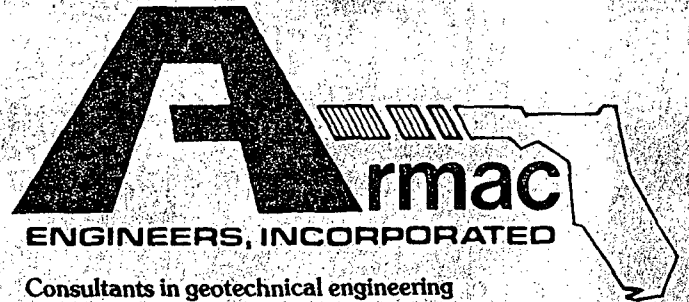


40612
SD25-214306
4025C30001



May 19, 1982

Envisors, Inc.
P.O. Box 9309
Winter Haven, FL 33880

Attn: Mr. Dale Ernsberger, P.E.

Subject: Refraction Seismic Geophysical Investigation
Proposed Primary Landfill Cell Locations
Proposed Mobil-Hardee County Sanitary Landfill, Wachula, Florida

Gentlemen:

In accordance with the authorization of Mr. Dale Ernsberger of Envisors, Inc., we have performed a refraction seismic survey at the proposed primary landfill cell locations located in the approximate northwest corner of the above referenced site. This survey was performed in order to establish the existence and depth to the underlying confining clay layer. Correlation with known soil depth data was established by performing the survey in close proximity to previously performed SPT borings B-2 and B-4 (report dated February 16, 1982). Characteristic compressive wave velocities were established for both the upper surficial soils and underlying clay soils. These average compression wave velocities were found to be 1362 and 4824 respectively. This high velocity differential was used to identify these separate soil strata.

The enclosed figures show the results of this seismograph investigation and indicate that the underlying cohesive clay layer is found to lie at depths ranging from 8.4 to 18.0 feet below ground surface (elevation 67.8 to 77.3 feet MSL). The cohesive soil strata was found to be continuous in the subject area, but possible high velocity hardpan or surficial clay layers were found to exist at three out of twenty-two survey grid locations. These near-surface high velocity soil layers produced anomalous wave reversals preventing deeper soil analysis at these locations.

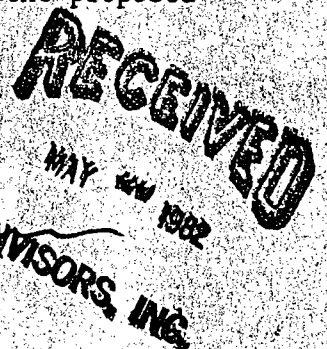
In summary, based on the data obtained from soil borings and the seismic survey, it is our opinion that a cohesive clay layer is continuous below the proposed primary landfill cell locations.

Respectfully submitted,

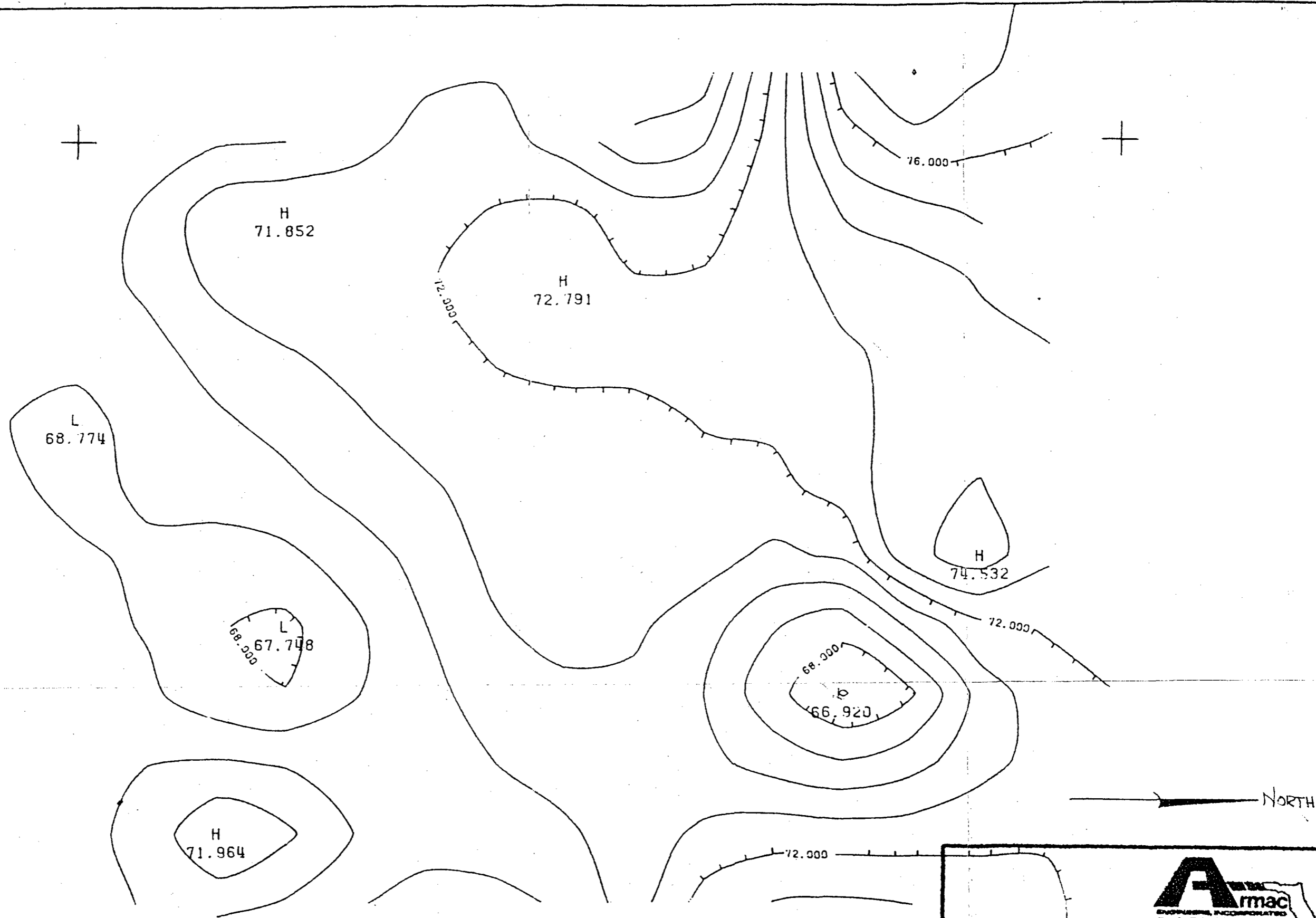
ARMAC ENGINEERS, INC.

Ross T. McGillivray, P.E.
Registered Florida 17920

Carl R.L. Brown
Senior Geologist



ENVISORS MOBIL-HARDEE COUNTY LANDFILL
ELEV. TOP OF CLAY

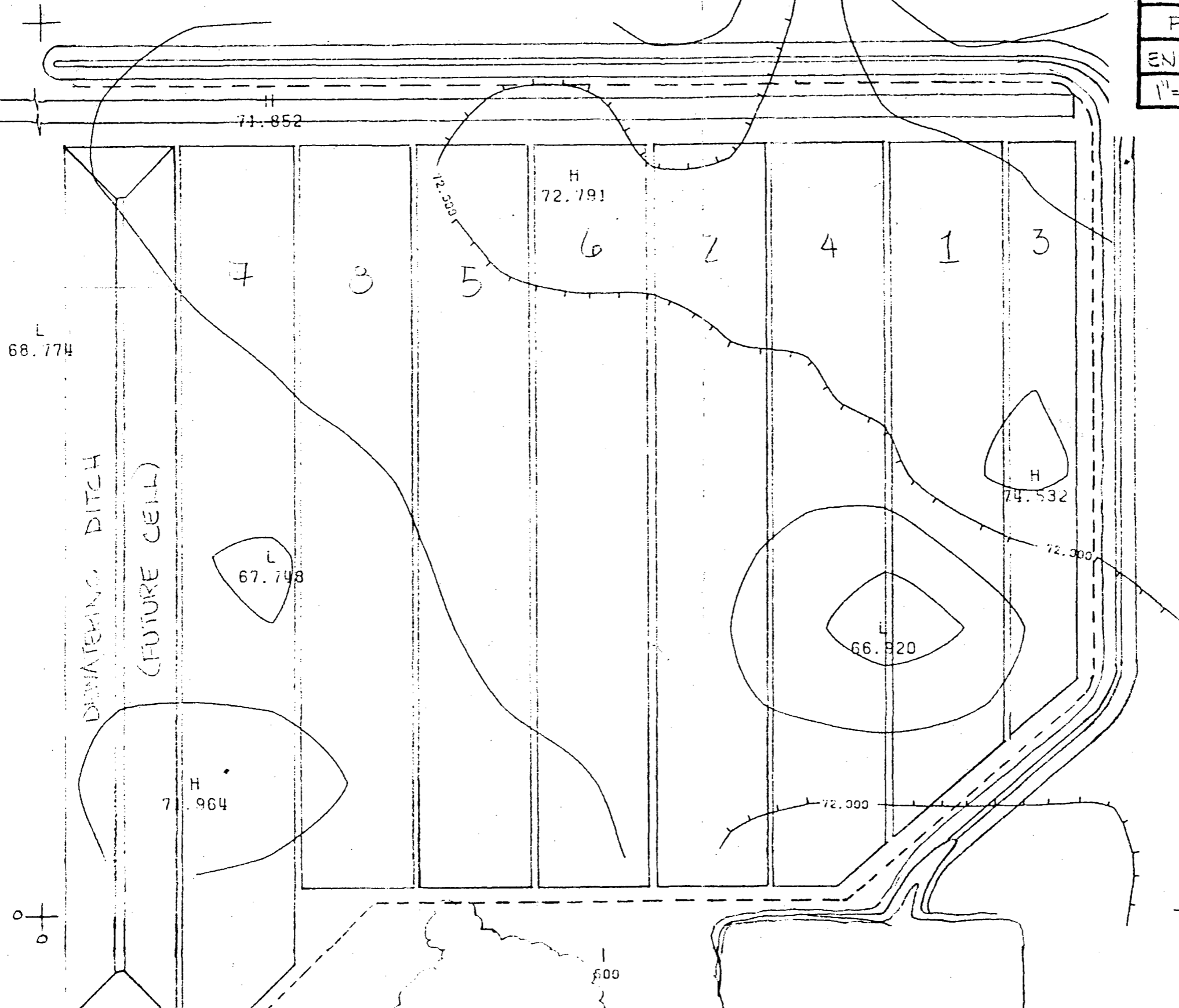


0+
0 CONTOUR INTERVAL 1 FOOT

NORTH

ELEVATION TOP OF CLAY LAYER		
ENVISORS-MOBIL-HARDEE CO. LANDFILL		
1" = 100'	MAY 1982	FIGURE: 1

ENVISORS MOBIL-HARDEE COUNTY LANDFILL
ELEV. TOP OF CLAY



8430 N. 40TH STREET
TAMPA, FL 33604

813/988-5183



PROPOSED PRIMARY CELL LOCATIONS
ENVISORS-MOBIL-HARDEE CO LANDFILL

1"=100' MAY 1982 FIGURE: 2

CONTOUR INTERVAL 2 FEET

