AVA, NY LANDFILL TIMELINE
APPENDIX C - DR. ANDREW MICHALSKI – 1999

Jan. 6, 1999, letter to Joseph Homburger, NYSDEC, from Andrew Michalski, Ph.D., Geological Engineering; M.S. Hydrogeology and Engineering Geology; of Michalski and Associates, Inc. Comments on hydrogeological and design issues for proposed site WLE-5 East. Detailed technical comments presented in Feb. 1998 pertaining to Site Investigation Report and DEIS. Michalski strongly restates contested hydrogeological issues critical for this project.

1) **Repeated characterization by applicant of a water-table aquifer in the buried valley aquifer as "confined" is erroneous.**

2) Misrepresentation of actual hydrogeological conditions in the applicant's design of his numerical model. (Abuse of computer modeling)

3) Modeling results are contradicted by actual data collected by the applicant, which should have been incorporated in the model in the first place.

4) Groundwater Suppression System is not appropriate for a recharge area with a strong downward gradient, particularly for the perched water condition found at the site. Groundwater Suppression System would assure an accelerated migration of potential releases into the buried valley aquifer.

5) Excavation into gray till will compromise the integrity of this heterogeneous unit in locations where it is already weakened due to smaller thickness of the unit.

6) <u>High hydraulic conductivity values were measured in brown till beneath northernmost footprint portion, creating unacceptable permeable character in this area.</u>

7) None of the 50 or so monitoring wells proposed would monitor the buried valley aquifer. Only 1 down gradient bedrock monitoring well is proposed for the entire fully developed landfill.

8) **Michalski strongly renews request for full scale pump test which would lead to resolution of contested hydrogeological issues, as well, Part 360 regulations give implicit preference to this sort of test, listing them first in a series of tests to be used for in situ hydraulic conductivity determination (360 – 2.11a(11).**

9) Geophysical surveys should be performed to determine the course and extent of the buried valley aquifer, particularly within the CSS down gradient of the proposed landfill.

10) Additional tritium tracer sampling should be conducted in selected wells to determine the ages of groundwater independently of applicants model, specifically tritium-helium 3 dating.