



November 3, 1994

Mr. Stephen Chao/Mr. Su Don Tu
Department of the Navy
Engineering Field Activity West
Naval Facilities Engineering Command
900 Commodore Way, Building 101
San Bruno, California 94066-2402

CLEAN Contract Number N62474-88-D-5086
Contract Task Order 0324

Subject: Continuation of Quarterly Groundwater Sampling, Moffett Federal Airfield

Dear Messrs. Chao and Tu:

This letter and the accompanying attachment summarize the proposed direction for continued quarterly groundwater sampling activities at Moffett Federal Airfield (MFA). PRC Environmental Management, Inc. (PRC) prepared this summary to outline proposed changes to the quarterly sampling program at MFA considering the variations in sampling objectives that have occurred over the course of the sampling program.

Briefly, the proposed continuation of the quarterly groundwater sampling program focuses on characterizing the groundwater contamination at MFA on an area-by-area basis. Each quarterly sampling event will emphasize one specific area and provide data to create contaminant concentration contour maps. The areas of interest include:

1. Groundwater contaminated with volatile organic compounds (VOCs) at operable unit 5
2. Groundwater contaminated with total petroleum hydrocarbons (TPH) at Site 5
3. The regional and Navy VOC and TPH contamination in the A1-aquifer zone groundwater on the western side of MFA
4. The regional and Navy VOC contamination in the A2-aquifer zone groundwater on the western side of MFA
5. Groundwater at the Sites 1 and 2 landfills
6. Groundwater in the deeper B2-, B3-, and C-aquifer zones

The quarterly water level elevation survey incorporating all the wells on the facility will continue unchanged. The attachment to this letter describes the proposed continuation of the quarterly groundwater sampling program in more detail.

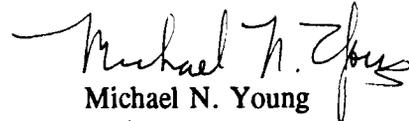
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If you have any questions, please call us at (303) 295-1101.

Sincerely,



Timothy E. Mower
Geotechnical Engineer



Michael N. Young
Project Manager

TEM/cmg

	<u>Copies</u>
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Mr. Don Chuck, MFA	2
Mr. Michael Gill, EPA	1
Ms. Elizabeth Adams, EPA	1
Mr. Joseph Chou, DTSC	2
Mr. Michael Bessette, RWQCB	1
Ms. Sandy Olliges, NASA	2
Mr. Kenneth Eichstaedt, URS	1
Dr. Joseph LeClaire, MW	1
Mr. Eric Madera, Raytheon	1
Mr. V. Thomas Jones, Schlumberger	1
Mr. Dennis Curran, Canonic	1
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ATTACHMENT

The objective of the quarterly groundwater sampling program at Moffett Federal Airfield (MFA) has changed over the past 1 to 2 years from characterizing the distribution of contaminants and monitoring contaminant migration to supporting the design of groundwater remediation systems. Previous groundwater quality data indicate that the groundwater contaminant plumes at MFA do not migrate rapidly. Quarterly sampling activities to support remedial system design, therefore, can be conducted less frequently although sufficient plume coverage is still necessary. In the future, after all remediation systems are in place, quarterly groundwater sampling will be replaced by regular monitoring as specified in each system's operation and maintenance (O&M) plan. The outline presented in this attachment is intended to continue the quarterly sampling program through approximately the next 18 months. During this time, most of the scheduled remedial activities at MFA will move through design and implementation into the O&M stage.

The proposed continuation of the quarterly groundwater sampling program focuses on characterizing the groundwater contamination at MFA on an area-by-area basis. Each quarterly sampling event will emphasize one specific area and provide data to create contaminant concentration contour maps. The areas of interest include:

Area	Aquifer Zone	Primary Contaminants	Number of Wells	Quarter
Operable Unit 5	A1	VOC	58	November 1994
Site 5	A1	TPH	28	February 1995
West-side Aquifers	A1	VOC, TPH	116	May 1995
West-side Aquifers	A2	VOC	49	August 1995
Landfills	A1	VOC	36	November 1995
Deep Aquifers	B2, B3, C	VOC	26	February 1996

Each of these six areas is proposed to be the focus of investigation for one the upcoming six quarters of groundwater sampling. The proposed order of sampling is based primarily on logistical concerns. The two largest sampling events (west-side aquifers A1- and A2-aquifer zones) are scheduled during the summer months to take advantage of the increased sampling time available during extended daylight hours. Similarly, smaller sampling events are scheduled when less daylight is available and

weather conditions are likely to be unfavorable. The quarterly water level elevation survey incorporating all the wells on the facility will continue unchanged.

A letter summarizing the individual wells to be sampled each quarter will be distributed at least 2 weeks before sampling begins to solicit comments and allow coordination among the Navy, regulatory agencies, and other interested parties.

New Wells

Newly installed groundwater monitoring wells will continue to be sampled for four quarters to establish a baseline record. After four quarters of samples have been collected, each well will be incorporated into the regularly scheduled sampling for its area of interest. For example, the new WU5-series wells installed on the eastern side of MFA will be sampled for four quarters and then will be sampled in conjunction with the remaining wells monitoring the operable unit 5 VOC plume.

Quarterly Reports

The proposed quarterly report format will be similar to that which is currently used. However, focused sampling of each area of interest will allow presentation of contaminant concentration contour maps in most of the quarterly reports. Concentration contour maps may not be useful for the low levels of groundwater contamination found at the landfills and in the deep aquifers. Chemical concentration graphs indicating representative trends in groundwater quality also will be prepared for primary contaminants at several locations within each area of interest. Aquifer potentiometric surface maps for the entire station will continue to be presented.

Summary

The continuation of the MFA quarterly sampling program presented in this attachment is intended to consider approximately the next 18 months. During this time, most of the scheduled remedial activities at MFA will move through design and implementation into the O&M stage. Both the number of wells sampled and the sampling frequency are likely to change for each area of interest when the remediation of each area enters the long-term O&M phase. Each remedial design will contain a description of the proposed long-term sampling plan. Similar to current designs at MFA, these plans will be distributed to the regulatory agencies and other interested parties for comment and discussion.