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GUAM ENVIRONMENTAL PROTECTION AGENCY

POST OFFICE BOX 2999
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18 MAY 1982

INTRA-AGENCY MEMORANDUM

MAY 10 1982

TO: File

FROM: Chief Engineer

SUBJECT: Memo for Record - Well Y-7

Pacific Drilling reported a problem with caving while drilling below 420 feet. The drill stem was pulled out on May 6, 1982 for logging by USGS. Greg reported the following information the afternoon of May 6, 1982.

1. The well has caved to 427 feet.
2. A caliper log indicates severe caving below the water table.
3. Material on the bit seems to indicate a high clay content in the limestone.
4. Gama-log over the full depth was inconclusive.
5. E log and resistivity log through the 20 foot section of water were run. Resistivity log shows definite kicks.
6. The static head appeared to be about 4.25 ft. using the Y-3 bench mark.
7. Drillers log reports variation in drilling rate.

At a meeting in the GEPA office with Mr. Rao, Mr. Greg Ikehara and Mr. John Worlund it was agreed:

1. Further drilling would be difficult without casing the hole to obtain circulation.
2. Alternatives of using mud or grout may reduce well capacity by "plugging" the formation and are not acceptable.
3. The "clay" in the samples may provide a high yield development problem.
4. For final development the well will need to be cased.

Several alternatives were discussed as to the next step to be taken.

Since it was agreed that the well was clearly a basal well (4.25 ft. of Head). There seemed to be little point in proceeding with the pilot hole. Especially in light of the apparent difficulty in holding the hole open and the lack of circulation.

We considered reaming the hole to 12" so the high volume pump could be installed for test pumping. It was undecided if casing would be required for the test pump. However with only 20 feet of water available (assuming the larger hole would also cave) conclusive test pumping might be difficult without sufficient depth of water for a good test.