following building sumps (See Figure 2):

- EP-5 Office Sump;
- EP-5 Artesian Well Sump (including artesian well flow);
- EP-6 Office Sump;
- EP-6 Basement Sump; and
- EP-7 Upper/Lower Sump.

The pumping systems serving these sumps discharge into a dedicated piping system which conveys water to Building EP-10. Located within Building EP-10 is a series of automatic valves and piping which control the flow of water into a pair of air stripper towers. These air stripper towers each had an initial hydraulic capacity of 250 gallons per minute (gpm), which was anticipated to provide sufficient capacity to treat all water with 100 percent redundancy. It has been observed, however, that flows do increase substantially during periods of high groundwater conditions (springtime). Based on these observations, a booster pump system has been installed to increase the flow capacity into the air stripper towers, and modifications to the air stripper towers have been completed to increase the capacity of each tower to 400 gpm. These modifications provide additional capacity for high flow conditions as well as the addition of other water sources while continuing to provide full 100 percent redundant capacity.

Ongoing monitoring has indicated that the Long-Term Treatment System is effective in capturing and controlling VOC-impacted groundwater occurring within the overburden in the central portion of the EP facility. Furthermore, the Long-Term Treatment System seems to be effectively controlling VOC-impacted groundwater within the facility boundaries, thus preventing off-site migration.

Lockheed Martin has developed and instituted a periodic groundwater quality and

elevation monitoring program to ensure continued hydraulic control and treatment of VOC-impacted groundwater from the Gasoline Storage Tank Area and other EP areas. The most recent groundwater elevation data (measured in December 1996) obtained by this program supports previous conclusions that the site-wide groundwater is being hydraulically controlled by the upper/lower sump located in Building EP-7 and that impacted groundwater has not migrated off-site.

### **Soil Vapor Extraction and Bioventing**

Since the soil and groundwater impacts in the EP Gasoline Storage Tank Area were defined, MMC with the concurrence of the Department completed a focussed CMS which evaluated potential area-specific corrective measures. This results of this focussed study are presented in the Department-approved Technical Memorandum, Gasoline Storage Tank Area, Corrective Measures Study (BB&L, August 1994). This document made the following recommendations regarding corrective measures to be taken for the Gasoline Storage Tank Area:

- Continued use of the long-term treatment system to provide control and treatment of VOC-impacted groundwater; and
- In-situ bioremediation of impacted area soils.

In response to the Department's approval of the recommended corrective measures, Martin Marietta conducted bioventing bench-scale and pilot studies in support of the final design of the soil remedy. The results of these studies are presented in the Department-approved Bioventing System Gasoline Storage Tank Area Pilot Study and Implementation Report (Report) (BB&L, December 1994). The Implementation Report also provides a preliminary description of the bioventing system configuration proposed for the Gasoline Storage Tank Area. The Bioventing System was constructed in August 1995 and commenced operation in October 1995. The system is currently under an ongoing operation and maintenance program.

Corrective measures for the EP Former Drum Storage Area were evaluated in the Corrective Measures Study ([CMS] discussed below). The CMS recommended in-situ soil vapor extraction to address soil impacts identified in the Former Drum Storage Area. The recommended alternative was approved by the Department in April 1995. In response to the Department's approval, Lockheed Martin prepared a final design of the in-situ soil vapor extraction system, which has been approved by the Department. The in-situ vapor extraction system is scheduled for installation and start-up in January 1997.

Clean up of soil contamination in these areas will remove potential sources of groundwater contamination and should expedite restoration of site groundwater.



## Storm Sewer Repair/Replacement

As a result of these previous investigations which identified the infiltration of VOC-impacted groundwater into select storm sewers, MMC initiated action to eliminate the infiltration into the following sections (collectively referred to in this SB as the 'Storm Sewers' in order to distinguish them from the entire storm sewer system):

1. An 18-inch diameter section located north of Building EP-10;
2. A 36-inch diameter section located west of Building EP-7;
3. A 27-inch diameter section located east of Building EP-6; and
4. Two 36-inch diameter sections and one 48-inch diameter section located west of Building EP-15 (West Branch of Bloody Brook).

For the first three Storm Sewer sections identified above, MMC installed a resin-impregnated liner system (Insituform). Due to additional infiltration identified in late 1995, the 36-inch diameter section located west of Building EP-7 and the 27-inch diameter section located east of Building EP-6 were replaced. An additional section of reinforced concrete sewer present east of Building EP-6 and the sewer present north of Building EP-7 were removed and replaced with HDPE. Also a groundwater collection trench was installed adjacent to a section of the HDPE sewer installed east of Building EP-6 and adjacent to a section of the sewer installed north of Building EP-7, to collect VOC-impacted groundwater in that area in order to reduce potential storm sewer infiltration; collected groundwater is pumped to the Long-Term Treatment System. Additional activities undertaken by MMC in these Storm Sewers include manhole improvements and/or rerouting of lateral connections.

With respect to the triple-barrel Storm Sewer section which conveys the West Branch of Bloody Brook, NYSDEC approved a design submittal which resulted in the installation of a high density polyethylene (HDPE) liner inside of each the three reinforced concrete pipes (RCP). The approximate length of the lined sections is 225 feet, extending from a chamber located beneath Building EP-15 to a downstream chamber located east of Building EP-15. To accommodate the liner pipe, a smaller diameter HDPE pipe was installed in each RCP: a 30-inch HDPE pipe was installed in the 36-inch RCP sections; and a 42-inch HDPE pipe was installed in the 48-inch RCP section. Due to the reduced frictional losses associated with HDPE pipe, no loss in hydraulic capacity occurred due to the smaller diameter pipes.

The HDPE pipes were installed by constructing a continuous 225-foot length of HDPE pipe by fusion welding the required number of sections. This continuous length of HDPE pipe was then pushed into the existing RCP sections through an insertion pit and into an exposed portion of the RCP. The HDPE pipe conveys the existing flow while providing an effective barrier against infiltration of VOC-contaminated groundwater.

Groundwater infiltration through the RCP portion of the sewer is controlled through a collection system which uses the annulus which exists between the existing RCP and the HDPE pipe. The annulus is backfilled with pea gravel which collects and conveys the groundwater infiltrating into the RCP sections; the pea gravel also secures the HDPE pipe within the RCP. A grout plug installed in the annulus at each end of the lined sections maintains the pea gravel in place and serves as a hydraulic barrier to contain groundwater which infiltrates into the RCP. Drain pipes installed through the downstream grout plug are connected to a pumping station, which pumps the groundwater drained from the annulus into a double-containment force main and then to the existing Long-Term Treatment System located at Building EP-10. To accommodate the addition of flows from this and other potential water systems, the existing Long-Term Treatment System was modified to increase treatment capacity as previously discussed.

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The groundwater capture, pump and treat system installed within the Storm Sewer section beneath Building EP-15 is operating as designed. Ongoing monitoring at the SPDES outfall indicates that the Storm Sewer lining project has been successful in eliminating the infiltration of VOC-impacted groundwater into the remediated sewer sections.

#### **West Branch of Bloody Brook Sediment Removal**

Lockheed Martin's Phase I and Phase II investigations of Bloody Brook have identified the presence of cadmium and PCBs in sediment within the West Branch. The section of the West Branch from the south side of the New York State Thruway to the upstream extent of the drainage improvement project completed by Onondaga County Department of Drainage and Sanitation has been identified as containing the highest concentrations of cadmium and PCBs. This section is approximately 750 feet long, the stream bed in this area averages approximately 6 feet wide. The sediment in this section is primarily non-cohesive sand and gravel which overlie a dense clay within the stream bed.

Lockheed Martin proposes to remove the sediment within the stream bed from this section of the West Branch and transport the sediments off-site for disposal. In addition, an approximately 6 foot square 200 foot long concrete culvert conveys the West Branch beneath the NYS Thruway will be cleaned out. Although sediments present within the culvert have not been sampled and analyzed and may not contain PCBs or cadmium, the sediments present in the concrete culvert will also be removed for off-site disposal.

A long term monitoring program for Bloody Brook will be implemented to ensure that these measures are effective.

## CORRECTIVE MEASURES STUDY

With the completion of the previous investigations at the EP facility, Lockheed Martin voluntarily developed a Final CMS Report (March 1995). The CMS presents an evaluation of corrective measures for impacted media at the EP facility identified through previous investigations.

The CMS included: the identification, development and screening of corrective measures technologies; a detailed evaluation of corrective measures alternatives; and justification of the recommended corrective measures. Presented below is a summary of findings presented in the CMS.

Groundwater corrective measures were evaluated in consideration of the interim corrective measures which were constructed and operating at the facility, including the Building Sumps/Long-Term Treatment System and the storm sewer rehabilitations. As presented in the CMS, these ICMs were proven effective in controlling and treating the VOC-impacted groundwater. The CMS recommended that the ICMs be considered the final corrective measure for the site-wide groundwater. The construction and operation of the Building Sumps/Long-Term Treatment System and the storm sewer rehabilitations area discussed above. Additional modifications to these systems will be made on an as-needed bases to control the off-site migration and discharge of VOC-impacted groundwater.

Several corrective measures were evaluated to address the soil impacts identified in the Former Gasoline Storage Area and the Former Drum Storage Area. The alternatives included: in-situ and ex-situ vapor extraction; ex-situ air stripping; thermal treatment; landfilling; and in-situ and ex-situ bioremediation. The corrective measures alternatives were evaluated based on technical, environmental human health, institutional and environmental criteria. Based on this evaluation in-situ bioremediation was selected as the preferred corrective measure for the Former Gasoline Storage Tank Area and in-situ vapor extraction was selected as the preferred corrective measure for the Former Drum Storage Area.

In-situ bioremediation involves the use of indigenous bacteria to biodegrade VOCs in unsaturated soils. The technology involves enhancing the natural biodegradation process by injecting nutrients and oxygen into the subsurface. Under favorable conditions, which are developed through the injection of nutrients and oxygen, microorganisms are known to degrade BTEX compounds. Microorganisms are capable of completely degrading organics compounds into water and carbon dioxide. As presented in the CMS, bioremediation is expected to reduce or eliminate the presence of VOCs in the unsaturated soils.

In-situ soil vapor extraction involves the use of vapor extraction technology to remove VOCs from the soil. The components of the system include a gas extraction system,

header piping, and a vacuum blower. The blower is connected via a piping network to a series of extraction wells installed in the VOC-impacted soil. The system operates by applying a vacuum to the wells, which creates a negative pressure gradient within the soils. The negative pressure causes the VOCs to desorb from the soil and migrate to the extraction wells. The VOCs are then extracted from the subsurface, treated (if needed) and discharged. As presented in the CMS, soil vapor extraction is expected to reduce or eliminate the presence of VOCs in the unsaturated soils.

## PROPOSED FINAL REMEDY

Based on the information summarized above and detailed in the previously referenced reports and based on the successful operation of the various ICMs, the following Final Remedy is proposed for the EP facility:

*Site-Wide Groundwater:* Continuation of the groundwater pump and treat using the existing sump network and Long-Term Treatment System. This remedy is expected to control the off-site migration and reduce the volume of VOC-impacted groundwater. This remedy is considered protective of human health and the environment.

*Former Gasoline Storage Tank Area:* Continuation of in-situ bioremediation of unsaturated soils. VOC-impacted groundwater in this area is considered as part of site-wide groundwater. This remedy is expected to reduce or eliminate the presence of VOCs in the unsaturated soils. This remedy is considered protective of human health and the environment.

*Former Drum Storage Area:* In-situ soil vapor extraction of the unsaturated soils. No groundwater is present in this area. This remedy is expected to reduce or eliminate the presence of VOCs in the unsaturated soils. This remedy is considered protective of human health and the environment.

*Storm Sewers:* Continue the storm sewer maintenance program which has been incorporated to eliminate the infiltration of VOC-impacted groundwater. This remedy is considered protective of human health and the environment.

Based on the information summarized above and detailed in the Bloody Brook technical evaluation, the following Final Remedy is proposed for Bloody Brook:

*Bloody Brook:*

Remove cadmium-impacted sediments present in a section of the West Branch of Bloody Brook which extends from the south side of the NYS Thruway to the upstream extent of the County's stream improvement project. Removed sediments will be transported off-site for disposal. This remedy is considered protective of human health and the environment.

## **PUBLIC PARTICIPATION**

### WRITTEN COMMENTS

**How To Provide Your Comments:** All comments will be considered in making the final decision for remedies that will address the contamination at Electronics Park and in the West Branch of Bloody Brook. Upon approval of the final remedies, a response to any comments submitted will be issued which will identify any changes from the proposed version and will describe and respond to the issues raised. A notice of the decision will be sent to each person who submits written comments or who requests such notice.

Comments must be sent to the Department's Region 7 Office, 615 Erie Boulevard West, Syracuse, NY 13204-2400 (contact person: Mr. Leland Flocke phone #(315) 426-7400). In lieu of, or in addition to the submission of written comments, any interested person may request a public hearing. Any request for a public hearing, must be in writing and must state the nature of the issues proposed to be raised in the hearing. All comments must be submitted in writing no later than February 3, 1997.



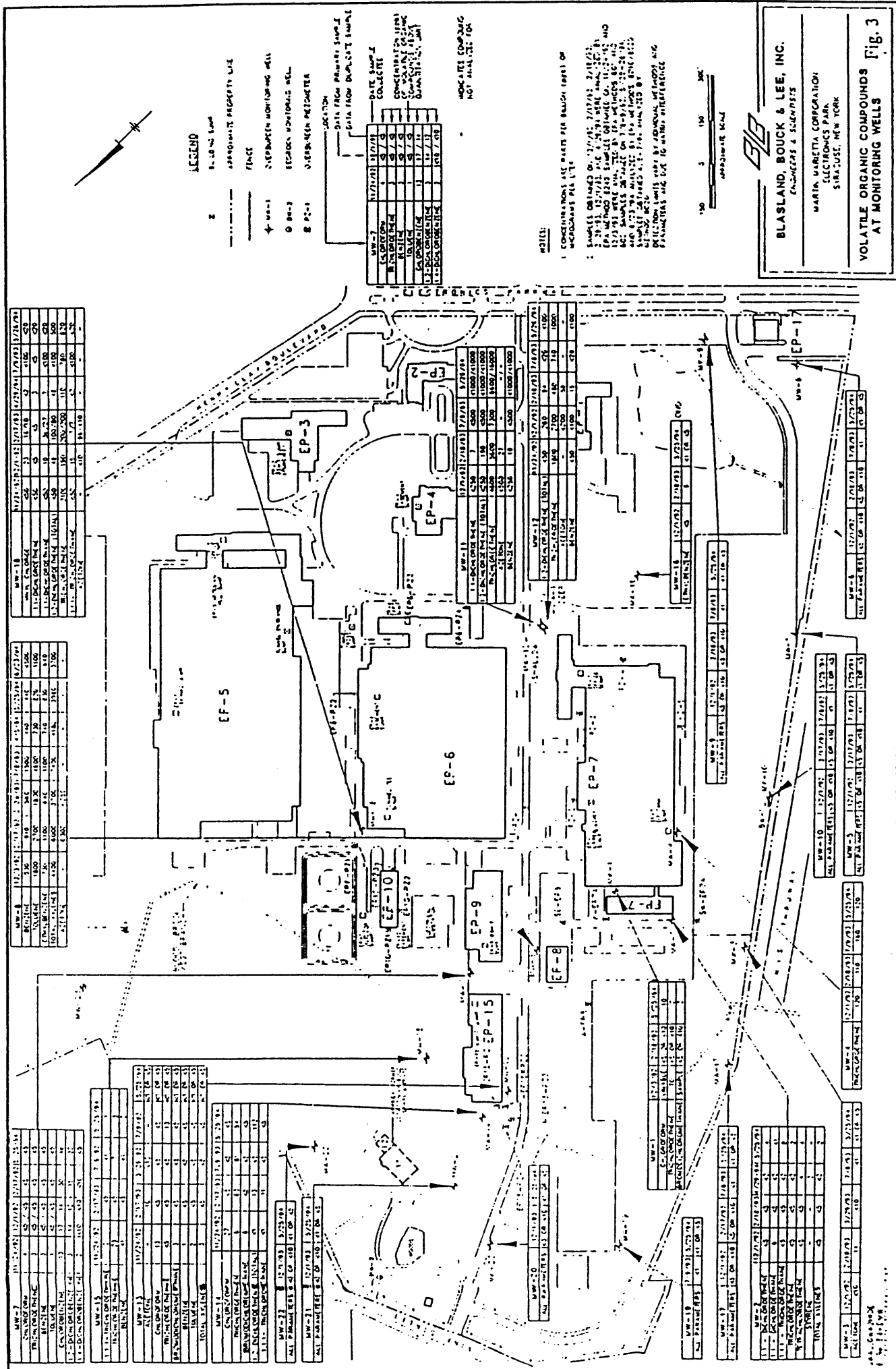
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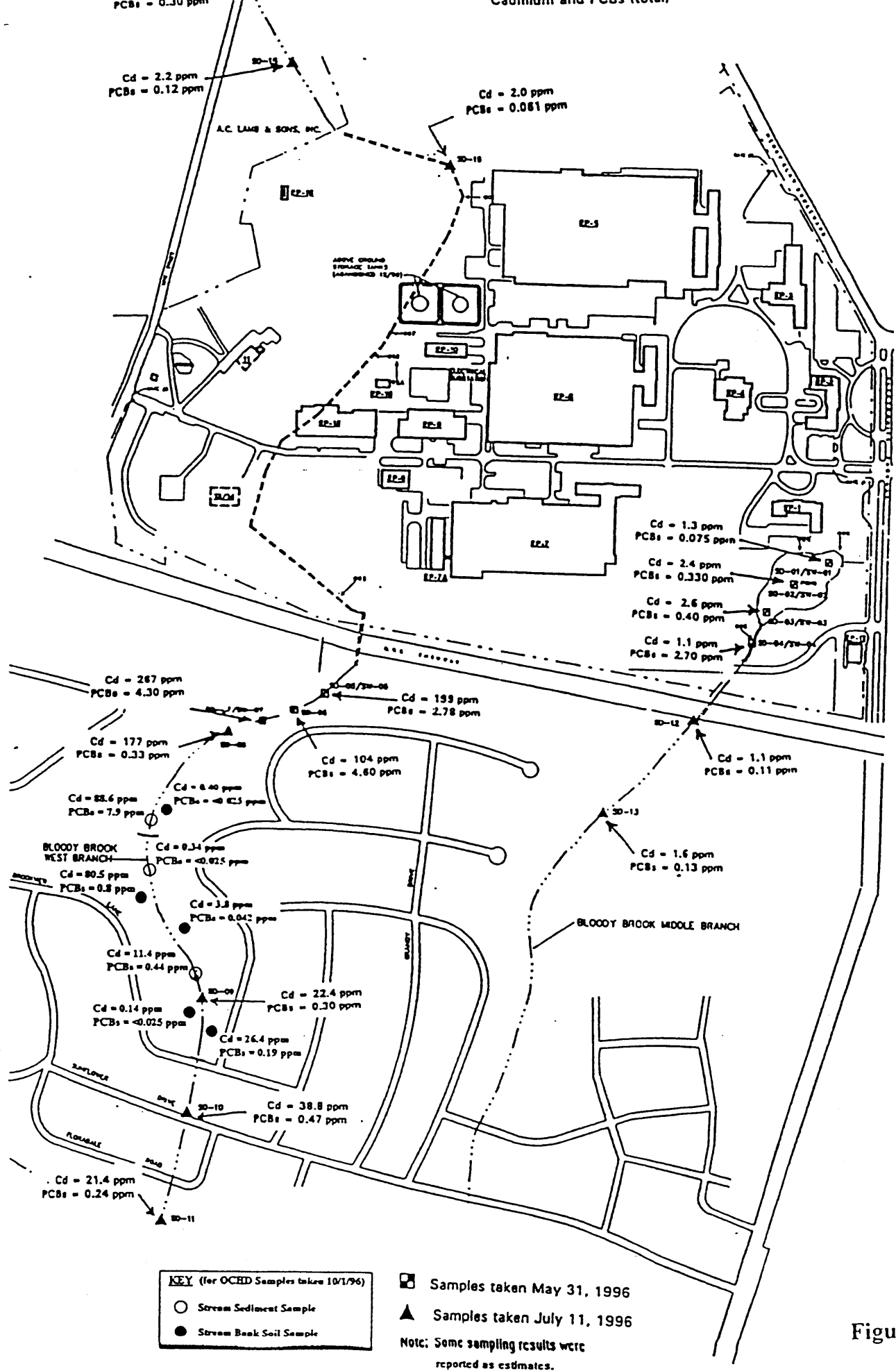


Figure 4

## **Glossary of Terms**

The following terms shall have the following meanings:

“ADD”: Assistant Division Director, Division of Environmental Remediation

“CERCLA”: the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

“Covered Contamination”: the concentrations of Existing Contamination remaining on the Site on the date that the Department issues the Release set forth in Exhibit “C.”

“CPLR”: the Civil Practice Law and Rules, as amended.

“Day”: a calendar day unless expressly stated to be a working day. “Working Day” shall mean a day other than a Saturday, Sunday or State holiday. In computing any period of time under this Agreement, where the last day would fall on a Saturday, Sunday or State holiday, the period shall run until the close of business of the next working day.

“Department”: the New York State Department of Environmental Conservation.

“ECL”: the Environmental Conservation Law, as amended

“Force Majeure Event”: an event which is brought on as a result of fire, lightning, earthquake, flood, adverse weather conditions, strike, shortages of labor and materials, war, riot, obstruction or interference by adjoining landowners, or any other fact or circumstance beyond Volunteer’s reasonable control.

“IRM”: an interim remedial measure which is a discrete set of activities which can be undertaken without extensive investigation and evaluation to prevent, mitigate, or remedy environmental damage or the consequences of environmental damage attributable to a Site.

“NL”: the Navigation Law, as amended.

“OM&M”: Operation, monitoring and maintenance.

“Professional Engineer”: an individual registered as a professional engineer in accordance with Article 145 of the New York State Education Law. If such individual is a member of a firm, that firm must be authorized to offer professional engineering services in the State of New York in accordance with Article 145 of the New York State Education Law.

“Spill Fund”: the New York State Environmental Protection and Spill Compensation Fund, as amended.

“State Costs”: all the State’s expenses including, but not limited to, direct labor, fringe benefits, indirect costs, travel, analytical costs, and contractor costs incurred by the State of New York for negotiating, implementing, and administering this Agreement. Approved agency fringe benefit and indirect cost rates will be applied.

“Termination Date”: the date upon which (i) the Release (Exhibit “C”) is issued or the Department approves the final report relative to the OM&M at the Site, whichever is later; or (ii) the Agreement terminates pursuant to Paragraph XII or is nullified pursuant to Subparagraph XIV.A.2.

“Trustee”: the Trustee of New York State’s natural resources.

“Work Plan”: a Department-approved work plan, as may be modified, pertaining to the Site that Volunteer shall implement and that is attached to this Agreement.