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Ser 1811WW/L2043
6 NOV 1991

Ms. Eileen Hughes
Department of Toxic Substances Control
700 Heinz Ave.,
Suite 200
Berkeley, CA 94710

Subj: REHABILITATION AND SAMPLING OF EXISTING BACKGROUND AND PRODUCTION WELLS, NAS ALAMEDA

Dear Ms. Hughes:

The purpose of this letter is to propose that a change be made in the field program described in the work plan for Phases 5 and 6 of the Remedial Investigation/ Feasibility Study (RI/FS) at the Naval Air Station (NAS) Alameda. The work plan originally included the location, rehabilitation and sampling of five existing wells to provide groundwater information on the sites. Since that time, additional work not originally contemplated was accomplished as part of the Solid Waste Assessment Test (SWAT) Investigation. The SWAT Investigation includes the installation and sampling of fifteen background wells. Sampling of the fifteen wells is expected to provide adequate and reliable data on the quality of groundwater that may be entering the landfill areas. We are therefore proposing that the rehabilitation and sampling of the five existing wells be deleted. Enclosure (1) provides the background and rationale for this proposal.

It is requested that you concur with our proposal to delete the rehabilitation and sampling of the five exsiting background and production wells from our field program. We will be available to meet with you to further discuss this matter should you feel that a meeting is necessary. If you have any further questions, the point of contact is Mr. Wing Wong, Code 1811WW, (415) 244-2537.

Sincerely,

Original signed by:

LOUISE T. LEW
Head, Installation Restoration Section

Encl:
(1) Background and Rationale For Proposed Deletion of Sampling Existing Wells

Copy to:
California Regional Water Quality Control Board (Attn: Lester Feldman)
NAS Alameda (Attn: Randy Cate)
Planning Research Corporation (Attn: Kirk Switzer)
James M. Montgomery Consulting Engineers (Steve Newton)
Blind copy to:
1811, 1811WW, Admin Record WRITER: W. Wong/1181WW/X2537

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ENCLOSURE (1)

REHABILITATION AND SAMPLING OF EXISTING BACKGROUND AND PRODUCTION WELLS, NAS ALAMEDA

BACKGROUND

The February 1990 work plan prepared by Canonie Environmental Services Corp. (Canonie) identified five existing wells which were located in the presumed upgradient direction of the West Beach Landfill and the 1943-1956 Disposal Area (Figure 1). The work plan stated that these wells would provide background information on water permeating into the landfill sites.

Available construction information for the wells is summarized below. This information was obtained from Alameda County Public Works Agency well records for wells BG-1, BG-2, and BG-3. The Navy's contractor was unable to obtain information on wells BG-4 and BG-5 in the County files or from the NAS Alameda Environmental Protection Office. Depth information for these wells was included in Canonie's February 1990 work plan.

Well I.D.	County Well I.D.	Date Constructed	Total Depth, ft.	Screened Interval
BG-1	2S/4W-5A1	NA	500	NA
BG-2	2S/4W-3E1	1931	353	269-292, 343-345
BG-3*	2S/4W-3F1	1917	376	NA
BG-4	NA	NA	9	NA
BG-5*	NA	NA	13	NA

* - unable to locate well in field
NA - not available

Well BG-2 is the only existing well for which information on the screened interval is available. This well is screened across gravel interbeds in the predominantly clayey Alameda Formation. The Alameda Formation underlies the San Antonio Formation. The San Antonio Formation acts as a regional aquitard in the vicinity of NAS Alameda and is first encountered at depths of approximately 80 to 100 feet in the vicinity of the landfills (Canonie, 1990).

No information on the screened interval of wells BG-1 and BG-3 is available. However, based on their total depths, these wells are presumed to intercept water-bearing zones within the Alameda Formation also. Shallow wells BG-4 and BG-5 are presumably screened within shallow fill material.

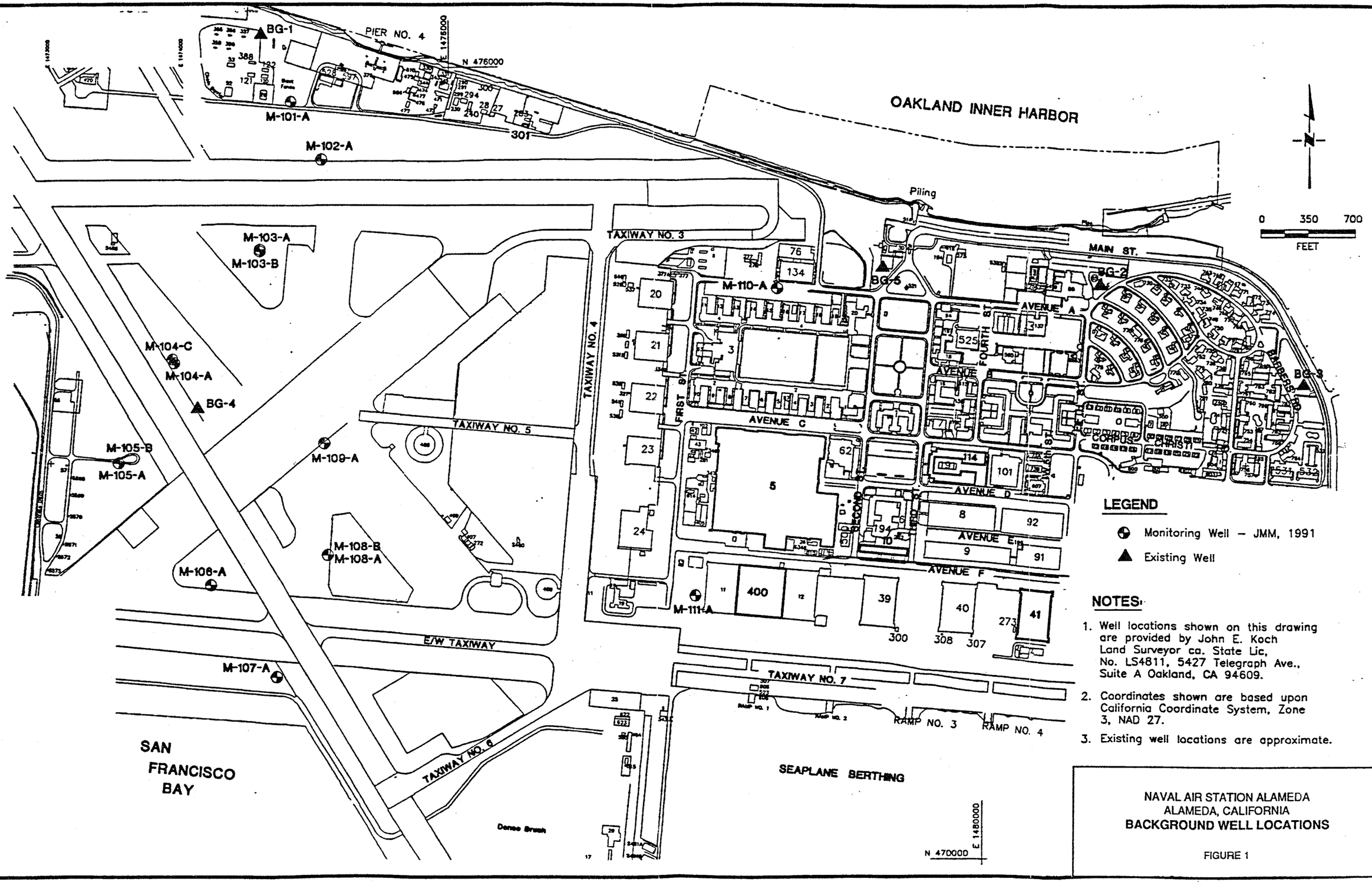
RATIONALE FOR PROPOSED DELETION OF SAMPLING EXISTING WELLS

Deep wells BG-l, BG-2, and BG-3, are constructed to depths well below the intervals of reasonable concern in the vicinity of the West Beach Landfill and 1943-1956 Disposal Area. Well BG-2 intercepts water-bearing zones that lie approximately 160 and 240 feet below the top of a regional aquitard. Wells BG-l and BG-3 are constructed to total depths between 270 to 400 feet below the top of this regional aquitard; no information on the screened intervals of these wells is available. Because well BG-2, and presumably BG-l and BG-3, monitor groundwater below the San Antonio Aquitard, groundwater samples from these wells would not provide a reliable indication of the quality of groundwater entering the shallower zones currently being monitored around the landfills.

Well BG-4 is not properly constructed for use as a groundwater monitoring well. Upon inspection in the field, the well appears to be constructed of 3-inch diameter polyvinyl chloride casing with no surface seal or protective cover. This well is scheduled to be abandoned under the decommissioning program previously approved by the Department of Toxic Substances Control (DTSC).

Well BG-5 monitors shallow groundwater within 100 feet of the Oakland Inner Harbor (Figure 1). Canonie, in their February 1990 work plan, indicated that this well might not provide a reliable indication of groundwater entering the landfills because it probably lies within an area which is heavily influenced by tidal activity. In addition, the lack of construction and screened interval information limits the usefulness of data from this well.

As part of the SWAT Investigation currently underway at the West Beach Landfill and 1943-1956 Disposal Area, fifteen background wells were installed (Figure 1). These wells are constructed in compliance with County and State requirements and monitor zones above the San Antonio regional aquitard. These same water-bearing zones are currently being monitored on the presumed downgradient side of the landfill areas. Groundwater samples collected from these fifteen wells will provide a more reliable indication of the quality of water entering the landfill areas from upgradient portions of the site.


BG-1
PIER NO. 4
N 476000
E 1475000
M-101-A
M-102-A
301
OAKLAND INNER HARBOR
Piling
0 350 700
FEET
M-103-A
M-103-B
TAXIWAY NO. 3
M-110-A
BG-5
MAIN ST.
BG-2
AVENUE A
FOURTH ST
AVENUE B
BG-3
M-104-C
M-104-A
BG-4
TAXIWAY NO. 4
TAXIWAY NO. 5
FIRST ST
AVENUE C
CORPUS CHRISTI
M-105-B
M-105-A
M-109-A
AVENUE D
AVENUE E
AVENUE F
M-108-B
M-108-A
M-106-A
M-111-A
E/W TAXIWAY
M-107-A
TAXIWAY NO. 7
RAMP NO. 1
RAMP NO. 2
RAMP NO. 3
RAMP NO. 4
SAN FRANCISCO BAY
TAXIWAY NO. 6
SEAPLANE BERTHING
Dense Brush
N 470000
E 1480000
LEGEND
Monitoring Well – JMM, 1991
Existing Well
NOTES:
1. Well locations shown on this drawing are provided by John E. Koch Land Surveyor ca. State Lic, No. LS4811, 5427 Telegraph Ave., Suite A Oakland, CA 94609.
2. Coordinates shown are based upon California Coordinate System, Zone 3, NAD 27.
3. Existing well locations are approximate.
NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
BACKGROUND WELL LOCATIONS
FIGURE 1
ALA-ALWL