GEOLOGICAL RECONNAISSANCE REPORT

ON THE

WESTFIELD, FOSTER LAKE, AND QUINNIPIAC VALLEY AREA

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INTRODUCTION

This report is concerned with the geological feasibility of using the Foster Lake Area, Westfield Area, and Quinnipiac Valley Area for future industrial parks. The data outlined in this report has come from several sources: (1) a general field check (2) published and unpublished quadrangle reports, (3) borings for Interstate 91 obtained from the Highway Department, (4) well records from the Works Progress Administration for Connecticut (1938), (5) well logs from the Ground Water Division of the U. S. Geological Survey, and (6) well logs from the Water Resources Commission.

This report is the result of a reconnaissance study, and is not intended to be a detailed report. In evaluating these areas I have taken into consideration the depth to bedrock, the nature of the material overlying bedrock, and surface conditions, e.g. swampy areas versus well-drained areas.

All three areas, within the boundaries outlined for consideration, appear to be geologically suitable for future industrial park development.

WESTFIELD AREA

The Westfield Area is underlain by trap rock or basalt flows (Talcott basalt, Holyoke basalt, and Hampden basalt), and sedimentary rocks, most of which are sandstones (Shuttle Meadow formation and Portland arkose).

I have been able to find only four well logs in this area other than the borings for Interstate 91. They are all in the northern part of the area, and they indicate that bedrock is as shallow as fourteen feet below ground level (MT- 64), and as deep as forty feet below ground level (W.P.A. -4). The bedrock surface steepens downward sharply in the immediate vicinity of the Mattabesset River, where it is approximately ninety to one hundred feet below ground level according to the borings for Interstate 91. The borings for Interstate 91 along the eastern and southeastern margins of the area indicate that the bedrock surface is very shallow, a few feet deep at most, southeast of the dotted line on the overlay, with quite a few outcrops occurring in this part of the area. The exact location of these outcrops can be found with the help of the Geologic Map of the Middletown Quadrangle (Lehmann, 1955). This part of the area is underlain by the Holyoke basalt, a very resistant ridge-former. There are other outcrops throughout the Westfield area, but they are generally restricted to stream beds.

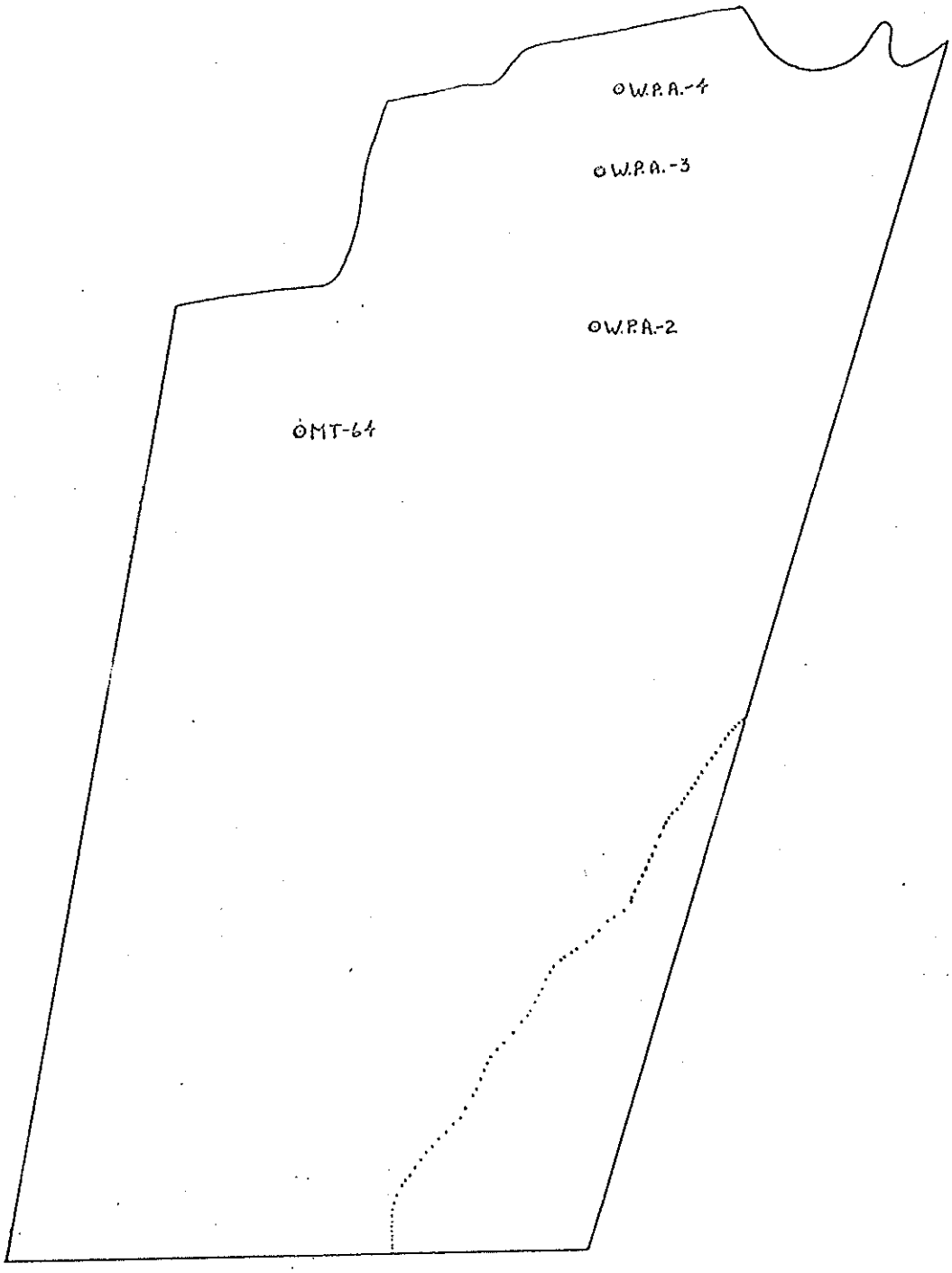
Borings to the north of the dotted line indicate that the bedrock surface becomes deeper to the north, varying between twenty and fifty-five feet below ground level.

The material above the bedrock surface is mostly sand with some silt and gravel, and a trace of clay in some localities, and should provide adequate support for industrial building foundations.

In conclusion I have found no evidence to indicate that this area is unsuitable for a potential industrial park.

WELL LOG DATA FOR WESTFIELD AREA

MT- 64	0-14' silt
	14'-120' brown sandstone (East Berlin formation)
W.P.A.-2	Portland arkose 27' below surface
W.P.A.-3	Portland arkose 20' below surface
W.P.A.-4	Portland arkose 40' below surface



OVERLAY FOR WESTFIELD AREA

BIBLIOGRAPHY

Lehmann, E. P., 1959, The Bedrock Geology of the Middletown Quadrangle With Map, State Geological and Natural History Survey of Conn.

Porter, S. C., 1960, The Surficial Geology of the Wallingford Quadrangle With Map, State Geological and Natural History Survey of Conn.

SOURCE OF DATA ON OVERLAY SHEETS

W. P. A. Series - Works Progress Administration for Conn., 1938

G W Series - Groundwater Division of the U. S. Geological Survey, Middletown, Conn.

I-91 Series - State Highway Department borings for Interstate 91

Q Series - Engineering Study, Soil Types in Area of Quinnipiac Valley Development Corporation, Report No. 6, by Goodkind and O'Dea, Engineering Consultants

MT, ME, WL Series - State Water Resources Commission, Hartford, Conn.