

OFFICE MEMORANDUM

TO : File

DATE: November 4, 1976

FROM : W. John Smith *WJS*

SUBJECT : MONTHLY PROGRESS REPORT FOR OCTOBER 1976

SYMBOL : H8-WS-684

MAIL STOP: 490

0729 Report

Carry over problems in the completion of the Highlands contract were tended this month. Among these were the acquisition of a desk and typewriter for the research technician's use, clarification of contract provisions for travel money, and selection of vegetation study sites in Los Alamos County. With the assistance of Felix Miera a number of potential sites were identified on vegetation maps and correlated against restricted or Indian land. Those with potential utility were visited by Felix, Tony Gallegos and Benito Garcia. The sites selected are indicated on the enclosed map of the county, Fig. 1.

A considerable period of time was spent this month writing computer programs for Felix Miera and for Don Van Etten. The former was a program which allows the plotting of Uranium-in-soil concentrations as a three dimensional surface. The data were obtained on a polar coordinate grid, but were reduced by the program to cartesian coordinate form, and plotted in a number of ways using the program EASY3D. The program for Don allows the input of raw data obtained from neutron moisture measurements in boreholes. It performs the necessary calculations and stores the data in a permanent data storage file. Finally it allows the selection of particular sets of data and permits them to be plotted in either two or three dimensional form. Examples of the plotted data are attached as Fig's. 2, 3, 4, 5 and 6.

Some time was spent this month preparing revisions of two topical reports. The reports, "Experience in the Clean-up of Plutonium-Contaminated Land" and "A Preliminary Evaluation of the Potential for Plutonium Release from Burial Grounds at Los Alamos Scientific Laboratory" have been submitted for H-Division approval. Following corrections that may be necessary after this review, the reports will be prepared for publication as LA-MS documents.



TO: File

-2-

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Currently, first priority is the writing of a Reference Facility Design for Burial Grounds which is necessary in the preparation of an ERDA Generic Environmental Impact Statement. About fifty percent of my portion of this effort was completed in a rough form which still requires some specific data. This effort included a trip to a meeting of Task Leaders in Seattle, for review of progress and resolution of interface problems. It is expected that this effort will be completed in draft form during early November.

NOTE ATTACHED ILLUSTRATION OF COMPUTER GRAPHICS.

WJS:kr

xc: Merl Wheeler
Linda Trocki
Margaret Anne Rogers

FIGURE 1

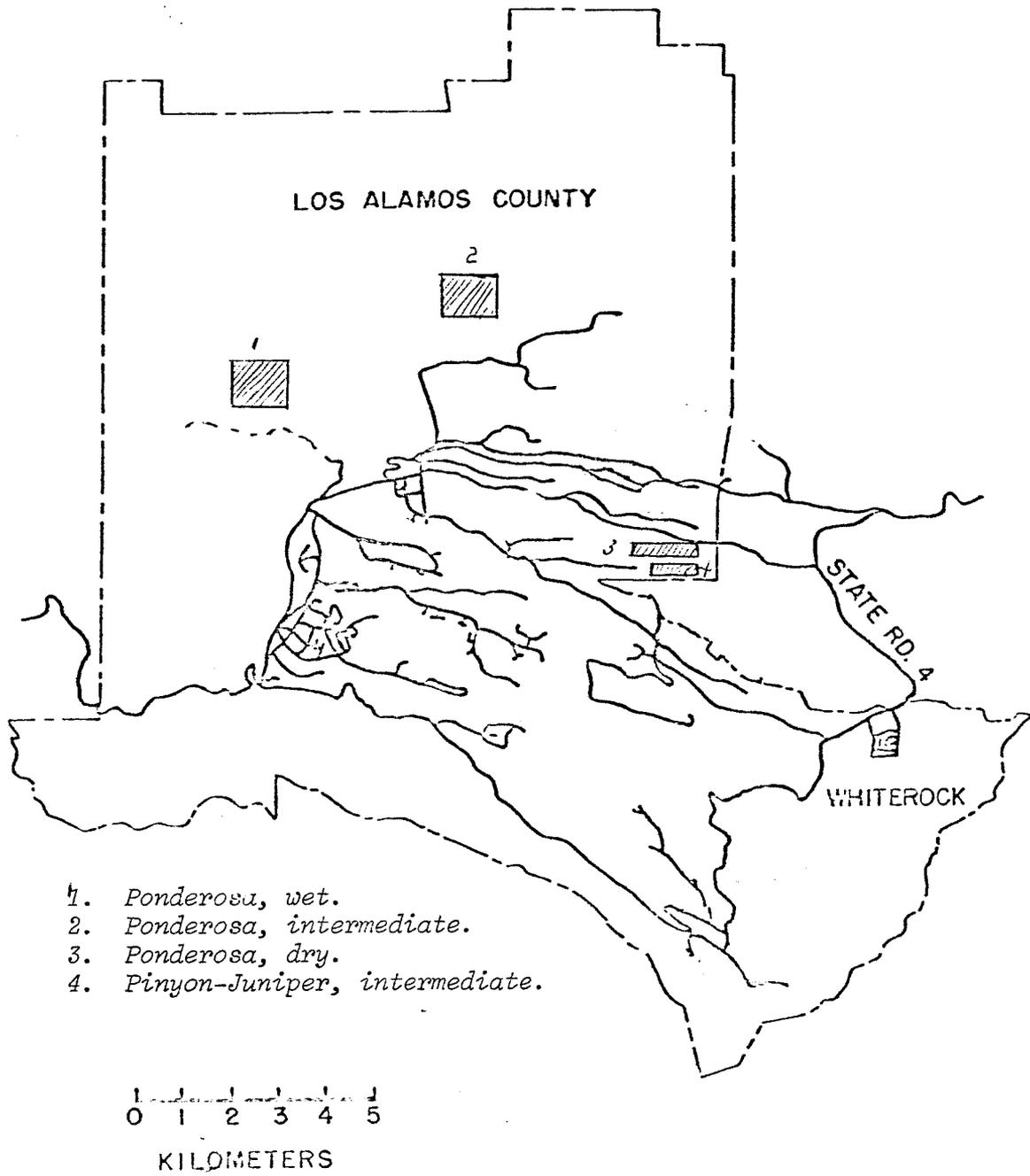


Fig. 2. Soil uranium concentrations ($\mu\text{g/g}$) at an old LASL firing site. Baseline is ~ 10 peak is $\sim 13,000$. North-south and east-west scales are distances in meters.

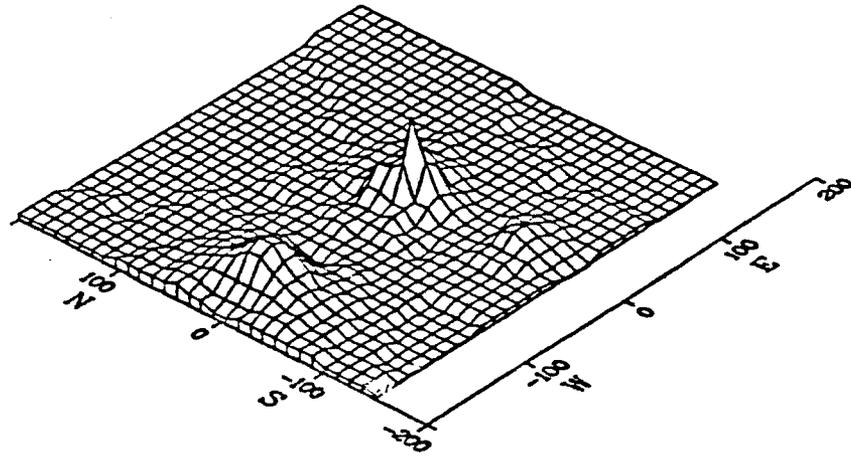


Fig. 3. Soil uranium concentrations ($\mu\text{g/g}$) at an old LASL firing site. Baseline is ~ 10 , peak is $\sim 13,000$. This is a histogram treatment where each data area is shown as an isolated plateau. North-south and east-west scales are distances in meters.

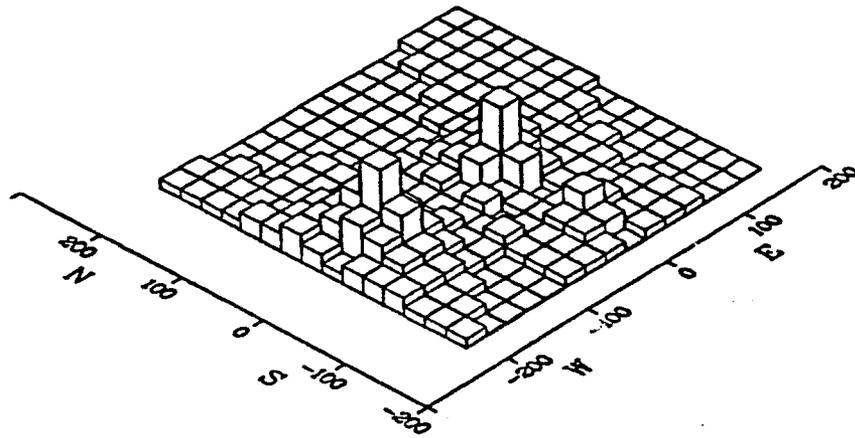
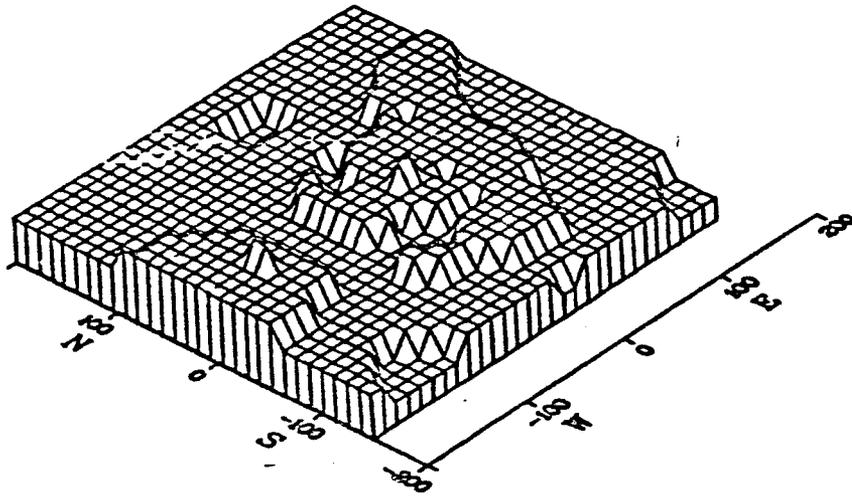


Fig. 4. Soil uranium concentrations ($\mu\text{g/g}$) at an old LASL firing site. Baseline is ~ 10 , peak is $\sim 13,000$. This is a log-histogram treatment where baseline is ~ 0.1 and the peak is ~ 4.0 . North-south and east-west scales are distances in meters.



NN

DATA FOR AREA G 1976

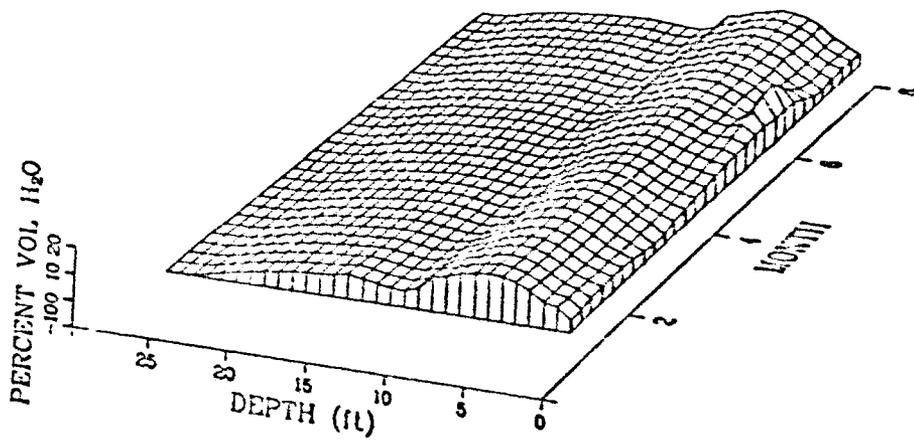


Fig. 5. Neutron moisture measurement data prepared for three-dimensional graph by NEUPLT.

BORE HOLE NN

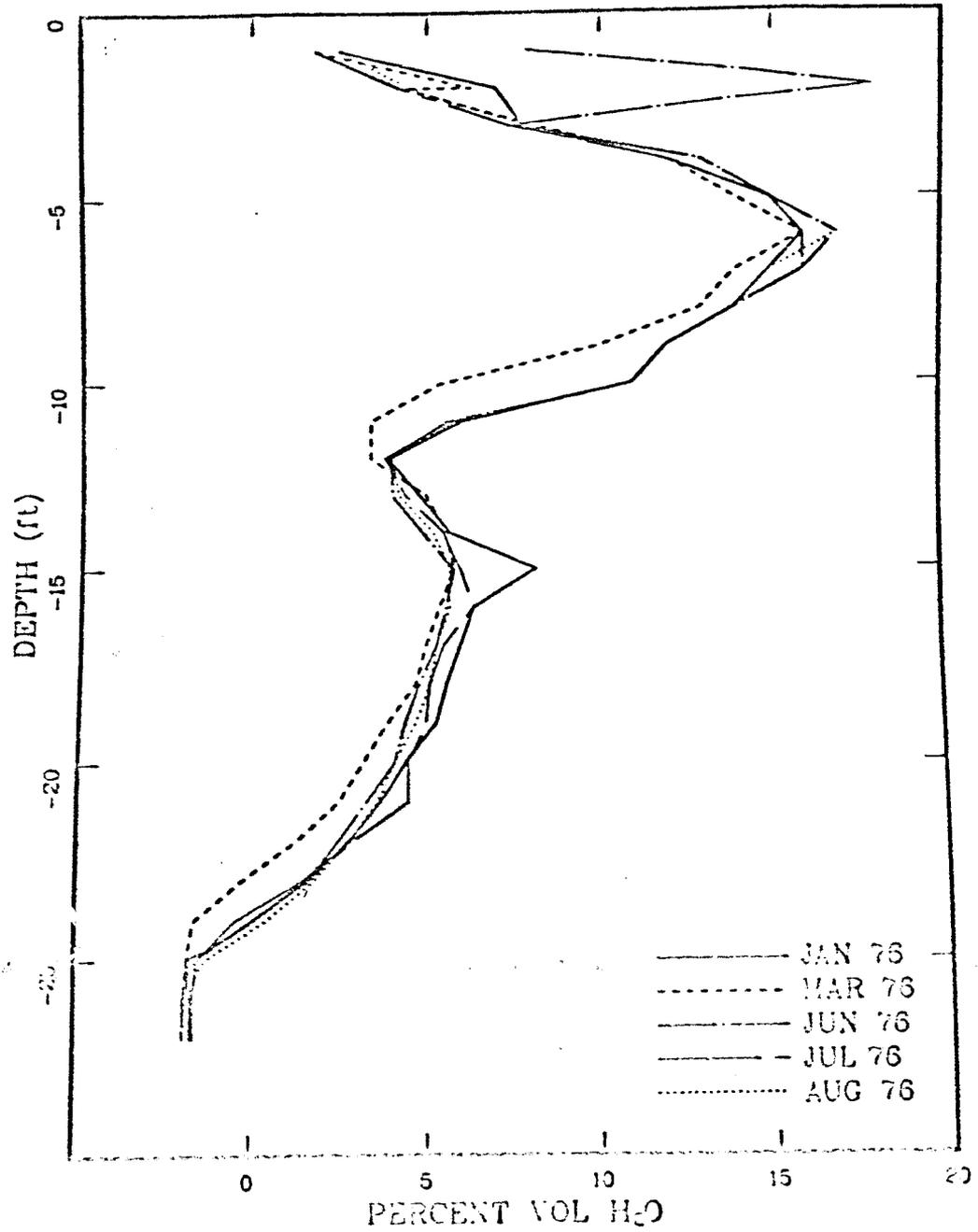


Fig. 6. Neutron moisture measurement data prepared for two-dimensional graph by NEUPLT.