

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Dan Ezra, President
Margan, M.L.S. (1994) LTD.
4052B Dunwoody Park
Dunwoody, GA 30338

Dear Mr. Ezra:

Thank you for your correspondence requesting clarification on the use of a ground-water sampling device (DMLS) manufactured by your company at hazardous and solid waste disposal facilities regulated under the Resource Conservation and Recovery Act (RCRA Subtitle C and D respectively). Although the Environmental Protection Agency (EPA) does not recommend, endorse, or approve the use of specific commercial products or processes for any environmental application, generic guidelines and approaches are frequently established and recommended in guidance issued by EPA.

Currently, the main body of EPA guidance on ground-water monitoring is contained in "RCRA Ground-Water Monitoring: Draft Technical Guidance (EPA/530-R-93-001; November 1992). Section 7.3 of this guidance describes three main categories of ground-water sampling devices (grab, positive displacement pumps, and suction lift pumps), and recommends the use of certain sampling devices over others based on a review of scientific literature which documents their performance. The use of passive multi-level sampling devices such as the DMLS is not specifically addressed by the guidance. However, in anticipation of the emergence of new sampling devices that enter the commercial market after the publication date, the guidance explicitly states, "To encourage innovation, the Agency may allow the use of other devices that are not specifically mentioned above if the owner/operator demonstrates to the Agency's satisfaction (or to the authorized state's satisfaction) that the device will yield representative ground-water samples." In selecting sampling equipment, the guidance recommends that:

- 1) sampling equipment be chosen based on the analytes of interest and their physical and chemical characteristics, and depth of the saturated zone from which the sample is withdrawn;
- 2) sampling equipment be constructed of an inert material. It should not alter analyte concentrations (e.g., cause a loss of analytes via sorption, or cause a gain

RO 14246

of analytes via desorption, degradation, or corrosion); and,

3) sampling equipment should cause only minimal sample agitation, and should reduce/eliminate sample contact with the atmosphere during sample transfer.

The information and scientific articles about the DMLS that you submitted to the Office of Solid Waste during previous meetings were reviewed by my staff with these recommendations in mind. Their general conclusion is that the DMLS can produce representative ground-water samples for use in the RCRA ground-water monitoring programs, and that the device can also yield valuable information on vertical profiles of hydraulic conductivity fields and contaminant concentrations that are difficult to obtain. Further, the DMLS can produce samples from many low-yielding formations that may be de-watered if sampled by a bailer or a pump operated at high rates of withdrawal. Finally, the DMLS allows for the acquisition of representative ground-water samples in geologic environments that typically impart excessive turbidity in the sample. These findings will be incorporated into future updates to the RCRA ground-water monitoring guidance.

I hope you find this response useful. You may direct further inquiries to James Brown (703.308.8656).

Sincerely,

Michael Shapiro, Director
Office of Solid Waste

M.L.S. (1994) LTD.

October 3, 1996

Michael Shapiro
Director of Office of Solid Waste
EPA Headquarters
401 M Street, SW-5301W
Washington, D.C. 20460

Dear Mr. Shapiro

Subject: DMLS - A Passive Multi Layer For Groundwater.

During the last two years we have been introducing the DMLS which is a Passive Multi Layer Sampler for Groundwater. It has been widely accepted by the scientific community and the commercial market as an accurate sampling device that can provide a vertical profile of the chemical composition of the water relatively easily.

It was also accepted in the market as an appropriate device for sampling of ground monitoring wells in tight and low permeability formations and also in turbid environments.

As we are moving along in our marketing efforts, we are facing some impediments among regulatory agencies and in the commercial market, about the suitability of this device for use in RCRA sites, because no official EPA guidelines exist

We have done several technical presentations in front of the EPA staff of the Office of Solid Waste in DC and provided technical and scientific material on the matter. In addition a comparison between various sampling techniques was done and the results of which have been partially introduced in the Ground Water Forum in Boston on June 1996.

An overwhelming body of scientific literature attests to the fact that our sampling device yields representative sample with minimal systematic error. To facilitate the use of this high quality sampling device in environmental applications, we would appreciate if we could get a clarification by EPA as to the use of the Passive Multi Layer Sampler at RCRA sites.

Sincerely Yours
Margan M. L. S. (1994) LTD.
Dan Ezra
President

Israel Address: - Tel: 972-9-655510, Fax: 972-9-655514 P.O. Box 8155, Netanya 42160, Israel
USA address: 4052B Dunwoody Park, Dunwoody, GA 30338. Tel: 770-3909950 Fax: 770-3900487
Email: dzr@randomc.com

RO 14246