

## STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

702 Woodlark Building PORTLAND 5. OREGON May 1, 1947

Mr. Hollis Dole State Assay Laboratory Grants Pass, Oregon

Dear Holly:

I have examined the four samples of aggregate and enclosed you will find notes I have made on them. I hope the information is satisfactory. This noon I talked with Lloyd Ruff of the Army Engineers, and he pointed out that with the exception of the Columbia and Willamette Rivers. most of the aggregate in Oregon is not satisfactory, especially if a high-alkali cement is used. However, a low-alkali cement, and I understand that the Gold Hill cement which has been used widely in Klamath Falls is low-alkali, may be used satisfactorily with some of the aggregates elsewhere in the State. As I have pointed out in the notes, many of the basic andesite sand grains are structurally weak, whereas the larger particles tend to be fairly strong. Even if the fine aggregate cannot be used satisfactorily, it might be necessary to ship in only that fraction as the coarser particles might be sufficiently strong. Do you know of any olivine basalts in the Klamath area? I don't recall whether Howell Williams mentioned any. Some of the oliwine basalts have a diabasic or subophitic texture and they, as a result, might be inherently stronger.

I think you mentioned something similar to this when you were last here. If you have any questions regarding any of the information, please don't hesitate to write. I hope the work is satisfactory.

Best regards to you, Ruth, and Mike.

Sincerely yours,

Wally

Wallace D. Lowry

Geologist

WDL:ff Encl.