

25 March 1965

United States Department of the Interior
Geological Survey
Room 332, First Insurance Building
1100 Ward Avenue
Honolulu, Hawaii 96814

Attention: Mr. Dan A. Davis
District Geologist

Dear Dan:

Thank you for your letter of March 19 which is encouraging.

To bring you up to date we have drilled and tested four (4) wells, two (2) at Dededo, one (1) at lower Harmon and the other at Chaot river. The wells at Dededo were drilled 25 feet below sea level and produced water slightly better than the Marbo wells. The first well produces 200 gals. per minute with .6 feet drawdown and the second well produces 200 gals. a minute at 9 foot drawdown. The first test on the second well showed a drawdown of 30 feet at 100 gals. per minute and we acidized the well, with the result, that the drawdown was reduced to 9 feet. We were hampered by a limited amount of available acid and other ingredients necessary for acidizing the well. I am certain that many of the high drawdown wells could improved by acidizing. These two (2) Dededo wells were drilled 200 feet apart with no interference between wells while pumping. The chlorides for both wells was 36 ppm at 200 gals. per minute.

The lower Harmon well was drilled approximately 1,000 feet North of the Foremost Dairies well. This well produced water of a 168 ppm chloride similar to the Foremost well. However the water contained a hydrocarbon odor similar to that encountered in the Foremost well. This well was drilled to provide temporary water to the Public Works area located adjacent to the well site. Because of the odor this well is considered marginal and can not be used without an activated carbon contact filter.

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The Chaot river well was drilled across the river from USGS Well 120. The elevation at the site was 67 feet and the static water level was approximately 22 feet above sea level. The well was drilled to 120 feet and tested. The well drew down 70 feet at 150 gals. per minute with chloride for 14 ppm. The well was deepened to 240 feet and retested. The chlorides remained the same and the drawdown at 300 gals. per minute was approximately 90 feet. This well was pump tested for four days with no change in chloride regardless of the pumping rate. The bacterial analysis of the water showed that no E-Coli was present and the plate count of 13. Apparently this well is outside any contaminated area.

We are preparing detailed reports on the wells which will be submitted to the Government of Guam in the near future at which time I will request permission from them to forward you a copy of the well reports.

Regarding the use of seismic equipment, I am contacting a friend in Velocity Survey Co. who we worked with for some years in Canada. They have some modern tape recorded seismograph equipment which can be replayed using different type filters thereby allowing us to accurately determine the different velocities of the formation. Do you think that there is any chance of the Federal Government participating in this experiment?

There is no doubt in my mind that the seismograph could cover a much more larger area in a minimum of time and at a cost much less than exploratory drilling. Seismograph equipment does not require access roads and can be easily moved over rugged terrain.

I personally would like to know the location of the basement rock along the road between Sinajana and Yona because the result of Chaot river well reflects, in my opinion, that the basement rock lies approximately 200 feet below sea level but the boundaries of this should be defined.

I intend to recommend that the Government of Guam appropriate funds for an experimental seismograph survey. Kindest personal regards.

Yours truly,

LAYNE INTERNATIONAL-GUAM

Douglas Craddick
Vice President
Engineering Division

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