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COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN II)
Northern and Central California, Nevada, and Utah
Contract Number N62474-94-D-7609
Contract Task Order 226

Prepared for

DEPARTMENT OF THE NAVY
Ms. Marianna Potacka
BRAC Environmental Coordinator
Southwestern Division
Naval Facilities Engineering Command
San Diego, California

MOFFETT FEDERAL AIRFIELD, CALIFORNIA
(Formerly Naval Air Station Moffett Field)
FINAL
PHASE I BASEWIDE TANK CLOSURE REPORT

June 26, 2000

Prepared by

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David B. Thomas for
Timothy Mower, Project Manager

RESPONSE TO NAVY COMMENTS
ON THE DRAFT BASEWIDE TANK SITE CLOSURE REPORT
MOFFETT FEDERAL AIRFIELD

June 26, 2000

This document presents responses to Navy comments on the Draft Basewide Tank Site Closure Report dated May 26, 2000. Comments were received from Mr. Arturo Tamayo via e-mail on June 13, 2000. Comments are presented in **bold** type; responses follow in regular type.

SPECIFIC COMMENTS

Comment 1. **Page 1, Section 1, last paragraph: Please annotate the proper title of the appendices.**

Response: The titles of Appendix A and Appendix B will be corrected in the final document.

Comment 2. **Page 5, Section 4.0, first sentence: Please state the subdivision of the subsections to match exactly as they are shown (i.e., background, previous tank-site investigation, physical site characteristics, . . .).**

Response: The subdivisions will be changed to match the order of the subsections throughout the text.

Comment 3. **Page 11, Tank 22 table: Please include detection limits for TPH-e [total petroleum hydrocarbons-extractable [TPH-e] (JP [jet petroleum]-5) NDs [nondetects].**

Response: Detection limits for TPH-e as JP-5 will be added to the groundwater table for Tank 22.

Comment 4: **Page 17, Section 4.9.1, first sentence: Please check the proper figure number for Tank 54. Figure 11 is for Tank 55.**

Response: The figure number will be changed in the text to the correct number.

Comment 5: **Page 18, Section 4.9.4, first paragraph, third sentence: This statement suggests that samples were taken for groundwater. Please reword this sentence to clear any ambiguity.**

Response: The final Phase I basewide tank closure report presents tanks with only petroleum detections below action levels. Metals were detected in soil and groundwater at Tank 54. Therefore, Tank 54 will be removed from the final document.

Comment 6: **Page 25, Section 4.12: Tank 59 is still active so it should not be included in this report.**

Response: Tank 59 will be removed from the final document and will be added to either Phase II or Phase III basewide tank closure document.

Comment 7: **Page 26, Section 4.13: Tanks 62 and 62A need to be "closed" (removed or closed in place) before they could be granted closure. It is a requirement to close UST if it is going to be inactive for more than 12 months. We need to do more research as to why these tanks are still considered inactive.**

Response: Tanks 62 and 62A will be removed from the final document.

Comment 8. **Page 30, Section 4.14.6: Need to have a strong argument why analytical results for metals, VOCs and SVOCs are unnecessary for closure.**

Response: Tank 63 will be removed from the document because it is currently an active storm catch-basin.

Comment 9. **Page 34, Tanks 66, 67, 68 and 91 Investigation Data Summary: Please include the most recent groundwater analytical results to show that petroleum compound concentrations are below detection limits.**

Response: Tanks 66, 68, and 91 will be removed from this report because they held CERCLA substances. Tank 67 has will remain in the report because it held boiler fuel. An additional line has been added to the data summary table to reflect the most recent condition of groundwater in the Tank 67 area.

Comment 10. **Page 46, Section 4.3.1, fourth sentence: This statement is contrary to the analytical results table for Tank 106 shown on page 47. Please reword this sentence to be consistent with the analytical results table or give a good reason why the analytical results did not support the statement that the tank may have contained gasoline.**

Response: Because the status Tank 106 is unknown, Tank 106 will be removed from this report.

Comment 11. **Figure 3: Please complete the Decision Flow Chart.**

Response: The decision flow chart will be corrected in the final document.

Comment 12. **Figure 6: The groundwater sampling points do not make sense in terms of the groundwater direction flow. Please recheck the direction of groundwater flow and/or give an explanation as to why groundwater samples were taken as indicated in figure 6 in section 4.3.**

Response: The groundwater flow direction has been verified. Due to the influence of pump station, Building 191, groundwater flow in the area of Tank 22 is west to northwest.

Comment 13. **Figures 23 and 24: Please rearrange in proper order.**

Response: The figures will be rearranged in the final document.

RESPONSE TO RWQCB COMMENTS
DRAFT BASEWIDE TANK SITE CLOSURE REPORT
MOFFETT FEDERAL AIRFIELD

June 26, 2000

This document presents responses Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) comments on the Draft Basewide Tank Site Closure Report dated May 26, 2000. Comments were received from Mr. Joseph Chou via e-mail on June 21, 2000. Comments are presented in **bold** type; responses follow in regular type.

GENERAL COMMENTS

Comment 1. **The title "Draft Basewide Tank Closure Report" needs to be revised since majority of the tanks at MFA [Moffett Federal Airfield] were not included in this report. More than 150 aboveground storage tanks, underground storage tanks, sumps, and ponds have been identified at MFA, and only thirty tanks were presented in this report. Other tank closure reports should be prepared by the Navy for RWQCB's review and approval based on the agreed upon schedule (to be negotiated). Therefore, the Navy should choose a title that can properly reflect the content of the report (e.g. Phase I Draft Basewide Tank Closure Report).**

Response: The title of the final document will be changed to Phase I Basewide Tank Closure Report. Additional language will also be added to the final document explaining that this document only addresses 21 of 142 tanks at Moffett Federal Airfield and the other tanks will be addressed either in an appendix to the basewide petroleum site evaluation technical memorandum (TM) or in a second or third phase of the basewide tank closure report.

Comment 2. **The following items should be properly addressed in the final report:**
a. Piping locations, utility conduits, and the maximum concentration diagram should be included in all site sampling location maps (from Figure 3 to Figure 27).
b. Additional information or explanation is required for the sites without Santa Clara County Tank Closure Inspection Reports.
c. Geologic cross sections at different tank sites.

Response: 2a. Maps will be revised to include piping and utility conduit locations and submitted to RWQCB. Maximum concentration maps will not be generated for this report because no petroleum constituent detections were above action levels. However, maximum concentration maps will be included in all the appendices to the TM.

2b. A search for inspection reports was conducted at the County of Santa Clara on June 9, 2000. Language will be added for each site indicating the location of the Santa Clara County Closure Inspection Report, if found, or that no inspection report was found during the record search.

2c. Two geologic cross-sections will be provided in the final document to illustrate the geology on the east and west side of the base. Site-specific cross-sections could not be generated due to the lack of soil boring data.

SPECIFIC COMMENTS

Comment 1. Cover Letter: **Please include the Santa Clara Valley Water District (Seena Hoose), NASA [National Aeronautics and Space Administration] (Sandy Olliges), EPA [U.S. Environmental Protection Agency] TAG [technical assistance grant] recipient (Peter Strauss) and MFA RAB [Restoration Advisory Board] T.H.E. [technical, historical, and educational] committee (James McClure) in the distribution list for petroleum sites closure reports and/or other related documents.**

Response: These individuals will be added to the distribution list for the final document.

Comment 2. Page ES-1: **Please note that the petroleum sites evaluation and closure should be prepared in accordance with requirements listed in the California Code of Regulations, Division 3, Chapter 16 and the Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites (RWQCB 1990).**

Response: Language will be added to the executive summary and introduction stating that this document was prepared in accordance with the above-mentioned regulation and guidance.

Comment 3. Page ES-4: **Please replace the "screening level" with "action level" for all the summary tables.**

Response: The term screening level will be replaced with action level in all summary tables in the tank closure checklists. The tank closure checklists will be included as Appendix C in the final document.

Comment 4. Page 1, Section 1.0 Introduction: **Please note that in the current document Appendix A presents soil borehole logs and monitoring well diagram; Appendix B presents Santa Clara County Tank Closure Inspection Information.**

Response: The titles of Appendix A and Appendix B will be corrected in the final document.

Comment 5. Page 2, Section 2.0 Regulatory Background: **The action levels negotiated between RWQCB and the Navy were for "petroleum only" sites. If the tank sites contained substances other than petroleum products, the closure process may be subject to CERCLA [Comprehensive Environmental Response, Compensation, and Liability Act] requirements.**

Response: Section 2.0 will be revised to reflect that the Phase I report will only evaluate petroleum substances. If a tank contained other substances in soil or groundwater, then the tank sites will be addressed in the Phase II or Phase III Basewide Tank Closure Report.

Comment 6. Page 4, Section 3.5 Develop A Decision Rule: **Please note that the listed decision rules can only apply to "petroleum only" sites. Sites containing CERCLA substances should be evaluated separately.**

Response: Tanks 54, 57, 59, 62 and 62A, 63, 66, 68, 69, 88, 91 and 130 have been removed from this report because they contained or may have contained CERCLA substances. Section 2.0 will be revised to reflect that only tank sites that contained petroleum constituents are included in the Phase I report.

Comment 7. **<u>Page 9, Tank 18 - Investigation Data summary</u>: Please explain why TPH-e [total petroleum hydrocarbons – extractable](diesel) was not analyzed in soil and groundwater samples.**

Response: A sentence will be added to the final document stating that TPH-e as diesel was sampled in the soil but was not sampled in the groundwater. International Technology Group (IT) conducted the groundwater sampling at monitoring well W05-09. It was program-wide procedure for IT to only sample for TPH-e as JP-5 in groundwater. Although TPH-e as diesel was not analyzed in the groundwater, the soil concentration was low (5 milligrams per kilogram [mg/kg]). It is unlikely that groundwater was affected.

Comment 8. **<u>Page 12, Section 4.5.1 Tank 28 – Background</u>: The mentioned Santa Clara County Tank Closure Inspection Information cannot be found in either Appendix A or B.**

Response: Information contained in the Navy's files is contained in Appendix A. However, the county inspector's report was not found during a second search conducted on June 9, 2000.

Comment 9. **<u>Figure 7, Tank 28</u>: More detailed information, such as roads, fuel pier, utility lines, neighboring wetlands and levees, should be clearly presented in this figure.**

Response: The scale of Figure 7 will be changed to better show the relationship between Tank 28, Building 563, and Guadalupe Slough. More detail will also be added to show the presence of the levee on both sides on Building 563.

Comment 10. **<u>Page 16, Section 4.7.4 Tank 41B - Nature and Extent of Contamination</u>: Please include metals, VOCs [volatile organic compounds], and SVOCs [semivolatile organic compounds] data in the subject report to determine if the former oil-water separator is suitable for closure.**

Response: The final Phase I basewide tank closure report will present tanks with only petroleum detections below action levels. Metals were detected in soil and groundwater at Tank 41B (oil/water separator). Therefore, Tank 41B will be removed from the final document.

Comment 11. **<u>Page 18, Section 4.9.6 Tank 54 – Conclusion</u>: Tank 54 was a waste water UST [underground storage tank] for paint activities at Hangar 3; therefore, a complete set of soil/groundwater analytical results including metals, VOCs and SVOCs should be presented to determine the suitability of site closure.**

Response: The final Phase I basewide tank closure report will present tanks with only petroleum detections below action levels. Metals were detected in soil and groundwater at Tank 54. Therefore, Tank 54 will be removed from the final document.

Comment 12. **<u>Page 21, Tank 55 Groundwater Sampling Summary</u>: Please explain why TPH-e (diesel) was not analyzed in the August 1999 groundwater samples.**

Response: TPH-e as diesel was not analyzed in the August 1999 groundwater sample because it was not detected in the May 1997 groundwater sample. In addition, the concentration of diesel was below the detection limit in August 1995 and the detection of TPH-e as diesel in November 1996 (chromatogram that did not resemble typical fuel pattern) is indicative of a degraded fuel. The results of the 1995, 1996, and 1997 groundwater analysis indicate that diesel has degraded to below detection.

Comment 13. **<u>Page 24, Section 4.11.6 Tank 57 – Conclusion</u>: Because Tank 57 was a waste oil UST, a complete set of soil/groundwater analytical results including metals, VOCs and SVOCs should be presented to determine the suitability of site closure.**

Response: See response to comment 11. Metals and VOCs were detected in groundwater at Tank 57. Therefore, Tank 57 will be removed from the final document.

Comment 14. **<u>Page 26, Section 4.12.6 Tank 59 – Conclusion</u>: Because Tank 59 is an oil-water separator, a complete set of soil/groundwater analytical results including metals, VOCs and SVOCs should be presented to determine the suitability of site closure.**

Response: See response to comment 11. Metals and VOCs were detected in soil and groundwater at Tank 59. Therefore, Tank 59 will be removed from the final document.

Comment 15. **<u>Page 28, Section 4.13.6 Tanks 62 and 62A – Conclusion</u>: Tank 62 and 62A are inactive concrete paint circulation tanks located inside Building 45. Therefore, it is necessary to present a complete set of soil/groundwater analytical results including metals, VOCs and SVOCs to determine the suitability of site closure.**

Response: See response to comment 11. Metals, VOCs and SVOCs were detected in soil and groundwater at Tanks 62 and 62A. Therefore, Tanks 62 and 62A will be removed from the final document.

Comment 16. **<u>Page 30, Section 4.14.6 Tank 63 – Conclusion</u>: More information is required prior to the proper closure of Tank 63: (1) soil/groundwater analytical results including metals, VOCs and SVOCs; and (2) detailed information on the possible "close-in-place".**

Response: Tank (sump) 63 has been converted into a stormwater catch basin. RWQCB has requested a visual site inspection to verify that the tank is clean before granting site closure. Tank 63 will be evaluated in the Phase II Basewide Tank Closure Report.

Comment 17. **<u>Page 44, Section 4.21.6 Tanks 86A and 86B – Conclusion</u>: According to the groundwater flow direction provided in Figure 21, well WT86B-1 located down gradient of Tank 86B, is not Tank 86A. Therefore, the non-detected MTBE data from the August 1999 sample from well WT86B-1 cannot be used to determine the absence of MTBE at Tank 86A area.**

Response: Well WT86B-1 is the closest possible downgradient well to Tank 86A because of the presence of Building 107. The Navy feels that data from well WT86B-1 is sufficient to close Tank 86A, given seasonal fluctuation in groundwater flow direction and the fact that petroleum compounds were not detected in soil samples collected at Tank 86A.

Comment 18. **<u>Page 46, Section 4.23.1 Tank 106 – Background</u>: It seems that very limited information is available for Tank 106 at this time. The Navy should, at least, verify if the tank has been removed or not, then request site closure.**

Response: Tank 106 is suspected to be located below Building 49. Building 49 is currently used as an office building. A geophysical survey was infeasible because of office equipment in the building. The Navy drilled four soil borings around Building 49 and no evidence of tank material or backfill was found. Tank 106 will be removed from this report so that additional information about Tank 106 and Building 49 can be gathered.

Comment 19. **<u>Page 51, Section 4.25.4 Tank 111 - Nature and Extent of Contamination</u>: Page 51 is missing.**

Response: Page 51 will be included in the final document.

Comment 20. **<u>Page 56, Section 5.1 Basewide Geology</u>: Please clarify if the depths and thickness of the A/B aquitard at different locations (e.g. Westside versus Eastside) varies or not. Is the A/B aquitard a continuous clay layer throughout the entire base? In addition, please note that the upward gradient may be reversed by various conditions.**

Response: An increased discussion describing the depth and thickness (5 to 7 feet on the west side of MFA and 7 to 20 feet on the east side of MFA) of the A/B aquitard will be included in the final document.

Tetra Tech EM Inc.

1099 18th Street, Suite 1960 ◆ Denver, CO 80202 ◆ (303) 295-1101 ◆ FAX (303) 295-2818

June 26, 2000

Ms. Marianna Potacka
Department of the Navy
Southwestern Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, California 92101

Subject: **Final Phase I Basewide Tank Closure Report, Moffett Federal Airfield CLEAN Contract Number N62474-94-D-7609, Contract Task Order 226**

Dear Ms. Potacka:

Enclosed are three copies of the above-referenced document. Tetra Tech EM Inc. (TtEMI) prepared this report to present data for 21 tanks at Moffett Federal Airfield. These tanks were compiled into this report because they each meet the action levels agreed upon between the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) and the Navy in 1994. TtEMI is submitting this report for Navy review. TtEMI will await Navy direction before submitting the Final Phase I Basewide Tank Closure Report to RWQCB and other parties.

Twenty-one tanks are evaluated in this report. The report recommends closure for Tanks 15, 18, 22, 28, 55, 64, 67, 77, 86A, 86B, 110, 111, and 116 because soil and groundwater samples at each tank meet the action levels and methyl tertiary butyl ether (MTBE) was not detected. The report also recommends closure for three tanks that were never used, Tanks 30, 31, and 78; and five tank numbers where tanks never existed, Tanks 27, 51, 65, 112, and 123.

TtEMI will incorporate any comments from the Navy into the Final Phase I Basewide Tank Closure Report. TtEMI will prepare an Access database to be submitted to RWQCB with this report to fulfill RWQCB's tank closure requirements. In addition, TtEMI will prepare revised figures that include storm drain and sanitary sewer locations. These revised figures will be ready for Navy review by June 30, 2000. If you have any questions, please call Douglas Gale at (303) 382-8789 or Timothy Mower at (303) 312-8874.

Sincerely,

Douglas Gale
Project Geologist

David B. Thomas for
Timothy Mower
Project Manager

DG/rkr

Enclosures:

cc: Arturo Tamayo, SWDIV
Don Chuck, EFA WEST

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FIGURES

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TABLES

ACRONYMS AND ABBREVIATIONS

AST	Aboveground storage tank
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and xylene
Cal/EPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Chemical of concern
CPT	Cone penetrometer test
CTO	Contract Task Order
DHS	California Department of Health Services
DQO	Data Quality Objective
DTSC	California Department of Toxic Substances Control
ECC	Environmental Chemical Corporation
EPA	U.S. Environmental Protection Agency
ft/ft	Feet of drop per foot of distance
IRP	Installation Restoration Program
IT	International Technology Group
JP	Jet petroleum
µg/L	Micrograms per liter
MCL	Maximum contaminant level
MFA	Moffett Federal Airfield
mg/kg	Milligrams per kilogram
MQO	Measurement quality objective
msl	Mean sea level
MTBE	Methyl tertiary butyl ether
NA	Not analyzed
NASA	National Aeronautics and Space Administration
ND	Nondetect
NEX	Naval Exchange
NS	Not sampled
PCB	Polychlorinated biphenyl
PID	Photoionization detector
PRC	PRC Environmental Management, Inc.
PRG	Preliminary remediation goal
PWC	Navy Public Works Center
QA/QC	Quality assurance and quality control
RWQCB	Regional Water Quality Control Board, San Francisco Bay Region

ACRONYMS AND ABBREVIATIONS (Continued)

SAIC	Science Applications International Corporation
SCCEHS	Santa Clara County Department of Environmental Health Services
SWRCB	California State Water Resources Control Board
TM	Technical memorandum
TPH	Total petroleum hydrocarbons
TPH-e	Total petroleum hydrocarbons extractable
TPH-p	Total petroleum hydrocarbons purgeable
TtEMI	Tetra Tech EM Inc.
UST	Underground storage tank

EXECUTIVE SUMMARY

Tetra Tech EM Inc. (TtEMI) has prepared this Final Phase I Basewide Tank Closure Report to expedite closure of several tank sites at Moffett Federal Airfield (MFA). Thirteen tanks were selected that meet prescribed action levels for soil and groundwater as agreed upon by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) and the Navy. Eight additional tanks that were never installed or used are also addressed. Petroleum sites at MFA are evaluated and closed separately from Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites under the policy and guidance of RWQCB. The ultimate goal of the petroleum sites evaluation methodology is to obtain site closure. Petroleum sites evaluation and closure follow the requirements listed in California Code of Regulations, Division 3, Chapter 16 and the Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites (RWQCB 1990).

Tanks, as used in this report, refer to liquid storage or diversion structures, and include underground storage tanks (USTs), a stormwater diversion box, and sumps. Included are tanks associated with Installation Restoration Program (IRP) Site 5 (Tanks 15, 18, 30, and 31), Site 14 (Tank 67), and Site 15 (Tank 64); also included are tank sites from across MFA: Tanks 22, 28, 55, 77, 78, 86A, 86B, 110, 111, and 116 (Figure 1). Five additional tank sites (Tanks 27, 51, 65, 112, and 123) where tanks were never installed are also addressed. Tanks at MFA that do not meet the action levels are evaluated further in appendices to the Final Basewide Petroleum Site Evaluation Methodology Technical Memorandum (TM) (TtEMI 1998). Tank areas at MFA that may have held CERCLA substances will be evaluated in a later phase of this report.

Soil and groundwater data from completed investigations were evaluated in areas where releases were suspected to have occurred. Investigations focused on action levels set for total petroleum hydrocarbons (TPH) and individual petroleum constituents. Chemicals of concern (COCs) include TPH extractable (TPH-e) as diesel, jet petroleum (JP-5), motor oil, other heavy, and other light components, and TPH purgeable (TPH-p) as gasoline and benzene, toluene, ethylbenzene, and xylene (BTEX) components. Additional methyl tertiary butyl ether (MTBE) groundwater sampling requirements for tank closure were established in March 1999, after RWQCB and the Navy agreed upon action levels. The action level for MTBE was set at 13 micrograms per liter (µg/L).

Soil and groundwater results at each tank site meet the action levels agreed upon by RWQCB and Navy. Therefore, the Navy recommends closure for Tanks 15, 18, 22, 27, 28, 30, 31, 51, 55, 64, 65, 67, 77, 78, 86A, 86B, 110, 111, 112, 116, and 123.

The following points were significant in the tank site closure evaluation:

- All sources of petroleum have been removed at each of the tank sites that contained or may have contained petroleum and no free product was encountered.
- Petroleum constituents concentrations have been detected at concentrations that do not exceed the action levels agreed upon by RWQCB and the Navy.

A tank closure checklist presents a summary of tank characterization and removal activities and chemical concentrations in soil and groundwater at each tank site. The tank closure checklists are presented in Appendix C.

1.0 INTRODUCTION

The U.S. Navy requests closure of tank sites at Moffett Federal Airfield (MFA), Santa Clara County, California, that meet prescribed action levels for soil and groundwater. Tank sites at MFA are evaluated and closed separately from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites under the policy and guidance of the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). The ultimate goal of tank site evaluation at MFA is to obtain site closure with no further required action. Petroleum sites evaluation and closure follow the requirements listed in California Code of Regulations, Division 3, Chapter 16 and the Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites (RWQCB 1990).

In 1994, RWQCB and the Navy reached agreement on petroleum action levels in groundwater and soil at MFA (California Environmental Protection Agency [Cal/EPA] 1994). Thirteen tank sites that meet these action levels have been compiled in this document to expedite their closure. Included are tanks associated with Installation Restoration Program (IRP) Site 5 (Tanks 15, 18, 30, and 31), Site 14 (Tank 67), Site 15 (Tank 64); also included are tank sites from other areas at MFA: Tanks 22, 28, 55, 77, 78, 86A, 86B, 110, 111, and 116 (Figure 1). Five additional tank sites (Tanks 27, 51, 65, 112 and 123) where tanks were never installed are also addressed. Other tank areas at MFA that do not meet the action levels are evaluated further in appendices to the Final Basewide Petroleum Site Evaluation Methodology Technical Memorandum (TM) (Tetra Tech EM Inc. [TtEMI] 1998). This report only addresses petroleum constituents. Tanks that held substances other than petroleum products will be addressed in the Phase II or Phase III Basewide Tank Closure Report.

This tank site closure report is organized as follows. Section 2.0 presents regulatory background information and summarizes the evaluation criteria to be used for each site. Section 3.0 presents data quality objectives. Section 4.0 presents background, previous tank site investigations, physical site characteristics, the nature and extent of contamination, a low-risk criteria checklist, and conclusions for each tank site. Risk assessments are not included in this document because all tank sites meet the agreed upon action levels discussed in Section 2.0. Section 5.0 describes basewide geology. Section 6.0 discusses the conclusion for the tank sites closure report. Section 7.0 presents references cited. Figures and tables are located after Section 7.0.

Appendices follow the figures and tables. Appendix A presents Santa Clara County Tank Closure Inspection Information, and Appendix B presents soil borehole logs and monitoring well construction diagrams. Appendix C provides the tank closure checklists. The RWQCB request-for-no-further-action Access database will be provided via e-mail to the Navy and RWQCB.

2.0 REGULATORY BACKGROUND

In 1994, Cal/EPA, including the Department of Toxic Substances Control (DTSC) and RWQCB, and the Navy reached consensus on petroleum action levels in groundwater and soil at MFA (Cal/EPA 1994). The action levels were set for total petroleum hydrocarbons (TPH) and individual petroleum constituents. The groundwater action goals were set at the maximum contaminant levels (MCLs) for the constituents of concern; for individual benzene, toluene, ethylbenzene, and xylene (BTEX) action levels in soils, the risk-based U.S. Environmental Protection Agency (EPA) Preliminary Remediation Goals (PRGs) for industrial sites were selected (Cal/EPA 1994). Groundwater and soil action levels for TPH are separated into two main categories: TPH purgeable (TPH-p) as gasoline and BTEX, and TPH extractable (TPH-e) as diesel or jet petroleum (JP)-5. These action levels for soil and groundwater are summarized below.

Constituent	Soil milligrams per kilogram (mg/kg)	Groundwater micrograms per liter (µg/L)
TPH-p	150	50
TPH-e	400	700
Benzene	4.4	1
Toluene	2,700	680
Ethylbenzene	3,100	1,000
Xylene	980	1,750

These action levels are considered to be conservative (protective) because the State of California petroleum corrective action philosophy and approach changed significantly in 1995 (TtEMI 1998). Although the California State Water Resources Control Board (SWRCB) revised its policy for petroleum sites, tank areas evaluated in this document all meet the more protective action levels established for MFA in 1994.

In March 1999, the California Department of Health Services (DHS) established an action level for methyl tertiary butyl ether (MTBE). The California drinking water action level for MTBE is 13 micrograms per liter (µg/L). In addition, pursuant to State of California Health and Safety Code 25299.37.1 (amended by California State Senate Bill 989), testing for MTBE is required for all underground storage tank (UST) sites that may have contained gasoline before RWQCB can issue a closure letter

This Phase I report will only evaluate petroleum constituents. If a tank held CERCLA substances and petroleum compounds have not been detected in soil or groundwater above the action levels, then the tank will be evaluated in Phase II or Phase III of this report. Tank sites that contain petroleum compounds above action levels are evaluated in the appendices to the TM.

3.0 DATA QUALITY OBJECTIVES

DQOs for petroleum sites at MFA direct the methodology of this evaluation. The following sections identify and respond to the seven steps identified in EPA's DQO Process for Superfund (EPA 1999). The seven steps are summarized in Table 1.

3.1 STEP 1: STATE THE PROBLEM

Thirteen of the twenty-one tank sites evaluated in this document contained petroleum products that may have been released to the environment. The other eight tanks in this report were either never used or never installed. The problem is to determine whether concentrations of petroleum products in soil and groundwater at each site exceed action levels. Chemicals of concern (COCs) identified in soil and groundwater include TPH-e as diesel, JP-5, motor oil, other heavy and light TPH components, TPH-p as gasoline, and BTEX constituents. Potential exposure pathways and receptors are illustrated in the petroleum conceptual site model (Figure 2). Potential exposure pathways include infiltration to groundwater; groundwater transport; volatilization of contaminants into the atmosphere; migration of volatiles into enclosed space; and exposure to contaminated soils. Potential receptors include surface water, groundwater, supply wells, ecological receptors, and occupational and construction workers. Potential exposure pathways and receptors for petroleum site at MFA are discussed in more detail in the TM.

3.2 STEP 2: IDENTIFY THE DECISION

The tank site evaluation is designed to provide the information required to make the following decisions (Figure 3):

- Has a petroleum release occurred?
- Do concentrations of petroleum constituents in soil or groundwater exceed action levels?
- Can site closure be requested based on existing MTBE data? (Is the MTBE concentration below 13 µg/L?)

3.3 STEP 3: IDENTIFY THE INPUTS TO THE DECISION

The decisions for tank site closure are evaluated using historical site or tank information, soil and groundwater data from previous investigations, and regulatory guidance. Tank removal observations and soil and groundwater data are used to assess whether a petroleum release has occurred. Constituent concentrations are evaluated based on investigation data. Action levels are the values agreed upon between RWQCB and the Navy in 1994.

3.4 STEP 4: DEFINE THE STUDY BOUNDARIES

The study boundaries are defined as the area surrounding each tank site that may have been affected by a petroleum release. Investigation data were collected in the area where releases were suspected to have occurred based on tank locations, field observations of the release, and groundwater flow direction. Soil and groundwater samples were collected from the tank excavations, upgradient, and up to 120 feet downgradient of the tank locations. Sample locations for each site are discussed in Section 4.0.

3.5 STEP 5: DEVELOP A DECISION RULE

The following decision rules were used in tank site evaluation:

- Petroleum release: If petroleum is observed in the excavation, soil or groundwater results indicate the presence of petroleum constituents, or holes or cracks were observed in the tank or tank piping, then it is assumed that a petroleum release has occurred and the next decision rule will be evaluated. If a petroleum release is not evidenced, MTBE will be evaluated if the tank held gasoline. If a release is not evident and the tank did not hold gasoline, then the site will be recommended for closure.

- Action levels: If soil and groundwater results do not exceed the action levels, then the next decision rule will be evaluated. If soil and groundwater results exceed the action levels, then the petroleum site will be evaluated further in an appendix to the TM.

- MTBE: If there are MTBE data indicating concentrations less than 13 µg/L, then site closure will be requested. If there are no MTBE data, or MTBE results exceed 13 µg/L, then further evaluation will be required.

3.6 STEP 6: SPECIFY LIMITS ON DECISION ERRORS

Limits on decision errors are specified to limit uncertainty in the analytical data and in the results of statistical tests. Areas of uncertainty in the analytical data include error related to the analytical method, sampling, and sample heterogeneity. Measurement quality objectives (MQOs) were established to verify that data quality and quantity requirements were met. The analytical uncertainties were checked through established quality assurance and quality control (QA/QC) procedures.

Limiting decision errors due to sampling design goals was not directly applicable to this investigation because the primary objective of tank site investigations is to assess whether a release of petroleum has occurred. Sampling was performed using a judgmental sampling design to target areas of potential release. Because a nonprobability-based design was used, the number of samples collected was not determined by statistical analysis of existing data (EPA 1999).

3.7 STEP 7: OPTIMIZING THE DESIGN FOR OBTAINING DATA

Sample locations were selected using a nonprobability-based design on a biased basis using site-specific information, such as tank location and groundwater flow directions, to identify the presence of petroleum releases. Because a nonprobability-based design was used, the number of samples collected was not determined by statistical analysis of existing data (EPA 1999); instead, it was based on site-specific information such as tank location, known spill area, tank contents, and groundwater flow direction.

4.0 SITE BACKGROUND, PREVIOUS INVESTIGATIONS, NATURE AND EXTENT OF CONTAMINATION, LOW-RISK CRITERIA CHECKLIST, AND CONCLUSIONS

The following sections are subdivided into subsections: site background, previous investigations, nature and extent of contamination, a low-risk criteria checklist presented in Table 2, and a conclusion for each site. Tanks, as used in this report, refer to liquid storage or diversion structures, and include USTs, a stormwater diversion box, sumps, and oil/water separators. Although some sites contained sumps or catch basins, they are all referred to by their tank number in this report for consistency.

4.1 TANK 15

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.1.1 Background

Tank 15 was a 1,000-gallon diesel UST used to supply fuel to an emergency generator. The tank was located between the two parallel runways, approximately 20 feet west of Building 252 (radar building) (Figure 4). The tank was installed in a revetment with only a few feet of the tank below ground surface. Tank 15 was located at these coordinates: latitude 37.42027 and longitude 122.05021. Santa Clara County Tank Closure Inspection Information is provided in Appendix A.

4.1.2 Previous Tank-Site Investigation

Tank 15 was removed in December 1992 and the tank was in good condition. Three soil samples were collected at the time of the excavation. In July 1993, the Navy conducted an additional removal action to overexcavate the area. This excavation was extended northward approximately 6 to 8 feet from the north end of the original excavation where a concrete electrical conduit was encountered (PRC 1995a). One soil sample was collected on each side of this conduit. The excavated material was transported to a staging area for later treatment or disposal and the excavation was backfilled with clean material. No water was observed in the excavation.

4.1.3 Physical Site Characteristics

Tank 15 was located in a grassy area between the runways near a radar building (Building 252). The nearest surface water body is the stormwater retention pond over 3,000 feet to the north.

4.1.4 Nature and Extent of Contamination

Tank 15, associated piping, or overfills were the potential sources of contamination at the Tank 15 area. The tank has been removed and the area was overexcavated. No free product was encountered during investigations at Tank 15. Three soil samples were collected during the initial investigation (Tank 15-South, Tank 15-North, and Tank 15-Pipe) and analyzed for TPH-e as diesel and BTEX. During this initial investigation, TPH-e as diesel was detected at concentrations exceeding cleanup criteria in the north soil sample (Tank 15-North) at 4,400 mg/kg. No other petroleum compound was detected at concentrations greater than action levels. A subsequent investigation in July 1993 removed the soil surrounding the Tank 15-North sample. The soil samples TN15-S-001 and TN15-S-002 collected during this investigation did not contain petroleum compounds above detection limits.

The following table presents data that are indicative of maximum petroleum constituent concentrations that remain in soil. All soil data are presented in Table 3. Groundwater was not encountered in the excavation; therefore, groundwater samples were not collected from this investigation.

TANK 15 INVESTIGATION DATA SUMMARY

Medium	Maximum Concentration (Detection limit in parentheses)						
	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	NA	ND (50)	NA	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*

Notes:

NA Not analyzed
ND Nondetect

4.1.5 Low-Risk Criteria

Tank 15 meets the low-risk soil and groundwater criteria evaluation summarized in Table 2.

4.1.6 Conclusion

Tank 15 was removed in 1992. Although, TPH-e as diesel was detected above action levels in one sample in 1992, the soil surrounding this sample was excavated in a second field investigation in 1993. Soil samples from the 1993 excavation and areas not overexcavated in 1993 did not contain petroleum constituent concentrations greater than action levels. Because Tank 15 held diesel, MTBE is not a potential contaminant of concern at this site. The Navy, therefore, recommends closure for Tank 15.

4.2 TANK 18

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.2.1 Background

Former Tank 18 was located near Building 300 (Figure 5). Tank 18 was a 935-gallon diesel storage UST. Personnel in Building 300 used this tank to supply diesel to emergency generators. Former Tank 18 was located at these coordinates: latitude 37.41290 and longitude 122.03882. Santa Clara County Tank Closure Inspection Information for Tank 18 was not found during a record search conducted on June 9, 2000.

4.2.2 Previous Tank-Site Investigation

The Navy Public Works Center (PWC) removed Tank 18 in April 1994 (ERM-West 1995). After tank removal, two soil samples were collected from the excavation (Table 4). Tank removal and excavation sampling were the only activities that occurred at Tank 18 (ERM-West 1995). No groundwater samples were collected from the excavation. A nearby monitoring well (W05-09), less than 50 feet away, was sampled 11 times between October 1988 and April 1992 (Table 5).

4.2.3 Physical Site Characteristics

Tank 18 was located in a grassy area with a slight slope to the north. The nearest surface water bodies are the Northern Channel and North Patrol Road Ditch, located more than 5,000 feet north.

4.2.4 Nature and Extent of Contamination

PWC removed Tank 18 and piping, the potential sources of soil and groundwater petroleum contamination at the Tank 18 area, in April 1994. No free product was encountered during investigations at Tank 18. Following tank removal, two soil samples were collected from the excavation and analyzed for TPH-e and BTEX. The following paragraphs summarize sample location and analysis.

After tank removal, samples 065037-12 and 065037-13 were collected at locations 18A and 18B. These samples were obtained from the sidewalls of the excavated trench at a depth of 5.5 feet. The samples were analyzed for TPH-e and BTEX. Petroleum compound concentrations were not detected greater than action levels (Table 4).

No groundwater samples were collected from the excavation. A nearby monitoring well (W05-09), less than 50 feet away, was sampled 11 times between October 1988 and April 1992 by International Technology Group (IT) for TPH-e as (JP-5) and BTEX compounds (Table 5). IT's program-wide procedure was to sample groundwater for TPH-e as JP-5 and BTEX only. For this reason, TPH-e as diesel was not sampled in groundwater at Tank 18. Additionally, TPH-e as diesel was detected at 5 mg/kg in soil, indicating that groundwater impact is highly unlikely. Because Tank 18 held diesel, MTBE is not a potential COC.

The following table presents maximum concentrations of COCs detected in soil and groundwater after the removal investigation. COCs were not detected in soil or groundwater at concentrations greater than action levels. Tank 18 soil and groundwater data are summarized in the table below.

TANK 18 INVESTIGATION DATA SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	NA	5	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	NA	NA	ND (0.25-250)	ND (5)	ND (5)	ND (5)	ND (5)
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

NA Not analyzed
ND Nondetect

4.2.5 Low-Risk Criteria

Tank 18 meets the low-risk soil and groundwater criteria presented in Table 2.

4.2.6 Conclusion

Tank 18 was removed in 1994. TPH-e as diesel was detected at concentrations less than action levels in one soil sample and no BTEX compounds were detected. Groundwater samples were not collected during the Tank 18 removal; however, TPH-e and BTEX results from a nearby monitoring well were nondetect. MTBE is not a concern because Tank 18 held diesel. The Navy, therefore, recommends closure for Tank 18.

4.3 TANK 22

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.3.1 Background

Tank 22 was located near the northwest corner of Building 484, in the Area 3 ammunition bunker compound (Figure 6). Tank 22 was a 600-gallon steel UST that stored diesel fuel for an emergency generator located inside Building 484. Former Tank 22 was located at these coordinates: latitude 37.42634 and longitude 122.04475. Santa Clara County Tank Closure Inspection Information for Tank 22 was not found a during record search conducted on June 9, 2000.

4.3.2 Previous Tank-Site Investigation

Tank 22 was removed on December 18, 1992 (PRC 1996). During tank removal, two soil samples (22E and 22W) were collected from underneath the tank and a water sample (22) was collected from water present in the excavation. In 1993, Navy personnel excavated additional soil east and west of the former tank location and collected two soil samples (TN22-SL-N-001 and TN22-SL-S-001) (Figure 6).

In June through August 1995, TtEMI (formerly known as PRC Environmental Management, Inc.) collected five soil samples from two hand-auger borings (GPT22-1 and GPT22-2) (Figure 6). Soil boring SBT22-1 was advanced during installation of monitoring well WT22-1. Well WT22-1 was completed at the center of the tank excavation. Soil samples were selected by screening with a photoionization detector (PID). None of these samples exhibited any observable petroleum contamination. Groundwater samples were collected from the two locations (GWT22-1 and GWT22-2).

Groundwater samples were collected four times between August 1995 and November 1996 and again in 1999 from well WT22-1. Soil sample data are presented in Table 6 and groundwater sample data are presented in Table 7.

4.3.3 Physical Site Characteristics

Tank 22 was located in a grassy area on the north side of MFA with a slight slope to the north. The nearest surface water body, the North Patrol Road Ditch, is located about 50 feet to the north. Beyond the North Patrol Road Ditch are the Northern Channel (75 feet north of the former Tank 22), and Cargill saltwater evaporation pond which lies another 100 feet to the north. Water from the North Patrol Road Ditch is pumped into the Northern Channel at a pump station located about 0.5 miles to the west of Tank 22.

4.3.4 Nature and Extent of Contamination

Tank 22 and piping, potential sources of soil and groundwater petroleum contamination at the Tank 22 area, have been removed. Furthermore, free product has not been encountered at the site. The following paragraphs summarize sample locations and sample analysis.

Soil grab samples from the excavation, overexcavation, and borings were analyzed for TPH-p, TPH-e, and BTEX. COCs in soil were not detected in soil at concentrations greater than action levels. Soil grab samples are summarized in the following table and presented in Table 6. Soil samples Tank 22 (E) and Tank 22 (W) were collected during tank removal. Soil samples TN22-SL-S-001 and TN22-SL-N-001 were collected by the Navy during overexcavation.

TANK 22 INVESTIGATION DATA SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	ND (0.61-1.2)	130	ND (1.2)	ND (0.006)	ND (0.006)	ND (0.006)	ND (0.006)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*

Note:

ND Nondetect

Groundwater was sampled from well WT22-1 between August 1995 and November 1996 for TPH-p as gasoline, TPH-e as diesel and JP-5, and BTEX. In August 1999, well WT22-1 was sampled for BTEX and MTBE. COCs were not detected in groundwater at concentrations greater than action levels.

Furthermore, MTBE was not detected in the 1999 groundwater sample. The following table summarizes the groundwater sample analysis from well WT22-1. Table 7 presents results from all groundwater samples collected at well WT22-1.

TANK 22 (Well WT22-1) GROUNDWATER SAMPLING SUMMARY							
	Maximum Concentration (µg/L) (Detection limit in parentheses)						
Sample Dates	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
August 1995	ND (50)	280	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
February 1996	37[1]	130[2]	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
August 1996	ND (50)	300[3]	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
November 1996	ND (50)	260[2]	ND (100)	ND (0.5)	0.32[1]	ND (0.5)	ND (0.5)
August 1999	NA	NA	NA	ND (1)	ND (1)	ND (1)	ND (1)
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

NA *Not analyzed*
ND *Nondetect*
[1] Estimated concentration, concentration below detection limits
[2] Chromatogram did not resemble fuel pattern.
[3] Chromatogram did not resemble diesel pattern.

4.3.5 Low-Risk Criteria

Tank 22 meets the low-risk soil and groundwater criteria evaluation presented in Table 2.

4.3.6 Conclusion

Tank 22 was removed in 1992. Petroleum compounds have not been detected in soil or groundwater samples at concentrations exceeding action levels. Furthermore, MTBE has not been detected at Tank 22 area. Therefore, Navy recommends closure for Tank 22.

4.4 TANK 27

Tank 27 never existed. Tank 27 is included in Table 2, the low-risk soil and groundwater criteria evaluation, to complete the list of all tanks evaluated in this report.

4.5 TANK 28

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.5.1 Background

Tank 28 was located approximately 2 feet west of Building 563 at the north end of the fuel pier (Figure 7). The 150-gallon UST stored diesel for a back-up generator in Building 563. Tank 28 was located at these coordinates: latitude 37.43550 and longitude 122.02648. Santa Clara County Tank Closure Inspection Information is presented in Appendix A. However, the county inspector's report was not found during a record search conducted on June 9, 2000.

4.5.2 Previous Tank-Site Investigation

Tank 28 was removed in June 1991 and appeared in to be good condition with no holes observed (Quorum 1991). A concrete slab was observed below the tank; soil in the excavation and around the slab did not exhibit discoloration or hydrocarbon odor. Soil sample (S-5-T28) was taken at the excavation. Groundwater was not present in the excavation, so no groundwater sample was collected.

4.5.3 Physical Site Characteristics

Tank 28 was located on a berm at the north end of the fuel pier. The nearest surface water body is Cargill saltwater evaporation pond within 15 feet of the former tank location; however, contamination has not been encountered during the investigation.

4.5.4 Nature and Extent of Contamination

Tank 28, the only potential source of contamination in the area surrounding the tank, was removed in 1991. Furthermore, free product has not been encountered at the site. One soil sample was collected at the Tank 28 excavation and motor oil was the only petroleum compound detected at the site. Groundwater was not encountered in the excavation; therefore, groundwater has not been sampled. Also, because the tank did not hold gasoline, MTBE is not a potential contaminant of concern. The following table presents maximum petroleum concentrations at the Tank 28 excavation. Table 8 presents analytical data for the soil sample collected near Tank 28.

TANK 28 INVESTIGATION DATA SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	NA	ND (10)	NA	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*

Notes:

NA Not analyzed
ND Nondetect

4.5.5 Low-Risk Criteria Evaluation

Tank 28 meets the low-risk soil and groundwater criteria evaluation presented in Table 2.

4.5.6 Conclusion

Tank 28 has been removed and the only petroleum compound detected was TPH-e as motor oil at 16 mg/kg. Other petroleum compounds were not detected. Because Tank 28 did not hold gasoline, MTBE is not a potential contaminant of concern. The Navy, therefore, recommends closure for Tank 28.

4.6 TANKS 30 AND 31

The following subsection describes previous work conducted at these tanks, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.6.1 Background

Tanks 30 and 31 were located in the northern section of IRP Site 5 (Figure 8). Both tanks were 4,500-gallon USTs originally installed to hold cleaning solvents. According to Navy personnel, tank installations were not completed, and Tanks 30 and 31 were never used (PRC 1994). The tanks have been included in this report to expedite site closure. Former Tanks 30 and 31 were located at these coordinates: Tank 30 latitude 37.41935 and longitude 122.03682; and Tank 31 latitude 37.41933 and longitude 122.03666. Santa Clara County Tank Closure Inspection Information for Tanks 30 and 31 was not found during a record search conducted on June 9, 2000.

4.6.2 Previous Tank-Site Investigation

Tanks 30 and 31 were removed in December 1992. No soil contamination was observed during the excavation. The area was backfilled with the excavated soil, and additional soil was brought in to fill the area of the removed tank. Soil samples from the removal of Tanks 30 and 31 were not collected since the USTs were never used.

4.6.3 Physical Site Characteristics

The tank site is located in the northern section of IRP Site 5. The area is relatively flat with a slight slope to the north. The nearest surface water bodies are the Northern Channel and North Patrol Road Ditch, more than 3,000 feet to the north.

4.6.4 Nature and Extent of Contamination

Tanks 30 and 31 were never used; therefore, no soil or groundwater samples were collected for these tanks.

4.6.5 Low-Risk Criteria

Tanks 30 and 31 were never used; however, both Tanks 30 and 31 are included on Table 2, the low-risk criteria evaluation, indicating that there is no risk from these two tanks.

4.6.6 Conclusion

Tanks 30 and 31 were removed in 1992. Installation was not completed and the tanks were never used; consequently, no soil or groundwater samples were taken. The Navy, therefore, recommends closure for Tanks 30 and 31.

4.7 TANK 51

Tank 51 never existed. Tank 51 was once believed to be near the NEX service station. However, site investigations and interviews with former workers revealed that Tank 51 never existed. Tank 51 is included in Table 2 for a complete list of all tanks addressed in this document.

4.8 TANK 55

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the-low-risk criteria.

4.8.1 Background

A record search was conducted to locate information about Tank 55, located near the former location of Building 408 (Figure 9). Tank 55 was reportedly a 200-gallon UST that was taken out of service at an unknown date and replaced with an aboveground storage tank (AST), Tank 104 (ERM-West and Aqua Resources 1986). A geophysical survey of the site was conducted to locate subsurface anomalies associated with UST systems. No signs of a UST system were detected. Although use records for the tank were not available, the fuel manager for MFA has stated that the tank fueled a diesel generator.

No tank removal records were available, and a visual survey of the area yielded no further information about the location of a UST at the site (PRC 1996). Tank 55 was believed to have existed at these coordinates: latitude 37.41459 and longitude 122.04741. Santa Clara County Tank Closure Inspection Information for Tank 55 was not found during a record search conducted on June 9, 2000.

4.8.2 Previous Tank-Site Investigations

In 1995, TtEMI advanced three soil borings at GeoProbe locations GPT55-1 through GPT55-3 (Figure 9). A PID was used to screen the soils removed from each location for petroleum contamination; no contamination was observed. An offsite laboratory did not analyze these samples. One additional soil sample (SBT55-1) was collected during installation of monitoring well WT55-1. This sample was analyzed at an offsite laboratory. Soil data are included in Table 9.

4.8.3 Physical Site Characteristics

Tank 55 was located between runways 32 Right and 32 Left in a grassy area. The nearest surface water body is the stormwater retention pond more than 4,000 feet to the north at the north end of MFA.

4.8.4 Nature and Extent of Contamination

Tank 55, the potential source of contamination in the Tank 55 area, was never located. However, it is believed that the tank was removed. Furthermore, free product has not been encountered at the site. The following paragraphs summarize sample locations and sample analyses.

During investigations at the former Tank 55 area, both soil and groundwater were sampled. Soil was sampled during the initial investigation in 1995 from three soil borings at GeoProbe locations GPT55-1 through GPT55-3 (Figure 9). A PID was used to screen the soils removed from each location for petroleum contamination; no contamination was observed. One additional soil sample (SBT55-1) was collected during installation of monitoring well MWT55-1. None of the soil or groundwater samples contained petroleum constituent concentrations exceeding action levels. Soil sample analyses (offsite laboratory data only) are presented in Table 9 and summarized in the table following the next paragraph.

Groundwater samples GWT55-1 and GWT55-2 were collected from GeoProbe soil borings GPT55-1 and GPT55-2. No groundwater samples were collected from GPT55-3 because no groundwater entered the 9-foot-deep boring. Groundwater samples GWT55-1 and GWT55-2 were collected by lowering disposable bailers directly into the GeoProbe borings. Groundwater data from these GeoProbe locations are included in Table 10 and summarized in the table below.

TANK 55 INVESTIGATION DATA SUMMARY							
	Maximum Concentrations (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	ND (0.56)	49	ND (28)	ND (0.00056)	ND (0.00056)	ND (0.00056)	ND (0.00056)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

ND Nondetect

TtEMI installed monitoring well WT55-1 and groundwater samples were collected four times from August 1995 to May 1997. The May 1997 sample was also analyzed for MTBE. All results were within action levels with one exception. Benzene was detected in the May 1997 sample at 6 µg/L. Because all other benzene results were non-detect, this result may represent an anomaly. Well WT55-1 was sampled in August 1999 for MTBE and BTEX. TPH-e as diesel was not analyzed in the August 1999 sample because TPH-e as diesel was not detected in the previous sample. Furthermore, the concentrations of TPH-e as diesel were below action levels in 1995 and 1996 and the analytical laboratory qualified these samples. The qualifiers are indicative of degraded fuel (chromatogram did not resemble a typical fuel pattern). Petroleum constituents were not detected in this sample. The following table summarizes groundwater data from well WT55-1. All groundwater data are presented in Table 10.

TANK 55 (Well WT55-1) GROUNDWATER SAMPLING SUMMARY							
	Maximum Concentration (µg/L) (Detection limit in parentheses)						
Sample Dates	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
August 1995	43[1]	62[1]	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	1.1
November 1996	ND (50)	420[2]	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
February 1997	ND (50)	NA	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
May 1997	ND (50)	ND (100)	ND (500)	6.0	ND (0.5)	0.6[1]	0.6[1]
August 1999	NA	NA	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Groundwater Action Levels (µg/L)	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

NA Not analyzed
ND Nondetect
[1] Estimated concentration, concentration below detection limit
[2] Chromatogram did not resemble typical fuel pattern.

4.8.5 Low-Risk Criteria

Tank 55 meets the low-risk soil and groundwater criteria evaluation presented in Table 2.

4.8.6 Conclusion

Tank 55 was removed at an unknown time. A geophysical survey of the area did not find any remains of the tank. Four quarters of groundwater monitoring samples indicated one detection of benzene greater than the action level; however, a subsequent sample in 1999 was nondetect for benzene. All other results were within action levels. MTBE was not detected in a 1997 sample or in a 1999 sample. The Navy recommends closure for Tank 55.

4.9 TANK 64

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.9.1 Background

Tank 64 was a stormwater diversion box located in the former Lindbergh Avenue storm channel (Figure 10) (Navy 1995a). The channel was filled between 1993 and 1995, and the diversion box was no longer needed. The diversion box acted as a settling basin, oil skimmer, and diversion structure. Effluent from the box was discharged through the west-side storm sewer system and routed to the stormwater retention basin or the lift station. Tank 64 was located at these coordinates: latitude 37.42496 and longitude 122.05729. Santa Clara County Tank Closure Inspection Information for Tank 64 was not found during a record search conducted on June 9, 2000.

4.9.2 Previous Tank-Site Investigation

The tank was taken out of service when the National Aeronautics and Space Administration (NASA) built a new stormwater sampling basin sometime in 1994 or 1995. NASA completed the only investigation conducted at Tank 64. NASA and its subcontractor, Science Applications International Corporation (SAIC), performed an assessment and removal action from June 1995 to May 1996 that included Tank 64 (SAIC 1997). The channel was filled between 1993 and 1995, and the diversion box was no longer needed. After the concrete was removed, samples were collected under the former

channel. During this sampling event, 98 soil samples were collected along the base of the channel; however, most of these samples were not collected near the former diversion box. Six samples were collected near the former diversion box, but their exact locations are unknown. Following initial soil sample analysis, the channel soil was overexcavated and post-excavation samples were collected by SAIC. Because confirmation sample were not collected, Tank 64 area soil data are not included in the tables following the text.

No groundwater monitoring wells were installed to monitor the northern end of the channel and no groundwater samples were collected during the channel excavation. However, TtEMI collected one groundwater sample from nearby well WNB-9 in August 1999.

4.9.3 Physical Site Characteristics

Tank 64 was located in a grassy area near the north end of MFA runways. The nearest surface water body is the stormwater retention pond located 500 feet to the northeast.

4.9.4 Nature and Extent of Contamination

Tank 64, the potential source of contamination in the area, has been removed. Furthermore, free product has not been encountered at the site. The following paragraphs summarize sample locations and sample analysis.

During this sampling event, 98 soil samples were collected along the base of the channel; however, most of these samples were not collected near the former diversion box. Six samples collected near the former diversion box indicated TPH-e as JP-5 or diesel at concentrations below the action levels with one exception. The sample collected at the north end of the channel indicated TPH-e as diesel above the action level at a concentration of 3,300 mg/kg. Subsequently, the channel soil was overexcavated and post-excavation samples were collected by SAIC; however, post-excavation samples were only analyzed for polychlorinated biphenyls (PCBs) and lead. Because the Tank 64 area was overexcavated, it is unlikely that the remaining soil will have an effect on groundwater.

No groundwater monitoring wells were installed to monitor the northern end of the channel and no groundwater samples were collected during the channel excavation. However, one groundwater sample was collected from nearby well WNB-9 in August 1999 and analyzed for MTBE, but MTBE was not detected. Groundwater data from well WNB-9 are presented in Table 11.

TANK 64 (Well WNB-9) GROUNDWATER SAMPLING SUMMARY							
Medium	Maximum Concentration (µg/L) (Detection limit in parentheses)						
	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Groundwater (µg/L)	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

ND Nondetect

4.9.5 Low-Risk Criteria

Tank 64 meets the low-risk soil and groundwater criteria evaluation presented in Table 2.

4.9.6 Conclusion

Tank 64 was removed between 1993 and 1995. Only one out of six samples had a detection of TPH-e as JP-5 exceeding action levels. However, the site was subsequently overexcavated and is unlikely to contain contaminated soil. A groundwater sample from a nearby monitoring well does not indicate the presence of MTBE. The Navy, therefore, recommends closure for Tank 64.

4.10 TANK 65

Tank 65 never existed. The tank number was not used due to a numbering oversight. In some documents, Tank 130 has been referred to as Tank 65; but this is incorrect. The tank number is included in Table 2 to keep a complete list of all tanks addressed in this report.

4.11 TANK 67

The following subsection describes previous work conducted at these tanks, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.11.1 Background

Tank 67 was located next to Building 88, the former dry cleaning facility (Figure 11). Building 88 was razed in 1994. Tank 67 was removed in 1990. Tank 67 was a 16,000-gallon steel UST used to store fuel oil for the boiler in Building 88 (PRC 1991). Tank 67 was located at the following coordinates: latitude 37.41042 and longitude 122.05327. Santa Clara County Tank Closure Inspection Information for Tank 67 is presented in Appendix A.

4.11.2 Previous Tank-Site Investigations

Tank 67 and associated piping were removed in May 1990 (PRC 1991). Soil and groundwater samples were collected at Tank 67 during the 1990 investigation and during subsequent investigations.

4.11.3 Physical Site Characteristics

Tank 67 was located near former Building 88 (Figure 11). The building has been demolished and the area was backfilled with clean materials and restored to preconstruction elevations (PRC 1995c). The nearest surface water body is the stormwater retention pond located 6,000 feet north.

4.11.4 Nature and Extent of Contamination

The potential sources of contamination at the Tank 67 and associated piping, have been removed. Soil and groundwater grab samples collected during the tank removals indicate petroleum constituents do not exist at concentrations exceeding action levels. Samples collected from the Tank 67 area contained some petroleum constituents. MTBE was analyzed in samples from two monitoring wells (W9SC-14 and W9SC-17) and was not detected. Analytical results are presented on Tables 12 and 13 for soil and groundwater. The most recent groundwater samples from these wells indicate that petroleum compound concentrations are below detection limits. The table below presents the most maximum soil and groundwater concentrations and the most recent groundwater samples. The most recent groundwater samples are indicative of the current site conditions.

TANK 67 INVESTIGATION DATA SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	1.3	150	ND (1.3)	0.003[1]	0.47	ND(0.005)	ND (0.005)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	2,000	1,100	ND (50)	12	4	0.5[1]	3
Most Recent Groundwater Sample from Same Well	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

ND Nondetect
[1] Estimated concentration, concentration below detection limits

4.11.5 Low-Risk Criteria

Tank 67 meets the low-risk soil and groundwater checklist evaluation as presented in Table 2.

4.11.6 Conclusion

Tank 67 has been removed. Petroleum constituents have not been detected in excess of action levels in soil. The most recent samples from wells surrounding Tank 67 indicates that petroleum constituents in groundwater are below detection limits. Also, MTBE has not been detected in samples from two groundwater monitoring wells. The Navy, therefore, recommends closure for Tank 67.

4.12 TANK 77

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.12.1 Background

Tank 77 was a 1,360-gallon fiberglass tank located near Building 77 (Figure 12). The tank was used to store diesel for an onsite emergency generator for chillers located outside Building 549 (Navy 1995b). Tank 77 was located at these coordinates: latitude 37.41113 and longitude 122.03735. Santa Clara County Tank Closure Inspection Information is presented in Appendix A.

4.12.2 Previous Tank-Site Investigation

Tank 77 was closed in place in April 1995. Before closing the tank in place, all contents of the tank were removed by PWC and the tank was triple rinsed by Laidlaw using a high-pressure washing unit. After cleaning, all voids in Tank 77 were completely filled with a slurry mix. All fill-line piping was flushed and filled with a slurry mix prior to cutting. The tank had no indication of leaking. One soil and one groundwater sample, 77-E-8 and 77-W-8, respectively, were collected under each end of the tank during closure (Navy 1995b).

4.12.3 Physical Site Characteristics

Tank 77 is located near Building 549. The area is paved and the nearest surface water bodies are the Northern Channel and North Patrol Road Ditch, which are more than 6,000 feet to the north.

4.12.4 Nature and Extent of Contamination

Tank 77 and its piping, potential sources of soil and groundwater petroleum contamination, have been cleaned and closed in place. No free product has been encountered at the site. The following paragraph summarizes sample locations and analysis.

One soil sample (77-E-8) and one groundwater sample (77-W-8) were taken under each end of the tank using slant boring. The soil sample was taken under the east end of the tank and the groundwater sample was taken under the west end of the tank. The soil sample was analyzed for TPH-e as diesel. The results indicated that TPH-e as diesel was not detected. Results of the soil sample analysis are presented in Table 14 and summarized in the table below.

The groundwater sample was analyzed for TPH-e as diesel, TPH-p, and BTEX. TPH-e as diesel was detected at 62 µg/L. TPH-p and ethylbenzene were not detected. Other BTEX constituents were detected at concentrations less than action levels. Because Tank 77 did not contain gasoline, MTBE is not a potential contaminant at this site. Groundwater data are presented in Table 15 and summarized in the following table.

TANK 77 INVESTIGATION DATA SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	NA	ND (1)	NA	NA	NA	NA	NA
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	ND (50)	62	NA	0.51	0.56	ND (0.5)	1.4
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

NA Not Analyzed
ND Nondetect

4.12.5 Low-Risk Criteria

Tank 77 meets the low-risk soil and groundwater criteria evaluation in Table 2.

4.12.6 Conclusion

PWC closed Tank 77 in place in 1995. Petroleum compounds have not been detected in soil or in groundwater in excess of action levels. Furthermore, because Tank 77 did not hold gasoline, MTBE is not a potential contaminant of concern at the site. The Navy recommends closure of Tank 77.

4.13 Tank 78

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.13.1 Background

Tank 78 was a 1,000-gallon fiberglass tank located next to Building 127 (Figure 13). Tank 78 was connected to a drain inside the building, which was part of a secondary containment bay for acid storage. The facility was never used (Navy 1995a). Tank 78 was located at these coordinates: latitude 37.42010 and longitude 122.05814. Santa Clara County Tank Closure Inspection Information is presented in Appendix A.

4.13.2 Previous Tank-Site Investigation

The tank was removed in January 1993. No holes were observed in the tank or piping. Two soil samples were collected during tank removal (78N and 78S). Groundwater was not observed in the excavation.

4.13.3 Physical Site Characteristics

Tank 78 was located next to Building 127. The nearest surface water body is the stormwater retention pond approximately 3,000 feet to the north.

4.13.4 Nature and Extent of Contamination

No contamination was found during investigation activities at Tank 78. Tank 78 was apparently never used. Also, Tank 78 has been removed. The following table summarizes soil samples collected at the Tank 78 excavation. Table 16 presents soil analytical data for Tank 78.

TANK 78 INVESTIGATION DATA SUMMARY

Medium	Maximum Concentration (Detection limit in parentheses)						
	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	ND (1)	NA	NA	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*

Notes:

NA Not analyzed
ND Nondetect

4.13.5 Low-Risk Criteria

Tank 78 meets the low-risk soil and groundwater checklist evaluation presented in Table 2.

4.13.6 Conclusion

Tank 78 was never used. Furthermore, contamination has not been detected at Tank 78 area. Because Tank 78 was never used, MTBE is not a potential contaminant of concern. The Navy recommends closure of Tank 78.

4.14 TANKS 86A AND 86B

The following subsection describes previous work conducted at these tanks, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.14.1 Background

Tanks 86A and 86B were located southwest of Building 107, which was originally the Public Works Fueling Facility (Figure 14). Tank 86A was a 5,000-gallon steel UST that stored gasoline. Tank 86B was a 7,000-gallon steel UST that stored diesel fuel. The tanks were installed in 1948 and were positioned side by side. Both tanks were removed in January 1993. Tank 86A was located at these coordinates: latitude 37.40990 and longitude 122.05562. Tank 86B was located at these coordinates: latitude 37.40989 and longitude 122.05567. Santa Clara County Tank Closure Inspection Information for Tanks 86A and 86 B is included in Appendix A.

4.14.2 Previous Tank-Site Investigation

Tanks 86A and 86B were first investigated during their removal in January 1993 (PRC 1996). During excavation and removal, four soil samples (86AN, 86AS, 86BS, 86BN) were collected from beneath the tanks. A groundwater sample (86A) was collected from beneath Tank 86A during excavation. A groundwater sample was also collected from beneath Tank 86B (sample 86B) during excavation. Navy personnel present during tank removal suggested that low-level contamination was the result of spillage observed to occur during tank removal, rather than leakage during tank operation (PRC 1996).

In June 1995, TtEMI advanced two borings, GPT86B-1 and GPT86B-2. Boring GPT86B-1 was advanced from the approximate center of the former location of Tank 86B. At 10.0 feet bgs, concrete, possibly the tank antibuoyancy anchor slab, was encountered. One soil sample (GPT86B-1) was collected at 9.5 to 10.0 feet bgs. Two additional soil samples from SBT86B-3 were collected during the installation of monitoring well WT86B-1. Soil data are included in Table 17.

TtEMI also collected groundwater samples from borings GPT86B-1 and GPT86B-2 using disposable bailers. In February 1996, soil boring SBT86B-3 was drilled immediately north of the former tank excavation. Monitoring well WT86B-1 was constructed in boring SBT86B-3. Groundwater samples were collected from this well five times between 1996 and 1997 and results are presented in Table 18.

4.14.3 Physical Site Characteristics

Tank 86A and 86B were located adjacent to the west side of Building 107. The nearest surface water body is the stormwater retention pond , more than 6,000 feet to the north.

4.14.4 Nature and Extent of Contamination

During excavation and removal, four soil samples (86AN, 86AS, 86BS, 86BN) were collected from beneath the tanks. A groundwater sample was also collected beneath each tank (samples 86A and 86B). Petroleum constituents were not detected in soil samples at concentrations exceeding action levels. Groundwater grab samples collected from the excavation are not indicative of contamination in the aquifer. Therefore, groundwater grab samples 86A and 86B are not used in this evaluation or included in Table 18 following the text. Navy personnel present during tank removal suggested that this low-level contamination was the result of spillage observed to occur during tank removal, rather than leakage during tank operation (PRC 1996). Figure 14 illustrates sample locations. Monitoring well WT86B-1 was installed in the closest possible downgradient location to both Tanks 86A and 86B because of Building 107's location. Additionally, groundwater fluctuates seasonally to a more northwesterly flow.

In June 1995, TtEMI advanced two borings, GPT86B-1 and GPT86B-2, to a depth of 9.5 feet bgs. Boring GPT86B-1 was advanced from the approximate center of the former location of Tank 86B. Two additional soil samples from boring SBT86B-3 were collected during the installation of monitoring well WT86B-1. Petroleum constituents were not detected in soil samples at concentrations exceeding action levels. Soil data are presented in Table 17 and summarized in the table below.

Groundwater samples also were collected from borings GPT86B-1 and GPT86B-2 using disposable bailers. Petroleum constituents were not detected in these groundwater samples at concentrations exceeding action levels. Table 18 includes groundwater data, which are also summarized in the following table.

TANKS 86A AND 86B INVESTIGATION DATA SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Medium	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	ND (13)	ND (12)	NA	ND (0.066)	ND (0.066)	ND (0.066)	ND (0.006)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	ND (50)	ND (50)	*NA*	0.4[1]	0.4[1]	0.2[1]	6.0
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

NA Not analyzed
ND Nondetect
[1] Estimated concentration, concentration below detection limit

Groundwater samples were collected from well WT86B-1 five times between 1996 and 1997, beginning in February 1996. Results show that the initial sample contained TPH-p as gasoline at an estimated concentration of 910 µg/L. However, this concentration is also estimated because the surrogate recovery was out of the quality control limits. TPH-p was detected later in one sample at an estimated concentration, but less than the detection limit and action level. Also, benzene was detected at an estimated concentration of 28 µg/L. However, this concentration is also estimated because the surrogate recovery was out of the quality control limits. No other petroleum constituents were detected in excess of action levels. Well WT86B-1 was sampled in August 1999 for BTEX and MTBE. BTEX and MTBE were not detected in this sample. Groundwater monitoring results are summarized in the following table and presented in 19.

TANKS 86A AND 86B (Well WT86B-1) GROUNDWATER SAMPLING SUMMARY							
	Maximum Concentration (Detection limit in parentheses)						
Sample Dates	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
February 1996	910[1]	ND (100)	ND (100)	28[1]	ND (0.5)	1.3[1]	ND (0.5)
August 1996	33[2]	ND (100)	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
November 1996	ND (50)	ND (100)	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
February 1997	ND (50)	ND (100)	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
May 1997	ND (50)	ND (100)	ND (500)	3	ND (0.5)	0.3[3]	0.3
August 1999	NA	NA	NA	ND (1)	ND (1)	ND (1)	ND (1)
Groundwater Action Levels	*700*	*50*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

NA Not analyzed
ND Nondetect
[1] Estimated concentration because surrogate recovery was out of quality control limits
[2] Estimated concentration, concentration below detection limit
[3] Unknown single peaks or patterns were detected but did not resemble a typical fuel pattern

4.14.5 Low-Risk Criteria Evaluation

Tanks 86A and 86B meet the low-risk criteria evaluation presented in Table 2

4.14.6 Conclusions

Tanks 86A and 86B were removed in 1993. During excavation and in 1995 soil samples did not contain petroleum compounds detected above action levels. Five rounds of groundwater monitoring were also conducted. All groundwater monitoring well results were less than action levels with two exceptions. In February 1996, one TPH-p as gasoline result exceeded the action level at an estimated concentration of 910 µg/L. However, this concentration is estimated because the surrogate recovery was out of the quality control limits. The next sampling event, TPH-p as gasoline was detected below detection limits. TPH-p as gasoline was not detected in any other samples. The May 1997 result for benzene exceeded the action level. Because the three previous results were nondetect and the subsequent sample in August 1999 was nondetect, the May 1997 result was most likely an anomaly. Furthermore, MTBE was not detected in the August 1999 sample from well WT86B-1. Therefore, the Navy recommends closure for Tanks 86A and 86B.

4.15 TANK 110

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.15.1 Background

Tank 110 was a steel 2,000-gallon UST used to store diesel (Figure 15). The tank served as fuel storage for an emergency generator that was located in Building 109 (Navy 1995a). Tank 110 was located south of Building 109 next to Wescoat Road. Tank 110 was located at these coordinates: latitude 37.40981 and longitude 122.05600. Santa Clara County Tank Closure Inspection Information is presented in Appendix A.

4.15.2 Previous Tank-Site Investigation

Tank 110 was removed in April 1994. Two soil samples (065037-14 and 065037-15) (Figure 15) were collected from the excavation and analyzed for TPH-e. No contaminants were detected in the samples (Navy 1995a). Groundwater was not encountered in the excavation.

4.15.3 Physical Site Characteristics

Tank 110 was located next to Building 109 in a grassy area. The nearest surface water body is the stormwater retention pond more than 6,000 feet to the north.

4.15.4 Nature and Extent of Contamination

Two soil samples were collected from the excavation and analyzed for TPH-e. No contaminants were detected in the samples (Table 19). It is unlikely that groundwater has been affected at this site since no contamination was found in soil samples. The following table summarizes soil samples from the Tank 110 excavation.

TANK 110 INVESTIGATION DATA SUMMARY							
Medium	Maximum Concentration (Detection limits unknown)						
	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	NA	ND (1)	NA	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*

Notes:

NA Not analyzed
ND Nondetect

4.15.5 Low-Risk Criteria

Tank 110 meets the low-risk soil and groundwater criteria evaluation presented Table 2.

4.15.6 Conclusion

Tank 110 was removed in April 1994. No contamination was detected in the soil samples collected during tank removal. Furthermore, because the tank held diesel, MTBE is not a potential contaminant at the site. Therefore, the Navy recommends closure of Tank 110.

4.16 TANK 111

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.16.1 Background

Tank 111 was a 2,500-gallon steel UST that contained fuel oil located along Wescoat Court near Building 48 (Figure 16). The installation date is unknown; the tank was closed in place by Environmental Chemical Corporation (ECC) in November 1995 (ECC 1996). Tank 111 was located at these coordinates: latitude 37.40901 and longitude 122.05864. Santa Clara County Tank Closure Inspection Information for Tank 111 was not found during a record search conducted on June 9, 2000.

4.16.2 Previous Tank-Site Investigation

Removal of Tank 111 was scheduled for November 1995. During excavation, the top of the tank was located at 9 feet bgs (ECC 1996). The contractor attempted to remove the tank, but operations were stopped because continued excavation could have undermined the foundation of the adjacent building. The Navy determined that the UST would be closed in place instead. As a result, Tank 111 was filled with concrete slurry.

Soil samples were collected from soil excavated from around the tank during closure. In 1999, TtEMI advanced four soil borings; samples were collected from all four borings (UST111-GP-01 through UST111-GP-04) and three soil samples were collected from one boring.

4.16.3 Physical Site Characteristics

Tank 111 was located next to Building 48 under concrete. The tank was closed in place with a concrete slurry. The closest surface water body is the stormwater retention pond, more than 6,000 feet north.

4.16.4 Nature and Extent of Contamination

The tank had visible holes and was filled with groundwater. One soil sample (TK111-SP-001) was collected from the soil excavated around Tank 111 (ECC 1996). One groundwater grab sample (TK111-GW-001) was also collected from the excavation. The soil and groundwater samples were submitted for analysis of TPH-e as diesel, TPH-p, and BTEX.

In August 1999, TtEMI advanced four direct-push borings (UST111-GP-01 through UST111-GP-04) at Tank 111 (Figure 16). Three soil samples were collected at the former tank location from boring UST111-GP-01 and analyzed for TPH-p, TPH-e, and BTEX. Groundwater samples were collected from all four borings and analyzed for TPH-p, TPH-e, BTEX, and MTBE. Only xylene was detected in these groundwater samples collected in 1999.

Soil data for Tank 111 are included in Table 20. Groundwater data are included in Table 34. Grab groundwater samples collected from the excavation pit often contain contaminants from tank and piping removal and may not be representative of groundwater conditions. Therefore, data for grab groundwater sample TK111-GW-001 are not included in Table 21.

TANK 111 INVESTIGATION DATA SUMMARY							
Medium	Maximum Concentration (Detection limits unknown)						
	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	0.13	64.1	ND (15)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	ND (50)	ND (100)	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	4.4
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

ND Nondetect

4.16.5 Low-Risk Criteria

Tank 111 meets the low-risk soil and groundwater checklist evaluation presented in Table 2.

4.16.6 Conclusion

Tank 111 was closed in place in 1995. Soil and groundwater contamination do not exceed action levels. Furthermore, MTBE has not been detected at the Tank 111 area. Therefore, the Navy recommends closure for Tank 111.

4.17 TANK 112

Tank 112 never existed; however, it is included in Table 2, the low-risk soil and groundwater checklist evaluation, for completeness. The Navy recommends closure for Tank 112.

4.18 TANK 116

The following subsection describes previous work conducted at the tank, physical site characteristics, nature and extent of contamination, and the low-risk criteria.

4.18.1 Background

Tank 116 was a steel 5,000-gallon UST located near the intersection of Girard and Cody Roads (Figure 17). The UST was outside the entrance gate to the transportation yard. The tank was installed in 1933 and originally stored aviation gasoline and served as a fuel storage and supply tank at the south mooring circle for the dirigible Macon. The tank has been removed, although the removal date is unknown. Approximately 300 feet upgradient of Tank 116 is Site 14 South. Site 14 South is a vehicle fueling facility with petroleum contamination from two former tanks. A recirculating in situ treatment system for remediating soils and groundwater was constructed at Site 14 South in 1995 (PRC 1995b). Site 14 South is addressed in Appendix C of the TM. Tank 116 was located at these coordinates: latitude 37.40681 and longitude 122.05004. Santa Clara County Tank Closure Inspection Information for Tank 116 was not found during a record search conducted on June 9, 2000.

4.18.2 Previous Tank-Site Investigation

The Tank 116 area was excavated in September 1994 (ECC 1996). The pump and control pits were located and control switches were in place; however, it appeared that the tank had previously been removed. The former tank area was filled, and pipe connections for the tank had been cut and plugged. In November 1995, ECC removed the concrete vault used to house electrical controls for the UST (ECC 1996). During exploratory excavation, hydrocarbon staining and odor were found near the bottom of the vault. Three soil samples (TK116-EX-001 through TK116-EX-003) were collected from unspecified locations within the excavation pit.

In August 1999, TtEMI advanced four direct-push borings (UST116-GP-01 through UST116-GP-04). Two soil samples were collected at the former tank location from boring UST116-GP-01. Groundwater samples were collected from all four borings.

4.18.3 Physical Site Characteristics

Tank 116 was located next to an outside fence near the transportation yard (Building 146). The area surrounding former Tank 116 is paved. The nearest surface water body is the stormwater retention pond, more than 7,000 feet to the north.

4.18.4 Nature and Extent of Contamination

Tank 116 and associated piping were the potential sources of contamination. In November 1995, ECC removed the concrete vault used to house electrical controls for the UST (ECC 1996). During exploratory excavation, hydrocarbon staining and odor were found near the bottom of the vault.

Three soil samples (TK116-EX-001 through TK116-EX-003) were collected from unspecified locations within the excavation pit and analyzed for TPH-e, TPH-p, and BTEX. Soil data for Tank 116 are included in Table 22.

In August 1999, TtEMI advanced four direct-push borings (UST116-GP-01 through UST116-GP-04). Two soil samples were collected at the former tank location from boring UST116-SB-01. Groundwater samples were collected from all four borings. Soil and groundwater were analyzed for BTEX and TPH. The following table summarizes the maximum petroleum constituent concentrations. MTBE was not detected in a groundwater sample collected in 1999. Groundwater data are included in Table 23.

TANK 116 INVESTIGATION DATA SUMMARY							
Medium	Maximum Concentration (Detection limits unknown)						
	TPH-p (Gasoline)	TPH-e (Diesel)	TPH-e (JP-5)	B	T	E	X
Soil (mg/kg)	5.1	371	NS	ND (0.005)	0.01	ND (0.006)	0.028
Soil Action Levels	*150*	*400*	*400*	*4.4*	*2,700*	*3,100*	*980*
Groundwater (µg/L)	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
Groundwater Action Levels	*50*	*700*	*700*	*1*	*680*	*1,000*	*1,750*

Notes:

ND Nondetect

4.18.5 Low-Risk Criteria

Tank 116 meets the low-risk soil and groundwater checklist evaluation presented in Table 2.

4.18.6 Conclusion

Tank 116 has been removed. Investigations in 1995 and again in 1999 indicate that petroleum contamination does not exceed action levels. A sample for MTBE in 1999 was nondetect. Therefore, the Navy recommends closure for Tank 116.

4.19 TANK 123

Tank 123 never existed. This tank number was never used due to a numbering oversight (Navy 1995a). Tank 123 is included in the list on Table 2 for completeness. The Navy recommends Tank 123 for closure.

5.0 GEOLOGY AND HYDROGEOLOGY

The following two sections describe the geology and hydrogeology at MFA. Geologic and hydrogeologic information were obtained from the Geology and Hydrogeology Technical Memorandum (PRC and JMM 1992), unless otherwise cited.

5.1 BASEWIDE GEOLOGY

MFA is located at the northern end of the Santa Clara Valley Basin, about 1 mile south of San Francisco Bay. The land is relatively flat, ranging from 2 feet below to 36 feet above mean sea level (msl). The Santa Clara Valley Basin is a large, northwest-tending structural depression between the San Andreas and Hayward faults. The basin is bordered on the west by the Santa Cruz Mountains and on the east by the Diablo Range (PRC and JMM 1992).

Regionally, the Santa Clara Valley contains up to 1,500 feet of Tertiary- and Quaternary-age interbedded alluvial, fluvial, and estuarine deposits that directly overlie early Tertiary or older bedrock (Iwamura 1980). Locally, these sediments consist of varying combinations of unconsolidated to moderately-consolidated clay, silt, sand, and gravel that represent interfingering of estuarine and fluvial depositional environments. The fluvial sediments were derived from the Santa Cruz highlands west of the basin and deposited on an alluvial plain bounded by alluvial fan deposits to the west and baylands to the northeast (Iwamura 1980). These sediments most likely were deposited during the Holocene period when the world-wide sea level was rising toward its present elevation.

A continuous clay layer (A/B aquitard) between 45 and 65 feet below msl has been observed in borings across MFA. This clay layer does not correspond to a world-wide rise in sea level. Instead, its deposition appears to be of late Pleistocene age. An even deeper (100 to 160 feet below msl) clay layer (B/C aquitard) corresponds to Sangamon-age interglacial deposits (PRC and JMM 1992; Sangines and others 1995). Beneath this aquitard are undifferentiated alluvial gravels, sands, silts, and clays that make up the mid- to early-Pleistocene-age deposits and the Pliocene/Pleistocene-age Santa Clara Formation.

5.2 BASEWIDE HYDROGEOLOGY

Aquifer descriptions are based on existing data and lithologic interpretation of soil borings and cone penetrometer tests (CPTs). The shallow aquifer (upper 250 feet) is subdivided into the A, B, and C aquifers. A laterally extensive clay aquitard (B/C aquitard) effectively isolates the C aquifer (160 to 250 feet bgs) from the upper aquifers. The A/B aquitard may be locally continuous under MFA.

The following discussion focuses on the A aquifer because it is the most likely to be affected by petroleum contamination from surface spills or leaking USTs.

5.2.1 A Aquifer Hydrogeology

The A aquifer consists of sands and gravels found between depths of about 5 and 65 feet bgs. Aquifer A is further subdivided into the A1- and A2-aquifer zones by a discontinuous, low-permeability horizontal layer (A1/A2 aquitard) located between 25 and 30 feet bgs. Fine-grained sediments in the A aquifer consist of greenish-gray to yellow-brown silts and clays that often contain rust-colored staining of oxidized iron. Coarse materials in the A aquifer are sands and gravels. Coarse-grained channel deposits appear to have an individual maximum thickness of 20 feet on the western side of MFA and 10 feet on the eastern side of MFA. The coarse-grained deposits were incised in, and interbedded with, the fine-grained sediments. Channel orientation is generally south to north.

Groundwater flow is toward San Francisco Bay (north) with a horizontal gradient of 0.004 to 0.005 feet of drop per foot of distance (ft/ft). The horizontal gradient for the eastern side of MFA has been reported as slightly more gentle (0.002 to 0.003 ft/ft) than the western side (PRC 1995d). Aquifer porosity estimated from samples submitted for physical analysis ranges from 20 to 45 percent (PRC and JMM 1992). Hydraulic conductivity was estimated by aquifer tests to range from 5.7 to 240 feet per day for the A aquifer (PRC 1996). The low to moderate hydraulic conductivity at MFA and the distance from the bay dampen and restrict the effects of surface water and tidal fluctuations on groundwater flow direction and velocity such that the effects are negligible (Iwamura 1980; PRC and JMM 1992).

5.2.2 B Aquifer and A/B Aquitard Hydrogeology

The B aquifer extends from approximately 60 to 120 feet bgs in the vicinity of MFA. Permeable deposits in the B aquifer are characterized by interbedded fine- to medium-grained sands and clayey sands. The B aquifer consists of these more permeable deposits along with silts and clays. These deposits are correlated by fossil evidence with the Wisconsin-age glacial period (Brown 1978, PRC and JMM 1992). A lack of abundant gravels distinguishes the B from the A aquifer sediments.

Groundwater flow direction in the B aquifer is generally north, and horizontal gradients are similar to those in the A aquifer (0.004 to 0.005 ft/ft). Vertical gradients between the A and B aquifers are variable as a result of heterogeneous confining conditions in individual channels (PRC and JMM 1992). Aquifer tests typically indicated leaky confined conditions in the B aquifer, and hydraulic conductivities from 0.35 to 36 feet per day (PRC 1996). B aquifer hydraulic conductivities are significantly less than those in the A aquifer as a result of the generally finer-grained materials within the B aquifer.

The A/B aquitard separates the interbedded sands, silts, and clays of the B aquifer from the sand and gravel channels of the A aquifer. It has been consistently identified in borings from the western side of MFA, but is less well defined on the eastern side. On the western side, this aquitard is a 5- to 7-foot thick clay encountered between the depths of approximately 65 and 70 feet bgs that appeared to be continuous across the western side of MFA. Figure 18 presents a geologic cross-section location map. Figure 19 presents a geologic cross-section along the western side of MFA and illustrates the A and B aquifers as well as the A/B aquitard.

The A/B aquitard appears to exist within a 7- to 20-foot thick interval of increased clay, creating a reduced permeability zone on the eastern side of MFA. A continuous aquitard cannot be confirmed within this 7- to 20- foot thick low-permeability interval because of the lower density of data on the eastern side of MFA. However, potentiometric head differences between paired wells in the A2 zone of the A aquifer and the upper portion of the B aquifer during baseline flow conditions (August 1996) indicate hydraulic isolation of the two aquifers across the eastern side and the northern half of the western side of MFA (PRC 1996). In these areas, the groundwater potentiometric surface in B2 aquifer monitoring wells is higher than the groundwater potentiometric surface in adjacent A2 aquifer monitoring wells. In the Site 9 area (on the western side of MFA, just west of the northern end of Hangar 1) potentiometric levels between monitoring well pairs that screen the A2 and B2 aquifer zones are variable, but about equal. The few well pairs farther north (in the NASA Ames Research Center area) indicate a shallow and variable vertical gradient between the A2 and B2 intervals. In this area, the A/B aquitard may be incised by channels of the A aquifer, allowing local equilibration between the two aquifers. Figure 20 presents a geologic cross-section along the eastern side of MFA and illustrates the A and B aquifers as well as the A/B aquitard.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This report addresses 21 tank sites at MFA that do not exceed the action levels agreed upon in 1994 between RWQCB and the Navy for petroleum sites. In Section 4.0, investigation results at each tank site were presented. Soil and groundwater results at each tank site meet the action levels. The Navy, therefore, recommends site closure for all 21 tanks described in this document. Table 2 lists all 21 tanks described in this document.

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FIGURES

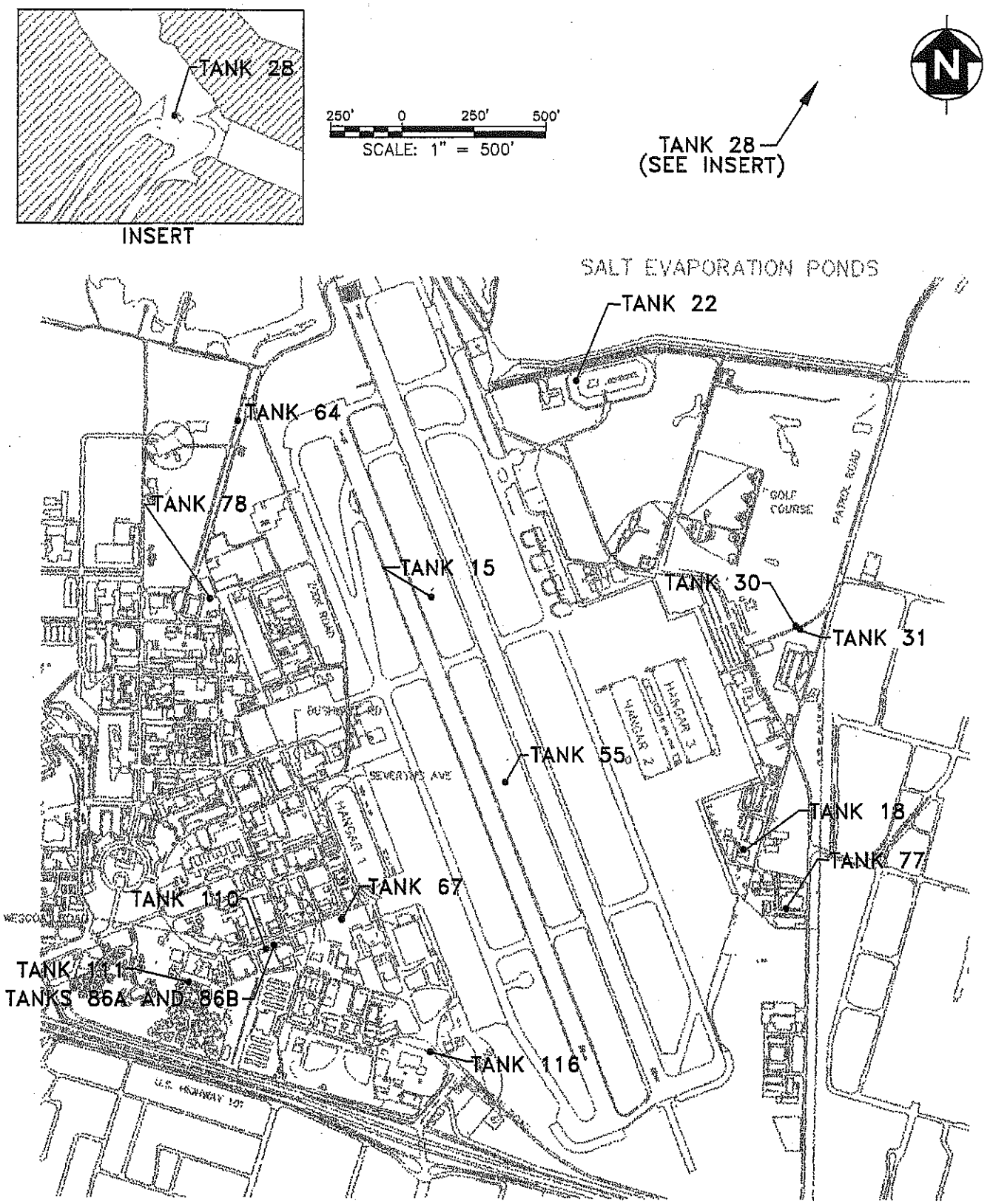

FIGURE 1
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SITE LOCATION MAP

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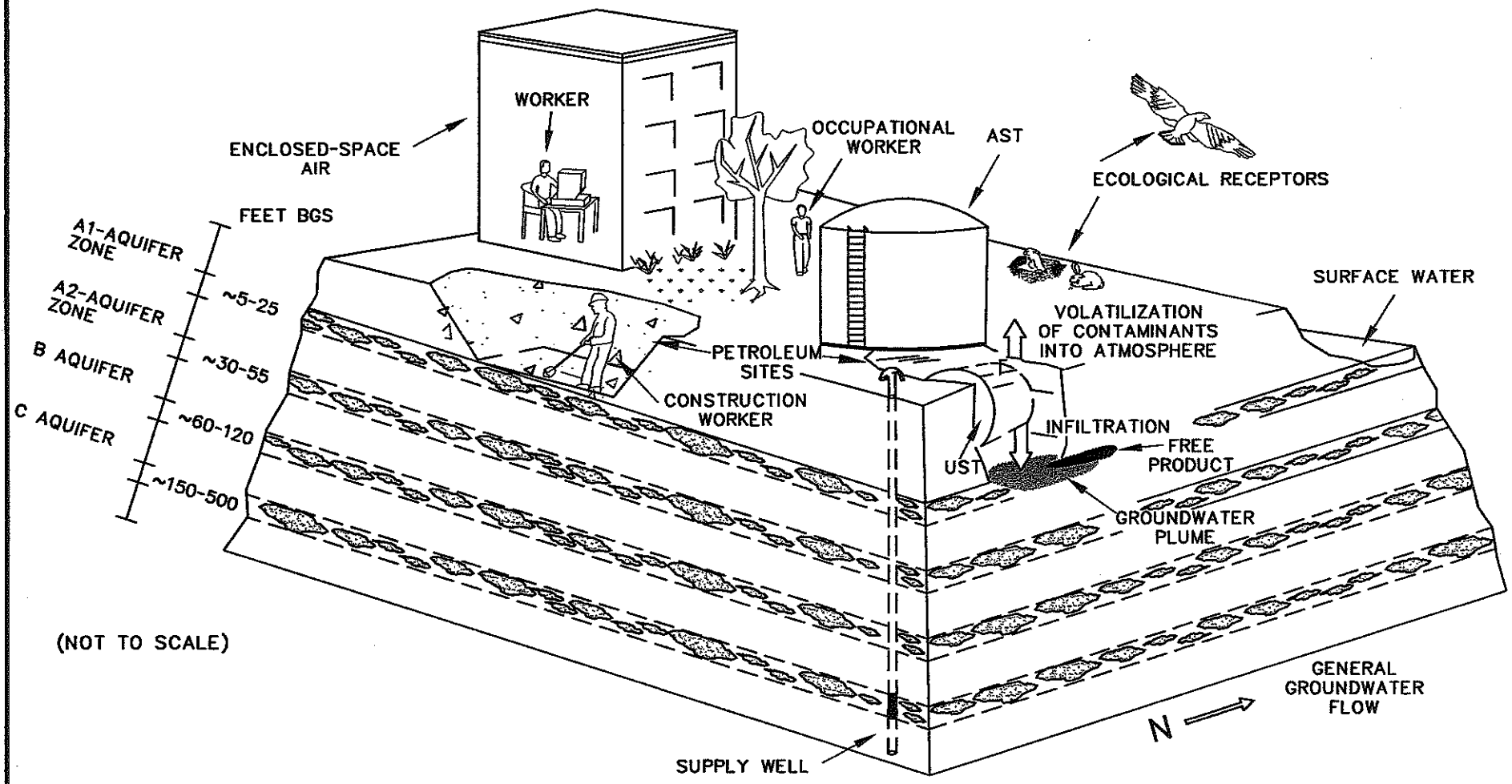
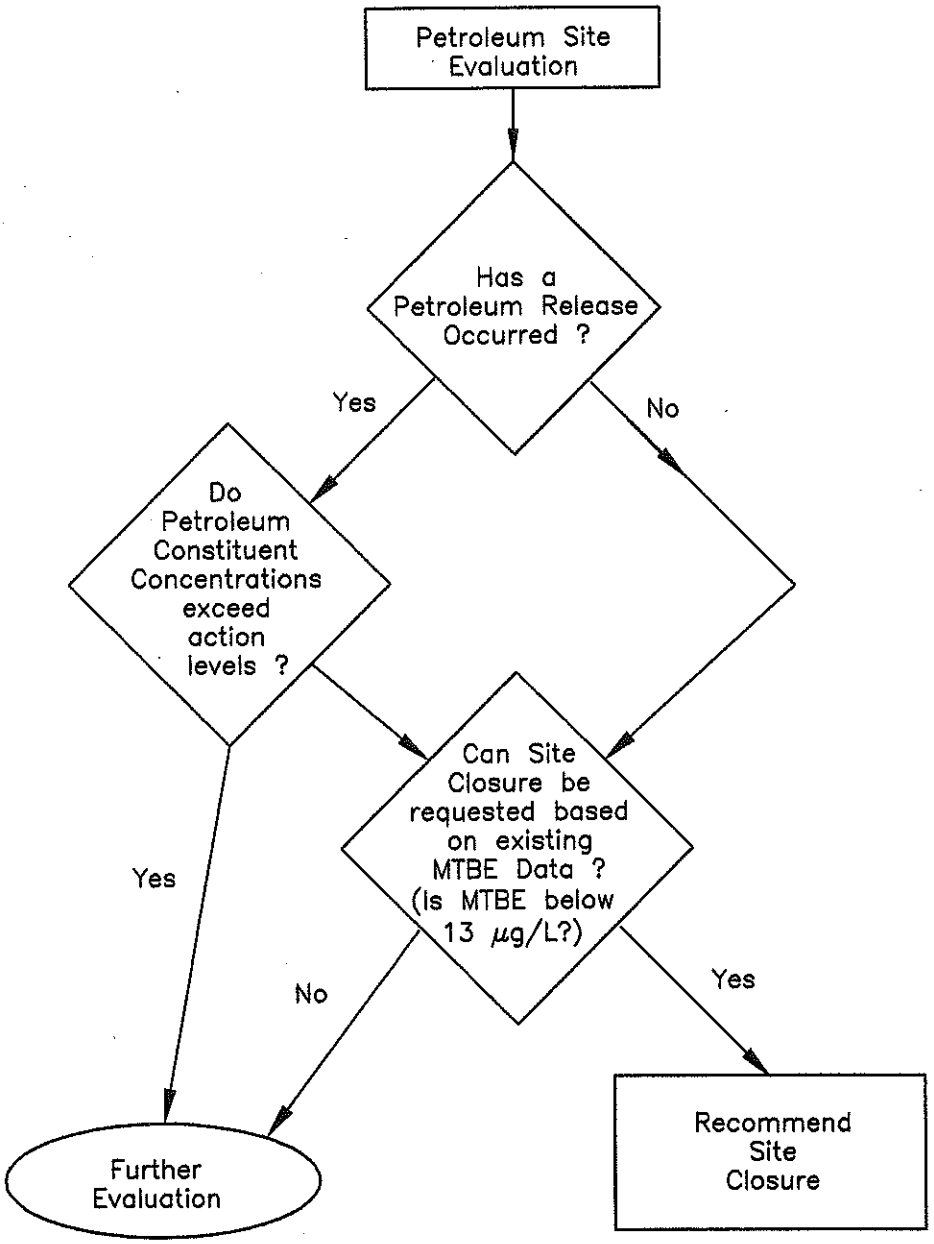


NOTES:

AST = ABOVEGROUND STORAGE TANK
BGS = BELOW GROUND SURFACE
UST = UNDERGROUND STORAGE TANK

FIGURE 2
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
CONCEPTUAL SITE MODEL



NOTES:

MTBE = Methyl Tertiary Butyl Ether

µg/L = Micrograms per Liter

FIGURE 3
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
DECISION FLOW CHART

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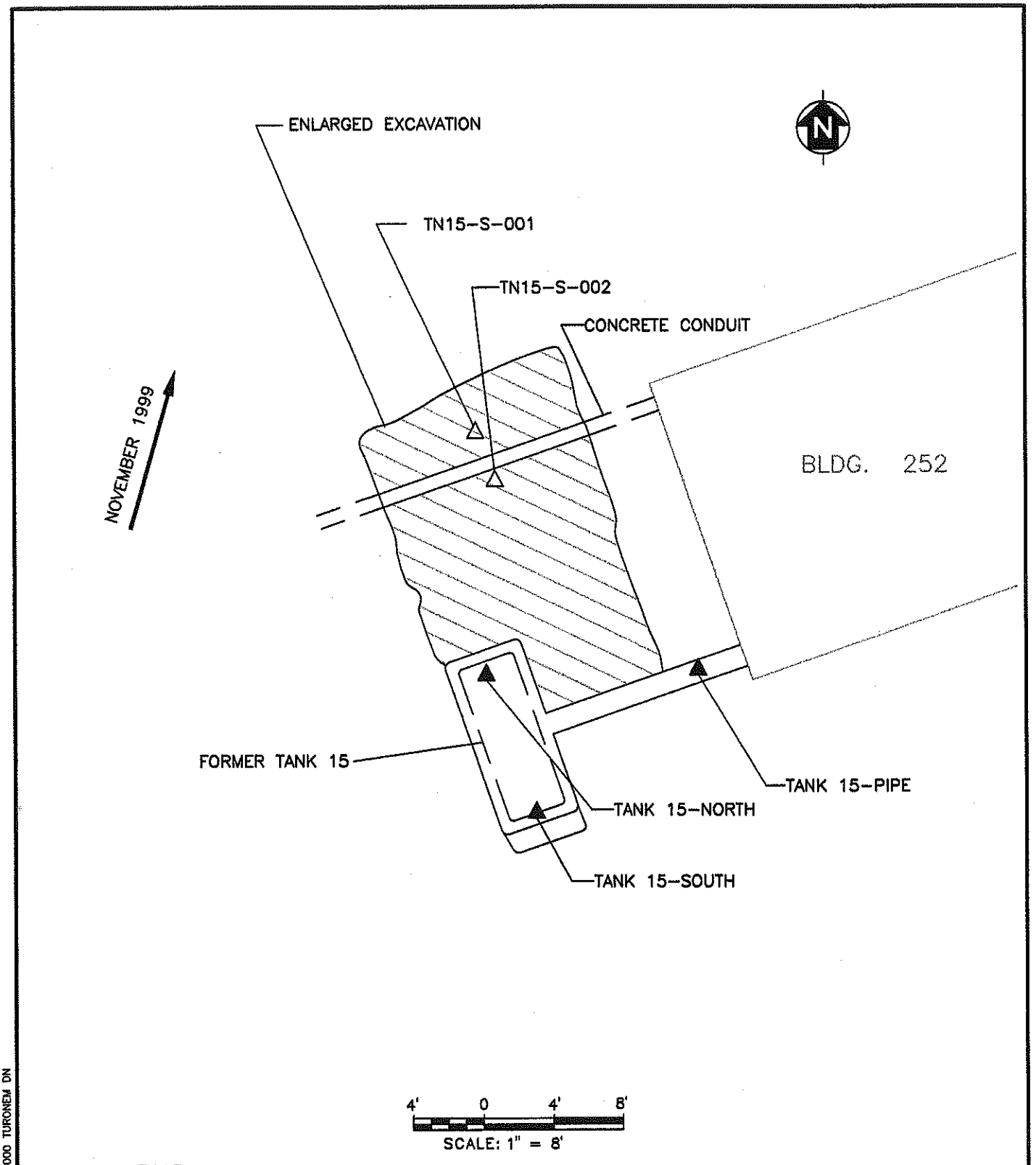

LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

▨ AREA OF ENLARGED EXCAVATION

▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

△ SOIL SAMPLE COLLECTED DURING SUBSEQUENT INVESTIGATIONS

FIGURE 4
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 15

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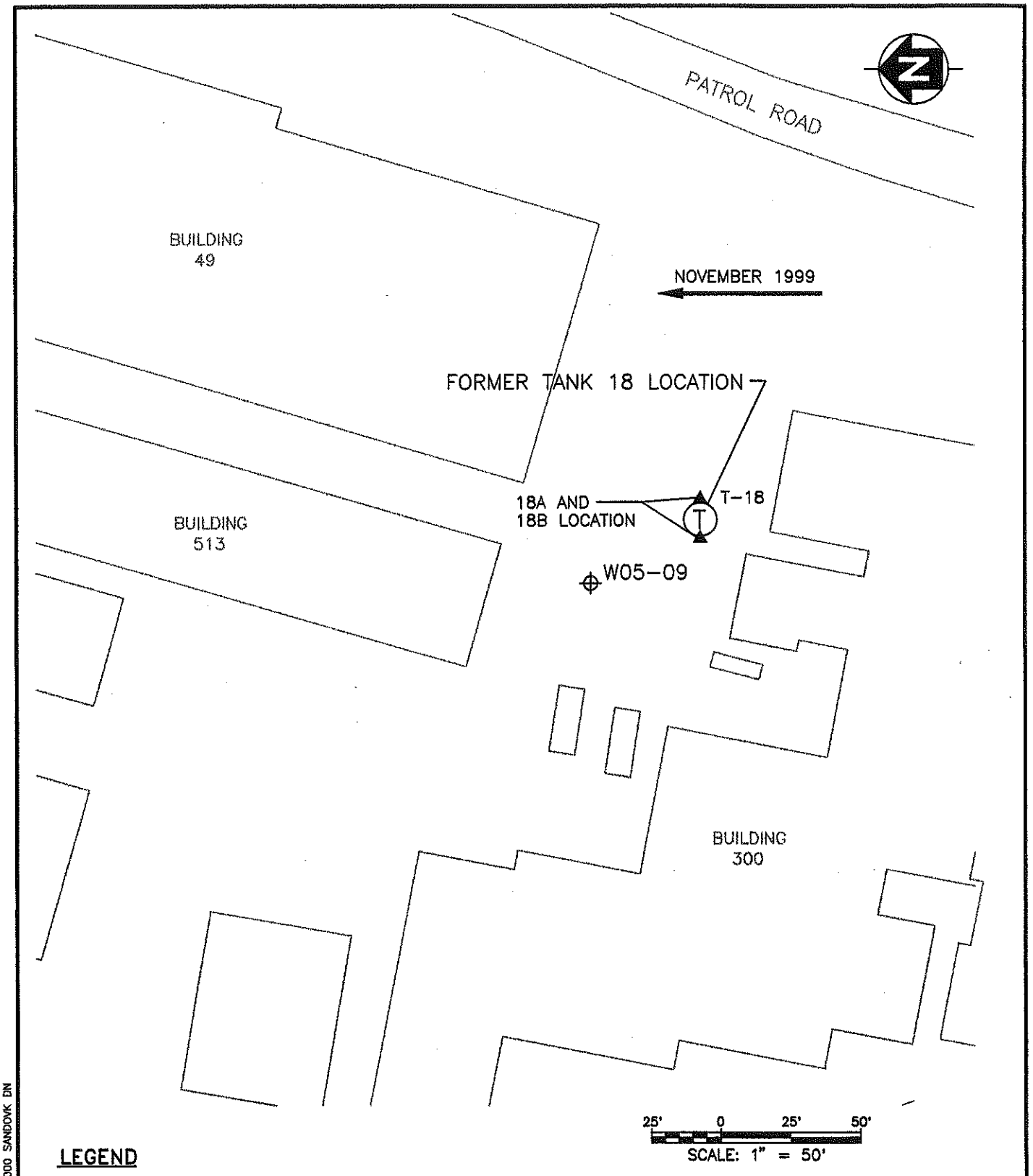

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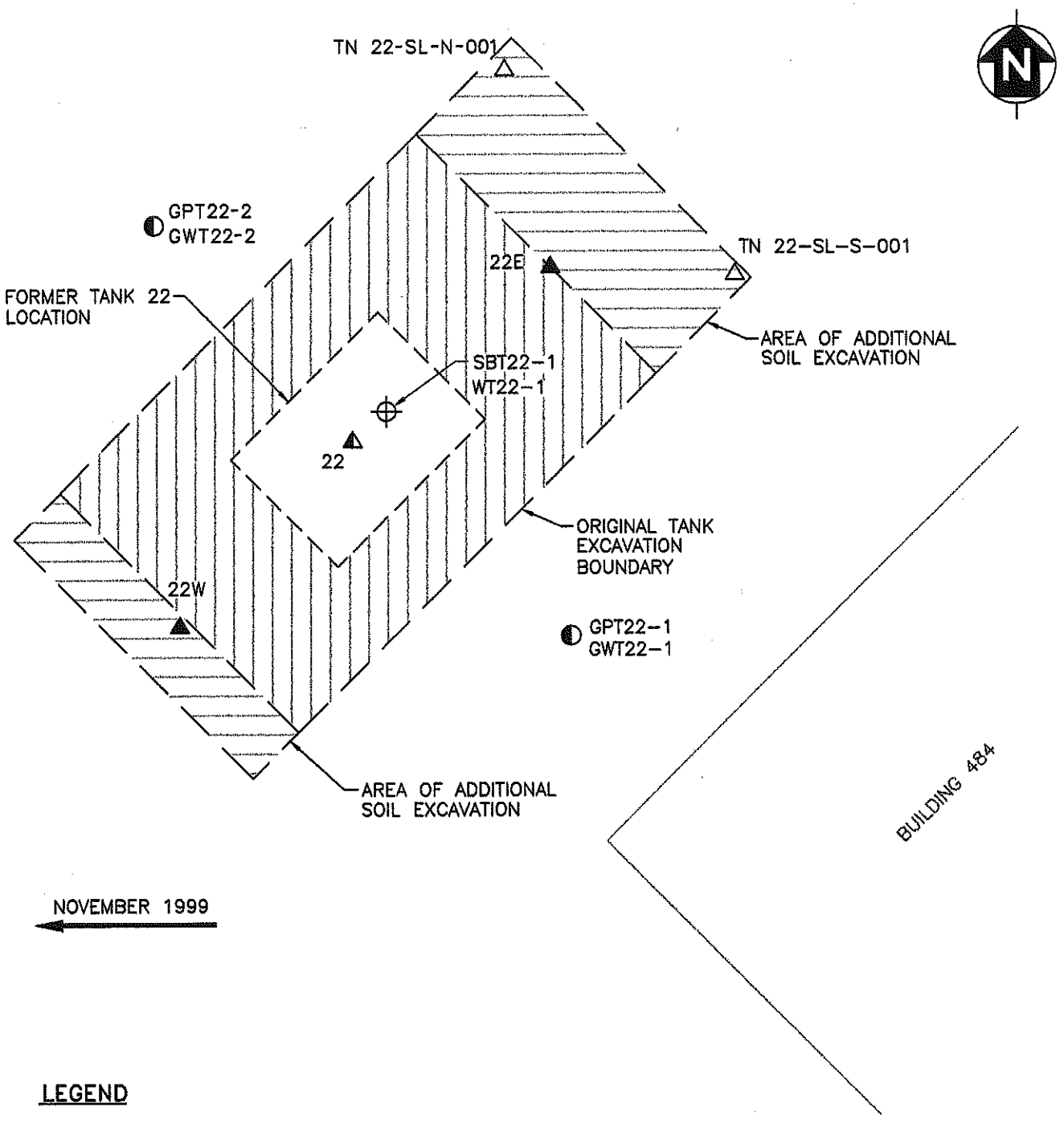
FIGURE 5
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 18



LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

△ SOIL SAMPLE COLLECTED DURING SUBSEQUENT EXCAVATION

◭ WATER SAMPLE COLLECTED DURING TANK REMOVAL

◐ SOIL AND GROUNDWATER SAMPLE LOCATION

⊕ MONITORING WELL LOCATION

2' 0 2' 4'
SCALE: 1" = 4'

FIGURE 6
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 22

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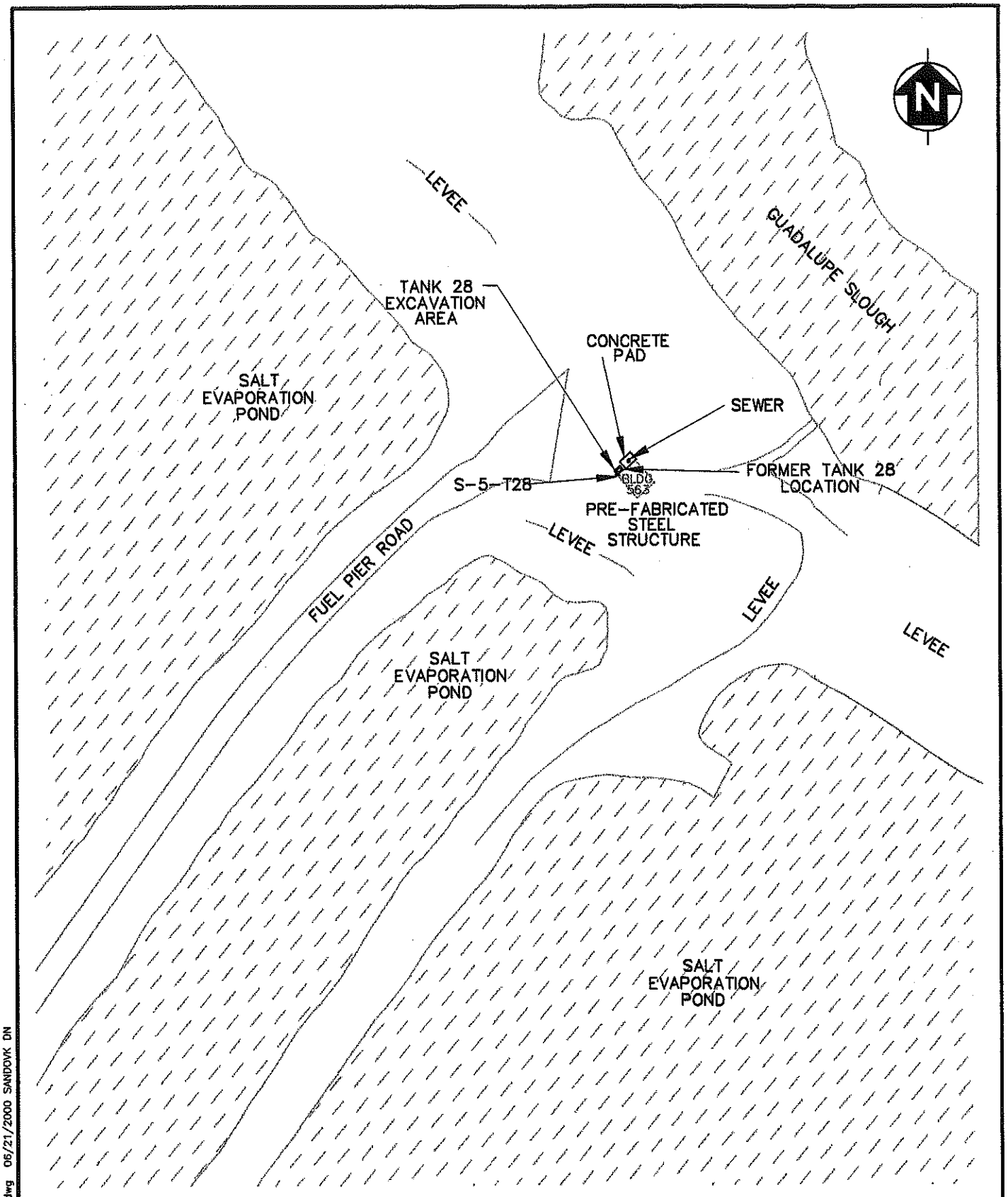

LEGEND

▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

FIGURE 7
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 28

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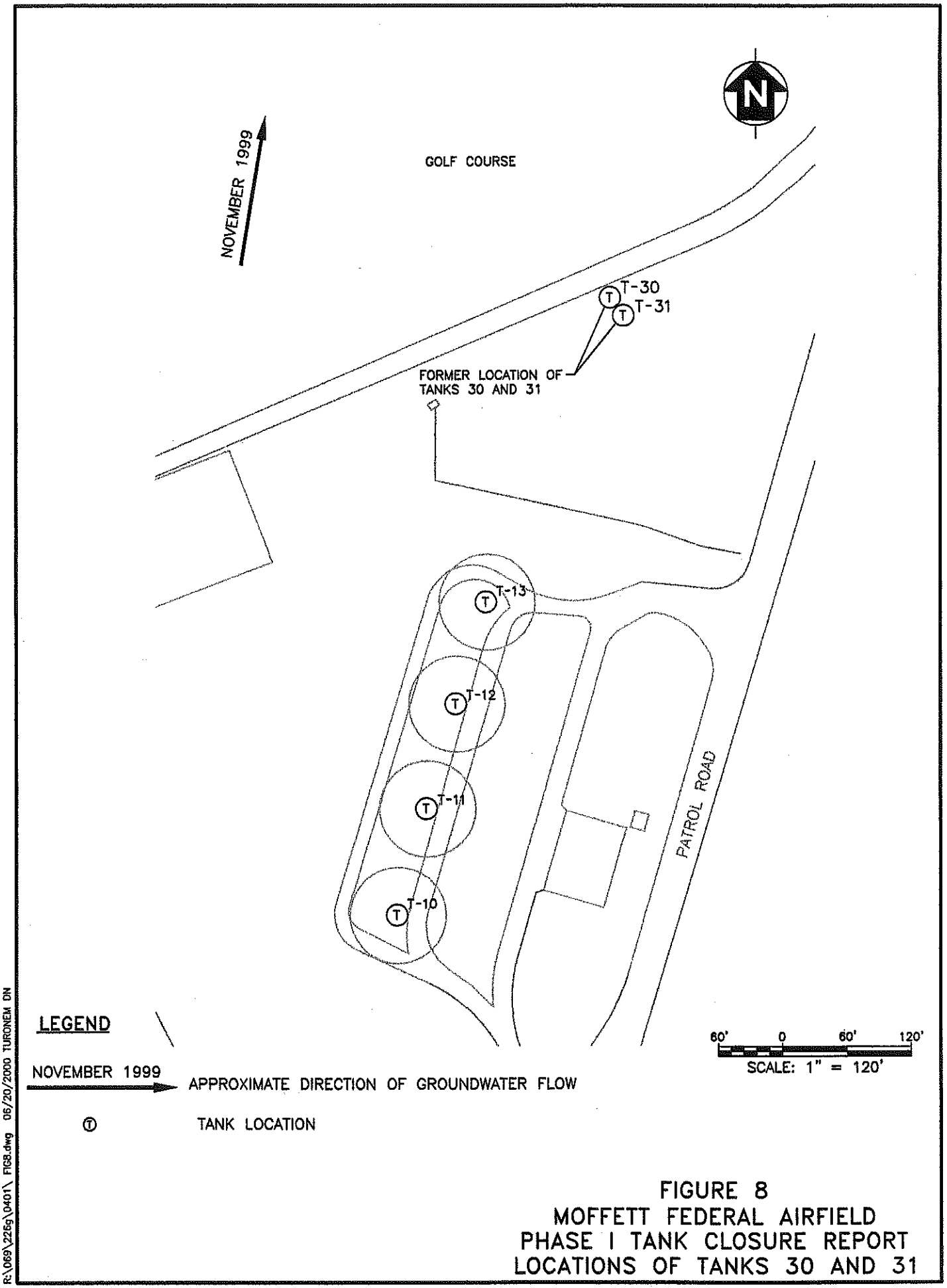

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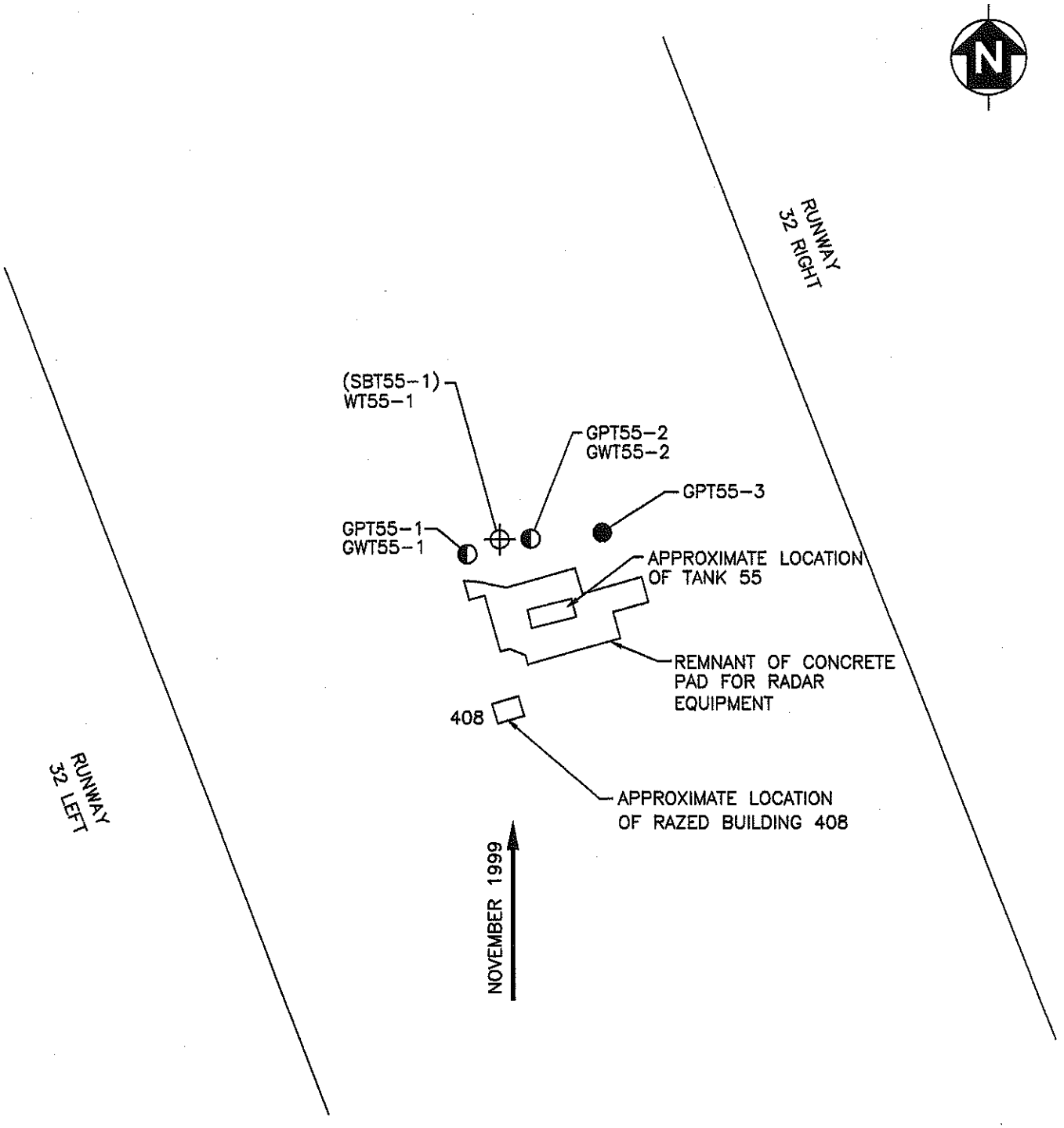
FIGURE 8
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
LOCATIONS OF TANKS 30 AND 31



LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

GROUNDWATER SAMPLING LOCATION

LOCATION OF ATTEMPTED GROUNDWATER SAMPLE

MONITORING WELL LOCATION (SOIL BORING IN PARENTHESES)

40' 0 40' 80'

SCALE: 1" = 80'

FIGURE 9
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 55

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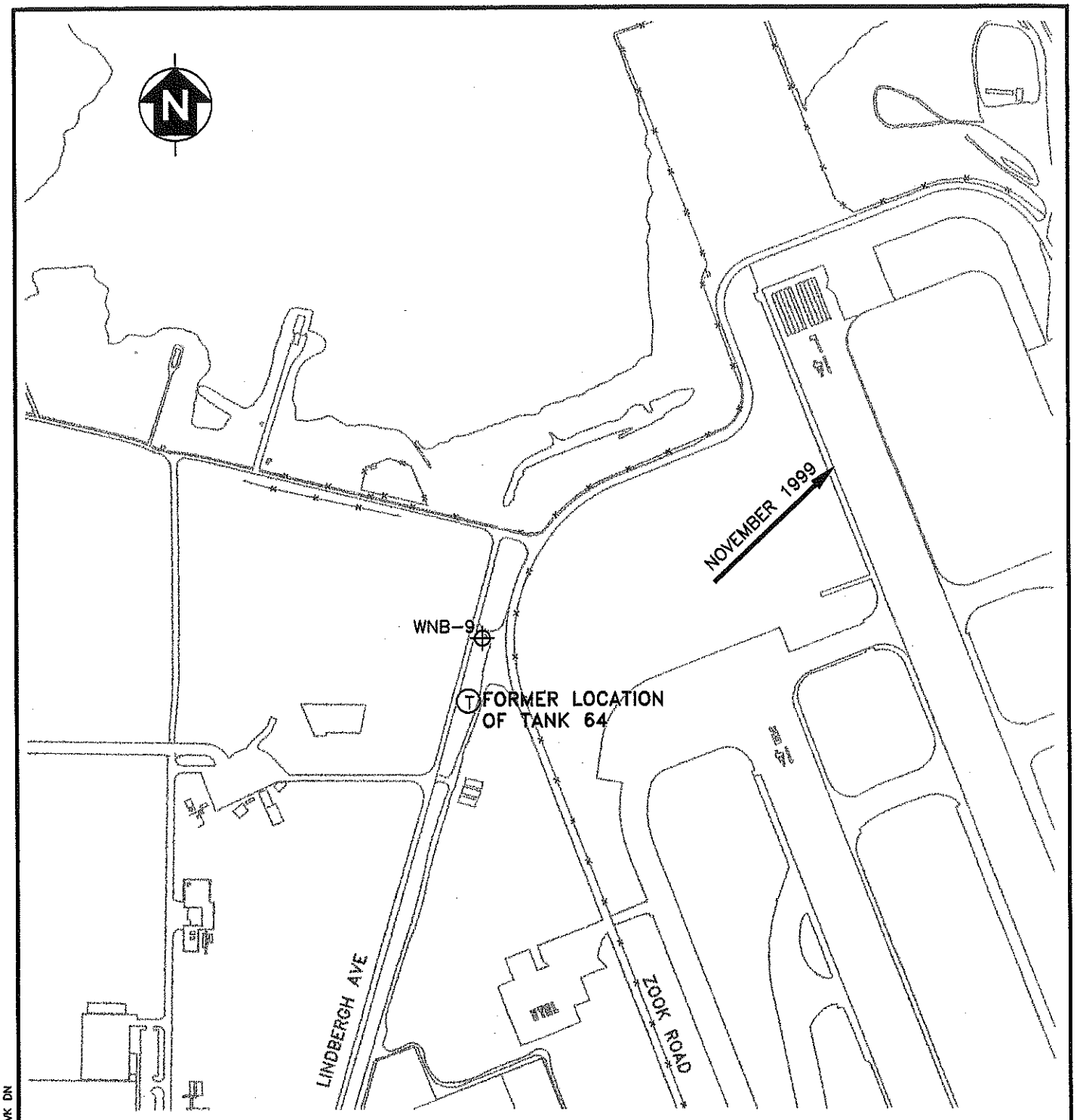

LEGEND

NOVEMBER 1999 → APPROXIMATE DIRECTION OF GROUNDWATER FLOW

⊕ MONITORING WELL LOCATION

Ⓣ TANK LOCATION

250' 0 250' 500'

SCALE: 1" = 500'

NOTE: SOIL SAMPLES ARE NOT INCLUDED ON THIS FIGURE, BECAUSE THEIR EXACT LOCATION IS UNKNOWN. REFER TO SAIC 1997.

FIGURE 10
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 64

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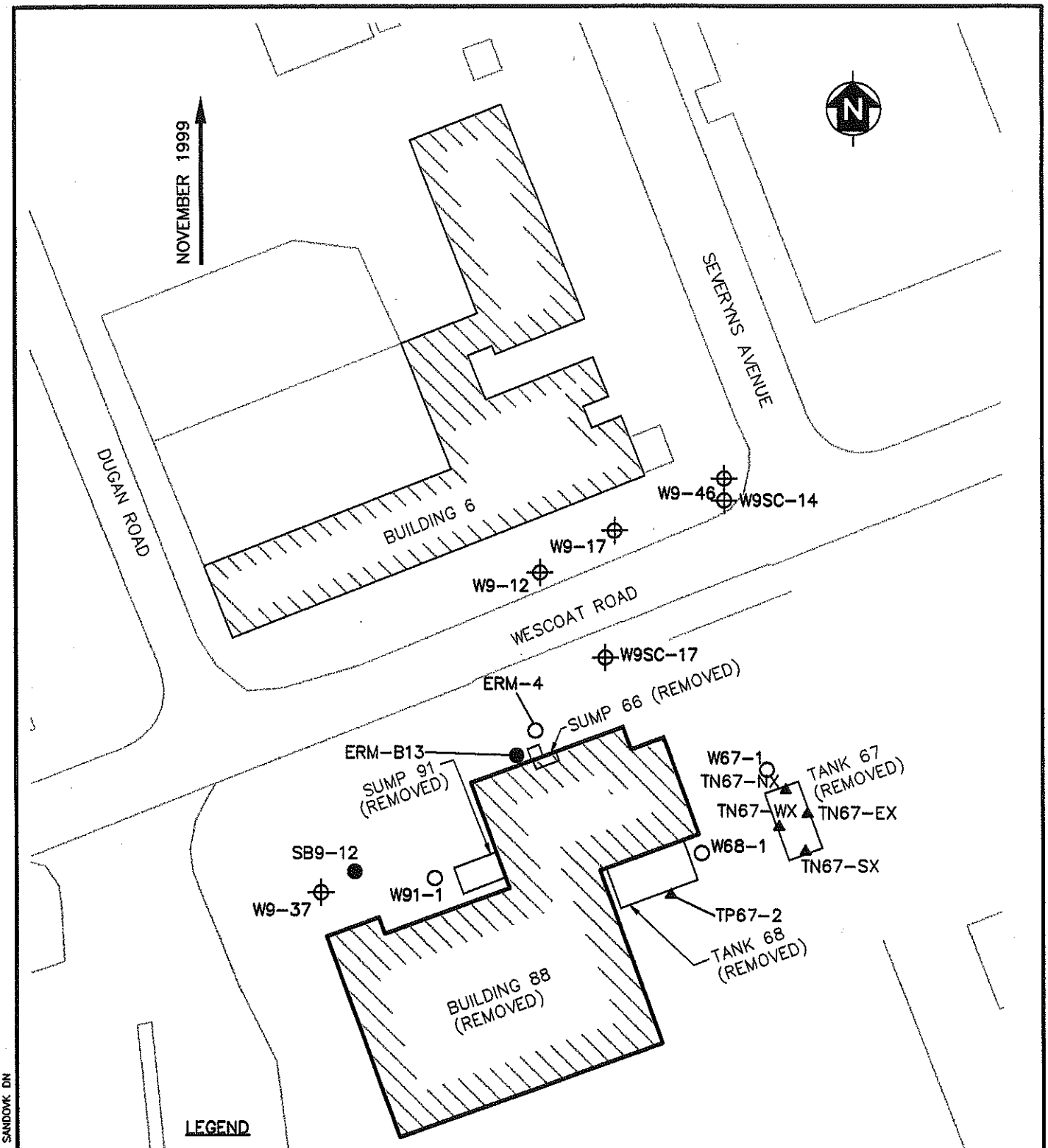
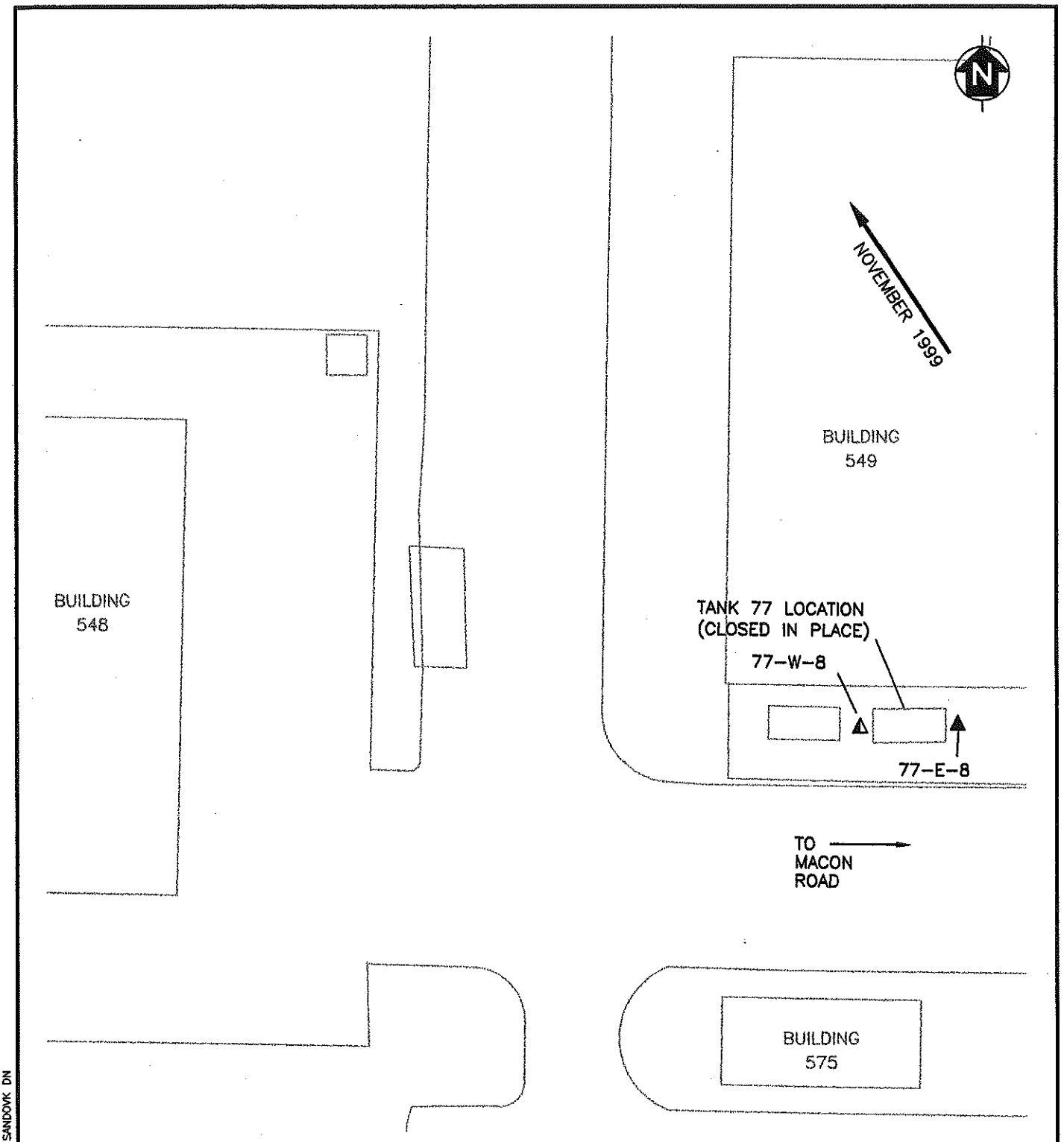


FIRGURE 11
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT
TANK 67

R:\069\226g\0401\ TANK-67.dwg 06/22/2000 SANDOVK DN



LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

▲ GROUNDWATER SAMPLE COLLECTED DURING TANK REMOVAL

15' 0 15' 30'

SCALE: 1" = 30'

FIGURE 12
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 77

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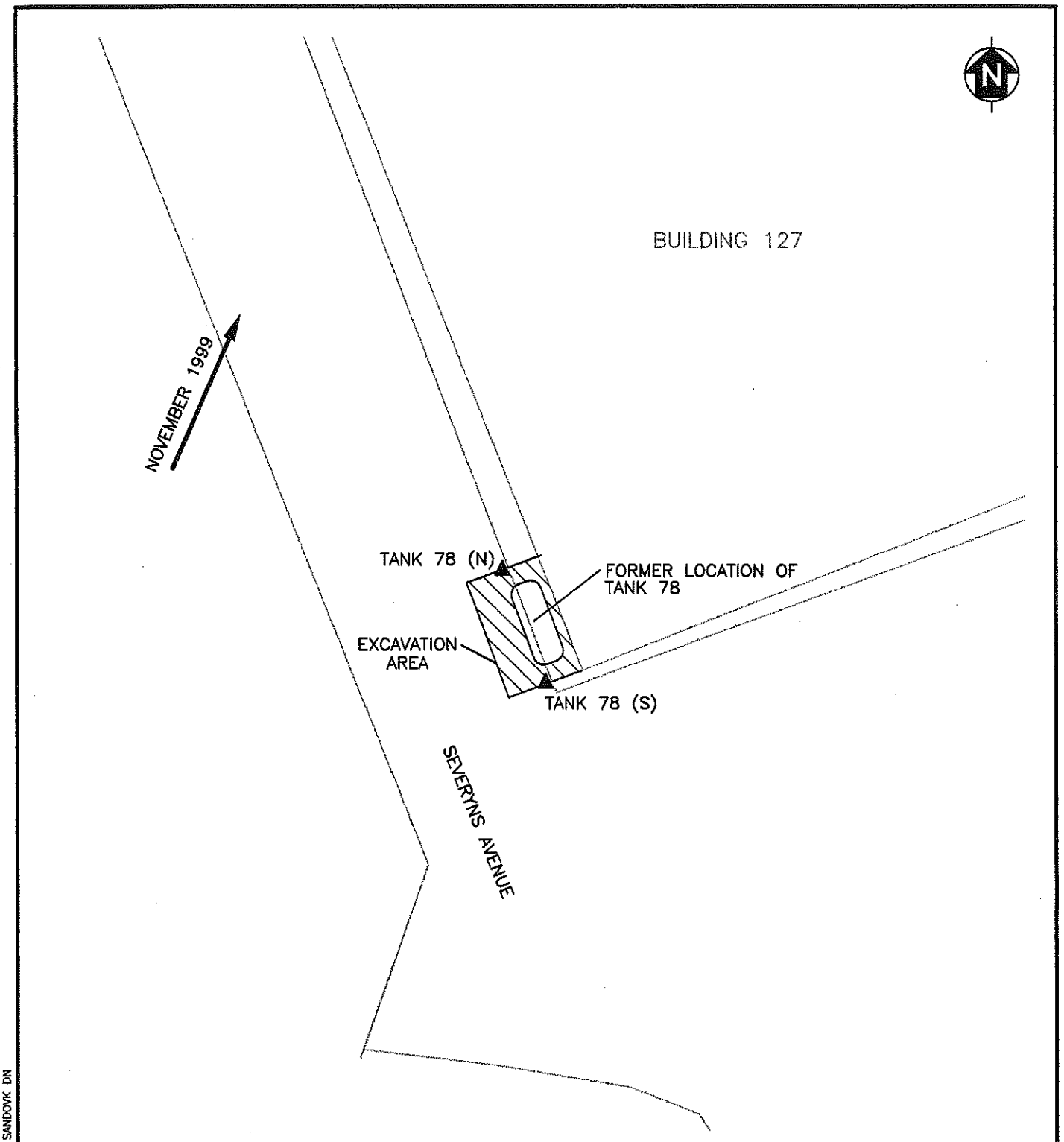


LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

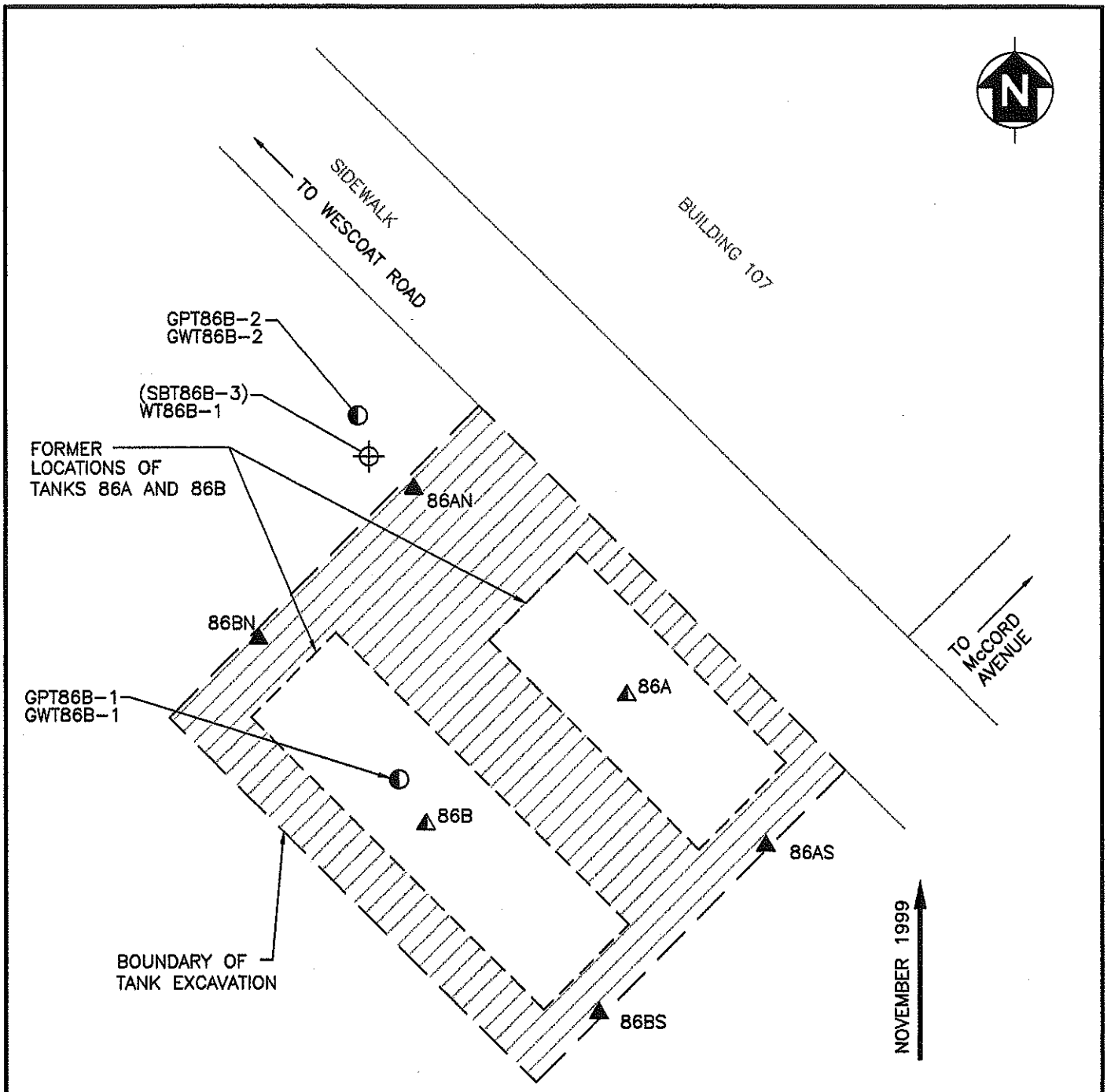
▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

30' 0 30' 60'

SCALE: 1" = 60'

R:\069\226g\0401\ SAMP-T-78.dwg 06/21/2000 SANDOVK DN

FIGURE 13
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 78



LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

▲ WATER SAMPLE COLLECTED DURING TANK REMOVAL

◐ SOIL AND GROUNDWATER SAMPLE LOCATION

⊕ MONITORING WELL LOCATION (SOIL BORING IN PARENTHESES)

4' 0 4' 8'

SCALE: 1" = 8'

FIGURE 14
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANKS 86A AND 86B

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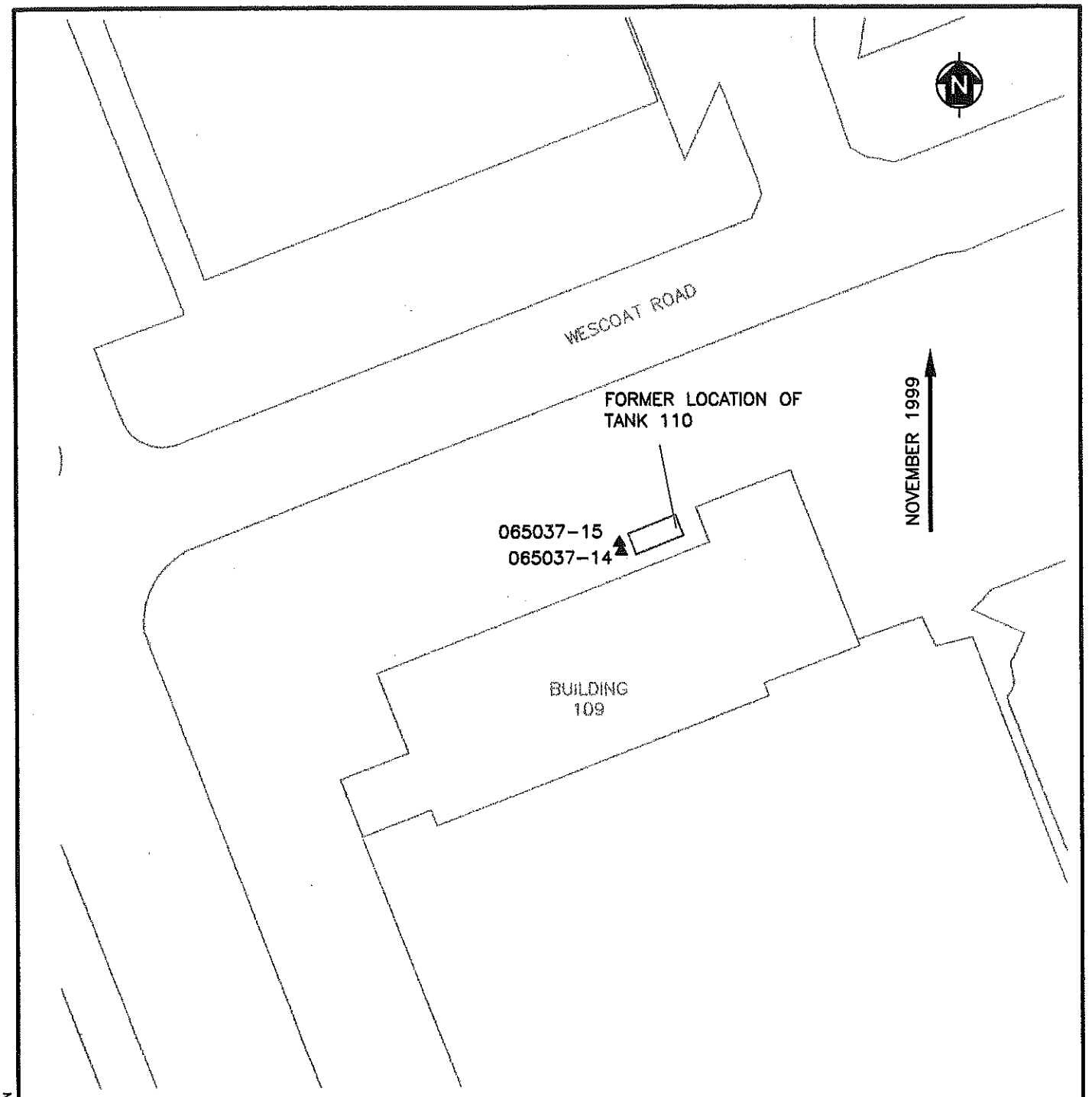

20' 0 20' 40'

SCALE: 1" = 40'

LEGEND

NOVEMBER 1999 → APPROXIMATE DIRECTION OF GROUNDWATER FLOW

▲ SOIL SAMPLE COLLECTED DURING TANK REMOVAL

FIGURE 15
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 110

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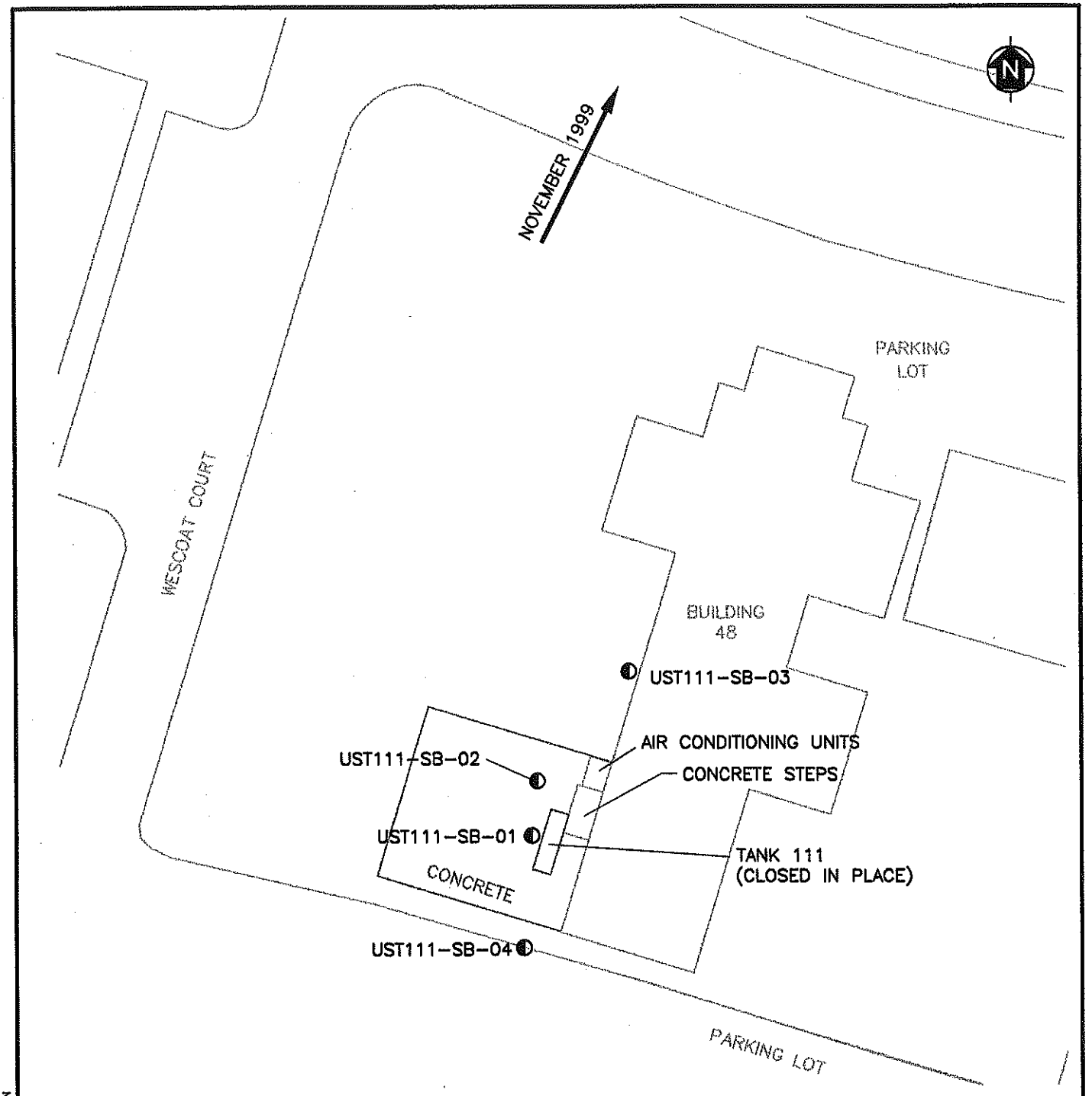

LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SOIL AND GROUNDWATER SAMPLE LOCATION

20' 0 20' 40'

SCALE: 1" = 40'

FIGURE 16
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 111

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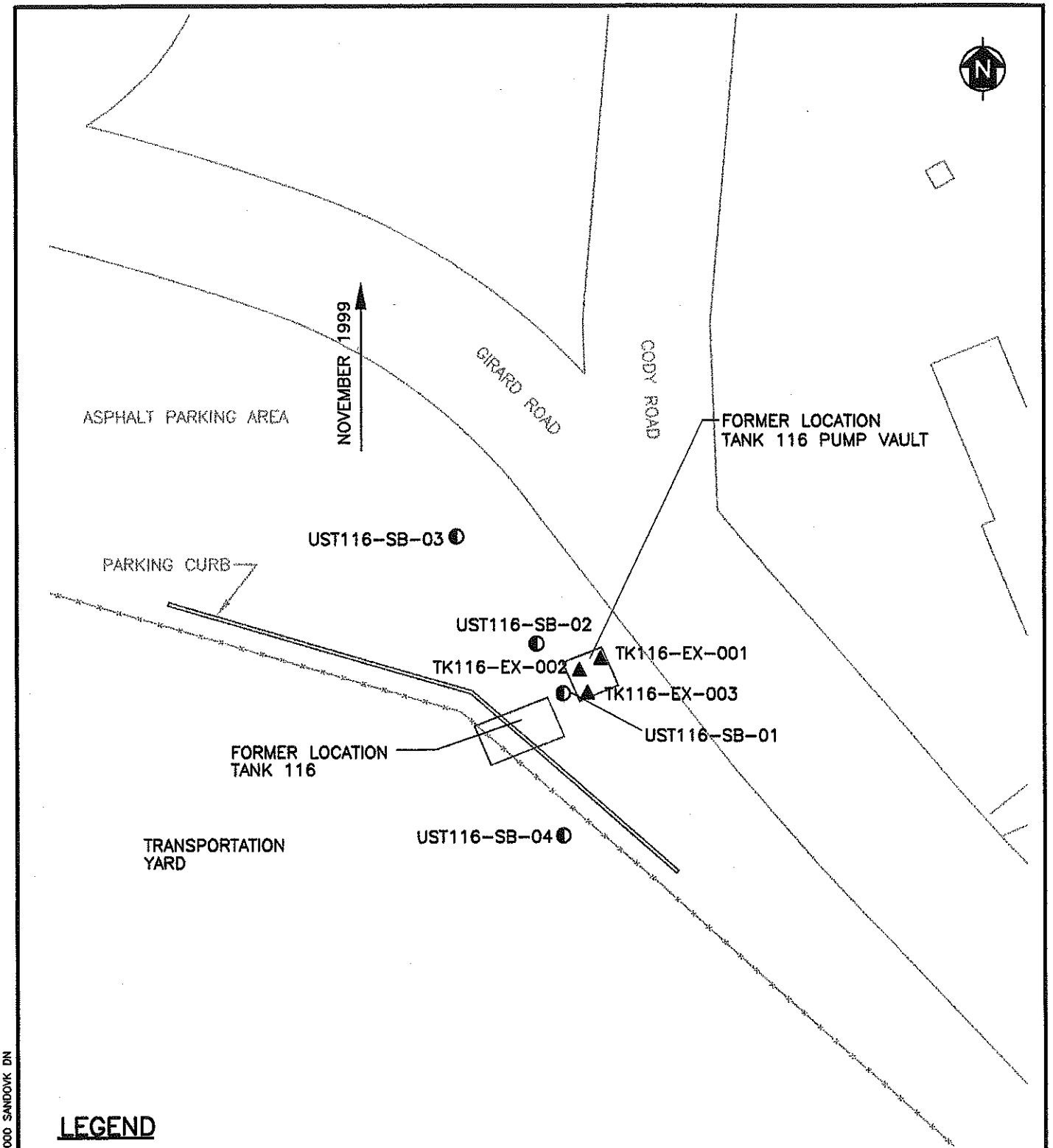

LEGEND

NOVEMBER 1999 — APPROXIMATE DIRECTION OF GROUNDWATER FLOW

◐ SOIL AND GROUNDWATER SAMPLE LOCATION

▲ SOIL SAMPLE COLLECTED DURING TANK/PUMP VAULT REMOVAL

20' 0 20' 40'
SCALE: 1" = 40'

FIGURE 17
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
SAMPLING LOCATIONS AT TANK 116

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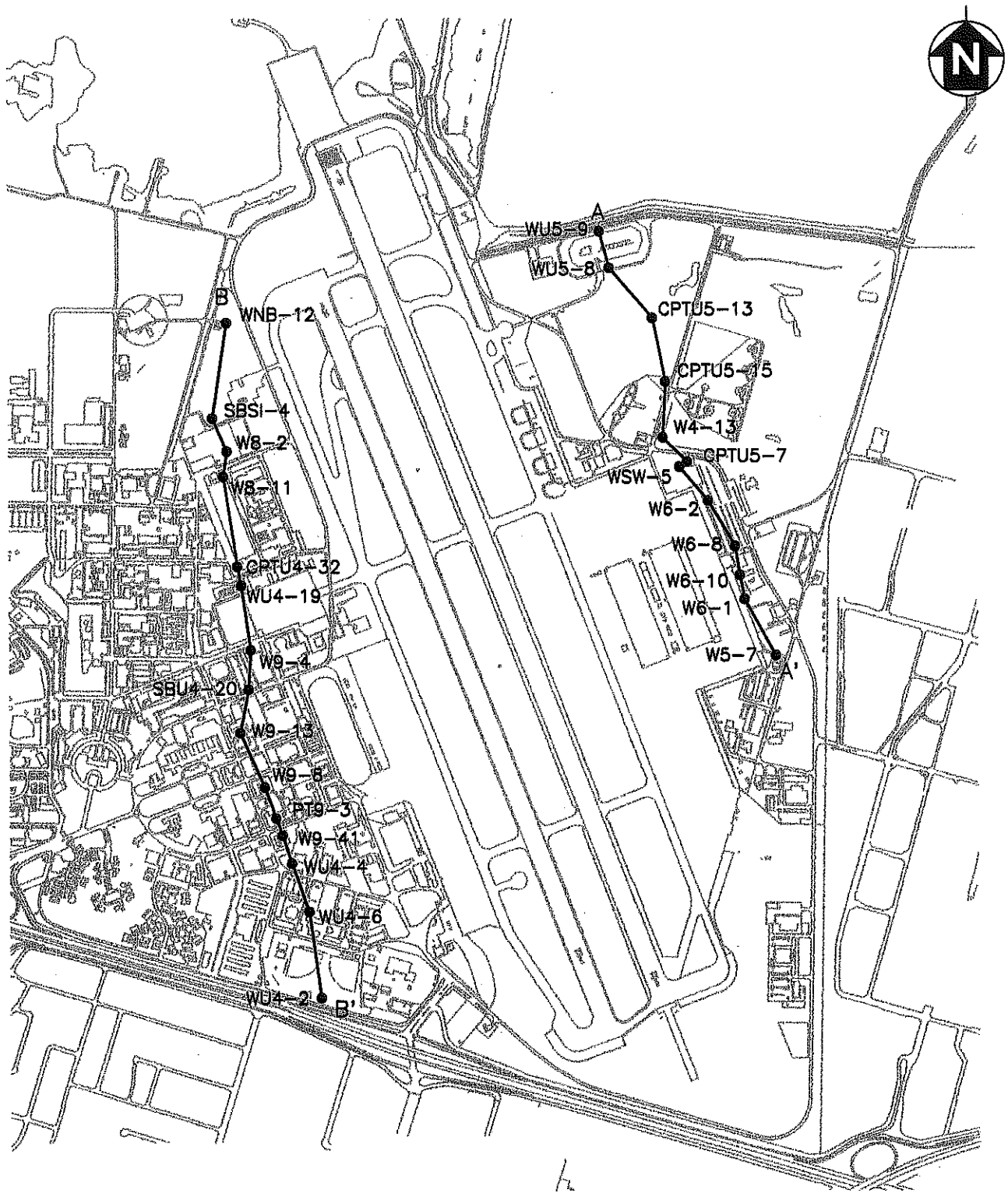

LEGEND

- SOIL LITHOLOGY DATA POINT

A——A' LINE OF CROSS-SECTION

750' 0 750' 1,500'

SCALE: 1" = 1,500'

FIGURE 18
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
GEOLOGIC CROSS-SECTION LOCATION MAP

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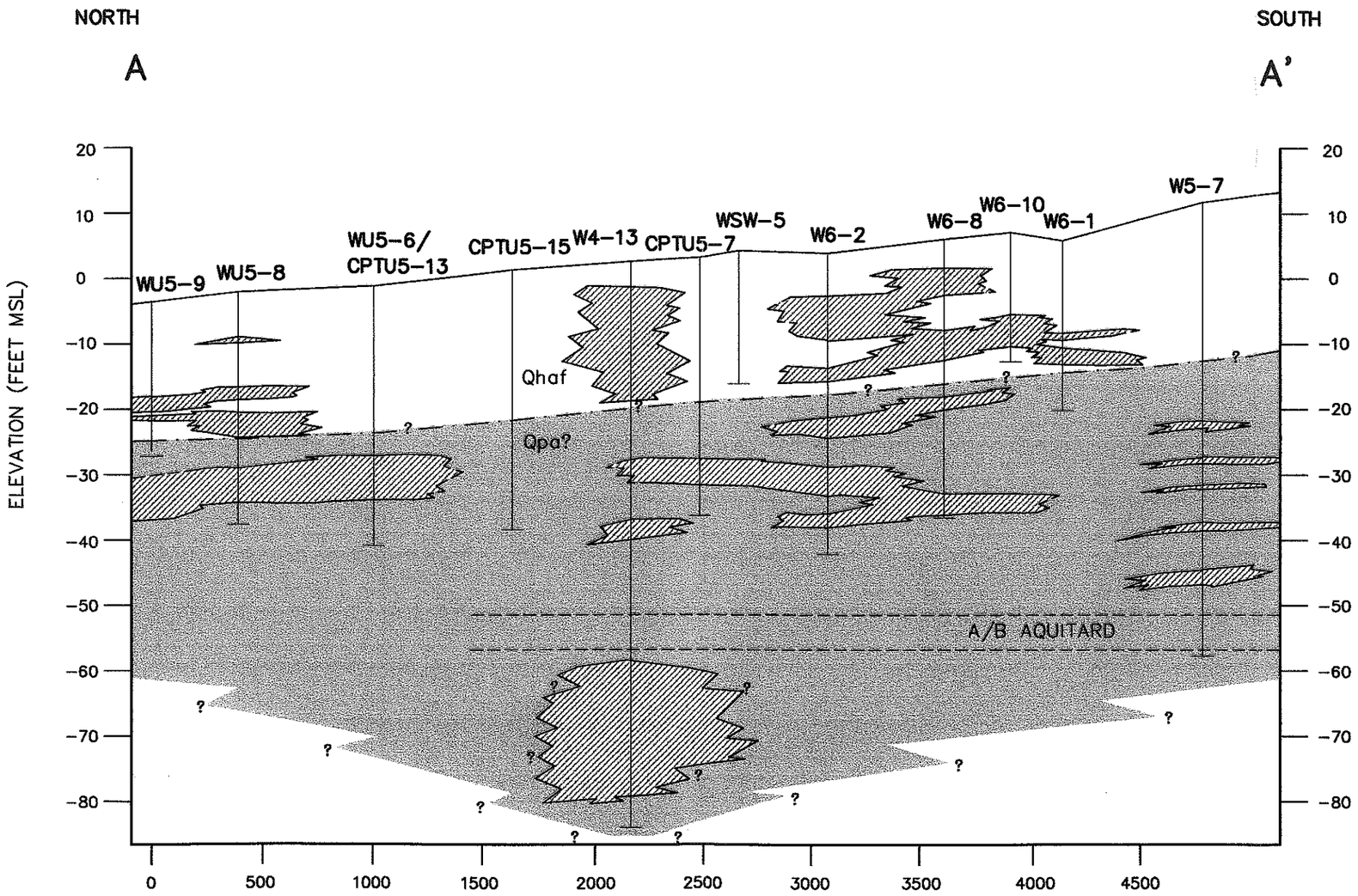

LEGEND

- Qhaf HOLOCENE FINE-GRAINED ALLUVIUM (SILT AND CLAY)
- Qpa LATE PLEISTOCENE ALLUVIUM (INTERBEDDED CLAY, SILT AND SAND)
- GEOLOGIC UNIT BOUNDARY
- HIGHER PERMEABILITY UNITS (SAND, GRAVEL, SILTY AND CLAYEY SAND, SILTY AND CLAYEY GRAVEL)
- HYDROSTRATIGRAPHIC UNIT BOUNDARY (ESTIMATED)

10' 0 10' 20'
VERTICAL SCALE: 1" = 20'

300' 0 300' 600'
HORIZONTAL SCALE: 1" = 600'

NOTE: HOLOCENE-PLEISTOCENE BOUNDARY BASED ON PALEONTOLOGIC DATA PRESENTED IN BROWN, J.L., 1978.

FIGURE 19
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
GEOLOGIC CROSS-SECTION A-A'

R:\069\226g\0401\ Sec-aa.dwg 06/22/2000 SANDOVK DN

NORTH

SOUTH

B

B'

ELEVATION (FEET MSL)

30
20
10
0
−10
−20
−30
−40
−50
−60
−70
−80

WNB−12
SBSI−4
W8−2
W8−11
CPTU4−32
WU4−19
W9−4
SBU4−20
W9−13
W9−8
PT9−3
W9−41
WU4−4
WU4−6
WU4−2

Qhaf
Qpa?
A AQUIFER
A/B AQUITARD
B AQUIFER

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000

LEGEND

Qhaf HOLOCENE FINE−GRAINED ALLUVIUM (SILT AND CLAY)

Qpa LATE PLEISTOCENE ALLUVIUM (INTERBEDDED CLAY, SILT, AND SAND)

— · — ? — GEOLOGIC UNIT BOUNDARY

HIGHER PERMEABILITY UNITS (SAND, GRAVEL, SILTY AND CLAYEY SAND, SILTY AND CLAYEY GRAVEL)

– – – – – – – HYDROSTRATIGRAPHIC UNIT BOUNDARY (ESTIMATED)

10' 0 10' 20'
VERTICAL SCALE: 1" = 20'

300' 0 300' 600'
HORIZONTAL SCALE: 1" = 600'

NOTE: HOLOCENE−PLEISTOCENE BOUNDARY BASED ON PALEONTOLOGIC DATA PRESENTED IN BROWN, J.L., 1978.

FIGURE 20
MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
GEOLOGIC CROSS−SECTION B−B'

R:\069\226g\0401\ Sec-bb.dwg 06/22/2000 SANDOVK DN

TABLES

TABLE 1

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
DATA QUALITY OBJECTIVES

DQO STEP	DESCRIPTION	DETAILS
STEP 1	**State the Problem**	Petroleum sites at MFA contained petroleum products that may have been released to the environment. Releases may have resulted in petroleum contaminants in soil and groundwater; therefore, petroleum sites require evaluation to determine if a release occurred and, if so, if petroleum constituent concentrations exceed action levels.
STEP 2	**Identify the Decisions**	• Petroleum Release: Has a petroleum release occurred? • Source Removal: Do concentrations of petroleum constituents in soil or groundwater exceed action levels? • MTBE: Did the tank contain gasoline and is MTBE analysis needed? If so, are MTBE concentrations in groundwater above 13 µg/L?
STEP 3	**Identify the Inputs to the Decisions**	• Historical site and tank information • Soil and groundwater data from previous investigations • Regulatory guidance
STEP 4	**Define Study Boundaries**	The study boundaries are defined as the area surrounding the tanks that may have been affected by a petroleum release. Lateral boundaries: Release area extending 120 feet downgradient. Vertical boundaries: Ground surface to the total depth of the A1-aquifer zone. Temporal boundaries: Samples collected after 1988.
STEP 5	**Develop Decision Rules**	For the evaluation process, the following decision rules will be observed: 1. Petroleum release: If petroleum is observed in the excavation, soil or groundwater results indicate the presence of petroleum constituents, or holes or cracks were observed in the tank or tank piping, then it is assumed that a petroleum release has occurred and the next decision rule will be evaluated. If a petroleum release is not evidenced, one sample for MTBE will be evaluated. 2. Action levels: If soil and groundwater results do not exceed the action levels, then the next decision rule will be evaluated. If soil and groundwater results exceed the action levels, then the petroleum site will be evaluated further in an appendix to the TM. 3. MTBE: If MTBE analysis is necessary (see item 1) and if the concentration of MTBE exceeds 13 µg/L in a groundwater sample, then further evaluation be required. If the MTBE concentration is below 13 µg/L, then the site will be recommended for closure.
STEP 6	**Specify Limits on Decision Errors**	1. Analytical uncertainties will be checked through established QA/QC procedures. 2. The proposed sampling design is biased toward areas of known release. Because the sampling method is a non-probability-based design, statistical methods cannot be applied to reduce uncertainty.
STEP 7	**Optimize Sampling Design**	Samples were collected on a biased basis to identify the presence of petroleum releases using site-specific information.

Notes:

MFA Moffett Federal Airfield
MTBE Methyl tertiary butyl ether
µg/L Micrograms per liter
QA/QC Quality assurance and quality control
TM Basewide Petroleum Site Evaluation Technical Memorandum prepared by Tetra Tech EM Inc. October 2, 1998

TABLE 2

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
LOW-RISK CRITERIA CHECKLIST

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Tank Number	Has the leak been stopped and have ongoing sources, including free product, been removed or remediated?	Has the site has been adequately characterized?	Does little or no groundwater impact exist and are contaminants found below action levels?	Are water wells, deeper drinking water aquifers, surface water, or other sensitive receptors likely to be impacted?	Does the site present significant risk to human health?	Does the site present significant risk to the environment?
15	Yes	Yes	Yes	No	No[1]	No
18	Yes	Yes	Yes	No	No[1]	No
22	Yes	Yes	Yes	No	No[1]	No
27	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed
28	Yes	Yes	Yes	No	No[1]	No
30	Yes	Yes	Yes	No	No[1]	No
31	Yes	Yes	Yes	No	No[1]	No
51	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed
55	Yes	Yes	Yes	No	No[1]	No
64	Yes	Yes	Yes	No	No[1]	No
65	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed
67	Yes	Yes	Yes	No	No[1]	No
77	Yes	Yes	Yes	No	No[1]	No
78	Yes	Yes	Yes	No[1]	No[1]	No
86A	Yes	Yes	Yes	No	No[1]	No
86B	Yes	Yes	Yes	No	No[1]	No
110	Yes	Yes	Yes	No	No[1]	No
111	Yes	Yes	Yes	No	No[1]	No
112	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed
116	Yes	Yes	Yes	No	No[1]	No
123	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed	Tank never existed

Notes:

[1] Soil and groundwater concentrations do not exceed set action levels for petroleum site evaluations; therefore, a human health risk assessment was not performed.

TABLE 3

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 15
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Chemical Name: BENZENE				
Tank 15 North	6	18-Dec-92	0.005	U
Tank 15 South	6	18-Dec-92	0.005	U
Tank 15 Pipe	6	18-Dec-92	0.005	U
TN15-S-001	6	07-Jul-93	0.005	U
TN15-S-002	6	07-Jul-93	0.005	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS				
Tank 15 North	6	18-Dec-92	4,400	
Tank 15 South	6	18-Dec-92	1.3	
Tank 15 Pipe	6	18-Dec-92	1.0	U
TN15-S-001	6	07-Jul-93	0.005	U
TN15-S-002	6	07-Jul-93	0.005	U
Chemical Name: ETHYLBENZENE				
Tank 15 North	6	18-Dec-92	0.014	
Tank 15 South	6	18-Dec-92	0.005	U
Tank 15 Pipe	6	18-Dec-92	0.005	U
TN15-S-001	6	07-Jul-93	0.005	U
TN15-S-002	6	07-Jul-93	0.005	U
Chemical Name: TOLUENE				
Tank 15 North	6	18-Dec-92	0.0057	
Tank 15 South	6	18-Dec-92	0.005	U
Tank 15 Pipe	6	18-Dec-92	0.005	U
TN15-S-001	6	07-Jul-93	0.005	U
TN15-S-002	6	07-Jul-93	0.005	U
Chemical Name: XYLENE				
Tank 15 North	6	18-Dec-92	0.15	
Tank 15 South	6	18-Dec-92	0.005	U
Tank 15 Pipe	6	18-Dec-92	0.005	U
TN15-S-001	6	07-Jul-93	0.005	U
TN15-S-002	6	07-Jul-93	0.005	U

Notes:

U - Analyzed for but not detected (reported value is detection limit)
1 - Feet below ground surface (exact depth unknown)

TABLE 4

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 18
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth	Sample Date	Concentration
Chemical Name: BENZENE			
18A - 065037-12	Unknown	05-Apr-94	0.1 U
18B - 065037-13	Unknown	05-Apr-94	0.1 U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
18A - 065037-12	Unknown	12-Apr-94	1 U
18B - 065037-13	Unknown	12-Apr-94	5
Chemical Name: ETHYLBENZENE			
18A - 065037-12	Unknown	05-Apr-94	0.1 U
18B - 065037-13	Unknown	05-Apr-94	0.1 U
Chemical Name: TOLUENE			
18A - 065037-12	Unknown	05-Apr-94	0.1 U
18B - 065037-13	Unknown	05-Apr-94	0.1 U
Chemical Name: XYLENE			
18A - 065037-12	Unknown	05-Apr-94	0.1 U
18B - 065037-13	Unknown	05-Apr-94	0.1 U

Notes:

U - Analyzed for but not detected (reported value is detection limit)

TABLE 5

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 18
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: 2-METHYLNAPHTHALENE

Location - Sample ID	Sample Date	Concentration
W05-09 - MOF0167	17-OCT-88	10.0 U
W05-09 - MOF0259	04-NOV-88	10.0 U
W05-09 - MOF0371	13-DEC-88	10.0 U
W05-09 - MOF0428	11-JAN-89	10.0 U
W05-09 - MOF0597	13-APR-89	10.0 U
W05-09 - MOF0775	18-JUL-89	10.0 U

Chemical Name: BENZENE

Location - Sample ID	Sample Date	Concentration
W05-09 - MOF0167	17-OCT-88	5.0 U
W05-09 - MOF0259	04-NOV-88	5.0 U
W05-09 - MOF0371	13-DEC-88	5.0 U
W05-09 - MOF0428	11-JAN-89	5.0 U
W05-09 - MOF0597	13-APR-89	5.0 U
W05-09 - MOF0775	18-JUL-89	5.0 U
W05-09 - MOF1498	24-APR-91	5.0 U
W05-09 - MOF1856	21-OCT-91	10.0 UJ
W05-09 - MOF2015	15-JAN-92	10.0 U
W05-09 - MOF2115	13-APR-92	10.0 U
W05-09 - MOF2123 (Dup)	14-APR-92	10.0 U

Chemical Name: BENZO(A)PYRENE

Location - Sample ID	Sample Date	Concentration
W05-09 - MOF0167	17-OCT-88	10.0 U
W05-09 - MOF0259	04-NOV-88	10.0 U
W05-09 - MOF0371	13-DEC-88	10.0 U
W05-09 - MOF0428	11-JAN-89	10.0 U
W05-09 - MOF0597	13-APR-89	10.0 U
W05-09 - MOF0775	18-JUL-89	10.0 U

Chemical Name: ETHYLBENZENE

Location - Sample ID	Sample Date	Concentration
W05-09 - MOF0167	17-OCT-88	5.0 U
W05-09 - MOF0259	04-NOV-88	5.0 U
W05-09 - MOF0371	13-DEC-88	5.0 U
W05-09 - MOF0428	11-JAN-89	5.0 U
W05-09 - MOF0597	13-APR-89	5.0 U
W05-09 - MOF0775	18-JUL-89	5.0 U
W05-09 - MOF1498	24-APR-91	5.0 U
W05-09 - MOF1856	21-OCT-91	10.0 UJ
W05-09 - MOF2015	15-JAN-92	10.0 U
W05-09 - MOF2115	13-APR-92	10.0 U
W05-09 - MOF2123 (Dup)	14-APR-92	10.0 U

Report: mof_its.rdf

TABLE 5 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 18
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: JP-5

Location - Sample ID	Sample Date	Concentration	
W05-09 - MOF0167	17-OCT-88	0.25	U
W05-09 - MOF0259	04-NOV-88	0.25	U
W05-09 - MOF0371	13-DEC-88	0.25	U
W05-09 - MOF0428	11-JAN-89	0.25	U
W05-09 - MOF0597	13-APR-89	0.25	U
W05-09 - MOF0775	18-JUL-89	0.25	U
W05-09 - MOF1498	24-APR-91	50.0	U
W05-09 - MOF1856	21-OCT-91	250.0	UJ
W05-09 - MOF2015	15-JAN-92	250.0	U
W05-09 - MOF2115	13-APR-92	250.0	U
W05-09 - MOF2123 (Dup)	14-APR-92	250.0	U

Chemical Name: NAPHTHALENE

Location - Sample ID	Sample Date	Concentration	
W05-09 - MOF0167	17-OCT-88	10.0	U
W05-09 - MOF0259	04-NOV-88	10.0	U
W05-09 - MOF0371	13-DEC-88	10.0	U
W05-09 - MOF0428	11-JAN-89	10.0	U
W05-09 - MOF0597	13-APR-89	10.0	U
W05-09 - MOF0775	18-JUL-89	10.0	U

Chemical Name: TOLUENE

Location - Sample ID	Sample Date	Concentration	
W05-09 - MOF0167	17-OCT-88	5.0	U
W05-09 - MOF0259	04-NOV-88	5.0	U
W05-09 - MOF0371	13-DEC-88	5.0	U
W05-09 - MOF0428	11-JAN-89	5.0	U
W05-09 - MOF0597	13-APR-89	5.0	U
W05-09 - MOF0775	18-JUL-89	5.0	U
W05-09 - MOF1498	24-APR-91	5.0	U
W05-09 - MOF1856	21-OCT-91	10.0	UJ
W05-09 - MOF2015	15-JAN-92	10.0	U
W05-09 - MOF2115	13-APR-92	10.0	U
W05-09 - MOF2123 (Dup)	14-APR-92	10.0	U

Chemical Name: XYLENES (TOTAL)

Location - Sample ID	Sample Date	Concentration	
W05-09 - MOF0167	17-OCT-88	5.0	U
W05-09 - MOF0259	04-NOV-88	5.0	U
W05-09 - MOF0371	13-DEC-88	5.0	U
W05-09 - MOF0428	11-JAN-89	5.0	U
W05-09 - MOF0597	13-APR-89	5.0	U
W05-09 - MOF0775	18-JUL-89	5.0	U

TABLE 5 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 18
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: XYLENES (TOTAL)

Location - Sample ID	Sample Date	Concentration	
W05-09 - MOF1498	24-APR-91	5.0	U
W05-09 - MOF1856	21-OCT-91	10.0	UJ
W05-09 - MOF2015	15-JAN-92	10.0	U
W05-09 - MOF2115	13-APR-92	10.0	U
W05-09 - MOF2123 (Dup)	14-APR-92	10.0	U

Notes:

Dup - Duplicate sample

TABLE 6

MOFFETT FEDERAL AIRFIELD
PHASE I TANK SITE CLOSURE REPORT
TANK 22
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name: BENZENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Tank 22E	6	18-Dec-92	0.005	U
Tank 22W	6	18-Dec-92	0.005	U
TN22-SL-S-001	2	07-Jul-93	0.005	U
TN22-SL-N-001	2	07-Jul-93	0.005	U
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	0.006	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	0.006	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	0.006	UJ-S
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	0.006	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	0.00061	U

Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Tank 22E	6	18-Dec-92	2.4	
Tank 22W	6	18-Dec-92	130	
TN22-SL-S-001	2	07-Jul-93	1	U
TN22-SL-N-001	2	07-Jul-93	1.1	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	1.2	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	1.2	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	12	U

Chemical Name: ETHYLBENZENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Tank 22E	6	18-Dec-92	0.005	U
Tank 22W	6	18-Dec-92	0.005	U
TN22-SL-S-001	6	07-Jul-93	0.005	U
TN22-SL-N-001	6	07-Jul-93	0.005	U
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	0.006	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	0.006	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	0.006	UJ-S
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	0.006	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	0.00061	U

Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	1.2	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	1.2	UJ-S
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	1.2	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	0.61	U

TABLE 6 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 22
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name:	JP5-RANGE ORGANIC COMPOUNDS			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	1.2	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	1.2	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	12	U
Chemical Name:	**KEROSENE-RANGE ORGANIC COMPOUNDS**			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	1.2	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	1.2	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	12	U
Chemical Name:	**MOTOR OIL-RANGE ORGANIC COMPOUNDS**			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	12	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	12	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	12	U
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	12	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	12	U
Chemical Name:	**OTHER HEAVY TPH COMPONENTS**			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	1.2	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	38	YJ-S
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	1.2	U
Chemical Name:	**OTHER LIGHT TPH COMPONENTS**			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	1.2	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	1.2	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	1.2	UJ-S
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	1.2	U
Chemical Name:	**TOLUENE**			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Tank 22E	6	18-Dec-92	0.005	U
Tank 22W	6	18-Dec-92	0.005	U
TN22-SL-S-001	2	07-Jul-93	0.005	U
TN22-SL-N-001	2	07-Jul-93	0.005	U
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	0.006	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	0.006	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	0.006	UJ-S

TABLE 6 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 22
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name: TOLUENE				
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	0.006	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	0.00061	U
Chemical Name: XYLENE				
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Tank 22E	6	18-Dec-92	0.005	U
Tank 22W	6	18-Dec-92	0.005	U
TN22-SL-S-001	2	07-Jul-93	0.005	U
TN22-SL-N-001	2	07-Jul-93	0.005	U
GPT22-1 - GPT22-1(5.1)	5.1	29-Jun-95	0.006	U
GPT22-1 - GPT22-1(6.7)	6.7	29-Jun-95	0.006	U
GPT22-2 - GPT22-2(5.4)	5.4	29-Jun-95	0.006	UJ-S
GPT22-2 - GPT22-2(7.0)	7	29-Jun-95	0.006	U
SBT22-1 - SBT22-1(8.0)	8	8-Aug-95	0.00061	U

Notes:

J - The analyte was postively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
S - Value is estimaed because the surrogate recovery was out of quality control limits.
U - Analyzed for but not detected (reported value is detection limit)
1 - Feet below ground surface (exact depth unknown)

TABLE 7

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 22
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: BENZENE			
Location/Sample ID	Sample Date	Concentration	
GPT22-2 - GWT22-2	6-Jul-95	0.5	U
WT22-1 - GWT22-1	6-Jul-95	0.5	U
WT22-1 - WT22-1	11-Aug-95	0.5	U
WT22-1 - WT22-1	23-Feb-96	0.5	U
WT22-1 - WT22-1	21-Aug-96	0.5	U
WT22-1 - WT22-1	20-Nov-96	0.5	U
WT22-1 - WT22-1	20-Nov-96	50	U
WT22-1 - WT22-1	31-Aug-99	1	U
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	0.5	U
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	0.5	U
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	0.5	U
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	50	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
Location/Sample ID	Sample Date	Concentration	
GPT22-2 - GWT22-2	6-Jul-95	50	U
WT22-1 - WT22-1	11-Aug-95	280	
WT22-1 - WT22-1	23-Feb-96	130	Z
WT22-1 - WT22-1	21-Aug-96	270	Y
WT22-1 - WT22-1	20-Nov-96	260	YZ
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	130	Z
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	300	Y
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	260	YZ
Chemical Name: ETHYLBENZENE			
Location/Sample ID	Sample Date	Concentration	
GPT22-2 - GWT22-2	6-Jul-95	0.5	U
WT22-1 - GWT22-1	6-Jul-95	0.5	U
WT22-1 - WT22-1	11-Aug-95	0.5	U
WT22-1 - WT22-1	23-Feb-96	0.5	U
WT22-1 - WT22-1	21-Aug-96	0.5	U
WT22-1 - WT22-1	21-Aug-96	2	U
WT22-1 - WT22-1	20-Nov-96	0.5	U
WT22-1 - WT22-1	20-Nov-96	50	U
WT22-1 - WT22-1	31-Aug-99	1	U
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	0.5	U
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	0.5	U
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	2	U
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	0.5	U
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	50	U
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS			
Location/Sample ID	Sample Date	Concentration	
GPT22-2 - GWT22-2	6-Jul-95	50	U
WT22-1 - GWT22-1	6-Jul-95	50	U
WT22-1 - WT22-1	11-Aug-95	50	U

TABLE 7 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 22
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Location/Sample ID	Sample Date	Concentration
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS		
WT22-1 - WT22-1	23-Feb-96	37 JZ
WT22-1 - WT22-1	21-Aug-96	50 U
WT22-1 - WT22-1	20-Nov-96	50 U
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	50 U
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	50 U
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	50 U
Chemical Name: JP5-RANGE ORGANIC COMPOUNDS		
GPT22-2 - GWT22-2	6-Jul-95	50 U
WT22-1 - WT22-1	11-Aug-95	100 U
WT22-1 - WT22-1	23-Feb-96	100 U
WT22-1 - WT22-1	21-Aug-96	100 U
WT22-1 - WT22-1	20-Nov-96	100 U
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	100 U
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	100 U
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	100 U
Chemical Name: KEROSENE-RANGE ORGANIC COMPOUNDS		
GPT22-2 - GWT22-2	6-Jul-95	50 U
WT22-1 - WT22-1	11-Aug-95	100 U
WT22-1 - WT22-1	23-Feb-96	100 U
WT22-1 - WT22-1	21-Aug-96	100 U
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	100 U
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	100 U
Chemical Name: METHYL TERTIARY BUTYL ETHER		
WT22-1 - WT22-1	31-Aug-99	10 U
Chemical Name: MOTOR OIL-RANGE ORGANIC COMPOUNDS		
GPT22-2 - GWT22-2	6-Jul-95	500 U
WT22-1 - WT22-1	11-Aug-95	120
WT22-1 - WT22-1	23-Feb-96	300 Z
WT22-1 - WT22-1	21-Aug-96	180 Y
WT22-1 - WT22-1	20-Nov-96	160 ZY
WT22-1 - WT22-99-02 (Dup)	23-Feb-96	370 Z
WT22-1 - WT22-99-02 (Dup)	21-Aug-96	200 Y
WT22-1 - WT22-99-03 (Dup)	20-Nov-96	160 YZ
Chemical Name: OTHER HEAVY TPH COMPONENTS		
GPT22-2 - GWT22-2	6-Jul-95	450 Y
Chemical Name: OTHER LIGHT TPH COMPONENTS		
GPT22-2 - GWT22-2	6-Jul-95	50 U

TABLE 7 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 22
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	OTHER LIGHT TPH COMPONENTS		
Location/Sample ID		Sample Date	Concentration
WT22-1 - GWT22-1		6-Jul-95	50 U
Chemical Name:	**TOLUENE**		
Location/Sample ID		Sample Date	Concentration
GPT22-2 - GWT22-2		6-Jul-95	0.5 U
WT22-1 - GWT22-1		6-Jul-95	0.5 U
WT22-1 - WT22-1		11-Aug-95	0.5 U
WT22-1 - WT22-1		23-Feb-96	0.5 U
WT22-1 - WT22-1		21-Aug-96	0.5 U
WT22-1 - WT22-1		21-Aug-96	2 U
WT22-1 - WT22-1		20-Nov-96	0.2 J
WT22-1 - WT22-1		20-Nov-96	0.32 J
WT22-1 - WT22-1		31-Aug-99	1 U
WT22-1 - WT22-99-02 (Dup)		23-Feb-96	0.5 U
WT22-1 - WT22-99-02 (Dup)		21-Aug-96	0.5 U
WT22-1 - WT22-99-02 (Dup)		21-Aug-96	2 U
WT22-1 - WT22-99-03 (Dup)		20-Nov-96	0.29 J
WT22-1 - WT22-99-03 (Dup)		20-Nov-96	0.5 U
Chemical Name:	**XYLENE**		
Location/Sample ID		Sample Date	Concentration
GPT22-2 - GWT22-2		6-Jul-95	0.5 U
WT22-1 - GWT22-1		6-Jul-95	0.5 U
WT22-1 - WT22-1		11-Aug-95	0.5 U
WT22-1 - WT22-1		23-Feb-96	0.5 U
WT22-1 - WT22-1		21-Aug-96	1 U
WT22-1 - WT22-1		21-Aug-96	2 U
WT22-1 - WT22-1		20-Nov-96	0.5 U
WT22-1 - WT22-1		20-Nov-96	1.5 U
WT22-1 - WT22-1		31-Aug-99	1 U
WT22-1 - WT22-99-02 (Dup)		23-Feb-96	0.5 U
WT22-1 - WT22-99-02 (Dup)		21-Aug-96	1 U
WT22-1 - WT22-99-02 (Dup)		21-Aug-96	2 U
WT22-1 - WT22-99-03 (Dup)		20-Nov-96	0.5 U
WT22-1 - WT22-99-03 (Dup)		20-Nov-96	1.5 U

Notes:

U - Analyzed for but not detected (reported value is detection limit)
J - The analyte was postively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
Y - Pattern does not match calibration fuel pattern, but resembles a fuel pattern.
Z - Unknown single peak or patterns were detected, but did not resemble a typical fuel pattern.

TABLE 8

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 28
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name:	BENZENE		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
S-05-T28	4	06-Jun-91	0.005 U
Chemical Name:	**DIESEL-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
S-05-T28	4	06-Jun-91	10 U
Chemical Name:	**ETHYLBENZENE**		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
S-05-T28	4	06-Jun-91	0.005 U
Chemical Name:	**MOTOR OIL-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
S-05-T28	4	06-Jun-91	16
Chemical Name:	**TOLUENE**		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
S-05-T28	4	06-Jun-91	0.005 U
Chemical Name:	**XYLENE**		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
S-05-T28	4	06-Jun-91	0.005 U

Notes:

1 - Feet below ground surface (exact depth unknown)

TABLE 9

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 55
SOIL DATA
(Concentrations in milligrams per kilogram)

Location - Sample ID	Sample Depth [1]	Sample Date	Concentration
Chemical Name: BENZENE			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	0.00056 U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	49.0
Chemical Name: ETHYLBENZENE			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	0.00056 U
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	0.56 U
Chemical Name: JP5-RANGE ORGANIC COMPOUNDS			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	28.0 U
Chemical Name: KEROSENE-RANGE ORGANIC COMPOUNDS			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	28.0 U
Chemical Name: MOTOR OIL-RANGE ORGANIC COMPOUNDS			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	440.0
Chemical Name: TOLUENE			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	0.00056 U
Chemical Name: XYLENES (TOTAL)			
SBT55-1 - SBT55-1(7.0)	7	08-AUG-95	0.00056 U

Notes:

U - Analyzed for but not detected (reported value is detection limit).
Dup - Duplicate sample
[1] - Feet below ground surface

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TABLE 10

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 55
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: 2-METHYLNAPHTHALENE

Location - Sample ID	Sample Date	Concentration	
WT55-1 - WT55-1	20-FEB-97	10.0	U
WT55-1 - WT55-1	21-MAY-97	10.0	UJ

Chemical Name: BENZENE

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	0.50	U
GWT55-2 - GWT55-2	06-JUL-95	0.50	U
WT55-1 - WT55-1	11-AUG-95	0.50	U
WT55-1 - WT55-1	20-NOV-96	0.50	U
WT55-1 - WT55-1	20-NOV-96	50.0	U
WT55-1 - WT55-1	20-FEB-97	0.50	U
WT55-1 - WT55-1	21-MAY-97	6.0	
WT55-1 - WT55-1	27-AUG-99	1.0	U

Chemical Name: BENZO(A)PYRENE

Location - Sample ID	Sample Date	Concentration	
WT55-1 - WT55-1	20-FEB-97	10.0	U
WT55-1 - WT55-1	21-MAY-97	10.0	UJ

Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	50.0	U
GWT55-2 - GWT55-2	06-JUL-95	50.0	U
WT55-1 - WT55-1	11-AUG-95	62.0	J
WT55-1 - WT55-1	20-NOV-96	420.0	ZY
WT55-1 - WT55-1	21-MAY-97	100.0	U

Chemical Name: ETHYLBENZENE

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	0.50	U
GWT55-2 - GWT55-2	06-JUL-95	0.50	U
WT55-1 - WT55-1	11-AUG-95	0.50	U
WT55-1 - WT55-1	20-NOV-96	0.50	U
WT55-1 - WT55-1	20-NOV-96	50.0	U
WT55-1 - WT55-1	20-FEB-97	0.50	U
WT55-1 - WT55-1	21-MAY-97	0.60	J
WT55-1 - WT55-1	27-AUG-99	1.0	U

Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	50.0	U
GWT55-2 - GWT55-2	06-JUL-95	50.0	U
WT55-1 - WT55-1	11-AUG-95	43.0	J
WT55-1 - WT55-1	20-NOV-96	50.0	U
WT55-1 - WT55-1	20-FEB-97	50.0	U
WT55-1 - WT55-1	21-MAY-97	50.0	U

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TABLE 10 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 55
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: JP5-RANGE ORGANIC COMPOUNDS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	50.0	U
GWT55-2 - GWT55-2	06-JUL-95	50.0	U
WT55-1 - WT55-1	11-AUG-95	100.0	U
WT55-1 - WT55-1	20-NOV-96	100.0	U
WT55-1 - WT55-1	21-MAY-97	500.0	U

Chemical Name: KEROSENE-RANGE ORGANIC COMPOUNDS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	50.0	U
GWT55-2 - GWT55-2	06-JUL-95	50.0	U
WT55-1 - WT55-1	11-AUG-95	100.0	U

Chemical Name: METHYL-TERTIARY-BUTYL ETHER

Location - Sample ID	Sample Date	Concentration	
WT55-1 - WT55-1	21-MAY-97	1.0	U
WT55-1 - WT55-1	27-AUG-99	10.0	U

Chemical Name: MOTOR OIL-RANGE ORGANIC COMPOUNDS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	500.0	U
GWT55-2 - GWT55-2	06-JUL-95	1,600.0	
WT55-1 - WT55-1	11-AUG-95	63.0	J
WT55-1 - WT55-1	20-NOV-96	220.0	ZY
WT55-1 - WT55-1	21-MAY-97	500.0	U

Chemical Name: NAPHTHALENE

Location - Sample ID	Sample Date	Concentration	
WT55-1 - WT55-1	20-FEB-97	10.0	U
WT55-1 - WT55-1	21-MAY-97	10.0	UJ

Chemical Name: OTHER HEAVY TPH COMPONENTS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	50.0	U
GWT55-2 - GWT55-2	06-JUL-95	50.0	U

Chemical Name: OTHER LIGHT TPH COMPONENTS

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	50.0	U
GWT55-2 - GWT55-2	06-JUL-95	50.0	U

Chemical Name: TOLUENE

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	0.50	U
GWT55-2 - GWT55-2	06-JUL-95	0.50	U
WT55-1 - WT55-1	11-AUG-95	0.50	U

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TABLE 10 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 55
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: TOLUENE

Location - Sample ID	Sample Date	Concentration	
WT55-1 - WT55-1	20-NOV-96	0.50	U
WT55-1 - WT55-1	20-NOV-96	50.0	U
WT55-1 - WT55-1	20-FEB-97	0.50	U
WT55-1 - WT55-1	21-MAY-97	1.0	U
WT55-1 - WT55-1	27-AUG-99	1.0	U

Chemical Name: XYLENES (TOTAL)

Location - Sample ID	Sample Date	Concentration	
GWT55-1 - GWT55-1	06-JUL-95	0.50	U
GWT55-2 - GWT55-2	06-JUL-95	0.50	U
WT55-1 - WT55-1	11-AUG-95	1.10	
WT55-1 - WT55-1	20-NOV-96	0.50	U
WT55-1 - WT55-1	20-NOV-96	1.50	U
WT55-1 - WT55-1	20-FEB-97	0.50	U
WT55-1 - WT55-1	20-FEB-97	1.50	U
WT55-1 - WT55-1	21-MAY-97	0.60	J
WT55-1 - WT55-1	27-AUG-99	1.0	U

Notes:

J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Analyzed for but not detected (reported value is detection limit).

Y - Pattern does not match calibration fuel pattern, but resembles a fuel pattern.

Z - Unknown single peaks or patterns were detected, but did not resemble a typical fuel pattern.

Dup - Duplicate sample

Report: mof_ttemi_sum_sw.rdf

TABLE 11

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 64
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Location/Sample ID	Sample Date	Concentration	
Chemical Name: BENZENE			
WNB-9 - WNB-9	16-Mar-92	5	U
WNB-9 - WNB-9	14-Apr-92	10	U
WNB-9 - WNB-9	22-Sep-92	0.5	U
WNB-9 - WNB-9	22-Sep-92	2	U
WNB-9 - WNB-9	30-Nov-92	0.5	U
WNB-9 - WNB-9	30-Nov-92	2	U
WNB-9 - WNB-9	11-Jun-93	0.1	J
WNB-9 - WNB-9	11-Jun-93	0.5	U
WNB-9 - WNB-9	15-Mar-95	2	U
WNB-9 - WNB-9	25-Aug-99	1	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
WNB-9 - WNB-9	22-Sep-92	50	U
WNB-9 - WNB-9	30-Nov-92	50	U
WNB-9 - WNB-9	11-Jun-93	50	U
Chemical Name: ETHYLBENZENE			
WNB-9 - WNB-9	16-Mar-92	5	U
WNB-9 - WNB-9	14-Apr-92	10	U
WNB-9 - WNB-9	22-Sep-92	0.5	U
WNB-9 - WNB-9	22-Sep-92	2	U
WNB-9 - WNB-9	30-Nov-92	0.5	U
WNB-9 - WNB-9	30-Nov-92	2	U
WNB-9 - WNB-9	11-Jun-93	0.5	U
WNB-9 - WNB-9	11-Jun-93	2	U
WNB-9 - WNB-9	15-Mar-95	2	U
WNB-9 - WNB-9	25-Aug-99	1	U
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS			
WNB-9 - WNB-9	22-Sep-92	50	U
WNB-9 - WNB-9	30-Nov-92	50	U
WNB-9 - WNB-9	11-Jun-93	50	U
Chemical Name: JP5-RANGE ORGANIC COMPOUNDS			
WNB-9 - WNB-9	22-Sep-92	50	U
WNB-9 - WNB-9	30-Nov-92	50	U
WNB-9 - WNB-9	11-Jun-93	50	U
Chemical Name: KEROSENE-RANGE ORGANIC COMPOUNDS			
WNB-9 - WNB-9	22-Sep-92	50	U
WNB-9 - WNB-9	30-Nov-92	50	U
WNB-9 - WNB-9	11-Jun-93	50	U
Chemical Name: METHYL TERTIARY BUTYL ETHER			
WNB-9 - WNB-9	25-Aug-99	10	U

TABLE 11 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 64
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	MOTOR OIL-RANGE ORGANIC COMPOUNDS		
Location/Sample ID		Sample Date	Concentration
WNB-9 - WNB-9		22-Sep-92	500 U
WNB-9 - WNB-9		30-Nov-92	500 U
WNB-9 - WNB-9		11-Jun-93	500 U
Chemical Name:	**OTHER HEAVY TPH COMPONENTS**		
Location/Sample ID		Sample Date	Concentration
WNB-9 - WNB-9		22-Sep-92	100 J-N
WNB-9 - WNB-9		30-Nov-92	190 J-N
WNB-9 - WNB-9		11-Jun-93	67
Chemical Name:	**OTHER LIGHT TPH COMPONENTS**		
Location/Sample ID		Sample Date	Concentration
WNB-9 - WNB-9		22-Sep-92	0.5 U
WNB-9 - WNB-9		30-Nov-92	6 UJ-B
WNB-9 - WNB-9		11-Jun-93	0.5 U
Chemical Name:	**TOLUENE**		
Location/Sample ID		Sample Date	Concentration
WNB-9 - WNB-9		16-Mar-92	5 U
WNB-9 - WNB-9		14-Apr-92	10 U
WNB-9 - WNB-9		22-Sep-92	0.5 U
WNB-9 - WNB-9		22-Sep-92	2 U
WNB-9 - WNB-9		30-Nov-92	0.5 U
WNB-9 - WNB-9		30-Nov-92	2 U
WNB-9 - WNB-9		11-Jun-93	0.5 U
WNB-9 - WNB-9		11-Jun-93	2 U
WNB-9 - WNB-9		15-Mar-95	2 U
WNB-9 - WNB-9		25-Aug-99	1 U
Chemical Name:	**XYLENE**		
Location/Sample ID		Sample Date	Concentration
WNB-9 - WNB-9		16-Mar-92	5 U
WNB-9 - WNB-9		14-Apr-92	10 U
WNB-9 - WNB-9		22-Sep-92	0.5 U
WNB-9 - WNB-9		22-Sep-92	2 U
WNB-9 - WNB-9		30-Nov-92	0.5 U
WNB-9 - WNB-9		30-Nov-92	2 U
WNB-9 - WNB-9		11-Jun-93	0.5 U
WNB-9 - WNB-9		11-Jun-93	2 U
WNB-9 - WNB-9		15-Mar-95	2 U
WNB-9 - WNB-9		25-Aug-99	1 U

Notes:

B - Organic analyte found in the associated blank as well as the sample.
J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N - Spiked sample recovery not within control limits.
U - Analyzed for but not detected (report value is detection limit).

TABLE 12

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name: 2-METHYLNAPHTHALENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
EX68-1 - EX68-1(9.0)	9	14-Jul-94	0.4	U
EX68-2 - EX68-2(9.0)	9	14-Jul-94	0.42	U
EX68-2 - EX68-99-6(9.0) (Dup)	9	14-Jul-94	0.42	U
EX68-3 - EX68-3(7.0)	7	27-Jul-94	0.42	U
EX91-1 - EX91-1(5.5)	5.5	14-Jul-94	0.43	U
EX91-2 - EX91-2(5.5)	5.5	14-Jul-94	0.43	U
EX91-3 - EX91-3(5.0)	5	14-Jul-94	0.42	U
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.4	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.41	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.41	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.4	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.41	U
SU-66 - SU-66-S-1-R-1,7(N)	1	7-Jun-90	0.33	U
SU-66 - SU-66-S-1.5-R-1,7(W)	1.5	7-Jun-90	0.39	U
SU-66 - SU-66-S-3.5-R-1,7(B)	3.5	7-Jun-90	0.36	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.4	U
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.4	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.726	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.759	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.726	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.838	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.41	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.41	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.37	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.39	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.41	U

Chemical Name: BENZENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
B13 - B13, 12-12.5	12	7-Mar-87	0.001	U
B13 - B13, 17-17.5	17	7-Mar-87	0.001	U
B13 - B13, 19.5-20	19.5	7-Mar-87	0.001	U
B13 - B13, 7-7.5	7	7-Mar-87	0.001	U
EX68-1 - EX68-1(9.0)	9	14-Jul-94	0.006	U
EX68-1 - EX68-1(9.0)	9	14-Jul-94	0.012	U
EX68-2 - EX68-2(9.0)	9	14-Jul-94	0.006	U
EX68-2 - EX68-2(9.0)	9	14-Jul-94	0.013	U
EX68-2 - EX68-99-6(9.0) (Dup)	9	14-Jul-94	0.006	U
EX68-2 - EX68-99-6(9.0) (Dup)	9	14-Jul-94	0.013	U
EX68-3 - EX68-3(7.0)	7	27-Jul-94	0.006	U
EX68-3 - EX68-3(7.0)	7	27-Jul-94	0.013	U
EX91-1 - EX91-1(5.5)	5.5	14-Jul-94	0.006	U
EX91-1 - EX91-1(5.5)	5.5	14-Jul-94	0.013	U
EX91-2 - EX91-2(5.5)	5.5	14-Jul-94	0.006	U

TABLE 12 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Chemical Name: BENZENE				
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.003	J
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.005	U
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.005	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	0.005	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.005	UJ
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U
Chemical Name: BENZO(A)PYRENE				
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.4	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.41	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.41	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.4	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.41	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.4	U
Chemical Name: BENZO(A)PYRENE				
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.4	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.726	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.759	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.726	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.838	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.41	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.41	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.37	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.39	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.41	U

TABLE 12 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS				
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	100	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	100	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	100	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.1	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	100	U
T67-P - TP1-67-S-7-R-3,4,6	7	7-Jun-90	150	
T67-P - TP2-67-S-7-R-3,4,6	7	7-Jun-90	1	U
TN-67 - (E)TN-67-S-8-R-3,4	8	18-May-90	1	U
TN-67 - (N)TN-67-S-8-R-3,4	8	18-May-90	1	U
TN-67 - (NNW)TN-67-S-8-R-3,4	8	18-May-90	1	U
TN-67 - (S)TN-67-S-8-R-3,4	8	18-May-90	1	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	100	U
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	100	U
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	100	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	100	U
Chemical Name: ETHYLBENZENE				
ERM B13 - B13, 12-12.5	12	7-Mar-87	0.001	U
ERM B13 - B13, 17-17.5	17	7-Mar-87	0.001	U
ERM B13 - B13, 19.5-20	19.5	7-Mar-87	0.001	U
ERM B13 - B13, 7-7.5	7	7-Mar-87	0.001	U
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.005	U
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.005	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	0.005	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U

TABLE 12 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS				
ERM B13 - B13, 12-12.5	12	7-Mar-87	0.1	U
ERM B13 - B13, 17-17.5	17	7-Mar-87	0.5	U
ERM B13 - B13, 19.5-20	19.5	7-Mar-87	0.5	U
ERM B13 - B13, 7-7.5	7	7-Mar-87	0.1	U
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.5	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.5	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.5	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.0005	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.5	U
T67-P - TP1-67-S-7-R-3,4,6	7	7-Jun-90	1	U
T67-P - TP2-67-S-7-R-3,4,6	7	7-Jun-90	1	U
TN-67 - (E)TN-67-S-8-R-3,4	8	18-May-90	1	U
TN-67 - (N)TN-67-S-8-R-3,4	8	18-May-90	1	U
TN-67 - (NNW)TN-67-S-8-R-3,4	8	18-May-90	1	U
TN-67 - (S)TN-67-S-8-R-3,4	8	18-May-90	1	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	0.5	UJ
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	0.5	UJ
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	0.5	UJ
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.5	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.5	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.5	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.5	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.5	U
Chemical Name: KEROSENE-RANGE ORGANIC COMPOUNDS				
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	100	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	100	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	100	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.1	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	100	U
T67-P - TP1-67-S-7-R-3,4,6	7	7-Jun-90	10	U
T67-P - TP2-67-S-7-R-3,4,6	7	7-Jun-90	10	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	25	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	25	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	25	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	25	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	50	U
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	50	U
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	50	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	100	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	100	U

TABLE 12 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
Chemical Name: MOTOR OIL-RANGE ORGANIC COMPOUNDS				
T67-P - TP1-67-S-7-R-3,4,6	7	7-Jun-90	10	U
T67-P - TP2-67-S-7-R-3,4,6	7	7-Jun-90	10	U
Chemical Name: NAPHTHALENE				
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.4	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.41	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.41	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.4	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.41	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.4	U
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.4	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.726	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.759	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.726	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.838	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.41	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.41	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.37	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.39	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.41	U
Chemical Name: TOLUENE				
ERM B13 - B13, 12-12.5	12	7-Mar-87	0.002	U
ERM B13 - B13, 17-17.5	17	7-Mar-87	0.002	U
ERM B13 - B13, 19.5-20	19.5	7-Mar-87	0.002	U
ERM B13 - B13, 7-7.5	7	7-Mar-87	0.002	U
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.011	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.012	
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.047	
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.014	
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.006	UJ
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	0.003	UJ
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	0.008	UJ
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.003	UJ
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.009	J
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U

TABLE 12 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name: XYLENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
ERM B13 - B13, 12-12.5	12	7-Mar-87	0.001	U
ERM B13 - B13, 17-17.5	17	7-Mar-87	0.001	U
ERM B13 - B13, 19.5-20	19.5	7-Mar-87	0.001	U
ERM B13 - B13, 7-7.5	7	7-Mar-87	0.001	U
SB68-1 - SB-68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-25.5-R-1,2,3,4	25.5	6-Sep-90	0.005	U
SB68-1 - SB-68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U
T67-P - TP1-67-S-7-R-1,7	7	7-Jun-90	0.005	U
T67-P - TP2-67-S-7-R-1,7	7	7-Jun-90	0.005	U
TN-67 - (E) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (N) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (NNW) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
TN-67 - (S) TN-67-S-8-R-1,6,7	8	18-May-90	0.005	U
W67-1 - WT-67-1(A)-S-2.5-R-1,3,4	2.5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-5.0-R-1,3,4	5	30-Aug-90	0.005	U
W67-1 - WT-67-1(A)-S-7.5-R-1,3,4	7.5	30-Aug-90	0.005	U
W68-1 - WT68-1(A)-S-12.5-R-1,2,3,4	12.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-17.5-R-1,2,3,4	17.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-2.5-R-1,2,3,4	2.5	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-25-R-1,2,3,4	25	6-Sep-90	0.005	U
W68-1 - WT68-1(A)-S-7.5-R-1,2,3,4	7.5	6-Sep-90	0.005	U

Notes:

U - Analyzed but not detected (reported value is a detection limit).

J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

1 - Feet below ground surface

TABLE 13

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Location/Sample ID	Sample Date	Concentration	
Chemical Name: 2-METHYLNAPHTHALENE			
GW68-1 - GW68-1	14-Jul-94	10	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	10	U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	20	U
W91-1 - W91-001(27.5)	18-Jun-92	10	U
Chemical Name: BENZENE			
ERM-4 - ERM-4	10-Sep-92	0.5	U
ERM-4 - ERM-4	10-Sep-92	400	U
ERM-4 - ERM-4	18-May-93	0.5	U
ERM-4 - ERM-4	18-May-93	50	U
ERM-4 - ERM-4	17-Sep-93	250	U
ERM-4 - ERM-4 (3/20/87)	20-Mar-87	0.5	U
ERM-4 - ERM-4(13.0)	19-Jul-91	0.5	U
ERM-4 - ERM-4(13.0)	19-Jul-91	1000	U
GW68-1 - GW68-1	14-Jul-94	0.2	J
GW68-1 - GW68-1	14-Jul-94	0.5	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	0.2	J
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	0.5	U
TN-67 - TN-67-W1-R-07-1	15-May-90	5	U
W67-1 - W67-1	15-Nov-91	0.3	U
W67-1 - W67-1	15-Nov-91	50	U
W67-1 - W67-1	4-Mar-92	50	U
W67-1 - W67-1	8-Jun-92	5	U
W67-1 - W67-1	10-Sep-92	0.5	U
W67-1 - W67-1	10-Sep-92	100	U
W67-1 - W67-1	18-May-93	0.5	U
W67-1 - W67-1	18-May-93	10	U
W67-1 - W67-1(10.8)	24-Jul-91	125	U
W67-1 - W67-1(10.8)	24-Jul-91	300	U
W67-1 - WT67-1(A)-W-15-R-1,3,4	11-Sep-90	5	U
W68-1 - W68-1	15-Nov-91	0.3	U
W68-1 - W68-1	15-Nov-91	25	U
W68-1 - W68-1	12-Feb-92	10	U
W68-1 - W68-1	8-Jun-92	5	U
W68-1 - W68-1	10-Sep-92	0.5	U
W68-1 - W68-1	10-Sep-92	50	U
W68-1 - W68-1	18-May-93	0.5	U
W68-1 - W68-1	18-May-93	3	U
W68-1 - W68-1(16.2)	24-Jul-91	0.6	U
W68-1 - W68-1(16.2)	24-Jul-91	12	U
W68-1 - W68-99-01 (Dup)	12-Feb-92	5	U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	5	U
W9-46 - MW009-046(17.0)	31-Jul-91	0.5	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Location/Sample ID	Sample Date	Concentration	
Chemical Name: BENZENE			
W9-46 - MW009-046(17.0)	31-Jul-91	200	U
W9-46 - W9-46	5-Nov-91	2.1	
W9-46 - W9-46	5-Nov-91	50	U
W9-46 - W9-46	28-Feb-92	50	U
W9-46 - W9-46	15-Jun-92	50	U
W9-46 - W9-46	11-Sep-92	0.5	U
W9-46 - W9-46	11-Sep-92	120	U
W9-46 - W9-46	24-May-93	10	U
W9-46 - W9-46	24-May-93	12	
W9-46 - W9-46	9-Dec-93	0.5	U
W9-46 - W9-46	9-Dec-93	100	U
W9-46 - W9-99-05 (Dup)	28-Feb-92	50	U
W91-1 - W91-001(27.5)	18-Jun-92	0.2	J
W91-1 - W91-001(27.5)	18-Jun-92	0.5	U
W91-1 - W91-1	10-Sep-92	0.5	U
W91-1 - W91-1	10-Sep-92	170	U
W91-1 - W91-1	18-Nov-92	0.5	U
W91-1 - W91-1	18-Nov-92	33	U
W91-1 - W91-1	18-May-93	0.5	U
W91-1 - W91-1	18-May-93	20	U
W9SC-14 - W9SC-14	5-Jun-97	59	U
W9SC-14 - W9SC-14	4-Aug-97	6	U
W9SC-17 - W9SC-17	5-Jun-97	250	U
W9SC-17 - W9SC-17	4-Aug-97	18	U
Chemical Name: BENZO(A)PYRENE			
GW68-1 - GW68-1	14-Jul-94	10	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	10	U
W91-1 - W91-001(27.5)	18-Jun-92	10	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
ERM-4 - ERM-4	10-Sep-92	50	U
ERM-4 - ERM-4	18-May-93	50	U
ERM-4 - ERM-4(13.0)	19-Jul-91	50	U
GW68-1 - GW68-1	14-Jul-94	50	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	50	U
TN-67 - TN-67-W1-R-07-3,6	15-May-90	1300	
W67-1 - W67-1	15-Nov-91	500	U
W67-1 - W67-1	4-Mar-92	500	U
W67-1 - W67-1	8-Jun-92	500	U
W67-1 - W67-1	10-Sep-92	50	U
W67-1 - W67-1	18-May-93	50	U
W67-1 - W67-1(10.8)	22-Jul-91	500	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	DIESEL-RANGE ORGANIC COMPOUNDS		
Location/Sample ID		Sample Date	Concentration
W67-1 - WT67-1(A)-W-15-R-1,3,4		11-Sep-90	930
W68-1 - W68-1		15-Nov-91	500 U
W68-1 - W68-1		12-Feb-92	500 U
W68-1 - W68-1		8-Jun-92	500 U
W68-1 - W68-1		10-Sep-92	50 U
W68-1 - W68-1		18-May-93	50 U
W68-1 - W68-1(16.0)		22-Jul-91	500 U
W68-1 - W68-99-01 (Dup)		12-Feb-92	500 U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4		11-Sep-90	500 U
W9-46 - MW009-046(17.0)		31-Jul-91	50 U
W9-46 - W9-46		5-Nov-91	1100
W9-46 - W9-46		28-Feb-92	500 U
W9-46 - W9-46		15-Jun-92	500 U
W9-46 - W9-46		11-Sep-92	50 U
W9-46 - W9-46		24-May-93	50 U
W9-46 - W9-99-05 (Dup)		28-Feb-92	500 U
W91-1 - W91-001(27.5)		18-Jun-92	50 U
W91-1 - W91-1		10-Sep-92	50 U
W91-1 - W91-1		18-Nov-92	50 U
W91-1 - W91-1		18-May-93	50 U
Chemical Name:	**ETHYLBENZENE**		
Location/Sample ID		Sample Date	Concentration
ERM-4 - ERM-4		10-Sep-92	0.5 U
ERM-4 - ERM-4		10-Sep-92	400 U
ERM-4 - ERM-4		18-May-93	0.5 U
ERM-4 - ERM-4		18-May-93	50 U
ERM-4 - ERM-4		17-Sep-93	250 U
ERM-4 - ERM-4 (3/20/87)		20-Mar-87	1 U
ERM-4 - ERM-4(13.0)		19-Jul-91	0.5 U
ERM-4 - ERM-4(13.0)		19-Jul-91	1000 U
GW68-1 - GW68-1		14-Jul-94	0.5 U
GW68-1 - GW68-1		14-Jul-94	2 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	0.5 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	2 U
TN-67 - TN-67-W1-R-07-1		15-May-90	5 U
W67-1 - W67-1		15-Nov-91	0.3 U
W67-1 - W67-1		15-Nov-91	50 U
W67-1 - W67-1		4-Mar-92	50 U
W67-1 - W67-1		8-Jun-92	5 U
W67-1 - W67-1		10-Sep-92	0.5 U
W67-1 - W67-1		10-Sep-92	100 U
W67-1 - W67-1		18-May-93	0.5 U
W67-1 - W67-1		18-May-93	10 U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: ETHYLBENZENE

Location/Sample ID	Sample Date	Concentration	
W67-1 - W67-1(10.8)	24-Jul-91	125	U
W67-1 - W67-1(10.8)	24-Jul-91	300	U
W67-1 - WT67-1(A)-W-15-R-1,3,4	11-Sep-90	5	U
W68-1 - W68-1	15-Nov-91	0.3	U
W68-1 - W68-1	15-Nov-91	25	U
W68-1 - W68-1	12-Feb-92	10	U
W68-1 - W68-1	8-Jun-92	5	U
W68-1 - W68-1	10-Sep-92	0.5	U
W68-1 - W68-1	10-Sep-92	50	U
W68-1 - W68-1	18-May-93	0.5	U
W68-1 - W68-1	18-May-93	3	U
W68-1 - W68-1(16.2)	24-Jul-91	0.6	U
W68-1 - W68-1(16.2)	24-Jul-91	12	U
W68-1 - W68-99-01 (Dup)	12-Feb-92	5	U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	5	U
W9-46 - MW009-046(17.0)	31-Jul-91	0.5	U
W9-46 - MW009-046(17.0)	31-Jul-91	200	U
W9-46 - W9-46	5-Nov-91	0.3	U
W9-46 - W9-46	5-Nov-91	50	U
W9-46 - W9-46	28-Feb-92	50	U
W9-46 - W9-46	15-Jun-92	50	U
W9-46 - W9-46	11-Sep-92	0.5	U
W9-46 - W9-46	11-Sep-92	120	U
W9-46 - W9-46	24-May-93	0.5	U
W9-46 - W9-46	24-May-93	10	U
W9-46 - W9-46	9-Dec-93	0.5	U
W9-46 - W9-46	9-Dec-93	100	U
W9-46 - W9-99-05 (Dup)	28-Feb-92	50	U
W91-1 - W91-001(27.5)	18-Jun-92	0.5	U
W91-1 - W91-001(27.5)	18-Jun-92	2	U
W91-1 - W91-1	10-Sep-92	0.5	U
W91-1 - W91-1	10-Sep-92	170	U
W91-1 - W91-1	18-Nov-92	0.5	UJ-T
W91-1 - W91-1	18-Nov-92	33	U
W91-1 - W91-1	18-May-93	0.5	U
W91-1 - W91-1	18-May-93	20	U
W9SC-14 - W9SC-14	5-Jun-97	59	U
W9SC-14 - W9SC-14	4-Aug-97	6	U
W9SC-17 - W9SC-17	5-Jun-97	250	U
W9SC-17 - W9SC-17	4-Aug-97	18	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	GASOLINE-RANGE ORGANIC COMPOUNDS		
Location/Sample ID	Sample Date	Concentration	
ERM-4 - ERM-4	10-Sep-92	50	U
ERM-4 - ERM-4	18-May-93	50	U
ERM-4 - ERM-4(13.0)	19-Jul-91	2800	X
GW68-1 - GW68-1	14-Jul-94	50	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	50	U
TN-67 - TN-67-W1-R-07-4	15-May-90	260	
W67-1 - W67-1	15-Nov-91	1300	
W67-1 - W67-1	4-Mar-92	500	U
W67-1 - W67-1	8-Jun-92	500	U
W67-1 - W67-1	10-Sep-92	50	U
W67-1 - W67-1	18-May-93	50	U
W67-1 - W67-1(10.8)	24-Jul-91	2000	DJ
W67-1 - WT67-1(A)-W-15-R-1,3,4	11-Sep-90	500	U
W68-1 - W68-1	15-Nov-91	440	J
W68-1 - W68-1	12-Feb-92	500	U
W68-1 - W68-1	8-Jun-92	500	U
W68-1 - W68-1	10-Sep-92	50	U
W68-1 - W68-1	18-May-93	50	U
W68-1 - W68-1(16.2)	24-Jul-91	150	J
W68-1 - W68-99-01 (Dup)	12-Feb-92	500	U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	500	U
W9-46 - MW009-046(17.0)	31-Jul-91	1200	JX
W9-46 - W9-46	5-Nov-91	2000	
W9-46 - W9-46	28-Feb-92	500	U
W9-46 - W9-46	15-Jun-92	500	U
W9-46 - W9-46	11-Sep-92	50	U
W9-46 - W9-46	24-May-93	50	U
W9-46 - W9-46	9-Dec-93	50	U
W9-46 - W9-99-05 (Dup)	28-Feb-92	500	U
W91-1 - W91-001(27.5)	18-Jun-92	50	U
W91-1 - W91-1	10-Sep-92	50	U
W91-1 - W91-1	18-Nov-92	50	U
W91-1 - W91-1	18-May-93	50	U
Chemical Name:	**JP5-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID	Sample Date	Concentration	
ERM-4 - ERM-4	10-Sep-92	50	U
ERM-4 - ERM-4	18-May-93	50	U
ERM-4 - ERM-4(13.0)	19-Jul-91	50	U
GW68-1 - GW68-1	14-Jul-94	50	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	50	U
W67-1 - W67-1	4-Mar-92	500	U
W67-1 - W67-1	8-Jun-92	500	U
W67-1 - W67-1	10-Sep-92	50	U
W67-1 - W67-1	18-May-93	50	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	JP5-RANGE ORGANIC COMPOUNDS		
Location/Sample ID	Sample Date	Concentration	
W68-1 - W68-1	12-Feb-92	500	U
W68-1 - W68-1	8-Jun-92	500	U
W68-1 - W68-1	10-Sep-92	50	U
W68-1 - W68-1	18-May-93	50	U
W68-1 - W68-99-01 (Dup)	12-Feb-92	500	U
W9-46 - MW009-046(17.0)	31-Jul-91	50	U
W9-46 - W9-46	28-Feb-92	500	U
W9-46 - W9-46	15-Jun-92	500	U
W9-46 - W9-46	11-Sep-92	50	U
W9-46 - W9-46	24-May-93	50	U
W9-46 - W9-99-05 (Dup)	28-Feb-92	500	U
W91-1 - W91-001(27.5)	18-Jun-92	50	U
W91-1 - W91-1	10-Sep-92	50	U
W91-1 - W91-1	18-Nov-92	50	U
W91-1 - W91-1	18-May-93	50	U
Chemical Name:	**KEROSENE-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID	Sample Date	Concentration	
ERM-4 - ERM-4	10-Sep-92	50	U
ERM-4 - ERM-4	18-May-93	50	U
ERM-4 - ERM-4(13.0)	19-Jul-91	50	U
GW68-1 - GW68-1	14-Jul-94	50	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	50	U
TN-67 - TN-67-W1-R-07-3,6	15-May-90	50	U
W67-1 - W67-1	10-Sep-92	50	U
W67-1 - W67-1	18-May-93	50	U
W67-1 - WT67-1(A)-W-15-R-1,3,4	11-Sep-90	500	U
W68-1 - W68-1	10-Sep-92	50	U
W68-1 - W68-1	18-May-93	50	U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	500	U
W9-46 - MW009-046(17.0)	31-Jul-91	320	
W9-46 - W9-46	11-Sep-92	50	U
W9-46 - W9-46	24-May-93	50	U
W91-1 - W91-001(27.5)	18-Jun-92	50	U
W91-1 - W91-1	10-Sep-92	50	U
W91-1 - W91-1	18-Nov-92	50	UJ-K
W91-1 - W91-1	18-May-93	50	U
Chemical Name:	**METHYL TERTIARY BUTYL ETHER**		
Location/Sample ID	Sample Date	Concentration	
W9SC-14 - W9SC-14	5-Jun-97	59	U
W9SC-14 - W9SC-14	4-Aug-97	6	U
W9SC-17 - W9SC-17	5-Jun-97	250	U
W9SC-17 - W9SC-17	4-Aug-97	18	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	MOTOR OIL-RANGE ORGANIC COMPOUNDS		
Location/Sample ID		Sample Date	Concentration
ERM-4 - ERM-4		10-Sep-92	500 U
ERM-4 - ERM-4		18-May-93	500 U
ERM-4 - ERM-4(13.0)		19-Jul-91	500 U
GW68-1 - GW68-1		14-Jul-94	500 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	500 U
TN-67 - TN-67-W1-R-07-3,6		15-May-90	500 U
W67-1 - W67-1		10-Sep-92	500 U
W67-1 - W67-1		18-May-93	500 U
W68-1 - W68-1		10-Sep-92	500 U
W68-1 - W68-1		18-May-93	500 U
W9-46 - MW009-046(17.0)		31-Jul-91	500 U
W9-46 - W9-46		11-Sep-92	500 U
W9-46 - W9-46		24-May-93	500 U
W91-1 - W91-001(27.5)		18-Jun-92	500 U
W91-1 - W91-1		10-Sep-92	500 U
W91-1 - W91-1		18-Nov-92	500 U
W91-1 - W91-1		18-May-93	500 U
Chemical Name:	**NAPHTHALENE**		
Location/Sample ID		Sample Date	Concentration
GW68-1 - GW68-1		14-Jul-94	10 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	10 U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4		11-Sep-90	20 U
W91-1 - W91-001(27.5)		18-Jun-92	10 U
Chemical Name:	**OTHER HEAVY TPH COMPONENTS**		
Location/Sample ID		Sample Date	Concentration
ERM-4 - ERM-4		10-Sep-92	50 U
ERM-4 - ERM-4		18-May-93	50 U
GW68-1 - GW68-1		14-Jul-94	50 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	50 U
W67-1 - W67-1		4-Mar-92	500 U
W67-1 - W67-1		8-Jun-92	500 U
W67-1 - W67-1		10-Sep-92	50 U
W67-1 - W67-1		18-May-93	50 U
W68-1 - W68-1		12-Feb-92	500 U
W68-1 - W68-1		8-Jun-92	500 U
W68-1 - W68-1		10-Sep-92	50 U
W68-1 - W68-1		18-May-93	50 U
W68-1 - W68-99-01 (Dup)		12-Feb-92	500 U
W9-46 - W9-46		28-Feb-92	500 U
W9-46 - W9-46		15-Jun-92	500 U
W9-46 - W9-46		11-Sep-92	50 U
W9-46 - W9-46		24-May-93	50 U
W9-46 - W9-99-05 (Dup)		28-Feb-92	500 U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	OTHER HEAVY TPH COMPONENTS		
Location/Sample ID	Sample Date	Concentration	
W91-1 - W91-001(27.5)	18-Jun-92	350	J-N
W91-1 - W91-1	10-Sep-92	50	U
W91-1 - W91-1	18-Nov-92	8	J-NG
W91-1 - W91-1	18-May-93	50	U
Chemical Name:	**OTHER LIGHT TPH COMPONENTS**		
Location/Sample ID	Sample Date	Concentration	
ERM-4 - ERM-4	10-Sep-92	2600	J-N
ERM-4 - ERM-4	18-May-93	1700	J-T
GW68-1 - GW68-1	14-Jul-94	330	Z
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	350	Z
W67-1 - W67-1	4-Mar-92	500	U
W67-1 - W67-1	8-Jun-92	500	U
W67-1 - W67-1	10-Sep-92	670	J-N
W67-1 - W67-1	18-May-93	580	J-T
W68-1 - W68-1	12-Feb-92	500	U
W68-1 - W68-1	8-Jun-92	500	U
W68-1 - W68-1	10-Sep-92	340	J-N
W68-1 - W68-1	18-May-93	220	J-T
W68-1 - W68-99-01 (Dup)	12-Feb-92	500	U
W9-46 - W9-46	28-Feb-92	500	U
W9-46 - W9-46	15-Jun-92	500	U
W9-46 - W9-46	11-Sep-92	780	J-N
W9-46 - W9-46	24-May-93	1200	J-T
W9-46 - W9-46	9-Dec-93	420	
W9-46 - W9-99-05 (Dup)	28-Feb-92	500	U
W91-1 - W91-001(27.5)	18-Jun-92	0.5	U
W91-1 - W91-1	10-Sep-92	790	J-N
W91-1 - W91-1	18-Nov-92	1100	J-N
W91-1 - W91-1	18-May-93	770	J-T
Chemical Name:	**TOLUENE**		
Location/Sample ID	Sample Date	Concentration	
ERM-4 - ERM-4	10-Sep-92	0.5	U
ERM-4 - ERM-4	10-Sep-92	400	U
ERM-4 - ERM-4	18-May-93	0.5	U
ERM-4 - ERM-4	18-May-93	50	U
ERM-4 - ERM-4	17-Sep-93	250	U
ERM-4 - ERM-4 (3/20/87)	20-Mar-87	2	U
ERM-4 - ERM-4(13.0)	19-Jul-91	0.5	U
ERM-4 - ERM-4(13.0)	19-Jul-91	1000	U
GW68-1 - GW68-1	14-Jul-94	0.5	U
GW68-1 - GW68-1	14-Jul-94	2	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	0.5	U
GW68-1 - GW68-99-7 (Dup)	14-Jul-94	2	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: TOLUENE			
Location/Sample ID	Sample Date	Concentration	
TN-67 - TN-67-W1-R-07-1	15-May-90	5	U
W67-1 - W67-1	15-Nov-91	0.3	U
W67-1 - W67-1	15-Nov-91	50	U
W67-1 - W67-1	4-Mar-92	50	U
W67-1 - W67-1	8-Jun-92	5	U
W67-1 - W67-1	10-Sep-92	0.5	U
W67-1 - W67-1	10-Sep-92	100	U
W67-1 - W67-1	18-May-93	0.5	U
W67-1 - W67-1	18-May-93	10	U
W67-1 - W67-1(10.8)	24-Jul-91	125	U
W67-1 - W67-1(10.8)	24-Jul-91	300	U
W67-1 - WT67-1(A)-W-15-R-1,3,4	11-Sep-90	5	U
W68-1 - W68-1	15-Nov-91	0.3	U
W68-1 - W68-1	15-Nov-91	25	U
W68-1 - W68-1	12-Feb-92	10	U
W68-1 - W68-1	8-Jun-92	5	U
W68-1 - W68-1	10-Sep-92	0.5	U
W68-1 - W68-1	10-Sep-92	50	U
W68-1 - W68-1	18-May-93	0.5	U
W68-1 - W68-1	18-May-93	3	U
W68-1 - W68-1(16.2)	24-Jul-91	0.6	U
W68-1 - W68-1(16.2)	24-Jul-91	12	U
W68-1 - W68-99-01 (Dup)	12-Feb-92	5	U
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	5	U
W9-46 - MW009-046(17.0)	31-Jul-91	0.5	U
W9-46 - MW009-046(17.0)	31-Jul-91	200	U
W9-46 - W9-46	5-Nov-91	0.3	U
W9-46 - W9-46	5-Nov-91	50	U
W9-46 - W9-46	28-Feb-92	50	U
W9-46 - W9-46	15-Jun-92	50	U
W9-46 - W9-46	11-Sep-92	0.5	U
W9-46 - W9-46	11-Sep-92	120	U
W9-46 - W9-46	24-May-93	4	
W9-46 - W9-46	24-May-93	10	U
W9-46 - W9-46	9-Dec-93	0.5	U
W9-46 - W9-46	9-Dec-93	100	U
W9-46 - W9-99-05 (Dup)	28-Feb-92	50	U
W91-1 - W91-001(27.5)	18-Jun-92	0.5	U
W91-1 - W91-001(27.5)	18-Jun-92	2	U
W91-1 - W91-1	10-Sep-92	0.5	U
W91-1 - W91-1	10-Sep-92	170	U
W91-1 - W91-1	18-Nov-92	0.5	U
W91-1 - W91-1	18-Nov-92	33	U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	TOLUENE		
Location/Sample ID		Sample Date	Concentration
W91-1 - W91-1		18-May-93	0.5 U
W91-1 - W91-1		18-May-93	20 U
W9SC-14 - W9SC-14		5-Jun-97	59 U
W9SC-14 - W9SC-14		4-Aug-97	6 U
W9SC-17 - W9SC-17		5-Jun-97	250 U
W9SC-17 - W9SC-17		4-Aug-97	18 U
Chemical Name:	**XYLENE**		
Location/Sample ID		Sample Date	Concentration
ERM-4 - ERM-4		10-Sep-92	0.5 U
ERM-4 - ERM-4		10-Sep-92	400 U
ERM-4 - ERM-4		18-May-93	0.5 U
ERM-4 - ERM-4		18-May-93	50 U
ERM-4 - ERM-4		17-Sep-93	250 U
ERM-4 - ERM-4 (3/20/87)		20-Mar-87	1 U
ERM-4 - ERM-4(13.0)		19-Jul-91	0.5 U
ERM-4 - ERM-4(13.0)		19-Jul-91	1000 U
GW68-1 - GW68-1		14-Jul-94	0.5 U
GW68-1 - GW68-1		14-Jul-94	2 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	0.5 U
GW68-1 - GW68-99-7 (Dup)		14-Jul-94	2 U
TN-67 - TN-67-W1-R-07-1		15-May-90	5 U
W67-1 - W67-1		15-Nov-91	0.6 U
W67-1 - W67-1		15-Nov-91	50 U
W67-1 - W67-1		4-Mar-92	50 U
W67-1 - W67-1		8-Jun-92	5 U
W67-1 - W67-1		10-Sep-92	0.5 U
W67-1 - W67-1		10-Sep-92	100 U
W67-1 - W67-1		18-May-93	0.5 U
W67-1 - W67-1		18-May-93	10 U
W67-1 - W67-1(10.8)		24-Jul-91	125 U
W67-1 - W67-1(10.8)		24-Jul-91	300 U
W67-1 - WT67-1(A)-W-15-R-1,3,4		11-Sep-90	5 U
W68-1 - W68-1		15-Nov-91	0.6 U
W68-1 - W68-1		15-Nov-91	25 U
W68-1 - W68-1		12-Feb-92	10 U
W68-1 - W68-1		8-Jun-92	5 U
W68-1 - W68-1		10-Sep-92	0.5 U
W68-1 - W68-1		10-Sep-92	50 U
W68-1 - W68-1		18-May-93	0.5 U
W68-1 - W68-1		18-May-93	3 U
W68-1 - W68-1(16.2)		24-Jul-91	0.6 U
W68-1 - W68-1(16.2)		24-Jul-91	12 U
W68-1 - W68-99-01 (Dup)		12-Feb-92	5 U

TABLE 13 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 67
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: XYLENE			
Location/Sample ID	Sample Date	Concentration	
W68-1 - WT68-1(A)-W-12-R-1,2,3,4	11-Sep-90	5	U
W9-46 - MW009-046(17.0)	31-Jul-91	0.5	U
W9-46 - MW009-046(17.0)	31-Jul-91	200	U
W9-46 - W9-46	5-Nov-91	0.6	U
W9-46 - W9-46	5-Nov-91	50	U
W9-46 - W9-46	28-Feb-92	50	U
W9-46 - W9-46	15-Jun-92	50	U
W9-46 - W9-46	11-Sep-92	0.5	U
W9-46 - W9-46	11-Sep-92	120	U
W9-46 - W9-46	24-May-93	3	
W9-46 - W9-46	24-May-93	10	U
W9-46 - W9-46	9-Dec-93	0.5	U
W9-46 - W9-46	9-Dec-93	100	U
W9-46 - W9-99-05 (Dup)	28-Feb-92	50	U
W91-1 - W91-001(27.5)	18-Jun-92	0.5	U
W91-1 - W91-001(27.5)	18-Jun-92	2	U
W91-1 - W91-1	10-Sep-92	0.5	U
W91-1 - W91-1	10-Sep-92	170	U
W91-1 - W91-1	18-Nov-92	0.5	UJ-T
W91-1 - W91-1	18-Nov-92	33	U
W91-1 - W91-1	18-May-93	0.5	U
W91-1 - W91-1	18-May-93	20	U
W9SC-14 - W9SC-14	5-Jun-97	59	U
W9SC-14 - W9SC-14	4-Aug-97	6	U
W9SC-17 - W9SC-17	5-Jun-97	250	U
W9SC-17 - W9SC-17	4-Aug-97	18	U

Notes:

D - Compounds identified in an analysis at a secondary dilution factor.
G - Value is estimated because the value is below the Contract Required Quantitation Limit but above the 5 or 10 times rule for blank contamination.
J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
K - Value is estimated because calibration or Gas Chromatography/Mass Spectrometer tuning criteria were out of quality control limits.
N - Spiked sample recovery not within control limits.
T - Value is estimated because a target compound was only tentatively identified.
U - Analyzed for but not detected (report value is detection limit).
Z - Unknown single peak or pattern was detected, but did not resemble a typical fuel pattern.
X - Value was hand entered by laboratory
Dup - Duplicate sample

TABLE 14

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 77
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name:	DIESEL-RANGE ORGANIC COMPOUNDS		
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
77-E-8	8	27-Apr-95	1 U

Notes:

1 - Feet below ground surface (exact depth unknown)

TABLE 15

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 77
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	BENZENE	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	0.51
Chemical Name:	**DIESEL-RANGE ORGANIC COMPOUNDS**	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	62
Chemical Name:	**ETHYLBENZENE**	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	0.5
Chemical Name:	**GASOLINE-RANGE ORGANIC COMPOUNDS**	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	50
Chemical Name:	**MOTOR OIL-RANGE ORGANIC COMPOUNDS**	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	16
Chemical Name:	**TOLUENE**	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	0.56
Chemical Name:	**XYLENE**	
Location/Sample ID	Sample Date	Concentration
77-W-8	27-Apr-95	1.4

TABLE 16

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 78
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
Chemical Name: BENZENE			
Tank 78(N)	10	07-Jan-93	0.005 U
Tank 78(S)	10	07-Jan-93	0.005 U
Chemical Name: ETHYLBENZENE			
Tank 78(N)	10	07-Jan-93	0.005 U
Tank 78(S)	10	07-Jan-93	0.005 U
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS			
Tank 78(N)	10	07-Jan-93	1 U
Tank 78(S)	10	07-Jan-93	1 U
Chemical Name: TOLUENE			
Tank 78(N)	10	07-Jan-93	0.005 U
Tank 78(S)	10	07-Jan-93	0.005 U
Chemical Name: XYLENE			
Tank 78(N)	10	07-Jan-93	0.005 U
Tank 78(S)	10	07-Jan-93	0.005 U

Notes:

U - Analyzed for but not detected (reported value is detection limit)
1 - Feet below ground surface (exact depth unknown)

TABLE 17

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANKS 86A AND 86B
SOIL DATA
(Concentration in milligrams per kilogram)

Chemical Name: BENZENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT86B-1 - GPT86B-1(9.5)	9.5	27-Jun-95	0.066	U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.00059	U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.012	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.00056	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.011	U
86AN-301-0130	UNKNOWN	7-Jan-93	0.005	U
86AS-301-0131	UNKNOWN	7-Jan-93	0.005	U
86BN-301-0132	UNKNOWN	7-Jan-93	0.005	U
86BS-301-0133	UNKNOWN	7-Jan-93	0.005	U

Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	12	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	11	U

Chemical Name: ETHYLBENZENE

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT86B-1 - GPT86B-1(9.5)	9.5	27-Jun-95	0.066	U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.00059	U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.012	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.00056	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.011	U
86AN-301-0130	UNKNOWN	7-Jan-93	0.005	U
86AS-301-0131	UNKNOWN	7-Jan-93	0.005	U
86BN-301-0132	UNKNOWN	7-Jan-93	0.005	U
86BS-301-0133	UNKNOWN	7-Jan-93	0.005	U

Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT86B-1 - GPT86B-1(9.5)	9.5	27-Jun-95	13	U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.59	UJ-S
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.56	UJ-S

Chemical Name: JP5-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	12	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	11	U

Chemical Name: KEROSENE-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	12	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	11	U

Chemical Name: MOTOR OIL-RANGE ORGANIC COMPOUNDS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	12	U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	11	U

Chemical Name: OTHER LIGHT TPH COMPONENTS

Location/Sample ID	Sample Depth [1]	Sample Date	Concentration	
GPT86B-1 - GPT86B-1(9.5)	9.5	27-Jun-95	190	Y

TABLE 17 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANKS 86A AND 86B
SOIL DATA
(Concentrations in milligrams per kilogram)

Chemical Name: TOLUENE			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
GPT86B-1 - GPT86B-1(9.5)	9.5	27-Jun-95	0.066 U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.00059 U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.012 U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.00056 U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.011 U
86AN-301-0130	UNKNOWN	7-Jan-93	0.005 U
86AS-301-0131	UNKNOWN	7-Jan-93	0.005 U
86BN-301-0132	UNKNOWN	7-Jan-93	0.005 U
86BS-301-0133	UNKNOWN	7-Jan-93	0.005 U
Chemical Name: XYLENE			
Location/Sample ID	Sample Depth [1]	Sample Date	Concentration
GPT86B-1 - GPT86B-1(9.5)	9.5	27-Jun-95	0.066 U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.00059 U
SBT86B-3 - SBT86B-3-1(5.5-6.0)	5.5	20-Feb-96	0.012 U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.00056 U
SBT86B-3 - SBT86B-3-3(8.5-9.0)	8.5	20-Feb-96	0.011 U
86AN-301-0130	UNKNOWN	7-Jan-93	0.005 U
86AS-301-0131	UNKNOWN	7-Jan-93	0.005 U
86BN-301-0132	UNKNOWN	7-Jan-93	0.005 U
86BS-301-0133	UNKNOWN	7-Jan-93	0.005 U

Notes:

J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
S - Value is estimaed because the surrogate recovery was out of quality control limits.
U - Analyzed for but not detected (reported value is detection limit)
Y - Pattern does not match clibration fuel pattern but resembles fuel pattern.
Dup - Duplicate sample
1 - Feet below ground surface

TABLE 18

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANKS 86A AND 86B
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Location/Sample ID	Sample Date	Concentration	
Chemical Name: 2-METHYLNAPHTHALENE			
GPT86B-1 - GWT86B-1	28-Jun-95	12	U
GPT86B-2 - GWT86B-2	28-Jun-95	10	U
WT86B-1 - WT86B-1	22-Feb-96	10	U
Chemical Name: BENZENE			
GPT86B-1 - GWT86B-1	27-Jun-95	0.4	J-S
GPT86B-1 - GWT86B-1	27-Jun-95	0.5	U
GPT86B-2 - GWT86B-2	27-Jun-95	0.1	J
GPT86B-2 - GWT86B-2	27-Jun-95	0.5	U
WT86B-1 - WT86B-1	22-Feb-96	28	J-S
WT86B-1 - WT86B-1	20-Aug-96	0.5	U
WT86B-1 - WT86B-1	18-Nov-96	0.5	U
WT86B-1 - WT86B-1	18-Feb-97	0.5	U
WT86B-1 - WT86B-1	23-May-97	3	
WT86B-1 - WT86B-1	25-Aug-99	1	U
WT86B-1 - WT86B-1SP	18-Feb-97	0.5	U
Chemical Name: BENZO(A)PYRENE			
GPT86B-1 - GWT86B-1	28-Jun-95	12	U
GPT86B-2 - GWT86B-2	28-Jun-95	10	U
WT86B-1 - WT86B-1	22-Feb-96	10	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
WT86B-1 - WT86B-1	20-Aug-96	100	U
WT86B-1 - WT86B-1	18-Nov-96	100	U
WT86B-1 - WT86B-1	18-Feb-97	100	U
WT86B-1 - WT86B-1	23-May-97	90	U
WT86B-1 - WT86B-1SP	18-Feb-97	100	U
Chemical Name: ETHYLBENZENE			
GPT86B-1 - GWT86B-1	27-Jun-95	0.2	J-S
GPT86B-1 - GWT86B-1	27-Jun-95	0.5	U
GPT86B-2 - GWT86B-2	27-Jun-95	0.5	U
GPT86B-2 - GWT86B-2	27-Jun-95	2	U
WT86B-1 - WT86B-1	22-Feb-96	0.6	J-S
WT86B-1 - WT86B-1	22-Feb-96	1.3	J-S
WT86B-1 - WT86B-1	20-Aug-96	0.5	U
WT86B-1 - WT86B-1	20-Aug-96	2	U
WT86B-1 - WT86B-1	18-Nov-96	0.5	U
WT86B-1 - WT86B-1	18-Feb-97	0.5	U
WT86B-1 - WT86B-1	23-May-97	0.3	J
WT86B-1 - WT86B-1	25-Aug-99	1	U

TABLE 18 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANKS 86A AND 86B
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	ETHYLBENZENE		
Location/Sample ID		Sample Date	Concentration
WT86B-1 - WT86B-1SP		18-Feb-97	0.5 U
Chemical Name:	**GASOLINE-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
GPT86B-1 - GWT86B-1		27-Jun-95	50 U
GPT86B-2 - GWT86B-2		27-Jun-95	50 U
WT86B-1 - WT86B-1		22-Feb-96	910 J-S
WT86B-1 - WT86B-1		20-Aug-96	33 JZ
WT86B-1 - WT86B-1		18-Nov-96	50 U
WT86B-1 - WT86B-1		18-Feb-97	50 U
WT86B-1 - WT86B-1		23-May-97	50 U
WT86B-1 - WT86B-1SP		18-Feb-97	46 J
Chemical Name:	**JP5-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
WT86B-1 - WT86B-1		20-Aug-96	100 U
WT86B-1 - WT86B-1		18-Nov-96	100 U
WT86B-1 - WT86B-1		18-Feb-97	100 U
WT86B-1 - WT86B-1		23-May-97	500 U
WT86B-1 - WT86B-1SP		18-Feb-97	100 U
Chemical Name:	**KEROSENE-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
WT86B-1 - WT86B-1		20-Aug-96	100 U
Chemical Name:	**METHYL-TERTIARY-BUTYL-ETHER**		
Location/Sample ID		Sample Date	Concentration
WT86B-1 - WT86B-1		23-May-97	1 U
WT86B-1 - WT86B-1		25-Aug-99	10 U
Chemical Name:	**MOTOR OIL-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
WT86B-1 - WT86B-1		20-Aug-96	100 U
WT86B-1 - WT86B-1		18-Nov-96	100 U
WT86B-1 - WT86B-1		18-Feb-97	100 U
WT86B-1 - WT86B-1		23-May-97	500 U
WT86B-1 - WT86B-1SP		18-Feb-97	100 U
Chemical Name:	**NAPHTHALENE**		
Location/Sample ID		Sample Date	Concentration
GPT86B-1 - GWT86B-1		28-Jun-95	12 U
GPT86B-2 - GWT86B-2		28-Jun-95	10 U
WT86B-1 - WT86B-1		22-Feb-96	10 U
Chemical Name:	**OTHER LIGHT TPH COMPONENTS**		
Location/Sample ID		Sample Date	Concentration
GPT86B-1 - GWT86B-1		27-Jun-95	5900 Y
GPT86B-2 - GWT86B-2		27-Jun-95	50 U

TABLE 18 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANKS 86A AND 86B
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name: TOLUENE			
Location/Sample ID	Sample Date	Concentration	
GPT86B-1 - GWT86B-1	27-Jun-95	0.4	J-S
GPT86B-1 - GWT86B-1	27-Jun-95	0.5	U
GPT86B-2 - GWT86B-2	27-Jun-95	0.5	U
GPT86B-2 - GWT86B-2	27-Jun-95	2	U
WT86B-1 - WT86B-1	22-Feb-96	0.5	UJ-S
WT86B-1 - WT86B-1	20-Aug-96	0.5	U
WT86B-1 - WT86B-1	20-Aug-96	2	U
WT86B-1 - WT86B-1	18-Nov-96	0.5	U
WT86B-1 - WT86B-1	18-Feb-97	0.5	U
WT86B-1 - WT86B-1	23-May-97	1	U
WT86B-1 - WT86B-1	25-Aug-99	1	U
WT86B-1 - WT86B-1SP	18-Feb-97	0.3	J
WT86B-1 - WT86B-1SP	18-Feb-97	0.5	U
Chemical Name: XYLENE			
Location/Sample ID	Sample Date	Concentration	
GPT86B-1 - GWT86B-1	27-Jun-95	0.3	J-S
GPT86B-1 - GWT86B-1	27-Jun-95	6	
GPT86B-2 - GWT86B-2	27-Jun-95	0.5	U
GPT86B-2 - GWT86B-2	27-Jun-95	2	U
WT86B-1 - WT86B-1	22-Feb-96	0.5	UJ-S
WT86B-1 - WT86B-1	20-Aug-96	1	U
WT86B-1 - WT86B-1	20-Aug-96	2	U
WT86B-1 - WT86B-1	18-Nov-96	0.5	U
WT86B-1 - WT86B-1	18-Feb-97	0.5	U
WT86B-1 - WT86B-1	18-Feb-97	1.5	U
WT86B-1 - WT86B-1	23-May-97	0.3	J
WT86B-1 - WT86B-1	25-Aug-99	1	U
WT86B-1 - WT86B-1SP	18-Feb-97	0.5	U
WT86B-1 - WT86B-1SP	18-Feb-97	1.5	U

Notes:

J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
U - Analyzed for but not detected (reported value is detection limit)
Z - Unknown single peaks or patterns were detected but did not resemble a typical fuel pattern.
Dup - Duplicate sample

TABLE 19

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 110
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth	Sample Date	Concentration
Chemical Name: BENZENE			
065037-14	Unknown	05-Apr-94	0.1 U
065037-15	Unknown	05-Apr-94	0.1 U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS			
065037-14	Unknown	12-Apr-94	1 U
065037-15	Unknown	12-Apr-94	1 U
Chemical Name: ETHYLBENZENE			
065037-14	Unknown	05-Apr-94	0.1 U
065037-15	Unknown	05-Apr-94	0.1 U
Chemical Name: TOLUENE			
065037-14	Unknown	05-Apr-94	0.1 U
065037-15	Unknown	05-Apr-94	0.1 U
Chemical Name: XYLENE			
065037-14	Unknown	05-Apr-94	0.1 U
065037-15	Unknown	05-Apr-94	0.1 U

Notes:

U - Analyzed for but not detected (reported value is detection limit)

TABLE 20

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 111
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth[1]	Sample Date	Concentration	
Chemical Name: BENZENE				
TK111-SP-001	9.0	1-Nov-95	0.005	U
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.007	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.007	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.007	U
Chemical Name: BENZO(A)PYRENE				
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.0028	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.0028	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.0028	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS				
TK111-SP-001	9.0	1-Nov-95	64.1	
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	14	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	15	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	12	U
Chemical Name: ETHYLBENZENE				
TK111-SP-001	9.0	1-Nov-95	0.005	U
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.007	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.007	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.007	U
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS				
TK111-SP-001	9.0	1-Nov-95	0.13	
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.7	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.7	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.7	U
Chemical Name: JP5-RANGE ORGANIC COMPOUNDS				
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	14	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	15	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	12	U
Chemical Name: MOTOR OIL-RANGE ORGANIC COMPOUNDS				
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	14	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	12	JY
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	12	U
Chemical Name: NAPHTHALENE				
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.07	U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.07	U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.07	U

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 111
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth[1]	Sample Date	Concentration
Chemical Name: TOLUENE			
TK111-SP-001	9.0	1-Nov-95	0.005 U
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.007 U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.007 U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.007 U
Chemical Name: XYLENES (TOTAL)			
TK111-SP-001	9.0	1-Nov-95	0.005 U
UST111-SB-01(1.0-2.0)	1.0-2.0	25-Aug-99	0.014 U
UST111-SB-01(4.0-5.0)	4.0-5.0	25-Aug-99	0.014 U
UST111-SB-01(9.0-10.0)	9.0-10.0	25-Aug-99	0.014 U

Notes:

J - The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
U - Analyzed for but not detected (reported value is detection limit)
Y - Pattern does not match calibration fuel pattern of diesel but resembles fuel pattern.
[1] - Feet below ground surface

TABLE 21

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 111
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	BENZENE		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	0.5 U
UST111-SB-02		25-Aug-99	0.5 U
UST111-SB-03		24-Aug-99	0.5 U
UST111-SB-04		24-Aug-99	0.5 U
Chemical Name:	**DIESEL-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	100 U
UST111-SB-02		25-Aug-99	100 U
UST111-SB-03		24-Aug-99	100 U
UST111-SB-04		24-Aug-99	100 U
Chemical Name:	**ETHYLBENZENE**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	0.5 U
UST111-SB-02		25-Aug-99	0.5 U
UST111-SB-03		24-Aug-99	0.5 U
UST111-SB-04		24-Aug-99	0.5 U
Chemical Name:	**GASOLINE-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	50 U
UST111-SB-02		25-Aug-99	50 U
UST111-SB-03		24-Aug-99	50 U
UST111-SB-04		24-Aug-99	50 U
Chemical Name:	**JP5-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	100 U
UST111-SB-02		25-Aug-99	100 U
UST111-SB-03		24-Aug-99	100 U
UST111-SB-04		24-Aug-99	100 U
Chemical Name:	**METHYL TERTIARY BUTYL ETHER**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	1 U
UST111-SB-02		25-Aug-99	1 U
UST111-SB-03		24-Aug-99	1 U
UST111-SB-04		24-Aug-99	1 U
Chemical Name:	**MOTOR OIL-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	100 U
UST111-SB-02		25-Aug-99	100 U
UST111-SB-03		24-Aug-99	100 U
UST111-SB-04		24-Aug-99	100 U
Chemical Name:	**TOLUENE**		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	0.5 U
UST111-SB-02		25-Aug-99	0.5 U
UST111-SB-03		24-Aug-99	0.5 U
UST111-SB-04		24-Aug-99	0.5 U

TABLE 21 (Continued)

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 111
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	XYLENES (TOTAL)		
Location/Sample ID		Sample Date	Concentration
UST111-SB-01		25-Aug-99	1 U
UST111-SB-02		25-Aug-99	1 U
UST111-SB-03		24-Aug-99	1 U
UST111-SB-04		24-Aug-99	4.4

Notes:

J - The analyte was positively identified. The associated numerical value is the approximate
- concentration of the analyte in the sample.

U - Analyzed for but not detected (reported value is detection limit)

Y - Pattern does not match calibration fuel pattern of diesel but resembles fuel pattern.

Z - Unknown single peaks or patterns were detected but did not resemble a typical fuel pattern.

TABLE 22

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 116
SOIL DATA
(Concentrations in milligrams per kilogram)

Location/Sample ID	Sample Depth[1]	Sample Date	Concentration	
Chemical Name: BENZENE				
TK116-EX-001	9.0	1-Nov-95	0.005	U
TK116-EX-002	9.0	1-Nov-95	0.005	U
TK116-EX-003	9.0	1-Nov-95	0.005	U
UST116-SB-01(1.0-2.0)	1.0-2.0	26-Aug-99	0.007	U
UST116-SB-01(4.0-5.0)	4.0-5.0	26-Aug-99	0.007	U
Chemical Name: DIESEL-RANGE ORGANIC COMPOUNDS				
TK116-EX-001	9.0	1-Nov-95	19.3	
TK116-EX-002	9.0	1-Nov-95	49.4	
TK116-EX-003	9.0	1-Nov-95	371	
Chemical Name: ETHYLBENZENE				
TK116-EX-001	9.0	1-Nov-95	0.0056	
TK116-EX-002	9.0	1-Nov-95	0.0015	
TK116-EX-003	9.0	1-Nov-95	0.005	U
UST116-SB-01(1.0-2.0)	1.0-2.0	26-Aug-99	0.007	U
UST116-SB-01(4.0-5.0)	4.0-5.0	26-Aug-99	0.007	U
Chemical Name: GASOLINE-RANGE ORGANIC COMPOUNDS				
TK116-EX-001	9.0	1-Nov-95	5.1	
TK116-EX-002	9.0	1-Nov-95	0.065	
TK116-EX-003	9.0	1-Nov-95	0.05	U
UST116-SB-01(1.0-2.0)	1.0-2.0	26-Aug-99	0.7	U
UST116-SB-01(4.0-5.0)	4.0-5.0	26-Aug-99	0.7	U
Chemical Name: TOLUENE				
TK116-EX-001	9.0	1-Nov-95	0.0113	
TK116-EX-002	9.0	1-Nov-95	0.0019	
TK116-EX-003	9.0	1-Nov-95	0.005	U
UST116-SB-01(1.0-2.0)	1.0-2.0	26-Aug-99	0.007	U
UST116-SB-01(4.0-5.0)	4.0-5.0	26-Aug-99	0.007	U
Chemical Name: XYLENES (TOTAL)				
TK116-EX-001	9.0	1-Nov-95	0.0277	
TK116-EX-002	9.0	1-Nov-95	0.0046	
TK116-EX-003	9.0	1-Nov-95	0.005	U
UST116-SB-01(1.0-2.0)	1.0-2.0	26-Aug-99	0.014	U
UST116-SB-01(4.0-5.0)	4.0-5.0	26-Aug-99	0.014	U

Notes:

U - Analyzed for but not detected (reported value is detection limit)

[1] - Feet below ground surface

TABLE 23

MOFFETT FEDERAL AIRFIELD
PHASE I TANK CLOSURE REPORT
TANK 116
GROUNDWATER DATA
(Concentrations in micrograms per liter)

Chemical Name:	BENZENE		
Location/Sample ID		Sample Date	Concentration
UST116-SB-01		26-Aug-99	0.5 U
UST116-SB-02		26-Aug-99	0.5 U
UST116-SB-03		26-Aug-99	0.5 U
UST116-SB-04		26-Aug-99	0.5 U
Chemical Name:	**ETHYLBENZENE**		
Location/Sample ID		Sample Date	Concentration
UST116-SB-01		26-Aug-99	0.5 U
UST116-SB-02		26-Aug-99	0.5 U
UST116-SB-03		26-Aug-99	0.5 U
UST116-SB-04		26-Aug-99	0.5 U
Chemical Name:	**GASOLINE-RANGE ORGANIC COMPOUNDS**		
Location/Sample ID		Sample Date	Concentration
UST116-SB-01		26-Aug-99	50 U
UST116-SB-02		26-Aug-99	50 U
UST116-SB-03		26-Aug-99	50 U
UST116-SB-04		26-Aug-99	50 U
Chemical Name:	**METHYL TERTIARY BUTYL ETHER**		
Location/Sample ID		Sample Date	Concentration
UST116-SB-01		26-Aug-99	1 U
UST116-SB-02		26-Aug-99	1 U
UST116-SB-03		26-Aug-99	1 U
UST116-SB-04		26-Aug-99	1 U
Chemical Name:	**TOLUENE**		
Location/Sample ID		Sample Date	Concentration
UST116-SB-01		26-Aug-99	0.5 U
UST116-SB-02		26-Aug-99	0.5 U
UST116-SB-03		26-Aug-99	0.5 U
UST116-SB-04		26-Aug-99	0.5 U
Chemical Name:	**XYLENES (TOTAL)**		
Location/Sample ID		Sample Date	Concentration
UST116-SB-01		26-Aug-99	1 U
UST116-SB-02		26-Aug-99	1 U
UST116-SB-03		26-Aug-99	1 U
UST116-SB-04		26-Aug-99	1 U

Notes:

U - Analyzed for but not detected (reported value is detection limit)

APPENDIX A

SANTA CLARA COUNTY TANK CLOSURE INSPECTION INFORMATION

MOFFETT FEDERAL AIRFIELD
PHASE I BASEWIDE TANK CLOSURE REPORT
SANTA CLARA COUNTY TANK CLOSURE INSPECTION INFORMATION LIST

Tank	Santa Clara County Tank Closure Inspection Report
15	Included
18	NA
22	NA
27	Not available, tank didn't exist
28	Included (Handwritten report not available)
30	NA
31	NA
51	Not available, tank didn't exist
55	NA
64	NA
65	Not available, tank didn't exist
67	Included
77	Included
78	Included
86A	Included
86B	Included
110	Included
111	NA
112	Not available, tank didn't exist
116	NA
123	Not available, tank didn't exist

Notes:

NA Report not available during TtEMI record search on June 9, 2000

SANTA CLARA COUNTY ENVIRONMENTAL HEALTH SERVICES
TOXICS CONTROL UNIT
2220 MOORPARK AVENUE, SAN JOSE, CA 95128 (408) 299-6930

on FSR

OFFICIAL NOTICE OF INSPECTION

DBA/NAME: NAS Moffett Field TANK 15	DATE: 12-18-9
ADDRESS: Moffett Field Ca	RECHECK DATE
OWNER/OPERATOR: Contact: Marie Perez	EMPLOYEE NO. 817
MAILING ADDRESS	WORK AREA 611
APPLICABLE LAW: ☐ Calif. H & S Code, Sec. 25100, et Seq. ☐ S.C.C. Storage Ordinance ☐ Calif. Admin. Code, Title 22, Sec 66011, et Seq. ☐ Title 23, Sec. 2610, et Seq. ☐ Other	INSPECTION TIME

COMPUTER NO.	PROGRAM	ELEMENT	SERVICE	VIOLATIONS	TIME
Deleted	23	11	188		

VIOLATIONS	CLASS I	CLASS II
HAZARDOUS WASTES		
Hazardous Waste Determ.		1
EPA ID Number		2
Storage, 90 Days	3	4
Storage, Containers	5	6
Storage, Tanks	7	8
Storage, Security	9	10
Pre-Transportation Requirements		11
Registered Hauler	12	13
Manifests		14
Disposal	15	16
Preparedness		17
Records, Reports		18
Local Permit		19
HAZARDOUS MATERIALS STORAGE		
Contingency Plan	20	
Employee Training	21	
Permit to Operate	22	
Approved Construction	23	
Monitoring System Installed	24	
Monitoring Operational	25	
Unauthor. Releases, Occurrence	26	
Unauthor. Releases, Reports	27	
Abandonment	28	
OCCUPATIONAL HAZARDS		
General Physical Hazard	37	
General Safety Hazard	38	
Personal Protection	39	
Toilets, Wash Facilities	40	
Eating Area	41	
Material Labeling	42	
Employee Training	43	
General Sanitation	44	

The marked items represent violations of the above-referenced codes(s) and must be corrected as follows:

Tank Closure Inspection - Tank 15

Tank removed per approved closure plan & County Guidelines - by Envirotex

1000 gal tank - contained diesel

Transporter - Erickson (#10355)

Samples collected by Sequoia Analytical
- 2 samples - tank
1 " - pipeline

Sampler: Mark Filling

1. Submit closure report including results of soil analyses, disposal manifests & site plot plan

INSPECTOR: R. Holston

RECEIVED BY: [signature]
SIGNATURE

3279

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

CASE CLOSURE CHECKLIST
Leaking Underground Storage Tank Program

This checklist, CASE CLOSURE letter, and the Unauthorized Release Report Form (URF) is to be retained by the Regional Board and Local Implementing Agency as documentation of release and subsequent closure action. All files and reports will be placed on microfiche for review.

I. Case Information

LUSTIS Case no. _____ URF filing date _____ Closure date _____

Site name/county Moffett Federal Airfield/UST 15/Santa Clara County

Site address _____ City Mountain View Zip 94035 Phone (415) 603-9834

Table I - Responsible Party Information

Responsible party	Name	Address, City, Zip	Phone
Property owner	U.S. Navy	Moffett Federal Airfield, Mountain View, CA 94035	(415) 603-9834
Operator 1	NA	NA	( ) NA
Operator 2	NA	NA	( ) NA
Operator 3	NA	NA	( ) NA

NA - Not applicable

II. Release and Site Characterization Information

Tank size(s) 1,000 gallons Fuel type(s) Diesel

Chemical type(s) and quantity(ies) released Diesel

Table II - Lateral and Vertical Extent of Contamination

Environment	Lateral (ft)	Vertical (ft)	Contaminant	Concentration Range
Soil	14X24	6	Diesel	ND to 4,400 mg/kg
Groundwater	NE	NE	NE	NE mg/l

ND - Not detected NE - Not encountered

Soil type at the site clay, clayey silt, clayey sand, and gravell

Source of drinking water under SWRCB POLICY 88-63 yes

Were nearby wells (Domestic, Municipal, Ag, etc.) monitored? Yes X No _____

Wells affected (Domestic, Municipal, Ag, etc.) None

Highest and lowest depths to groundwater Not encountered at tank location

Seasonal groundwater gradient(s) and direction(s) Gradient is northward

Name of Regional Water Quality Control Plan (Basin Plan) aquifer affected (see attached)

Santa Clara Valley

Surface water impacted? Yes _____ No X

Name of surface water body affected Not applicable

III. Soil Remediation Information

Soil remediation method(s) Transported to a staging area for treatment or disposal

Volume treated and/or removed Estimated 50 to 100 cubic yards

Contaminated soil disposal site U.S. Navy responsible for disposal

If contamination is remaining, describe concentration range and volume (cubic yards or meters)

None remaining according to observations by Navy personnel

Table III - Maximum documented contaminant concentrations in soil before and after cleanup

Contaminant	Method used	Before (mg/kg)	After (mg/kg)	Depth (ft)	Contaminant	Method used	Before (mg/kg)	After (mg/kg)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene		ND	ND	6.0
TPH (Diesel)	5030	4,400	ND	6.0	Toluene		ND	ND	6.0
Other fuel	NA	NA	NA	NA	Ethylbenzene		ND	ND	6.0
Heavy metals	NA	NA	NA	NA	Xylene		ND	ND	6.0
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

NA - Not applicable ND - Not detected

IV. Groundwater Remediation Information

Groundwater remediation method(s) Groundwater not encountered or remediated

Volume treated and/or removed Not applicable

If contamination is remaining, describe concentration range and volume (gallons or liters)

Not applicable

Table IV - Maximum documented contaminant concentrations in groundwater before and after cleanup

Contaminant	Method used	Before (mg/l)	After (mg/l)	Depth (ft)	Contaminant	Method used	Before (mg/l)	After (mg/l)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene	NA	NA	NA	NA
TPH (Diesel)	NA	NA	NA	NA	Toluene	NA	NA	NA	NA
Other fuel	NA	NA	NA	NA	Ethylbenzene	NA	NA	NA	NA
Heavy metals	NA	NA	NA	NA	Xylene	NA	NA	NA	NA
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

NA - Not applicable

V. Closure

Does Regional Board concur with closure? Yes _____ No _____

Rationale for closure _____

_____

_____

_____

_____

Location of reports on file (Agency/Room) _____

County_____ Staff person _____ Phone _____

Regional Board office _____ Staff person _____ Phone _____

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

CASE CLOSURE CHECKLIST
Leaking Underground Storage Tank Program

This checklist, CASE CLOSURE letter, and the Unauthorized Release Report Form (URF) is to be retained by the Regional Board and Local Implementing Agency as documentation of release and subsequent closure action. All files and reports will be placed on microfiche for review.

I. Case Information

LUSTIS Case no. _____ URF filing date _____ Closure date _____

Site name/county Moffett Federal Airfield/UST 28/Santa Clara County

Site address _____ City Mountain View Zip 94035 Phone (415) 603-9834

Table I - Responsible Party Information

Responsible party	Name	Address, City, Zip	Phone
Property owner	U.S. Navy	Moffett Federal Airfield, Mountain View, CA 94035	(415) 603-9834
Operator 1	NA	NA	( ) NA
Operator 2	NA	NA	( ) NA
Operator 3	NA	NA	( ) NA

NA - Not applicable

II. Release and Site Characterization Information

Tank size(s) 150 gallon Fuel type(s) Diesel

Chemical type(s) and quantity(ies) released None

Table II - Lateral and Vertical Extent of Contamination

Environment	Lateral (ft)	Vertical (ft)	Contaminant	Concentration Range
Soil	NA	NA	NA	NA mg/kg
Groundwater	NE	NE	NE	NE mg/l

NA - Not applicable NE - Not encountered

Soil type at the site clay, clayey silt, and clayey sand

Source of drinking water under SWRCB POLICY 88-63 Yes

Were nearby wells (Domestic, Municipal, Ag, etc.) monitored? Yes X No _____

Wells affected (Domestic, Municipal, Ag, etc.) None

Highest and lowest depths to groundwater Not encountered at tank location

Seasonal groundwater gradient(s) and direction(s) Gradient is northward

Name of Regional Water Quality Control Plan (Basin Plan) aquifer affected (see attached)

Santa Clara Valley

Surface water impacted? Yes _____ No X

Name of surface water body affected Not applicable

III. Soil Remediation Information

Soil remediation method(s) None

Volume treated and/or removed Not applicable

Contaminated soil disposal site Not applicable

If contamination is remaining, describe concentration range and volume (cubic yards or meters)

Not applicable

Table III - Maximum documented contaminant concentrations in soil before and after cleanup

Contaminant	Method used	Before (mg/kg)	After (mg/kg)	Depth (ft)	Contaminant	Method used	Before (mg/kg)	After (mg/kg)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene		ND	-	4.0
TPH (Diesel)		ND	-	4.0	Toluene		ND	-	4.0
Other fuel		16	-	4.0	Ethylbenzene		ND	-	4.0
Heavy metals	NA	NA	NA	NA	Xylene		ND	-	4.0
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

NA - Not applicable ND - Not detected

IV. Groundwater Remediation Information

Groundwater remediation method(s) Groundwater not encountered or remediated

Volume treated and/or removed Not applicable

If contamination is remaining, describe concentration range and volume (gallons or liters)

Not applicable

Table IV - Maximum documented contaminant concentrations in groundwater before and after cleanup

Contaminant	Method used	Before (mg/l)	After (mg/l)	Depth (ft)	Contaminant	Method used	Before (mg/l)	After (mg/l)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene	NA	NA	NA	NA
TPH (Diesel)	NA	NA	NA	NA	Toluene	NA	NA	NA	NA
Other fuel	NA	NA	NA	NA	Ethylbenzene	NA	NA	NA	NA
Heavy metals	NA	NA	NA	NA	Xylene	NA	NA	NA	NA
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

NA - Not applicable

V. Closure

Does Regional Board concur with closure? Yes _____ No _____

Rationale for closure _____

Location of reports on file (Agency/Room) _____

County_____ Staff person _____ Phone _____

Regional Board office _____ Staff person _____ Phone _____

Tank 67

SANTA CLARA COUNTY ENVIRONMENTAL HEALTH SERVICES
TOXICS CONTROL UNIT
2220 MOORPARK AVENUE, SAN JOSE, CA 95128 (408) 299-6930

OFFICIAL NOTICE OF INSPECTION

DBA/NAME: Naval Air Station - Tank 67
ADDRESS: Moffet field - XTN. VIEW
OWNER/OPERATOR:
MAILING ADDRESS:
APPLICABLE LAW
☐ Calif. H & S Code, Sec. 25100, et Seq. ☐ S.C.C. Storage Ordinance
☐ Calif. Admin. Code, Title 22, Sec 66011, et Seq. ☐ Title 23, Sec. 2610, et Seq. ☐ Other

DATE: 6/7/90
RECHECK DATE:
EMPLOYEE NO: 634
WORK AREA: 605
INSPECTION TIME:

COMPUTER NO.	PROGRAM	ELEMENT	SERVICE	VIOLATIONS	TIME
	23	00	188		

VIOLATIONS	CLASS			
HAZARDOUS WASTES	I		II	
Hazardous Waste Determ.			1	
EPA ID Number			2	
Storage, 90 Days	3		4	
Storage, Containers	5		6	
Storage, Tanks	7		8	
Storage, Security	9		10	
Pre-Transportation Requirements			11	
Registered Hauler	12		13	
Manifests			14	
Disposal	15		16	
Preparedness			17	
Records, Reports			18	
Local Permit			19	
HAZARDOUS MATERIALS STORAGE				
Contingency Plan	20			
Employee Training	21			
Permit to Operate	22			
Approved Construction	23			
Monitoring System Installed	24			
Monitoring Operational	25			
Unauthor. Releases, Occurrance	26			
Unauthor. Releases, Reports	27			
Abandonment	28			
OCCUPATIONAL HAZARDS				
General Physical Hazard	37			
General Safety Hazard	38			
Personal Protection	39			
Toilets, Wash Facilities	40			
Eating Area	41			
Material Labeling	42			
Employee Training	43			
General Sanitation	44			

The marked items represent violations of the above-referenced codes(s) and must be corrected as follows:

Two samples were taken along a 8 foot run of piping from tank 67. Both samples were taken 2 feet below the piping. Test for TPH G & D, BTX & E. Submit copies of the lab results to this office. Also test for Kerosene & Semi volatile.

The soil below the piping appeared to be clean.

INSPECTOR: [signature]

RECEIVED BY: [signature]
SIGNATURE

3279

Tank 67

SANTA CLARA COUNTY ENVIRONMENTAL HEALTH SERVICES
TOXICS CONTROL UNIT
2220 MOORPARK AVENUE, SAN JOSE, CA 95128 (408) 299-6930

OFFICIAL NOTICE OF INSPECTION

DBA/NAME: NAVAL AIR STATION MOFFET FIELD TANK # 67

DATE: 5/18/90

ADDRESS: MOFFET FIELD - MTV VIEW

RECHECK DATE:

OWNER/OPERATOR:

EMPLOYEE NO.: 634

MAILING ADDRESS:

WORK AREA: 603

APPLICABLE LAW
☐ Calif. H & S Code, Sec. 25100, et Seq. ☐ S.C.C. Storage Ordinance
☐ Calif. Admin. Code, Title 22, Sec 66011, et Seq. ☐ Title 23, Sec. 2610, et Seq. ☐ Other

INSPECTION TIME:

COMPUTER NO.	PROGRAM	ELEMENT	SERVICE	VIOLATIONS	TIME

VIOLATIONS	CLASS I	CLASS II
HAZARDOUS WASTES		
Hazardous Waste Determ.		1
EPA ID Number		2
Storage, 90 Days	3	4
Storage, Containers	5	6
Storage, Tanks	7	8
Storage, Security	9	10
Pre-Transportation Requirements		11
Registered Hauler	12	13
Manifests		14
Disposal	15	16
Preparedness		17
Records, Reports		18
Local Permit		19
HAZARDOUS MATERIALS STORAGE		
Contingency Plan	20	
Employee Training	21	
Permit to Operate	22	
Approved Construction	23	
Monitoring System Installed	24	
Monitoring Operational	25	
Unauthor. Releases, Occurrance	26	
Unauthor. Releases, Reports	27	
Abandonment	28	
OCCUPATIONAL HAZARDS		
General Physical Hazard	37	
General Safety Hazard	38	
Personal Protection	39	
Toilets, Wash Facilities	40	
Eating Area	41	
Material Labeling	42	
Employee Training	43	
General Sanitation	44	

The marked items represent violations of the above-referenced codes(s) and must be corrected as follows:

Tank 67 - 20,000 gallon ~~[illegible]~~ & petroleum [illegible]

• The tank sides and ends were exposed on May 15 1990 Tuesday. Ground water was @ approx. 12 feet and seeped into the excavation pit. The four side walls of the excavation sloughed off more than six feet away from the tanks ends & sides.

By May 18 1990, Friday, more ground water seeped into the excavation. Three factors, ground water intrusion, sloughing of the sidewalls and a concrete ballast made soil sampling difficult. Four samples were taken approx. 6 feet from the ends & sides at the water line. Contractor, Scott Wald stated that a water sample ~~was~~ was taken from the excavation pit on May 15 1990. The concrete ballast must be removed a hazardous waste. The piping to the building is still intact. Contractor is waiting for a licensed asbestos contractor to remove asbestos insulated pipes. Soil samples shall be taken every 20 linear feet & must include the piping under the building. Sample for organic (8240) and TPH GAS. Send results to this office

INSPECTOR: [signature]

RECEIVED BY: [signature]
SIGNATURE

3279

COUNTY OF SANTA CLARA
ENVIRONMENTAL RESOURCES AGENCY
HAZARDOUS MATERIALS COMPLIANCE DIVISION

2220 Moorpark Avenue
San Jose, CA 95128
(408) 299-6930

OFFICIAL NOTICE OF INSPECTION

DBA/Name	Facility ID #	Hours	Service Code	Date
NAS Moffett Field Tank 77				4-27-95
Address Moffett Field			189	Work Area Location 611
Contact Person Don Chuck				Emp# 817
Additional Information				Prog/Elem
				Permit Exp. Date

- [X] Hazardous Materials
- [ ] Hazardous Waste
- [ ] Toxic Gas
- [ ] Medical Waste Storage & Treatment
- [ ] Medical Waste Generator
- [ ] Risk Management and Prevention Program

Tank Closure Inspection

1360 gal UST - to be closed in place
Excavation Contractors performed slant borings for sample collection under each end of tank. Unable to collect soil sample at west end - water sample collected
Samples collected by NAVY Public Works & transported to Sequoia Laboratory for analysis. (Evidence seals applied)
Tank filled with concrete slurry per guidelines

1- Remove vent pipe & exposed fuel lines & fill
2. Provide manifest for tank rinsate
3 Submit closure report including sample analysis results

Received by: Donald Chuck Inspected by: R Horton

Page 1 of _____

Mailing Address: Dept. of Environmental Health
Hazardous Materials Compliance Division
P.O. Box 28070
San Jose, CA 95159-8070

Entered by: _____

white - HMCD yellow - Facility pink - Staff

SANTA CLARA COUNTY ENVIRONMENTAL HEALTH SERVICES
TOXICS CONTROL UNIT
2220 MOORPARK AVENUE, SAN JOSE, CA 95128 (408) 299-6930

OFFICIAL NOTICE OF INSPECTION

DBA/NAME: NAS Moffett Field # 78
ADDRESS: Moffett Field Ca
DATE: 1-7-93
RECHECK DATE:
OWNER/OPERATOR:
EMPLOYEE NO.: F17
MAILING ADDRESS:
WORK AREA:
APPLICABLE LAW
☐ Calif. H & S Code, Sec. 25100, et Seq. ☐ S.C.C. Storage Ordinance
☐ Calif. Admin. Code, Title 22, Sec 66011, et Seq. ☐ Title 23, Sec. 2610, et Seq. ☐ Other
INSPECTION ☐ TIME: On RSR

COMPUTER NO.	PROGRAM	ELEMENT	SERVICE	VIOLATIONS	TIME
Deleted	23	11	188		

VIOLATIONS	CLASS			
HAZARDOUS WASTES	1		11	
Hazardous Waste Determ.			1	
EPA ID Number			2	
Storage, 90 Days	3		4	
Storage, Containers	5		6	
Storage, Tanks	7		8	
Storage, Security	9		10	
Pre-Transportation Requirements			11	
Registered Hauler	12		13	
Manifests			14	
Disposal	15		16	
Preparedness			17	
Records, Reports			18	
Local Permit			19	
HAZARDOUS MATERIALS STORAGE				
Contingency Plan	20			
Employee Training	21			
Permit to Operate	22			
Approved Construction	23			
Monitoring System Installed	24			
Monitoring Operational	25			
Unauthor. Releases, Occurrance	26			
Unauthor. Releases, Reports	27			
Abandonment	28			
OCCUPATIONAL HAZARDS				
General Physical Hazard	37			
General Safety Hazard	38			
Personal Protection	39			
Toilets, Wash Facilities	40			
Eating Area	41			
Material Labeling	42			
Employee Training	43			
General Sanitation	44			

INSPECTOR: R Holston

The marked items represent violations of the above-referenced codes(s) and must be corrected as follows:

1000 gal fiberglass tank removed per closure guidlines

No holes observed and no visible contamination

2 soil & 1 water sample collected from excavation by Segura.

Tank Transported by Bricteson

1- Permit closure report including analysis results, manifest & plot plan of sampling locations

RECEIVED BY: [signature] SIGNATURE

3279

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

CASE CLOSURE CHECKLIST
Leaking Underground Storage Tank Program

This checklist, CASE CLOSURE letter, and the Unauthorized Release Report Form (URF) is to be retained by the Regional Board and Local Implementing Agency as documentation of release and subsequent closure action. All files and reports will be placed on microfiche for review.

I. Case Information

LUSTIS Case no. _____ URF filing date _____ Closure date _____

Site name/county Moffett Federal Airfield/UST 78/Santa Clara County

Site address _____ City Mountain View Zip 94035 Phone (415) 603-9834

Table I - Responsible Party Information

Responsible party	Name	Address, City, Zip	Phone
Property owner	U.S. Navy	Moffett Federal Airfield, Mountain View, CA 94035	(415) 603-9834
Operator 1	NA	NA	( ) NA
Operator 2	NA	NA	( ) NA
Operator 3	NA	NA	( ) NA

II. Release and Site Characterization Information[1]

Tank size(s) 1,000 gallon Fuel type(s) Water runoff from storage area

Chemical type(s) and quantity(ies) released None

1 - Tank not used

Table II - Lateral and Vertical Extent of Contamination

Environment	Lateral (ft)	Vertical (ft)	Contaminant	Concentration Range
Soil	NA	NA	NA	NA mg/kg
Groundwater	NE	NE	NE	NE mg/l

NA - Not applicable NE - Not encountered

Soil type at the site clay, clayey silt, clayey sand, and gravel

Source of drinking water under SWRCB POLICY 88-63 Yes

Were nearby wells (Domestic, Municipal, Ag, etc.) monitored? Yes X No _____

Wells affected (Domestic, Municipal, Ag, etc.) None

Highest and lowest depths to groundwater Could not be determined

Seasonal groundwater gradient(s) and direction(s) Gradient is northward

Name of Regional Water Quality Control Plan (Basin Plan) aquifer affected (see attached)

Santa Clara Valley

Surface water impacted? Yes _____ No X

Name of surface water body affected Not applicable

III. Soil Remediation Information

Soil remediation method(s) Not applicable

Volume treated and/or removed Not applicable

Contaminated soil disposal site Not applicable

If contamination is remaining, describe concentration range and volume (cubic yards or meters)

Not applicable

Table III - Maximum documented contaminant concentrations in soil before and after cleanup

Contaminant	Method used	Before (mg/kg)	After (mg/kg)	Depth (ft)	Contaminant	Method used	Before (mg/kg)	After (mg/kg)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene		ND	ND	10.0
TPH (Diesel)		ND	ND	10.0	Toluene		ND	ND	10.0
Other fuel	NA	NA	NA	NA	Ethylbenzene		ND	ND	10.0
Heavy metals	NA	NA	NA	NA	Xylene		ND	ND	10.0
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

NA - Not applicable ND - Not detected

IV. Groundwater Remediation Information

Groundwater remediation method(s) Not applicable

Volume treated and/or removed Not applicable

If contamination is remaining, describe concentration range and volume (gallons or liters)

Not applicable

Table IV - Maximum documented contaminant concentrations in groundwater before and after cleanup

Contaminant	Method used	Before (mg/l)	After (mg/l)	Depth (ft)	Contaminant	Method used	Before (mg/l)	After (mg/l)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene	NA	NA	NA	NA
TPH (Diesel)	NA	NA	NA	NA	Toluene	NA	NA	NA	NA
Other fuel	NA	NA	NA	NA	Ethylbenzene	NA	NA	NA	NA
Heavy metals	NA	NA	NA	NA	Xylene	NA	NA	NA	NA
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

NA - Not applicable

V. Closure

Does Regional Board concur with closure? Yes _____ No _____

Rationale for closure _____

_____

_____

_____

_____

Location of reports on file (Agency/Room) _____

County_____ Staff person _____ Phone _____

Regional Board office _____ Staff person _____ Phone _____

SANTA CLARA COUNTY ENVIRONMENTAL HEALTH SERVICES
TOXICS CONTROL UNIT
2220 MOORPARK AVENUE, SAN JOSE, CA 95128 (408) 299-6930

OFFICIAL NOTICE OF INSPECTION

DBA/NAME: NAT Health Food # 86A 86B
ADDRESS: Health Food
OWNER/OPERATOR: "
MAILING ADDRESS:
DATE: 1-7-93
RECHECK DATE:
EMPLOYEE NO.: 817
WORK AREA: 1011
INSPECTION TIME: non ESK

APPLICABLE LAW
☐ Calif. H & S Code, Sec. 25100, et Seq. ☐ S.C.C. Storage Ordinance
☐ Calif. Admin. Code, Title 22, Sec 66011, et Seq. ☐ Title 23, Sec. 2610, et Seq. ☐ Other

COMPUTER NO.	PROGRAM	ELEMENT	SERVICE	VIOLATIONS	TIME
Ex Loc	2311		188		
	2312		188		

VIOLATIONS	CLASS				
HAZARDOUS WASTES	I		II		
Hazardous Waste Determ.			1		
EPA ID Number			2		
Storage, 90 Days	3		4		
Storage, Containers	5		6		
Storage, Tanks	7		8		
Storage, Security	9		10		
Pre-Transportation Requirements			11		
Registered Hauler	12		13		
Manifests			14		
Disposal	15		16		
Preparedness			17		
Records, Reports			18		
Local Permit			19		
HAZARDOUS MATERIALS STORAGE					
Contingency Plan	20				
Employee Training	21				
Permit to Operate	22				
Approved Construction	23				
Monitoring System Installed	24				
Monitoring Operational	25				
Unauthor. Releases, Occurrance	26				
Unauthor. Releases, Reports	27				
Abandonment	28				
OCCUPATIONAL HAZARDS					
General Physical Hazard	37				
General Safety Hazard	38				
Personal Protection	39				
Toilets, Wash Facilities	40				
Eating Area	41				
Material Labeling	42				
Employee Training	43				
General Sanitation	44				

INSPECTOR: A. Hale

The marked items represent violations of the above-referenced codes(s) and must be corrected as follows:

2 - 1/1c. Tanks removed per closure guidelines from adjacent RO1 CC office

Tank 86A - 5000 gal gasoline
Tank 86B 7000 gal gasoline

Holes observed on bottom of both tanks

Samples collected by Segura - 2 soil samples per tank
Tanks removed by Erickson

1-5 day results of sample analysis
Manifest records and plot plan of sample collection

County of Santa Clara
Environmental Resources Agency
Department of Environmental Health
2220 Moorpark Avenue
San Jose, California 95128
(408) 299-6930
FAX (408) 280-6479

☒ **HAZARDOUS MATERIALS STORAGE**
☐ **HAZARDOUS WASTE GENERATOR**
OFFICIAL NOTICE OF INSPECTION

DATE 4-12-94

DBA/NAME NAS Moffett Field Tank #110

Comments: (see marked violations on page 1)

2000 gal steel tank removed per State & county guidelines by Navy Public Works

Samples collected by NAVY and analysed by Sequoia Laboratory.

Analysis result: Sample # 4D71807 - ND
4D71808 ND

1- Provide copy of tank/piping disposal manifest.

2- Sample and analyse for BTXE - Done 5-4-94

3 Submit closure report including analysis data & sampling location plan

6-15-94 - Received analysis Results for BTX
Sample # 4E28201 & 4E28202

Received by: [signature]

Inspected by: R [signature]
Hazardous Materials Compliance Division

Samples taken? Yes No

Photos taken? Yes No

APPENDIX B

SOIL BOREHOLE LOGS AND MONITORING WELL CONSTRUCTION DIAGRAMS

MOFFETT FEDERAL AIRFIELD
PHASE I BASEWIDE TANK CLOSURE REPORT
SOIL BOREHOLE AND CORRESPONDING MONITORING WELL LIST

Tank(s)	Soil Borehole Identification	Corresponding Monitoring Well
15	--	--
18	W5-9	W5-9
22	SBT22-1	WT22-1
28	--	--
30 and 31	--	--
55	SBT55-1	WT55-1
64	WNB-9	WNB-9
67	W9-12 W9-17 W9-37 ERM B14 W67-1 SB68-1 W68-1 SBS91-001 SB9SC-15 SB9SC-17	W9-12 W9-17 W9-37 ERM-4 W67-1 NA W68-1 W91-1 W9SC-15 W9SC-17
77	--	--
78	--	--
86A and 86B	NL	NL
110	--	--
111	UST111-GP-01 UST111-GP-02 UST111-GP-03 UST111-GP-04	NA NA NA NA
116	UST116-GP-01 UST116-GP-02 UST116-GP-03 UST116-GP-04	NA NA NA NA

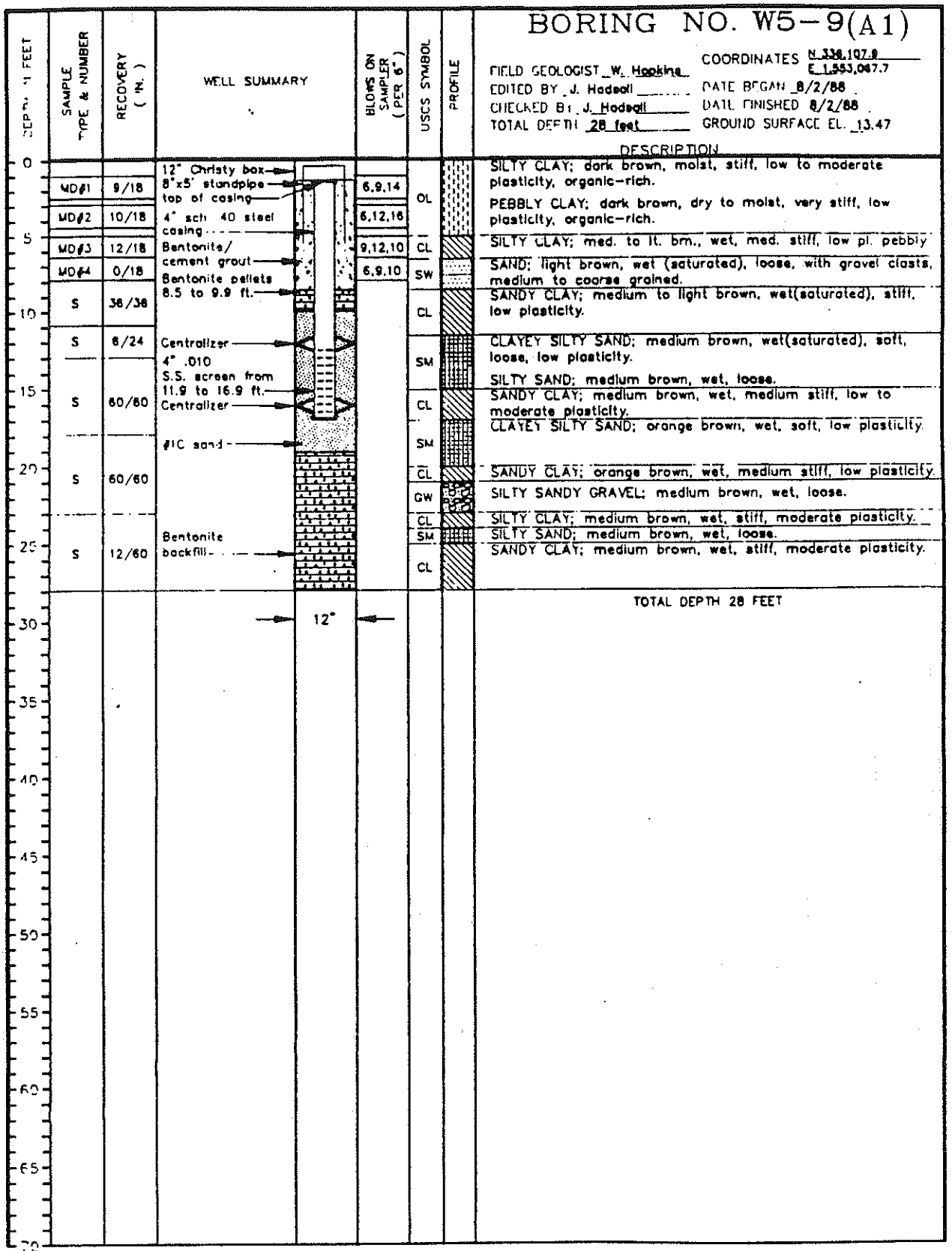
Notes:

-- Soil borehole logs do not exist for this tank and no monitoring wells exist for this tank
NA Monitoring well not installed in this borehole
NL Soil borehole log and monitoring well construction diagram not available

BORING NO. W5-9(A1)

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsell
CHECKED BY J. Hadsell
TOTAL DEPTH 28 feet

COORDINATES N 338,107.8 E 1,553,067.7
DATE BEGAN 8/2/88
DATE FINISHED 8/2/88
GROUND SURFACE EL. 13.47



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS FOR EXPLANATION OF SYMBOLS AND TERMS

BOREHOLE LOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

Job Number: 044-0267IRSIFW Well Designation: MWT22-1 Borehole Designation: SBT22-1

Client: U.S. NAVY Surface Elevation:

Site: Moffett Federal Airfield Subsite: Area 3 Ammo Bunkers Geologist: Don McHugh

Drilling Date (s): 8-8-95 Well Installation Date (s): 8-8-95

Drilling Company: SES Personnel: Paul & Thomas

Drilling Method: HSA with 18-inch split spoon sampler

Borehole Diameter: 6 inches Casing Diameter: 2 inches Casing Material: Schedule 40 PVC

Screen Diameter: 2 inches Screen Opening: 0.02 inches Screen Material: Schedule 40 PVC

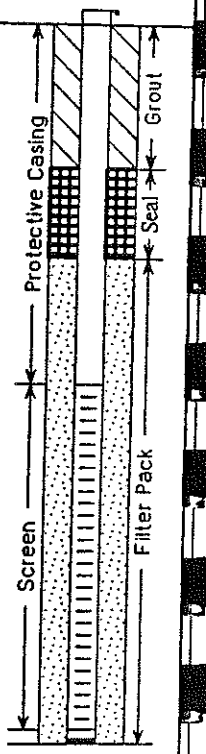
Screen Interval: 5 to 10 feet bgs Filterpack Interval: 3.25 to 10 feet bgs Bentonite Seal: 2 to 3.25 feet bgs

Grout Interval: 0 to 2 feet bgs Protective Cover: Flush Mount Elevation of TOC: -0.61

Latitude: 340988.28 Longitude: 1559438.91

DEPTH (FT)	BLOWS/6 in	RECOVERY	TIME	FIELD SCREENING	ANALYSIS	START OF CORE INTERVAL	GRAPHIC LOG	SOIL DESCRIPTION
			0950				CMB	BASE MATERIAL; for approx. 2".
								SANDY CLAY; dark brown, moist, trace silt and gravel, low plasticity.
5	2/1/1	18/18	0954		Geotech.	5.5	SC	Moisture content increasing with depth.
	1/2/4	18/18	0958		TPH/BTEX	8.0		Becomes grey with abundant organic material and saturated.
10								BORING TERMINATED at 10' bgs. Converted to 2" PVC Monitoring Well.
15								

WELL DIAGRAM



BOREHOLE LOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

Job Number: 044-0267IRSIFW Well Designation: MWT55-1 Borehole Designation: SBT55-1

Client: U.S. NAVY Surface Elevation:

Site: Moffett Federal Airfield Subsite: Old Runway Radar Geologist: Don McHugh

Drilling Date (s): 8-8-95 Well Installation Date (s): 8-8-95

Drilling Company: SES Personnel: Paul & Thomas

Drilling Method: HSA with 18-inch split spoon sampler

Borehole Diameter: 6 inches Casing Diameter: 2 inches Casing Material: Schedule 40 PVC

Screen Diameter: 2 inches Screen Opening: 0.02 inches Screen Material: Schedule 40 PVC

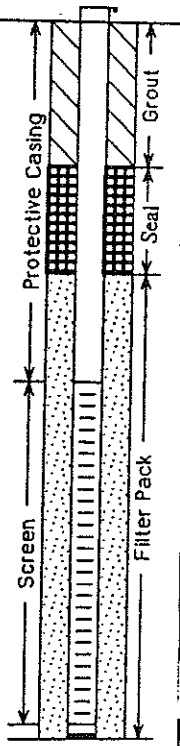
Screen Interval: 5 to 10 feet bgs Filterpack Interval: 3.5 to 10 feet bgs Bentonite Seal: 2 to 3.5 feet bgs

Grout Interval: 0 to 2 feet bgs Protective Cover: Flush Mount Elevation of TOC: 11.01

Latitude: 335980.12 Longitude: 1550785.79

DEPTH (FT)	BLOWS/6 in	RECOVERY	TIME	FIELD SCREENING	ANALYSIS	START OF CORE INTERVAL	GRAPHIC LOG	SOIL DESCRIPTION
			1155				SM	SILTY SAND; dark brown, moist, fine to medium, some gravel, micaceous.
								SANDY CLAY; dark brown, moist, trace silt and gravel, low plasticity.
5	3/6/8	18/18	1158		Geotech.	5.5	SC	Moisture content increasing with depth.
	2/3/4	6/18	1202		TPH/BTEX	7.0		Becomes saturated.
10								BORING TERMINATED at 10' bgs. Converted to 2" PVC Monitoring Well.
15								

WELL DIAGRAM



HTW DRILLING LOG

HOLE NO. WNB-9

PROJECT: NAS MOFFETT FIELD/NORTH BASE AREA INVESTIGATION

INSPECTOR/GEOLOGIST: FLOYD TRUJILLO

SHEET 2 OF 2 SHEETS

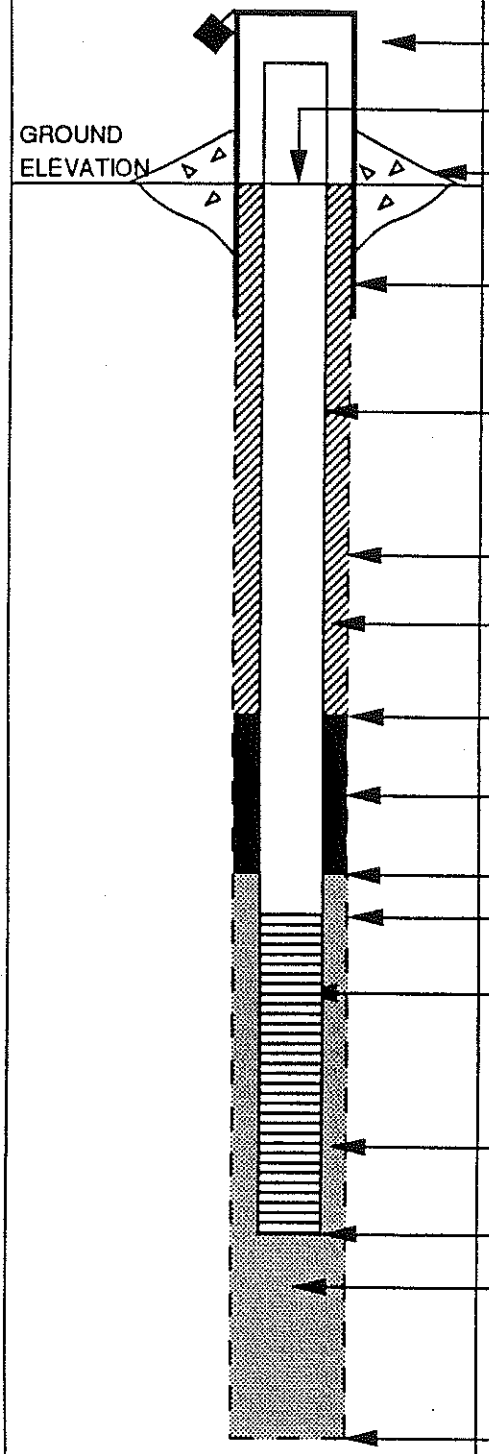
DEPTH a	DESCRIPTION OF MATERIALS b	USCS SYMBOL c	GRAPHIC LOG d	PID (PPM) e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
10.0	CLAY (CL). Same as above.						Poor recovery from 9' - 12'
12.0	CLAY (CL). Silty clay. Same as above.	CL		0			Poor recovery
14.0	CLAY (CL). Silty clay - stiff, moist, medium plasticity, abundant brown staining. Brown to light gray laminating. Color: Light olive brown (5/6)	CL		0			Sample recovery = 100%
16.0							
18.0							
20.0	CLAY (CL). Same as above.	CL		0			Sample recovery = 100%
22.0	Silt (ML). Silt with very fine sands, loose, low plasticity. Moist. Traces of brown staining. Color: Olive yellow (6/8)	ML		0			Sample recovery = 100%
24.0							
26.0							Total depth = 25'

BORING NO. WNB-9

MONITORING WELL SHEET

PROJECT	NAS Moffett Field	LOCATION	WNB-9
PROJECT NO.	2738-0384	BORING	WNB-9
ELEVATION		DATE	3/04/92
FIELD GEOLOGIST	Floyd A. Trujillo		

DRILLER: Rick Williamson
DRILLING METHOD: HSA
DEVELOPMENT METHOD: Bail/Swab/Pump



ELEVATION OF TOP OF RISER PIPE: 2.44

ELEVATION OF GROUND SURFACE: 0.20

TYPE OF SURFACE SEAL: Cement

I.D. OF SURFACE CASING: 12"

TYPE OF SURFACE CASING: Christie Box

RISER PIPE I.D.: 4"

TYPE OF RISER PIPE: (M.S.) Mild Steel

BOREHOLE DIAMETER: 12"

TYPE OF BACKFILL: 5% Bentonite with Portland cement

DEPTH OF SEAL: 4'

TYPE OF SEAL: Bentonite pellets

DEPTH TOP OF SAND PACK: 6'

DEPTH TOP OF SCREEN: 8'

TYPE OF SCREEN: Stainless Steel

SLOT SIZE x LENGTH: .020" 20 slot x 10'

I.D. OF SCREEN: 4"

TYPE OF SAND PACK: #3 Monterey sand

DEPTH BOTTOM OF SCREEN: 18'

DEPTH BOTTOM OF SAND PACK: 18'

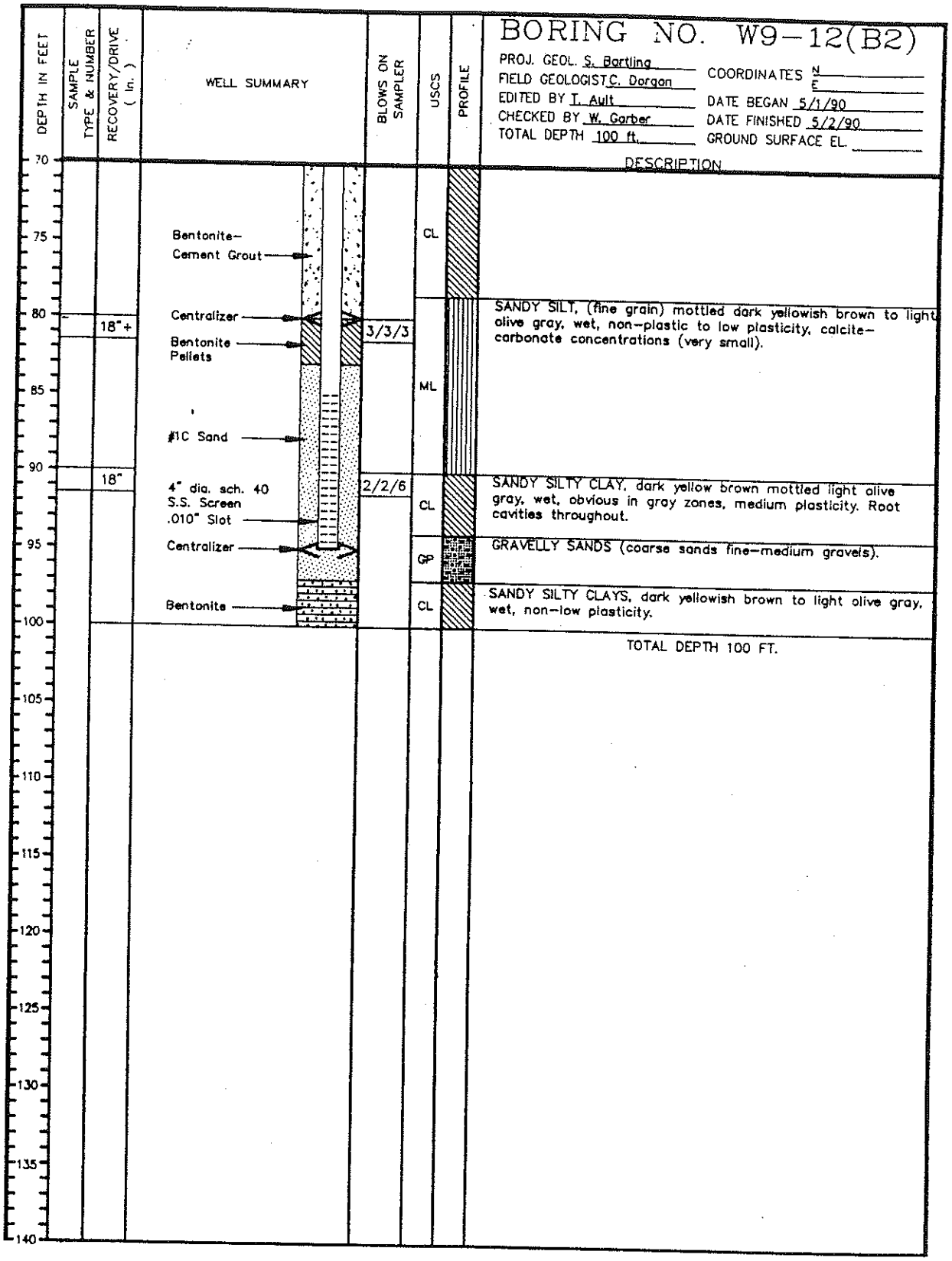
TYPE OF BACKFILL BELOW OBSERVATION WELL: Bentonite Pellets

DEPTH OF HOLE: (8" diameter borehole below 18'): 25'

BORING NO. W9-12(B2)

PROJ. GEOL. S. Bartling
FIELD GEOLOGIST C. Dorgan
EDITED BY T. Ault
CHECKED BY W. Garber
TOTAL DEPTH 100 ft.

COORDINATES N ____ E ____
DATE BEGAN 5/1/90
DATE FINISHED 5/2/90
GROUND SURFACE EL. ____



DRILLING CO.: Water Developement
DRILL METHOD: Air Rotary with Drive Casing

PROJECT NO.: 409700
CLIENT: Moffett Naval Air Station
LOCATION: Moffett Field, California

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

MF-W9-12(MF-19)

INTERNATIONAL TECHNOLOGY CORPORATION

HTW DRILLING LOG

HOLE NO. WNB-9

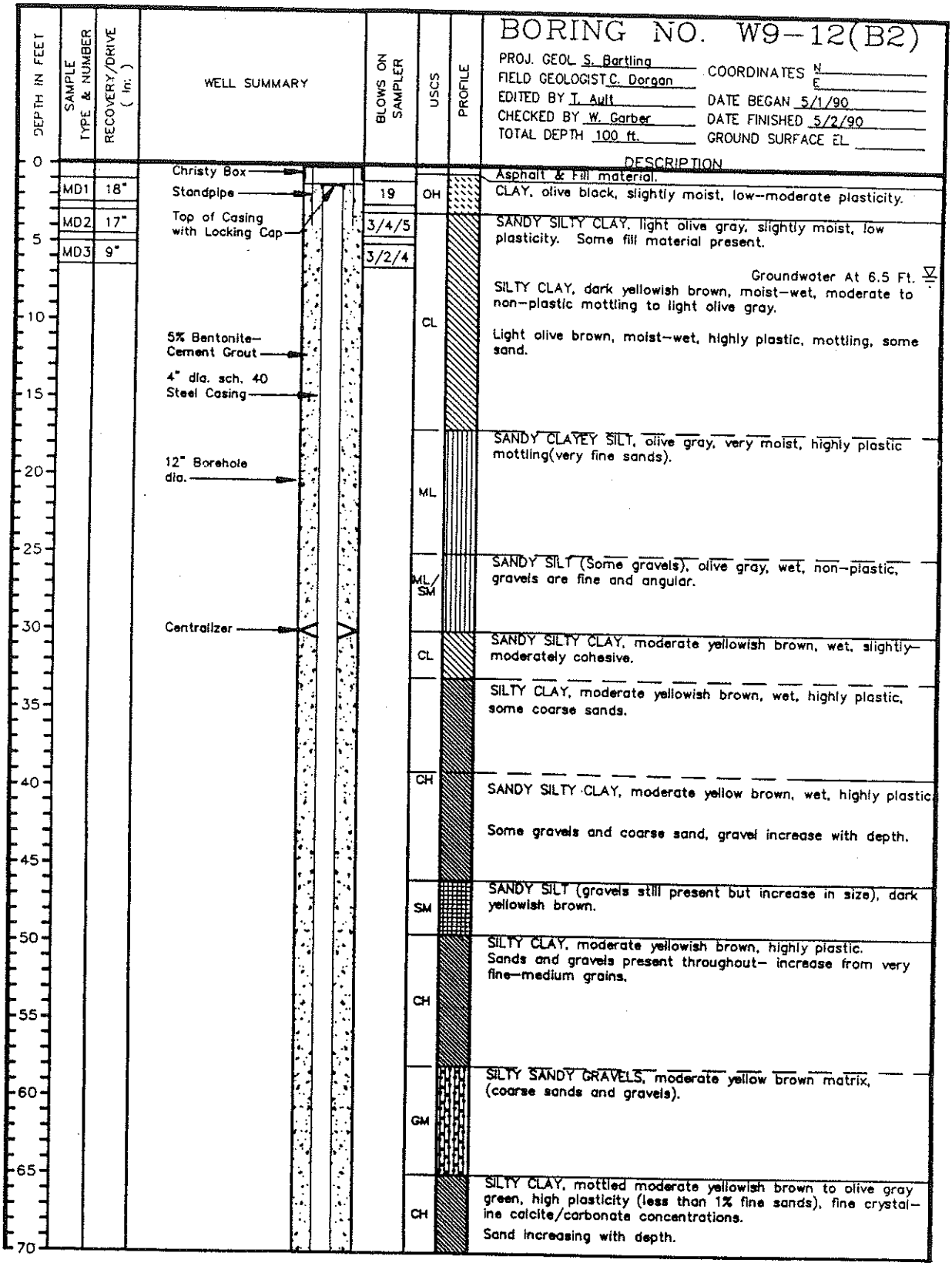
1. COMPANY NAME: JAMES M. MONTGOMERY, INC.	2. DRILLING SUBCONTRACTOR: Water Development Corporation
	SHEET 1 OF 2 SHEETS
3. PROJECT: NORTH BASE AREA INVESTIGATION	4. LOCATION: Moffett Naval Air Station
5. NAME OF DRILLER: RICK WILLIAMSON	6. MANUFACTURER'S DESIGNATION OF DRILL: Mobil B-53
7. SIZE AND TYPE OF DRILLING AND SAMPLING EQUIPMENT: 8" OD CONTINUOUS FLIGHT HOLLOW STEM AUGER; 2.5" OD CONTINUOUS CORE	8. HOLE LOCATION: N 340756.6, E 1547847.9
	9. SURFACE ELEVATION: G.S. = 0.20
	10. DATE STARTED: 3/04/92 — 11. DATE COMPLETED: 3/04/92
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 9' BGS
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A
14. TOTAL DEPTH OF HOLE: 25.0'	17. OTHER WATER LEVEL MEASURMENTS (SPECIFY): N/A
18. GEOTECHNICAL SAMPLES: None — DISTURBED: — UNDISTURBED:	19. TOTAL NUMBER OF CORE BOXES: 3
20. SAMPLES FOR CHEMICAL ANALYSIS: None — VOC: — METALS:	OTHER (SPECIFY): — OTHER (SPECIFY): — OTHER (SPECIFY): — 21. TOTAL SAMPLE RCVY %:
22. DISPOSITION OF HOLE: Completed as well — BACKFILLED: — MONITORING WELL: WNB-9	OTHER (SPECIFY): — 23. SIGNATURE OF INSPECTOR/GEOLOGIST: FLOYD TRUJILLO

DEPTH a	DESCRIPTION OF MATERIALS b	USCS SYMBOL c	GRAPHIC LOG d	PID (PPM) e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	No Recovery			0			
2.0	Clay (CL). Organic clay at 2' grading to a silty clay to 5'. Medium plasticity. Moist. Pockets of brown staining. Color: Olive gray (5/2)	CL		0			Sample recovery = 75%
4.0							
6.0	Clay (CL). Silty clay. Medium plasticity, stiff, moist. 20% calcite nodules present. 1/2' poorly graded sand at 8' - 9' in a silty clayey matrix. Color: Olive brown (4/3)	CL		0			Sample recovery = 100%
8.0							▽
	Clay (CL). Same as above.	CL		0			Sample recovery = 5%
10.0							

BORING NO. W9-12(B2)

PROJ. GEOL S. Bartling
FIELD GEOLOGIST C. Dorgan
EDITED BY T. Ault
CHECKED BY W. Garber
TOTAL DEPTH 100 ft.

COORDINATES N ____ E ____
DATE BEGAN 5/1/90
DATE FINISHED 5/2/90
GROUND SURFACE EL ____



DRILLING CO.: Water Developement
DRILL METHOD: Air Rotary with Drive Casing

PROJECT NO.: 409700
CLIENT: Moffett Naval Air Station
LOCATION: Moffett Field, California

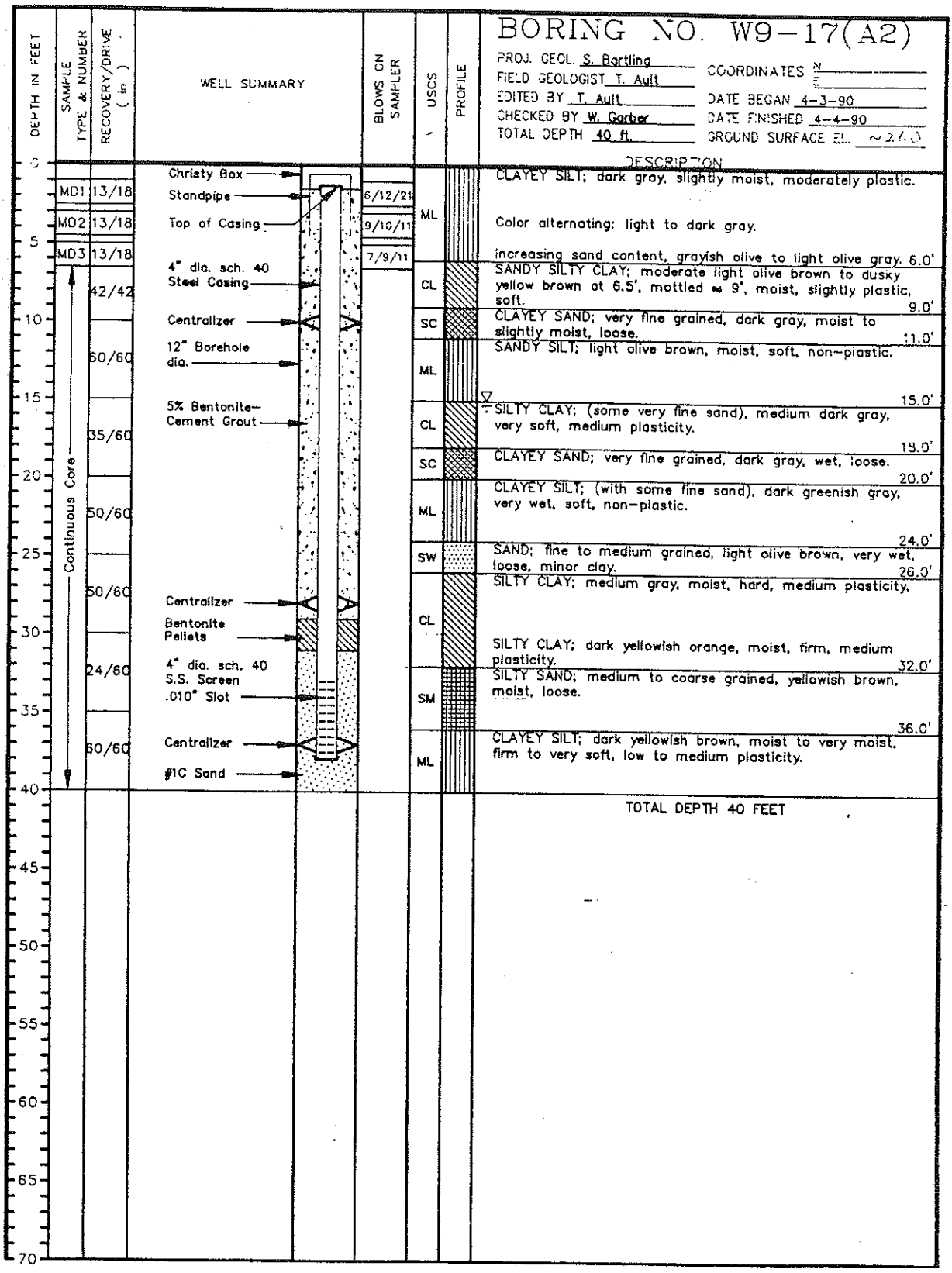
SEE LEGEND FOR LOGS AND TEST PITS FOR EXPLANATION OF SYMBOLS AND TERMS

MF-W9-12(MF-19)

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. W9-17(A2)

PROJ. GEOL. S. Bartling — COORDINATES N ____ E ____
FIELD GEOLOGIST T. Ault — DATE BEGAN 4-3-90
EDITED BY T. Ault — DATE FINISHED 4-4-90
CHECKED BY W. Garber — GROUND SURFACE EL. ~27.0
TOTAL DEPTH 40 ft.



DRILLING CO.: Water Developement
DRILL METHOD: Hollow Stem Auger (Rig CME-75)

PROJECT NO.: 409700
CLIENT: Moffett Naval Air Station
LOCATION: Moffett Field, California

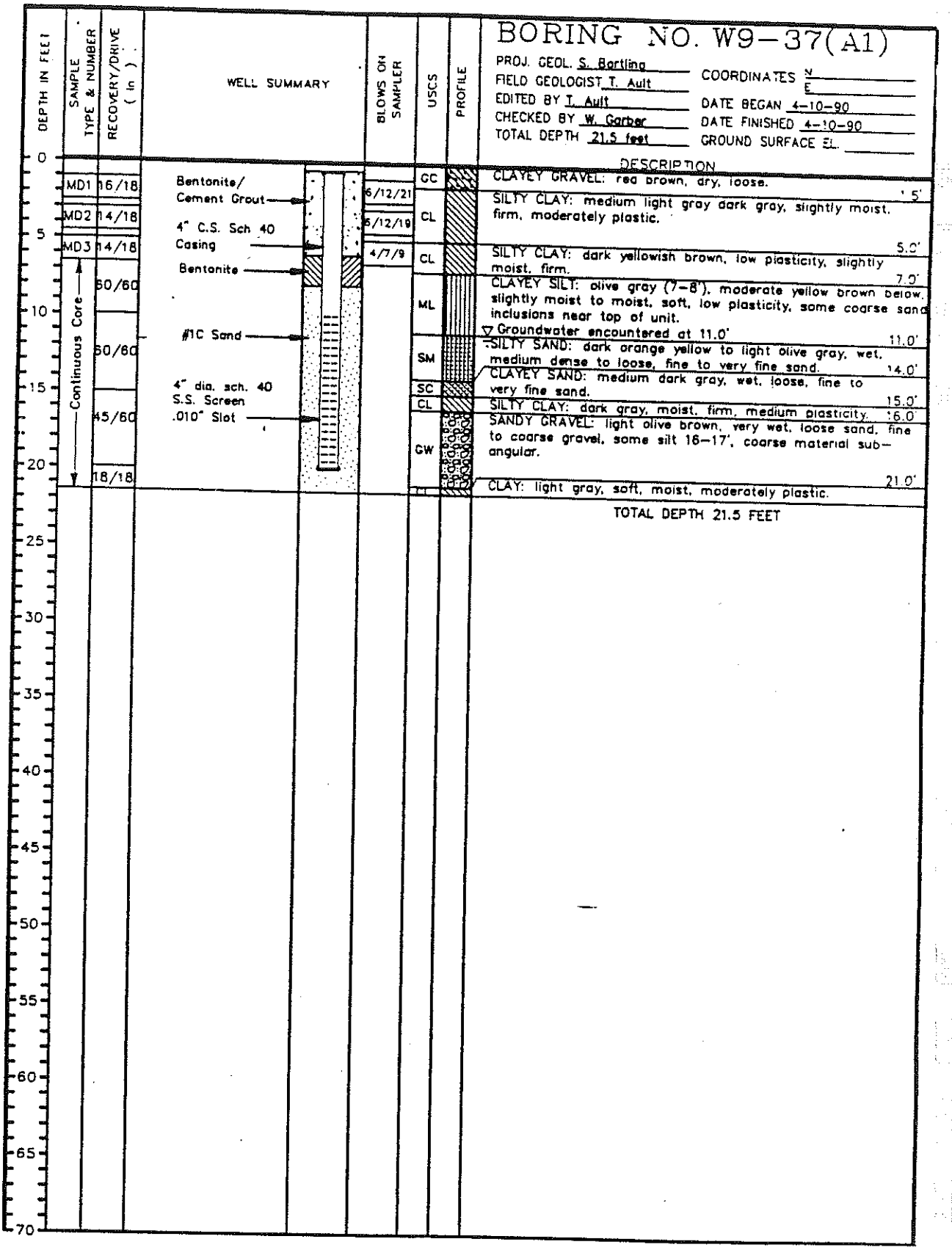
SEE LEGEND FOR LOGS AND TEST PITS FOR EXPLANATION OF SYMBOLS AND TERMS

MF-W9-17(*MF13)

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. W9-37(A1)

PROJ. GEOL. S. Bartling
FIELD GEOLOGIST T. Ault
EDITED BY T. Ault
CHECKED BY W. Garber
TOTAL DEPTH 21.5 feet
COORDINATES N ____ E ____
DATE BEGAN 4-10-90
DATE FINISHED 4-10-90
GROUND SURFACE EL. ____



DRILLING CO.: Water Developement
DRILL METHOD: Hollow Stem Auger (Rig CME-75)

PROJECT NO.: 409700
CLIENT: Moffett Naval Air Station
LOCATION: Moffett Field, California

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY

ERM

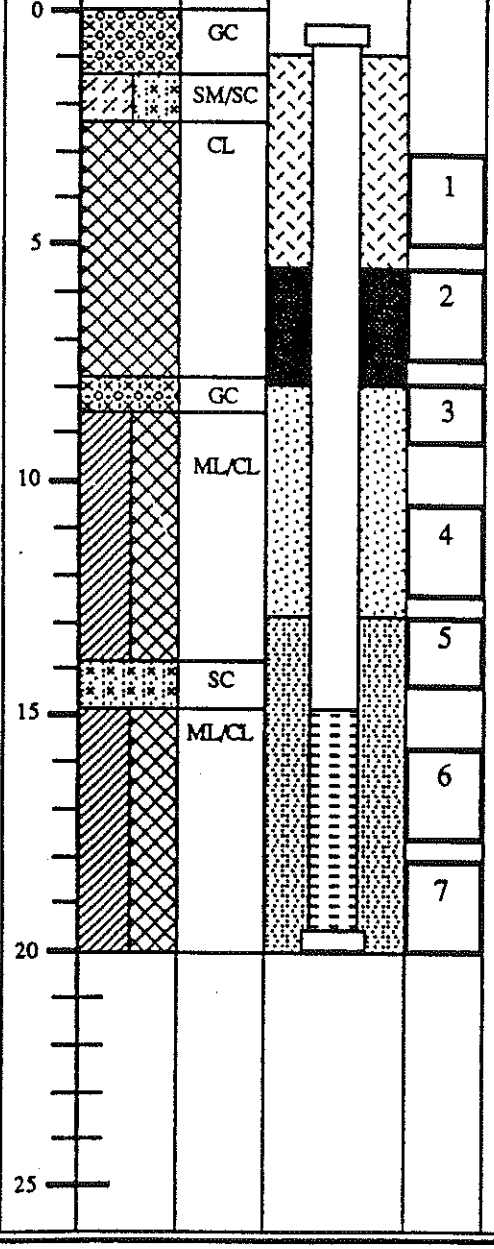
ERM-WEST
Environmental Resources Management

Drilling Log

Project	Moffet Naval Air Station	Client	U.S. Navy
Location	Mountain View, CA	Project #	40027
Boring Name	B14	Boring Depth	20 ft. below L.S.
Well Name	MW4	Boring Diameter	8" inches
Surface Elevation		First Water noted	ft. below L.S.
Drilling Company	Kleinfelder	Driller	Doug
Drilling Method(s)	8" Hollow Stem Auger	Sampling Method(s)	Shelby Tube/Split Sp.
Start (Date/Time)	3-11-87/1610	Finish (Date/Time)	3-12-87
Log By	Chuck Berkstresser	Page	1 of 1

Notes: Split-spoon sampler was used at 2', 3.5', 7.5' and 12.5'; Shelby tube was used to collect the other samples

Sketch



Depth (feet)	Soil/Rock Type Graphic / USCS	Well Construction	Sample No.	DESCRIPTION (Consistency, Moisture, Color, Soil/Rock type; Structures, Water level, odor, stains, etc.)
0	GC			greyish-brown GRAVEL, fine to coarse SAND, SILT and CLAY; no petroleum or solvent odor
	SM/SC			yellow-brown SAND, SILT and CLAY; no odor; 1/2" black layer with white and orange specks at 2.3 ft.
	CL		1	light brownish grey CLAY
				becomes dark greenish grey
5				medium greenish-grey CLAY; mottled white
				some roots visible
			2	becomes darker grey with white to light gray mottling; no odor
				medium grey CLAY; no odor
	GC		3	dense, medium grey, fine to medium GRAVEL, SILT, and CLAY (tight)
	ML/CL			medium grey, SILT and CLAY with a trace of GRAVEL
10			4	medium grey CLAY with some SILT and some coarse SAND (tight)
				medium grey CLAY and SILT; no odor
			5	medium grey SILTY CLAY; no odor
				medium grey (with orange splotches) CLAY with some SILT; no odor
	SC			brownish grey, CLAYEY, very fine SAND; no odor
15	ML/CL			olive grey CLAY and SILT with some medium and coarse SAND; no odor
			6	dark grey, SILTY CLAY; odor is like normal Bay mud
				dark grey CLAY with some SILT and some very fine SAND; a few coarse sand grains; odor is like normal Bay mud
			7	dark grey, very fine to fine SAND, SILT and CLAY; no odor
				dark grey CLAY and SILT; no odor
20				dark grey CLAY, SILT, and very fine SAND; no odor
25				

FIELD BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC

LOCATION OF BOREHOLE

JOB NO: 044-0024 IRRSCFW — BOREHOLE DESIGNATION: W67-1(A1)

CLIENT: U.S. Navy — SURFACE ELEVATION:

SITE: NAS Moffett Field — DEPTH TO WATER:

SUBSITE: Tank 67, Building 88 — LOGGED BY: Wayne Hauck

DRILLING CO: Spectrum Exploration — DRILLING DATE(S): 8/30/90

DRILLING PERSONNEL/METHOD: Doug Shearer, Jon Sump Jr., CME-55; 6 inch ID, 10 inch OD HSA; split spoon sampler

SAMPLER TYPE	SAMPLE DEPTH	BLOW CTS	RECVD / DRIVEN	TIME	OVM READING	ANLYS Phy Ch	WELL INFO	DEPTH IN FT	USCS GRAPHICS	SOIL DESCRIPTION
								1		0.0 to 4.0 ft: Silty clay with sand, dark gray brown, stiff, dry to damp, no odor.
								2	ML	
								3		
	2.5 - 4.0	4/5/5	1.5/1.5		0			4		4.0 to 8.0 ft: Clay, slightly sandy, gray brown, slightly stiff, moist, no odor.
								5		
	5.0 - 6.5		1.5/1.5		0			6	CL	
								7		
								8		8.0 to 12.5 ft: Silt, gray brown, yellow mottling, soft, wet, no odor.
	7.5 - 9.0	1/3/5	1.5/1.5		0			9		
								10		
								11		
								12	ML	
								13		12.5 to 16.0 ft: Silt, slightly sandy, gray brown, mottled, firm, wet.
	12.5 - 14.0	2/2/3	0/1.5					14		
								15		
	14.5 - 16.0	2/3/4	1.5/1.5					16		TOTAL DEPTH = 16.0 FT

PRC
ENVIRONMENTAL MANAGEMENT, INC.

MONITORING WELL INSTALLATION RECORD
NONTELESCOPING WELL

WELL LOCATION INFORMATION

WELL NO. W67-1(A1)
BOREHOLE NO. —
SITE NAS Moffett Field
SUBSITE Tank 67, Building 88
DATE 8/30/90
RECORDED BY Wayne Hauck
WELL PERMIT NO. 90WI743

SURFACE COMPLETION INFORMATION

TYPE OF INSTALLATION
- ☐ ABOVE GROUND INSTALLATION
  - ☐ PROTECTIVE POSTS INSTALLED
- ■ FLUSH MOUNT INSTALLATION
  - TYPE Christy Box
  - ■ TRAFFIC RATED
  - ☐ WATERTIGHT SEAL
  - ■ WATERTIGHT WELL CAP

TYPE OF PROTECTIVE CASING
- ☐ STEEL SIZE ____
- ☐ ____

SURFACE SEAL
- ☐ NONSHRINKING CEMENT
- ■ CONCRETE
- ☐ ____
- ■ CHECKED FOR SETTLEMENT
- ■ INTERNAL MORTAR ADDED

GROUND SURFACE ELEVATION
- ☐ SURVEYED
  - DATE ____

MEASURING POINT
- ■ TOP OF WELL CASING
- ☐ TOP OF PROTECTIVE CASING
- ☐ GROUND SURFACE
- ☐ ____

DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL
Spectrum Exploration
Doug Shearer
Jon Jam Jr.
DRILL RIG CME 55
DRILLING METHOD
- ■ HOLLOWSTEM AUGER
- ☐ AIR ROTARY
- ☐ MUD/WATER ROTARY
- ☐ ____

DRILLING BEGAN
- DATE 8/30/90 TIME ____

WELL COMPLETION BEGAN
- DATE 8/30/90 TIME ____

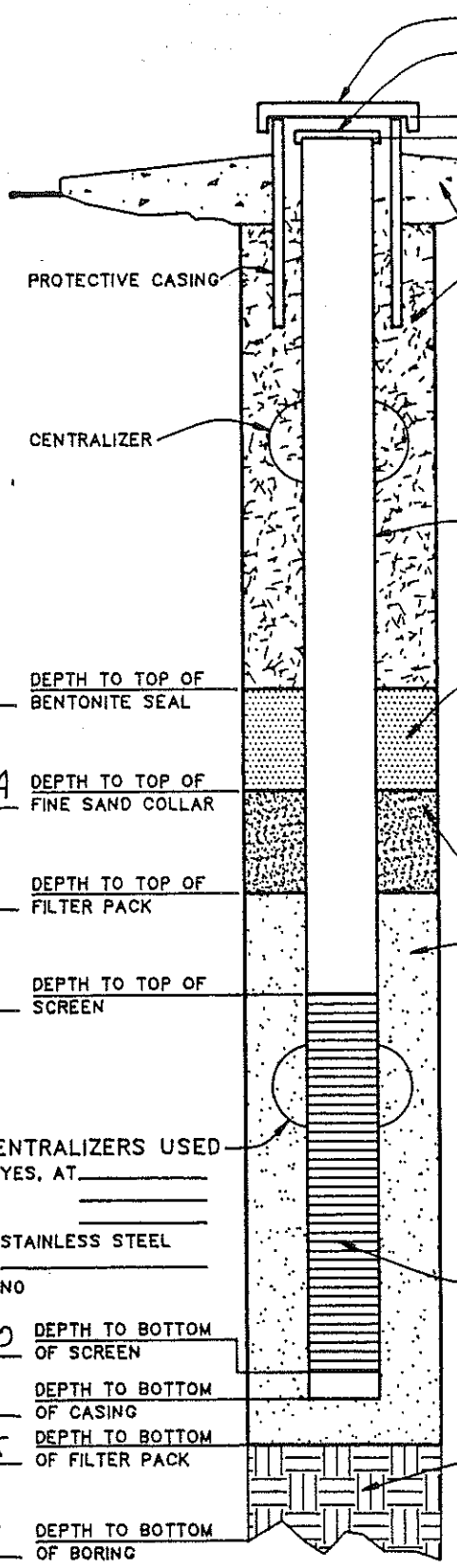
WELL COMPLETION FINISHED
- DATE 8/30/90 TIME ____

DRILLING FLUID TYPE
- ☐ BENTONITE ☐ WATER
- ☐ POLYMER ☐ ____

DRILLING FLUID LOSS
- ☐ YES ____ GALLONS
- ☐ NO

WATER ADDED DURING COMPLETION
- ☐ YES ____ GALLONS
- ■ NO

TOTAL FLUID LOSS TO FORMATION
- 0 GALLONS



DEPTH TO TOP OF GROUT
- ■ GROUT FORMULA (PROPORTION OF EACH)
  - CEMENT 1bag BENTONITE ____
  - WATER 8 OTHER ____
  - QUANTITY USED 1 94 lb bag
- ☐ PREPARED MIX
  - NAME OF PRODUCT ____
  - MANUFACTURED BY ____
  - QUANTITY USED ____

TYPE OF CASING
- ☐ STAINLESS STEEL — CASING DIAMETER
- ■ SCHEDULE 40 PVC — INSIDE 2.0"
- ☐ SCHEDULE 80 PVC — OUTSIDE ____
- ☐ ____
- MFG BY ____

BENTONITE SEAL
- ■ PELLETS ☐ SLURRY
- ☐ POWDER/GRANULAR ☐ ____
- QUANTITY USED 1½ 50 lb bucket

METHOD INSTALLED
- ☐ TREMIE ☐ ____
- ■ POURED ☐ NOT USED

FINE SAND COLLAR (OPTIONAL)
- SIZE/TYPE N/A

FILTER PACK
- GRAVEL SIZE ____ ; ____ TO ____ FT
- SAND SIZE #3 ; 5 TO 16.5 FT
- FORMATION COLLAPSE; ____ TO ____ FT
- MATERIAL ____
- QUANTITY USED 3½ 100 lb bags

METHOD INSTALLED
- ☐ TREMIE
- ■ POURED
- ☐ ____

GRAIN SIZE TESTS FOR FILTER PACK
- ☐ CONDUCTED; FOR REPORT, REFER TO ____
- ■ NOT CONDUCTED

TYPE OF SCREEN
- ☐ STAINLESS STEEL — SCREEN DIAMETER
- ■ SCHEDULE 40 PVC — INSIDE 2.0"
- ☐ SCHEDULE 80 PVC — OUTSIDE ____
- ☐ ____
- SLOT SIZE 0.010"
- MFG BY ____

BACKFILL MATERIAL
- ☐ GRAVEL ☐ FORMATION COLLAPSE;
- ☐ BENTONITE MATERIAL ____
- ☐ SAND ____
- ☐ ____

TOTAL LENGTH OF CASING AND SCREEN ____

DEPTH TO WATER FOLLOWING INSTALLATION (TOC) ____

DIAMETER OF BOREHOLE 10"

NOTES:
1. SCALE: NONE
2. RECORD FRACTIONAL FEET IN DECIMAL, NOT IN INCHES
3. RECORD CONSTRUCTION DEPTHS BELOW GROUND LEVEL

FIELD BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

LOCATION OF BOREHOLE

JOB NO: 044-0024 IRRSCFW | BOREHOLE DESIGNATION: SB68-1(A1)

CLIENT: U.S. Navy | SURFACE ELEVATION:

SITE: NAS Moffett Field | DEPTH TO WATER:

SUBSITE: Tank 68, Building 88 | LOGGED BY: Willis Wilcoxon

DRILLING CO: Spectrum Exploration | DRILLING DATE(S): 12/6/90

DRILLING PERSONNEL/METHOD: Ray Livingston, Jay Leonard, CME-55; 6 inch ID, 10 inch OD HSA; split spoon sampler, 45° angle

SAMPLER TYPE	SAMPLE DEPTH	BLOW CTS	RECVD / DRIVEN	TIME	PID READING	ANLYS Phy Ch	WELL INFO	DEPTH IN FT	USCS GRAPHICS	SOIL DESCRIPTION
								1		0.0 to 7.0 ft: Clay with silt, light gray (5Y6/1), moist, low plasticity, no odor.
								2		
								3		
	2.5 - 4.0		1.1 / 1.5	1300				4		
								5	CL	
								6		
								7		7.0 to 12.5 ft: Clay, brown (5Y2.5/1), medium plasticity, moist, no odor.
	7.5 - 9.0		1.1 / 1.5	1310				8		
								9		
								10		
								11		
								12		
								13		12.5 to 16.0 ft: Silty sand, medium gray (5Y4/1), trace mottled brown, very soft, wet, nonplastic, mottled color increases with depth.
	12.5 - 14.0		1.5 / 1.5	1320				14	SM	
								15		
								16		16.0 to 23.5 ft: Poorly graded sand, green brown (5Y4/2), mottled rust (5Y4/3), wet, no odor, root channels.
								17		
								18		
	17.5 - 19.0		1.5 / 1.5	1340				19	SP	
								20		

FIELD BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

JOB NO: 044-0024 IRRSCFW

BOREHOLE DESIGNATION: SB68-1(A1) continued

SAMPLER TYPE	SAMPLE DEPTH	BLOW CTS	RECVD / DRIVEN	TIME	PID READING	ANLYS Phy Ch	WELL INFO	DEPTH IN FT	USCS GRAPHICS	SOIL DESCRIPTION
								21		
								22		
								23		
								24		23.5 to 25.5 ft: Sandy silt, medium gray (2.5YR4/0), soft, low plasticity, root channels.
								25	ML	
	25.0 - 26.5		1.3 / 1.5	1350				26	SM	25.5 to 26.5 ft: Silty sand with clay, gray (2.5YR4/0), soft, low plasticity, slight solvent odor, root channels.
								27		TOTAL DEPTH = 26.5 FT

FIELD BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC

LOCATION OF BOREHOLE

JOB NO: 044-0024 IRRSCFW — BOREHOLE DESIGNATION: W68-1(A1)

CLIENT: U.S. Navy — SURFACE ELEVATION:

SITE: NAS Moffett Field — DEPTH TO WATER:

SUBSITE: Tank 68, Building 88 — LOGGED BY: Willis Wilcoxon

DRILLING CO: Spectrum Exploration — DRILLING DATE(S): 9/6/90

DRILLING PERSONNEL/METHOD: Ray Livingston, Jay Leonard, CME-55; 6 inch ID, 10 inch OD HSA; split spoon sampler, 45° angle

SAMPLER TYPE	SAMPLE DEPTH	BLOW CTS	RECVD DRIVEN	TIME	PID READING	ANLYS Phy Ch	WELL INFO	DEPTH IN FT	USCS GRAPHICS	SOIL DESCRIPTION
								1		0.0 to 7.0 ft: Silty clay with sand and gravel, brown (10YR3/2), dry to trace moisture, no odor, fill material.
								2		
								3		
	2.5 - 4.0		1.0/1.5	1100				4		
								5		
								6	CL	
								7		7.0 to 11.0 ft: Silty clay with trace sand, medium gray (5Y4/1), moist, low plasticity, no odor, color changes to gray (5Y6/1).
								8		
	7.5 - 9.0		1.2/1.5	1200				9		
								10		
								11		11.0 to 16.0 ft: Silt with sand, gray (5Y5/1), mottled gold brown, wet, no odo mottled color increases with depth.
								12		
								13		
	12.5 - 14.0		1.25/1.5	1205				14	ML	
								15		
								16		16.0 to 23.0 ft: Silty sand, gray (5Y4/2), soft, nonplastic, no odor, root channels.
								17		
								18		
	17.5 - 19.0		1.5/1.5	1215				19	SM	
								20		

FIELD BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

JOB NO: 044-0024 IRRSCFW

BOREHOLE DESIGNATION: W68-1(A1) continued

SAMPLER TYPE	SAMPLE DEPTH	BLOW CTS	RECVD / DRIVEN	TIME	PID READING	ANLYS Phy Ch	WELL INFO	DEPTH IN FT	USCS GRAPHICS	SOIL DESCRIPTION
								21		
								22		
								23		23.0 to 25.5 ft: Well graded sand with silt, very fine to coarse, angular to subangular sand, gray (2.5Y3/0), soft, weak cementation.
								24	SW	
								25		
	25.0 - 26.5		1.25 / 1.5	1225						25.5 to 26.5 ft: Clayey silt with trace sand, gray (2.5Y3/0), low plasticity, no odor.
								26	ML	TOTAL DEPTH = 26.5 FT
								27		

ENVIRONMENTAL MANAGEMENT, INC.

MONITORING WELL INSTALLATION RECORD
NONTELESCOPING WELL

WELL LOCATION INFORMATION

WELL NO. W68-1 (A1)
BOREHOLE NO. —
SITE NAS Moffett Field
SUBSITE Tank 68, Building 88
DATE 9/6/90
RECORDED BY Willis Wilcoxon
WELL PERMIT NO. —

SURFACE COMPLETION INFORMATION

TYPE OF INSTALLATION
- ■ ABOVE GROUND INSTALLATION
  - □ PROTECTIVE POSTS INSTALLED
- □ FLUSH MOUNT INSTALLATION
  - TYPE —
  - □ TRAFFIC RATED
  - □ WATERTIGHT SEAL
  - □ WATERTIGHT WELL CAP

TYPE OF PROTECTIVE CASING
- □ STEEL SIZE —
- ■ 4" PVC

SURFACE SEAL
- □ NONSHRINKING CEMENT
- □ CONCRETE
- □ —
- □ CHECKED FOR SETTLEMENT
- □ INTERNAL MORTAR ADDED

GROUND SURFACE ELEVATION
- □ SURVEYED
  - DATE —

MEASURING POINT
- □ TOP OF WELL CASING
- □ TOP OF PROTECTIVE CASING
- □ GROUND SURFACE
- □ —

DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL
Spectrum Exploration
Ray Livingston
Jay Leonard
DRILL RIG CME 75
DRILLING METHOD
- ■ HOLLOWSTEM AUGER
- □ AIR ROTARY
- □ MUD/WATER ROTARY
- □ —

DRILLING BEGAN
- DATE 9/6/90 TIME —

WELL COMPLETION BEGAN
- DATE 9/6/90 TIME —

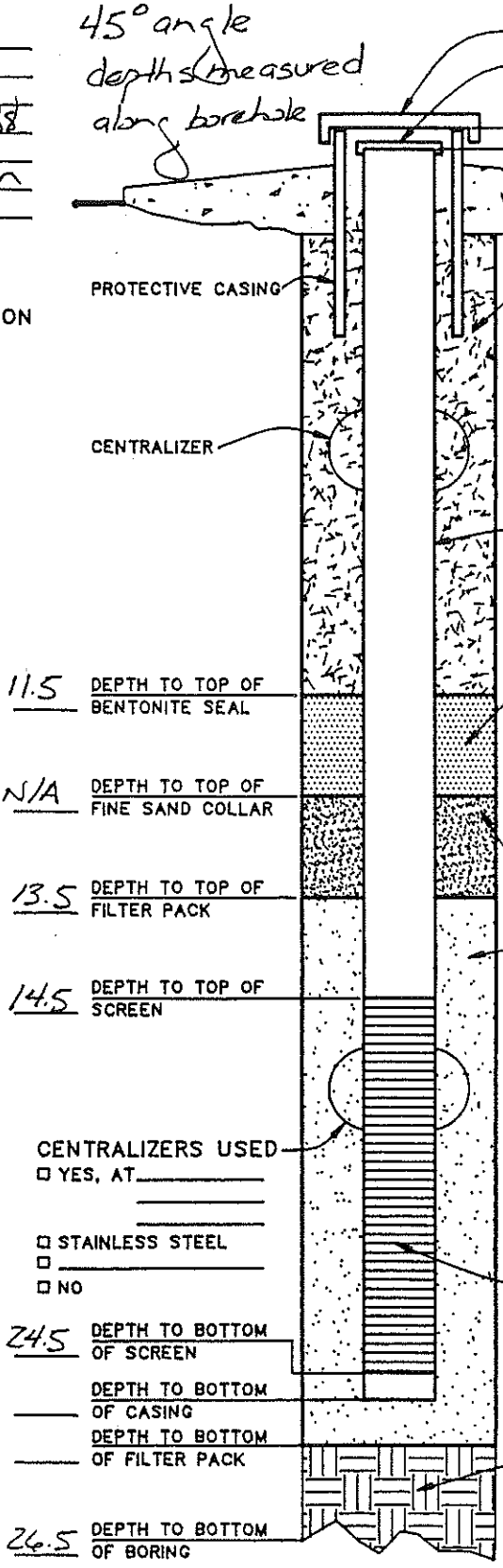
WELL COMPLETION FINISHED
- DATE 9/6/90 TIME —

DRILLING FLUID TYPE
- □ BENTONITE □ WATER
- □ POLYMER □ —

DRILLING FLUID LOSS
- □ YES — GALLONS
- □ NO

WATER ADDED DURING COMPLETION
- □ YES — GALLONS
- □ NO

TOTAL FLUID LOSS TO FORMATION
— GALLONS



DEPTH TO TOP OF GROUT
- □ GROUT FORMULA (PROPORTION OF EACH
  - CEMENT — BENTONITE —
  - WATER — OTHER —
  - QUANTITY USED —
- □ PREPARED MIX
  - NAME OF PRODUCT —
  - MANUFACTURED BY —
  - QUANTITY USED —

TYPE OF CASING
- □ STAINLESS STEEL — CASING DIAMETER
- ■ SCHEDULE 40 PVC — INSIDE 2.0"
- □ SCHEDULE 80 PVC — OUTSIDE —
- □ —
  - MFG BY —

BENTONITE SEAL
- ■ PELLETS □ SLURRY
- □ POWDER/GRANULAR □ —
  - QUANTITY USED —

METHOD INSTALLED
- □ TREMIE □ —
- ■ POURED □ NOT USED

FINE SAND COLLAR (OPTIONAL)
- SIZE/TYPE N/A

FILTER PACK
- GRAVEL SIZE — ; — TO — FT
- SAND SIZE #3 ; 13.5 TO 24.5 FT
- FORMATION COLLAPSE; — TO — FT
- MATERIAL —
- QUANTITY USED —

METHOD INSTALLED
- □ TREMIE
- □ POURED
- □ —

GRAIN SIZE TESTS FOR FILTER PACK
- □ CONDUCTED; FOR REPORT, REFER TO —
- □ NOT CONDUCTED

CENTRALIZERS USED
- □ YES, AT —
- □ STAINLESS STEEL
- □ —
- □ NO

TYPE OF SCREEN
- □ STAINLESS STEEL — SCREEN DIAMETER
- ■ SCHEDULE 40 PVC — INSIDE 2.0"
- □ SCHEDULE 80 PVC — OUTSIDE —
- □ —
  - SLOT SIZE 0.010"
  - MFG BY —

BACKFILL MATERIAL
- □ GRAVEL □ FORMATION COLLAPSE;
- □ BENTONITE MATERIAL —
- □ SAND —
- □ —

TOTAL LENGTH OF CASING AND SCREEN —

DEPTH TO WATER FOLLOWING INSTALLATION (TOC) —

DIAMETER OF BOREHOLE 10"

NOTES:
1. SCALE: NONE
2. RECORD FRACTIONAL FEET IN DECIMAL, NOT IN INCHES
3. RECORD CONSTRUCTION DEPTHS BELOW GROUND LEVEL

BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

LOCATION OF BORELOG

JOB NO.: 044-0170IRFSFW	BOREHOLE DESIGNATION: SBS91-001
CLIENT: U.S. NAVY	SURFACE ELEVATION: 22.4
SITE: Moffett Field	DEPTH TO WATER: 18.5'
SUBSITE:	LOGGED BY: Shaleigh Whitesell
DRILLING CO.: West Hazmat	DRILLING DATE(S): 5/28/92
DRILLING PERSONNEL/METHOD: Randy Wolfe, Jeff Smith	

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	BLOWS/6 IN. SAMPLE	RECOVERED	DRIVEN	TIME	PID Rdg.	ANALYS PHYS	ANALYS CHEM	WELL Info.	DEPTH in Ft.	USCS SOIL TYPE GRAPHIC LOG	SOIL DESCRIPTION
CB	20.0			2.0/5.0							21		20.0 to 23.0 feet: No sample; may be flowing sand.
											22		
							12.4				23		23.0 to 25.0 feet: Sand and gravel (SW); sand is coarse-grained, light olive brown, nonplastic, subround gravel, sample SBS91-001(24.5) collected.
											24	SW	
	25.0								X		25		
CB	25.0			3.0/5.0							26		25.0 to 27.0 feet: No sample; may be flowing sand.
											27		
							15.9		X		28	SW	27.0 to 29.0 feet: Sand and gravel (SW); sand is coarse-grained, light olive brown, nonplastic, wet, subround gravel, sample SBS91-001(27.5) collected.
											29		
	30.0										30	CL	29.0 to 30.0 feet: Silty clay (CL); moderate olive brown mottled with light olive brown, moderately plastic, moist.
CB	30.0			5.0/5.0							31	CL	30.0 to 33.8 feet: Silty clay (CL); yellowish gray, moderately plastic, some subround gravel clasts.
											32		
											33		
							890				34		33.8 to 35.0 feet: Sand and gravel (SW); sand is coarse-grained, light olive brown, wet, subround gravel; sample SBS91-001(35.0) collected.
	35.0								X		35	SW	
											36		TD at 35.0'.
											37		
											38		
											39		
											40		

BORELOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

LOCATION OF BORELOG	JOB NO.: 044-0170IRFSFW	BOREHOLE DESIGNATION: SBS91-001
	CLIENT: U.S. NAVY	SURFACE ELEVATION: 22.3
	SITE: Moffet Field	DEPTH TO WATER: 18.5'
	SUBSITE:	LOGGED BY: Shaleigh Whitesell
	DRILLING CO.: West Haz Mat	DRILLING DATE(S): 5/28/92
	DRILLING PERSONNEL/METHOD: Randy Wolfe, Jeff Smith/ Hollow stem auger, sampled with 2 1/2" ID core barrel (CB) through 6" OD augers.	

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	BLOWS/ 6 IN. SAMPLE	RECOVERED / DRIVEN	TIME	PID Rdg.	ANALYS PHYS	ANALYS CHEM	WELL Info.	DEPTH in Ft.	USCS SOIL TYPE GRAPHIC LOG	SOIL DESCRIPTION
										1		Augered to 5.0' without sampler.
										2		
										3		
										4		
										5		
CB	5.0			4.0/5.0						6	CL	5.0 to 8.5 feet: Clay (CL); light olive gray and olive gray, dry, moderate plasticity, sample SBS91-001(6.0) collected for TPH and VOC analysis.
								X		7		
						5.5				8		
										9	CL	8.5 to 10.0 feet: Clay (CL); dusky yellow mottled with light olive brown, moderate platicity, moist at 9.0 ft.
		10.0								10		
CB	10.0			5.0/5.0						11	ML	10.0 to 13.8 feet: Clayey silt (ML); light olive gray mottled with light olive brown, small silt stringers, at 12.5 ft., color changes to light olive gray, sample SBS91-001(12.5) collected.
										12		
						21.7				13		
								X		14		
										15	ML	13.8 to 15.0 feet: Clayey silt (ML); light olive gray, no mottles, nonplastic.
		15.0								16	CL	
CB	15.0			5.0/5.0				X		17		15.0 to 17.3 feet: Silty clay (CL); olive gray, moderately plastic, moist, root traces, sample SBS91-001(15.0) collected.
						17.8				18	CH	17.3 to 18.5 feet: Clay (CH); light olive brown, plastic, moist.
										19	▽ SW	18.5 to 20.0 feet: Sand and gravel (SW); sand is coarse-grained, light olive brown, wet, sample SBS91-001(20.0) collected.
		20.0						X		20		

PRC
ENVIRONMENTAL MANAGEMENT, INC.

MONITORING WELL INSTALLATION RECORD
FLUSH MOUNT INSTALLATION

WELL LOCATION INFORMATION

WELL NO. W91-1(A1/A2)
BOREHOLE NO. SBS91-1
SITE NAS MOFFETT FIELD
SUBSITE TANK & SUMP (SUMP 91)
DATE 05-29-92
RECORDED BY S. WHITESELL
WELL PERMIT NO. 92W0773

SURFACE COMPLETION INFORMATION

TYPE OF INSTALLATION
- ☐ OPEN HOLE
- ☒ INSIDE HOLLOW STEM AUGER

TYPE OF FLUSH MOUNT
- ☒ CHRISTY BOX
- ☐
- ☐ LOCKING COVER
- ☒ WATERTIGHT CAP
- ☒ LOCKING CAP

SURFACE SEAL
- ☒ NON-SHRINKING CEMENT
- ☐ CONCRETE
- ☐
- ☒ CHECKED FOR SETTLEMENT
- ☐ INTERNAL MORTAR ADDED

GROUND SURFACE ELEVATION
- ☒ SURVEYED
  DATE 7/8/92

MEASURING POINT
- ☒ TOP OF WELL CASING
- ☐ GROUND SURFACE
- ☐

DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL
WEST HAZMAT
RANDY WOLFE, JEFF SMITH

DRILL RIG MOBILE B-61

DRILLING METHOD
- ☒ HOLLOWSTEM AUGER
- ☐ AIR ROTARY
- ☐ MUD/WATER ROTARY
- ☐

DRILLING BEGAN
DATE 05-28-92 TIME 14:00

WELL COMPLETION BEGAN
DATE 05-29-92 TIME 08:15

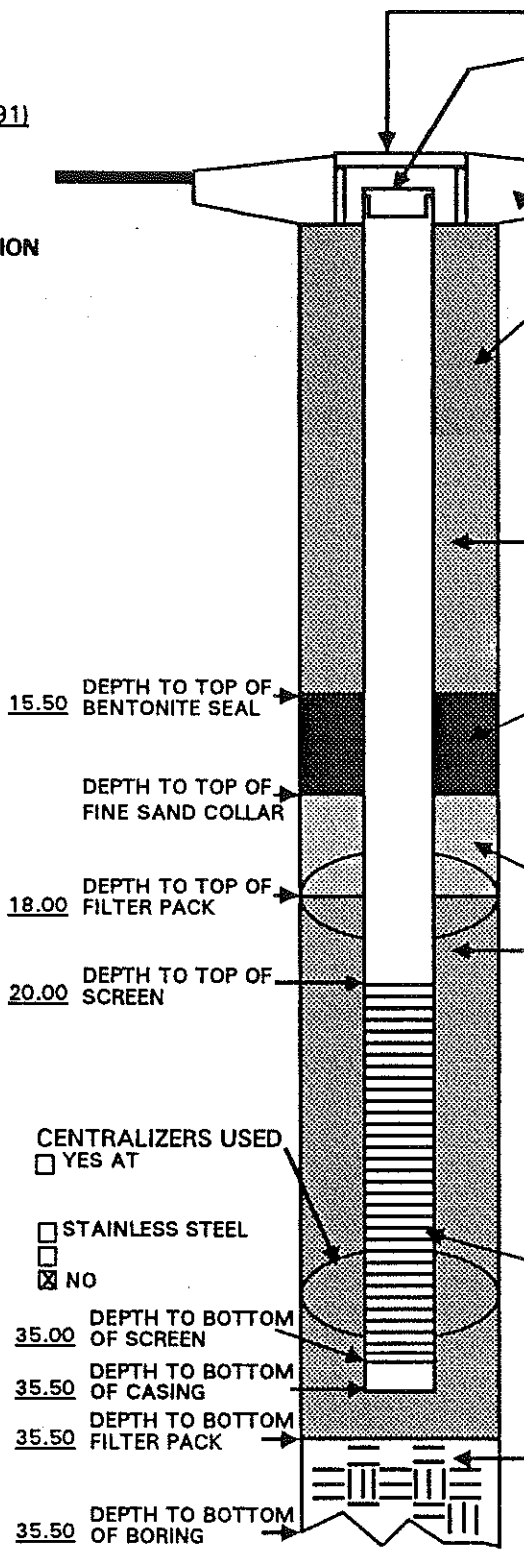
WELL COMPLETION FINISHED
DATE 05-29-92 TIME

DRILLING FLUID TYPE
- ☐ BENTONITE ☐ WATER
- ☐ POLYMER ☐

DRILLING FLUID LOSS
- ☐ YES GALLONS
- ☐ NO

WATER ADDED DURING COMPLETION
- ☐ YES GALLONS
- ☒ NO

TOTAL FLUID LOSS TO FORMATION
GALLONS



DEPTH TO TOP OF GROUT
- ☒ GROUT FORMULA (PROPORTION OF EACH)
  CEMENT 95% BENTONITE 5%
  WATER OTHER
  QUANTITY USED
- ☐ PREPARED MIX
  NAME OF PRODUCT
  MANUFACTURED BY
  QUANTITY USED

TYPE OF CASING
- ☐ STAINLESS STEEL — CASING DIAMETER
- ☒ SCHEDULE 40 PVC — INSIDE 4-INCH
- ☐ SCHEDULE 80 PVC — OUTSIDE
- ☐
  MANUFACTURED BY

BENTONITE SEAL
- ☒ PELLETS ☐ SLURRY
- ☐ POWDER/GRANULAR ☒ CHIPS
  QUANTITY USED 1 BUCKET + 1 BAG
  METHOD INSTALLED
- ☐ TREMIE ☐
- ☒ POURED ☐ NOT USED

FINE SAND COLLAR (OPTIONAL)
SIZE / TYPE

FILTER PACK
GRAVEL SIZE ; TO FT.
SAND SIZE 2-12 ; 20.00 TO 35.50 FT.
QUANTITY USED 8 BAGS
FORMATION COLLAPSE: TO FT.
MATERIAL
METHOD INSTALLED
- ☐ TREMIE
- ☒ POURED
- ☐

GRAIN SIZE TESTS FOR FILTER PACK
- ☐ CONDUCTED; FOR REPORT, REFER TO
- ☒ NOT CONDUCTED

CENTRALIZERS USED
- ☐ YES AT
- ☐ STAINLESS STEEL
- ☐
- ☒ NO

TYPE OF SCREEN
- ☐ STAINLESS STEEL — SCREEN DIAMETER
- ☒ SCHEDULE 40 PVC — INSIDE 4-INCH
- ☐ SCHEDULE 80 PVC — OUTSIDE
- ☐
  SLOT SIZE 0.010-INCH (10 SLOT)
  MANUFACTURED BY

BACKFILL MATERIAL
- ☐ GRAVEL ☒ FORMATION COLLAPSE
- ☐ BENTONITE MATERIAL
- ☐ SAND
- ☐

TOTAL LENGTH OF CASING AND SCREEN

DEPTH TO WATER FOLLOWING INSTALLATION (TOC)

DIAMETER OF BOREHOLE 10 INCH

NOTES:
1. SCALE: NONE
2. RECORD DEPTHS/LENGTHS IN TENTHS OF FEET, NOT IN INCHES
3. RECORD CONSTRUCTION DEPTHS BELOW GROUND LEVEL

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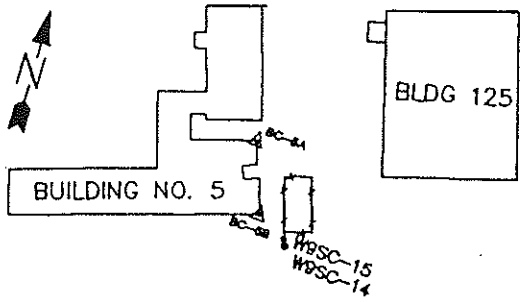
BOREHOLE LOG

PRC ENVIRONMENTAL MANAGEMENT, IN

LOCATION OF BOREHOLE



JOB NO.: 044-0235IRSC9C	BOREHOLE DESIGNATION: SB9SC-15
CLIENT: U.S. NAVY	SURFACE ELEVATION: 19.47
SITE: SITE 9	DEPTH TO WATER: 7.5 feet
SUBSITE: Bldg. 88	LOGGED BY: Jim Wulff
DRILLING CO.: Explor. Geoserv.	DRILLING DATE(S): 02/23/94

DRILLING PERSONNEL/METHOD:

John Collins, Mike LaRocca;; 8-inch hollow stem auger (3 3/8-inch ID)., 18-inch split spoon (SS) sampler.

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	BLOWS/6 IN. SAMPLE	RECOVERED / DRIVEN	TRAC	PID Rdg	ANLYS PID	ANLYS CHEM	WELL Info.	DEPTH in Ft.	USCS SOIL TYPE GRAPHIC LOG	SOIL DESCRIPTION
										1		0.0 to 6.0 feet: Not sampled.
										2		
										3		
										4		
										5		
										6		
SS	6.0			1.5/1.5	1353	6.5				7	CL	6.0 to 7.5 feet: Silty clay (CL); olive gray (5Y5/2) mottled with olive (5Y5/6) iron-staining, stiff, slightly plastic, moist becoming wet at 7.5 feet, calcareous (strong reaction with HCl).
	7.5										▽	
SS	7.5			1.5/1.5	1356					8		7.5 to 9.0 feet: Silty clay (CL); dark olive gray (5Y3/2) mottled with olive iron-staining, stiff, slightly plastic, saturated, minor very fine-grained sand stringers.
	9.0									9		
SS	9.0			1.5/1.5	1402							9.0 to 11.0 feet: Silty clay (CL); as above, iron-stained roots (light olive brown).
	10.5									10		
SS	10.5			1.4/1.5	1404					11	CL	11.0 to 15.3 feet: Silty clay (CL); abrupt color change to dark bluis gray (584/1) with iron-stained roots, slightly plastic, soft, saturated, iron-staining decreases with depth.
	12.0									12		
SS	12.0			1.5/1.5	1406					13		
	13.5											
SS	13.5			1.5/1.5	1410					14		
						0.0						
	15.0									15		15.3 to 16.3 feet: Silty clay (CL); olive gray (5Y4/3) faintly mottled with olive (5Y4/4).
SS	15.0			1.4/1.5	1415					16		16.3 to 16.5 feet: Silty sand (SM); olive gray (5Y4/2), very fine-grained, poorly sorted, 10% medium to coarse-grained sand, 30% fines.
	16.5											
SS	16.5			0.8/1.5	1418					17	SM	
	18.0									18		16.5 to 18.0 feet: Silty sand (SM); olive gray (5Y4/2), medium-grained, non-cohesive.
SS	18.0			0.7/1.5	1420			X			SP	
								X		19		18.0 to 20.0 feet: Sand (SP); well sorted, medium-grained, trace sil sample SB9SC-15(18.0-19.5) collected.
	19.5					0.0						
SS	19.5			0.4/1.5	1430			X		20		

BOREHOLE LOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE DESIGNATION: SB9SC-15
	CLIENT:	SURFACE ELEVATION:
	SITE:	DEPTH TO WATER:
	BORING DIAM.:	LOGGED BY:
	DRILLING CO.:	DRILLING DATE(S):
	DRILLING PERSONNEL/METHOD:	

SAMPLER TYPE	SAMPLE DEPTH TOP BOT	BLOWS/6 IN. SAMPLE	RECOVERED/DRIVEN	TIME	PID Rdg.	ANLYS (PHYS/CHEM)	WELL Info.	DEPTH in Ft.	USCS SOIL TYPE GRAPHIC LOG
	21.0								CL
SS	21.0		1.0/1.5	1435				21	
	22.5							22	
SS	22.5		0.7/1.5	1440				23	
	24.0							24	
SS	24.0		1.0/1.5	1451	2.5			25	
	25.5								CL
SS	25.5		1.5/1.5	1500				26	
	27.0							27	
SS	27.0		1.5/1.5	1506				28	
	28.5								ML
SS	28.5		1.2/1.5	1510				29	CL
	30.0							30	GP
SS	30.0		0.2/1.5	1515				31	SP
	31.5				117				
SS	31.5		0.9/1.5	1520				32	
						X			
	33.0							33	CL
								34	
								35	
								36	
								37	
								38	
								39	
								40	

SOIL DESCRIPTION

20.0 to 21.0 feet: Silty clay (CL); sharp color contact separates dark greenish gray (5BG4/1) silty clay from overlying olive gray sand, depth of contact is estimated because of poor recovery.

21.0 to 24.0 feet: Sandy clay (CL); dark greenish gray (5G4/1), soft, saturated, 25% sand, 5-10% gravel, consisting of hard greenstone and other metamorphic pebbles, chert, and weathered sandstones, red (iron-rich) sandstones are hard and intact, white (clean quartz) sandstones have decomposed to sand, but maintain the outline of a rock fragment.

24.0 to 26.0 feet: Gravelly clay (CL); color as above, very soft, nonplastic, sticky, saturated, 50% fines, 30% gravel, 20% sand, gravel is subround, max. size = 20 mm.

26.0 to 28.0 feet: Silty clay (CL); color as above, very stiff, moist, very calcareous (strong reaction with HCl), rooted, numerous small, white gastropods, abundant calcareous nodules.

28.0 to 28.5 feet: Silty clay (CL); olive gray (5Y5/2) mottled olive (5Y5/6), may be iron-staining, slightly plastic, occasional small (1-2 mm), dark pebbles.

28.5 to 29.1 feet: Clayey silt (ML); color as above, sticky, nonplastc.

29.1 to 29.7 feet: Silty clay (CL); as above from 28.0 to 28.5 feet, slight reaction with HCl.

29.7 to 30.0 feet: Gravel (GP); well sorted, 1-10 mm in size, subangular to subround.

30.0 to 32.5 feet: Sand (SP); olive gray (5Y4/2), well sorted, coarse-grained, sample SB9SC-15(32.0) collected.

32.5 to 33.0 feet: Silty clay (CL); pale olive (5Y6/4), stiff, calcareous (strong reaction with HCl).

TD at 33.0 feet.

BOREHOLE LOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

LOCATION OF BOREHOLE

JOB NO.: 044-0235IRSC9C	BOREHOLE DESIGNATION: SB9SC-017
CLIENT: U.S. NAVY	SURFACE ELEVATION: 21.2
SITE: Moffett Federal Airfield	DEPTH TO WATER:
SUBSITE: Site 9, Bldg 88	LOGGED BY: Brian Schuller
DRILLING CO.: Bayland	DRILLING DATE(S): 11-8-94

DRILLING PERSONNEL/METHOD:

Rob Slagle (driller), John Bass (helper)/CME-75 with hollow stem auger, 6.5" OD, sampled with 5-foot CME core barrel (CB)

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	BLOWS/6 IN. SAMPLE	RECOVERED / DRIVEN	TIME	PID Rdg.	ANLYS PHYS	ANLYS CHEM	WELL Info.	DEPTH in Ft.	USCS SOIL TYPE GRAPHIC LOG	SOIL DESCRIPTION
CB	0									1		0.0 to 5.0 feet: Auger without sampler.
										2		
										3		
										4		
		5								5		
	5			5.0/5.0	1400						CL	5.0 to 5.5 feet: SILTY CLAY (CL); black, stiff, slightly plastic, typical alluvial floodplain deposits found at this depth across the site.
										6	CL/ML	5.5 to 10.0 feet: SILTY CLAY to CLAYEY SILT (CL/ML); dark gray (2.5Y 4/1) near top of interval to gray (2.5Y 5/1) near bottom of interval, olive brown mottles, calcareous nodules, grades to CLAYEY SAND near 9.2 feet.
										7		
										8		
										9		
		10								10		
CB	10			5.0/5.0	1405						SC	9.2 to 12.0 feet: CLAYEY SAND (SC); greenish gray (5BG 5/1) mottled olive brown (2.5Y 4/4), very fine to fine, some plasticity as a result of clay content.
										1		
										2	ML	12.0 to 13.0 feet: CLAYEY SILT (ML); as above with less sand and more fines, some plasticity.
										3	SM	13.0 to 15.0 feet: SAND (SM); dark grayish brown (2.5Y 4/2) to dark greenish gray from 14.7 to 15.0 feet, some rust mottles around roots, fine to very fine, well sorted, no reaction with HCl.
										4		
		15										
CB	15			4.3/5.0	1425					5	CL	15.0 to 15.3 feet: SANDY CLAY (CL); olive gray (5Y 5/2), slightly plastic, saturated, no odor.
										6	SC	15.3 to 20.0 feet: CLAYEY SAND (SC); very fine to fine, coarsens at 18.5 feet (fine to medium), saturated, roots, no odor, some pebbles.
										7		
										8		
										9		
		20								20		

BOREHOLE LOG

PRC ENVIRONMENTAL MANAGEMENT, INC.

LOCATION OF BOREHOLE	JOB NO.:	BOREHOLE DESIGNATION: SB9SC-017
	CLIENT:	SURFACE ELEVATION:
	SITE:	DEPTH TO WATER:
	SUBSITE:	LOGGED BY:
	DRILLING CO.:	DRILLING DATE(S):
	DRILLING PERSONNEL/METHOD:	

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	BLOWS/6 IN. SAMPLE	RECOVERED	DRIVEN	TIME	PID Rdg.	ANLYS PHYS	ANLYS CHEM	WELL Info.	DEPTH in Ft.	USCS SOIL TYPE GRAPHIC LOG	SOIL DESCRIPTION
CB	20			5.0/5.0		1440					1	SC	20.0 to 25.0 feet: As above; coarse SAND (SC) interval at approximately 24.7 feet, color change to dark bluish gray (5B 4/1) at 24.5 feet, roots, occasional spiral shell, no odor.
							5.0 - 10.0				2		
											3		
											4		
		25							X		5		Total depth (drilled) = 25.0 feet.
											6		
											7		
											8		
											9		
											30		
											1		
											2		
											3		
											4		
											5		
											6		
											7		
											8		
											9		
											0		

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST111-GP-01
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	5.7'
SUBSITE:	Tank 111	LOGGED BY:	Schuller / Conoly
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/25/99
DRILLING PERSONNEL/METHOD:	Direct Push, 2" Macro Core		

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type / Graphic Log	SOIL DESCRIPTION
								Concrete	CONCRETE; surface material, concrete dust sloughs.
	0	4	4/4	0802	0			CL	SILTY CLAY; very dark gray (N 3/), well sorted, slightly plastic, slightly firm, grades to... Sample: UST 111-GP-01 (1.0-2.0) 0802 hrs
							5	CL	SILTY CLAY; olive (5Y 4/3),some very fine + fine sand, moderately sorted, slightly plastic, firm. Mottled: olive (5Y 5/6) white (5Y 8/1) black (5Y 2.5/1) <5% each. Sample: UST 111-GP-01 (4.0-5.0) 0811 hrs
	4	8	4/4	0811	0			CL	SILTY CLAY; olive (5Y 4/4), w/ 40% mottles yellowish brown (10YR 5/8), some very firm sand, well sorted, plastic, moderately firm.
								CL	CLAY; clay with trace sand, dark olive gray (5Y 3/2), well sorted, plastic, slightly firm.
								SC	CLAYEY SAND; very firm to firm sand, some coarse to medium sand, grades to pale yellow (5Y 7/3), poorly sorted, react w/ HCL (calcareous), slightly plastic, loose.
	8	12	4/4	0820	0		10	SC	CLAYEY SAND; same as above. Sample: UST111-GP-01 (9.0-10.0) 0820 hrs
								SC	CLAYEY SAND; with fine sand, trace medium sand to granular, olive (5Y 5/4), poorly sorted, mottled 10% w/ light olive brown (2.5Y 5/6), slightly plastic, slightly firm.
								CL	SILTY CLAY; possible slough (moist) silty clay w/ very fine sand, olive gray (5Y 4/2), well sorted, plastic, soft, saturated.
	12	15	3/3	0830	0			SC	CLAYEY SAND; clayey sand grading to sand, very firm, sand to gravel (occasional - black), wet, olive gray (5Y 4/2), yellowish brown mottles 20% (10Y2 5/6), poorly sorted, soft, slightly plastic.
							15		TD : 15' Screen 5-10' Water Sample : 0840 hrs

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST111-GP-02
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	5.8'
SUBSITE:	Tank 111	LOGGED BY:	B. Schuller
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/24/99 - 8/25/99
DRILLING PERSONNEL/METHOD:	Direct Push, 2" Macro Core		

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type / Graphic Log	SOIL DESCRIPTION
								Concrete	CONCRETE
	0	4	3/4	1105	0			CL	CLAY; trace fine sand, black (N 2.5/) grading to gray (N 6/), slightly soft, slightly moist.
							5		CLAY; dark gray (N 4/4), well sorted, olive mottling between 4.5' and 7', firm, plastic, slightly moist. 1114 hrs apparent hydraulic line blow out on geoprope, work delayed.
	4	8	4/4	1110	0			CL	
								CL	CLAY; dark olive gray (5Y 3/2), wet.
	8	12	4/4	0735	0		10	SC	CLAYEY SAND; very fine to fine, olive (5Y 4/4), coarse sand interval at 10'4" about 1/4" thick, moderately sorted, slightly plastic, saturated, slightly firm.
								NR	NO RECOVERY; sluff.
	12	15	2/3	0745	0			SC	CLAYEY SAND; same as above clayey sand interval, mottled with light olive brown (2.5Y 5/6). TD : 15' Screen : 5-10' Water Sample : 0810 hrs
							15		

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST111-GP-03
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	7.2'
SUBSITE:	Tank 111	LOGGED BY:	B. Schuller
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/24/99

DRILLING PERSONNEL/METHOD:
Direct Push, 2" Macro Core

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type Graphic Log	SOIL DESCRIPTION
	0	4	4/4	1000	0			CL	CLAY; clay with trace very fine sand, black (N 2.5/), grades to dark gray (N 4/), firm, grades to blocky at 4', numerous roots (grass at surface).
	4	8	4/4	1010	0		5	CL	CLAY; clay with trace very fine sand, gray (5Y 6/1) to light gray (5Y 7/1), firm but grades to slightly soft at 8', heavily mottled with olive (5Y 5/4) and light gray from 6.5' to 7.5', numerous roots, moist.
								SC	CLAYEY SAND; clayey very fine sand, light olive gray (5Y 6/2), abundant coarse sand and pebbles, very moist, soft, calcareous roots.
	8	12	4/4	1015	0		10	CL	SANDY CLAY; very fine sand, dark gray (5Y 4/1) with greenish gray mottles (5GY 6/1), mottles at approximately 10', color grades to very dark gray (N 3/), numerous roots, shell fragments (like clam), moist, slightly soft.
								CL	SANDY CLAY; same as above.
								SC	CLAYEY SAND; fine to coarse sand, light gray (5Y 7/1), poorly sorted, loose, saturated.
	12	15	3/3	1030	0			SC	CLAYEY SAND; fine, olive (5Y 5/4), firm, moderately sorted, very moist.
							15		TD : 15' Screen : 5-15' Water Sample : 1220 hrs

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST111-GP-04
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	5.56'
SUBSITE:	Tank 111	LOGGED BY:	B. Schuller
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/24/99
DRILLING PERSONNEL/METHOD:	Direct Push, 2" Macro Core		

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type / Graphic Log	SOIL DESCRIPTION
	0	.5	3.5/3.5	0915	NA			Asphalt	ASPHALT
								Fill	FILL; base coarse.
	.5	4	4/4	0920	6			CL	CLAY; clay with some very fine sand, very dark gray (N 3/), grades to gray (N6/), with some light gray mottles (N 7/) at bottom of interval, well sorted, plastic, grades to slightly plastic/slightly blocky, trace roots, firm.
	4	8	4/4	0925	2		5	CL	CLAY; trace to some very fine sand, gray (N 6/) with numerous mottles of light gray (N 7/) and olive (5Y 5/6), firm, becomes sorted at 6', well sorted, slightly plastic, slightly moist.
								CL	CLAY; trace very fine sand, dark gray (5Y 4/1), with some light gray (5Y 7/1) mottles, snail shell, slightly moist.
	8	12	4/4	0935	2		10	CL	CLAY; clay and very fine to fine sand, light gray (5Y 7/1), soft, gravel/pebbles in clay matrix at 10'.2", very moist, roots, sand content increases slightly with depth.
								CL	CLAY; same as above, but saturated, occasional coarse grain.
	12	16	3/3	0945	2			SP	SAND; fine, olive (5Y 5/4), very moist to saturated.
							15		TD : 16' Screen : 5-15' Water Sample : 1105 hrs

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST116-GP-01
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	7.05'
SUBSITE:	Tank 116	LOGGED BY:	Conoly
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/26/99

DRILLING PERSONNEL/METHOD:
Direct Push 2" Macro Core

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type / Graphic Log	SOIL DESCRIPTION
								Asphalt	ASPHALT
								CL	CLAY W/ SILT; clay w/ silt and gravel, poorly sorted, very dark gray (5YR 3/1), slightly plastic, dry. Sample: (1.0-2.0) 1031 hrs
								CL	CLAY W/ SILT; black (5YR 2.5/1), dry, slightly plastic, firm.
	0	4	4/4	1025	0			CL	CLAY W/ SILT; same as above but well sorted.
								CL-SM	CLAY W/ SILT AND SAND; dark gray (5Y 4/1), moderately sorted, slightly plastic, firm, dry. Sample: (4.0-5.0) 1043 hrs
								CL-SM	CLAY W/ SILT AND SAND; same as above.
							5	CL-ML	CLAY W/ FINE SAND AND SILT; well sorted, slightly plastic, firm, dry, gray (5Y 6/1), white mottles.
	4	8	4/4	1030	0			CL-ML	CLAY W/ FINE SAND AND SILT; same as above, grading to....
								CL	SANDY CLAY; very fine sand, light olive gray (5Y 6/2), well sorted, plastic, moist, firm, grading to....
	8	12	4/4	1038	0		10	SC	CLAYEY SAND; fine sand with some granules, pale olive (5Y 6/3), some strong red mottles, pliable, moderately firm, moist, grading to....
								GP	SANDY GRAVEL; olive gray (5Y 4/2), moderately loose, nonpliable, saturated. TD : 12' Screen : 0-10' Water Sample : 1102 hrs

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Tetra Tech EM Inc.

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST116-GP-02
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	7.97'
SUBSITE:	Tank 116	LOGGED BY:	Conoly
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/26/99

DRILLING PERSONNEL/METHOD: Direct Push, 2" macro Core

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS
	0	4	4/4	1110	0	
	4	8	4/4	1115	0	
	8	12	4/4	1119	0	
	12	16	4/4	1129	0	

DEPTH (ft.)	USCS Soil Type	SOIL DESCRIPTION
	Asphalt	ASPHALT
	Fill	FILL; asphalt + base coarse fill.
	CL-SP	CLAY W/ SAND; fine sand, black (5Y 2.5/1) (3-4' some white mottles), well sorted, slightly plastic, dry, firm.
5	CL-SP	CLAY W/ SAND; clay with fine sand, very dark gray (5Y 3/1), mottles white + light olive brown, well sorted, plastic.
	CL-SP	CLAY W/ SAND; same as above, increasing white mottles, occasional coarse grain.
	CL-SP	CLAY W/ SAND; fine sand, dark gray (2.5Y 4/1), plastic, dry, well sorted, grades to..
	CL-SP	CLAY W/ SAND; same as above, with 40% white mottles.
10	SC	CLAYEY SAND; fine grained, light olive brown (2.5Y 5/3), plastic, moist, slightly firm.
	SC	CLAYEY SAND; fine grained, some coarse, light brownish gray (2.5Y 6/2), saturated, plastic, moderately soft, grades to..
	SP-CL	SAND W/ CLAY; fine sand with clay, olive brown (2.5Y 4/3), saturated, nonplastic, moderately firm, well sorted.
	SP-CL	SAND W/ CLAY; well sorted, dark olive brown (2.5Y 3/3), saturated.
15	SP-CL	SAND W/ CLAY; fine sand, dark gray brown (2.5Y 4/2), well sorted, non-plastic, moderately firm.
	SP	SAND; fine sand, black (5Y 2.5/1), well sorted, non-plastic, moderately firm, dense, wet.

TD : 16'
Screen : 5-15'
Water Sample : 1149 hrs

LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST116-GP-03
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	6.39'
SUBSITE:	Tank 116	LOGGED BY:	Conoly
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/26/99

DRILLING PERSONNEL/METHOD:
Direct Push, 2" Macro Core

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type / Graphic Log	SOIL DESCRIPTION
								Asphalt	ASPHALT
								Fill	FILL; coarse base.
	0	4	3.5/4	1155	0			CL-SP	CLAY W/ SOME SAND; fine sand, gray (5Y 6/1) increasing white mottles with depth, slightly plastic, well sorted, dry, firm.
							5		
	4	8	4/4	1202	0			CL-SP	CLAY W/ SOME SAND; dark gray (5Y 4/1), well sorted, slightly plastic, dry, firm, some light gray mottles (5Y 7/1) + some olive mottles (7'-8' occasional granule).
								CL	SANDY CLAY; fine sand, greenish gray (5GY 6/1), plastic, moist, firm, well sorted, grades to..
	8	12	4/4	1209	0		10	SC	CLAYEY SAND; fine (some coarse) greenish gray (5GY 6/1), moderately sorted, moist, plastic, slightly firm.
								SC-GW	CLAYEY SAND W/ GRAVEL; greenish gray (5GY 5/1), clayey sand grades to include sand + gravel, poorly sorted, moist. At bottom, sandy gravel, loose, wet.
								GW	SANDY GRAVEL; dark yellowish brown (10YR 4/4), moist, moderately dense, non-plastic, poorly sorted.
	12	16	0/4	1215	0		15	NR	NO RECOVERY; logged from sample sleeve. 12' clayey sand, fine w/ some coarse greenish gray (5GY 6/1), moderately sorted, slightly plastic, saturated, moderately loose. 16' fine to coarse sand, moderately sorted, dark olive gray, saturated, moderately loose. TD : 16 Screen : 6-16' Water Sample : 1235 hrs

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LOCATION OF BOREHOLE

PROJECT NO.:	G0069-226G0401	BOREHOLE DESIGNATION:	UST116-GP-04
CLIENT:	US Navy	SURFACE ELEVATION:	
SITE:	Moffett Federal Airfield	DEPTH TO WATER:	7.3'
SUBSITE:	Tank 116	LOGGED BY:	Conoly
DRILLING CO.:	Fast-Tek	DRILLING DATE(s):	8/26/99
DRILLING PERSONNEL/METHOD:	Direct Push, 2" macro Core		

SAMPLER TYPE	SAMPLE DEPTH TOP	SAMPLE DEPTH BOT	RECOVERED / DRIVEN	TIME	PID READING	CHEMICAL ANALYSIS	DEPTH (ft.)	USCS Soil Type / Graphic Log	SOIL DESCRIPTION
								Asphalt	ASPHALT
								Fill	FILL; coarse base fill
								CL-SP	CLAY W/ SAND; clay w/ fine sand, black (N/2.5), moderately sorted, very firm, dry
	0	4	2/4	0930	0			CL	CLAY; gray (10Y2 5/1), mottled w/ white well sorted, firm, dry, slightly plastic.
								CL	CLAY; same as above. Sharp contact: Clay w/ 2" gravel.
							5		
	4	8	3.5/4	0935	0			CL-ML	CLAY W/ SILT; gray (10YR 5/1), mottled w/ some white, few yellow brown mottles, well sorted, slightly plastic, firm, dry.
								NR	NO RECOVERY; slough (6" of slough in 8-12' interval).
	8	12	4/4	0942	3.5 1.0		10	CL	SANDY CLAY; very fine to fine sand, no visible staining or odors, light olive gray (5Y 6/2), some coarse grains at 10', some roots, moderately plastic, dry, moderately sorted, firm.
								CL	SANDY CLAY; very fine sand, well sorted, moist, plastic, slightly firm, olive gray (5Y 5/2).
								GC	GRAVEL W/ CLAY; 2" gravel with clay, sharp contact.
								CL	SANDY CLAY; fine sand, well sorted, olive (5Y 4/4), with abundant black mottles, some strong brown mottles, plastic, slightly firm, grades to..
	12	16	4/4	0951	0		15	CL-SP	SAND W/ CLAY; fine sand with clay, well sorted, moderately dense, brown (10YR 4/3) w/ strong brown mottles (roots), grades to..
								CL	SANDY CLAY; very fine sand, with roots, well sorted, olive gray (5Y 4/2), firm, slightly plastic.
								CL-SP	SAND W/ CLAY; fine sand w/ clay, well sorted, saturated, slightly loose, ligth yellow brown (2.5Y 6/4), nonplastic.
	16	20	4/4	1001	0			CL	SILTY CLAY; dark gray (2.5Y 4/1), well sorted.
								SW	SANDY GRAVEL; sharp contact, poorly sorted, saturated, loose to slightly loose, dark gray (2.5Y 4/1), saturated interval.
							20		TD : 20' Screen : 10'-20' Water Sample : 1015 hrs

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APPENDIX C

TANK CLOSURE CHECKLISTS

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 15 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 15	UST 15	1,000	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-Place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
Unknown	No	Removed	December 1992	Good	Good

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil (removed during overexcavation)

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
0	0

REPORTS

Author and Title	Date
PRC Environmental Management, Inc. (PRC). Closure Report for Underground Storage Tanks 15, 28, 78, 88 and 41B	April 1995
Tetra Tech EM Inc. (TtEMI). November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 15

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	NS	150
TPH-e as diesel	Tank 15 North	--	4,400[1]	400
Benzene	--	--	ND (0.005)	4.4
Toluene	--	--	ND (0.005)	2,700
Ethylbenzene	--	--	ND (0.005)	3,100
Xylene	--	--	ND (0.005)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L)		Most Recent Groundwater from Same Well (µg/L)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	NS	--	NS	50
TPH-e as diesel	--	--	NS	--	NS	700
Benzene	--	--	NS	--	NS	1
Toluene	--	--	NS	--	NS	680
Ethylbenzene	--	--	NS	--	NS	1,000
Xylene	--	--	NS	--	NS	1,750
MTBE	--	--	NS	--	NS	13
TPH-e as JP-5	--	--	NS	--	NS	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	--	--	NS	--	NS	NL
TPH-e as kerosene	--	--	NS	--	NS	NL
TPH-e as motor oil	--	--	NS	--	NS	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

[1]	Indicates that the soil surrounding the sample was removed in a subsequent investigation.
--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 18 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 18	UST 18	935	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-Place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	April 1994	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
1	1

REPORTS

Author and Title	Date
ERM-West. Tank Closure Documentation	June 1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 18

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	ND (10)	150
TPH-e as diesel	18B-065037-13	5/94	5	400
Benzene	--	--	ND (0.006)	4.4
Toluene	--	--	ND (0.006)	2,700
Ethylbenzene	--	--	ND (0.006)	3,100
Xylene	--	--	ND (0.006)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	ND (10)	NL
Naphthalene	--	--	ND (0.038)	240
2-Methylnaphthalene	--	--	ND (0.038)	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	ND (0.038)	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit or range in parentheses)		Most Recent Groundwater from Same Well (µg/L) (Detection limit or range in parentheses)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	NS	--	NS	50
TPH-e as diesel	--	--	NS	--	NS	700
Benzene	--	--	ND	--	ND	1
Toluene	--	--	ND	--	ND	680
Ethylbenzene	--	--	ND	--	ND	1,000
Xylene	--	--	ND	--	ND	1,750
MTBE	--	--	ND (10)	--	NS	13
TPH-e as JP-5	--	--	ND (0.25-250)	--	ND (0.25-250)	700
Naphthalene	--	--	ND (10)	--	ND (10)	NL
2-Methylnaphthalene	--	--	ND (10)	--	ND (10)	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	--	--	NS	--	NS	NL
TPH-e as kerosene	--	--	NS	--	NS	NL
TPH-e as motor oil	--	--	NS	--	NS	NL
Benzo(a)pyrene	--	--	ND (10)	--	ND (10)	NL

Notes:

--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 22 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 22	Tar-coated steel UST 22	600	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	December 1992	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil and Groundwater

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
3	1

REPORTS

Author and Title	Date
PRC. Final Stationwide Remedial Investigation Report	May 1996
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 22

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit or range in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	ND (1.2-0.61)	150
TPH-e as diesel	--	--	ND (1.2)	400
Benzene	--	--	ND (0.006)	4.4
Toluene	--	--	ND (0.006)	2,700
Ethylbenzene	--	--	ND (0.006)	3,100
Xylene	--	--	ND (0.006)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	ND (1.2)	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	GPT22-2	--	38[1]	NL
TPH-e as other light components	--	--	ND (1.2)	NL
TPH-e as kerosene	--	--	ND (1.2)	NL
TPH-e as motor oil	--	--	ND (12)	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit or range in parentheses)		Most Recent Groundwater from Same Well (µg/L) (Detection limit or range in parentheses)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	37[1]	--	ND (50)	50
TPH-e as diesel	WT22-1	8/96	300Y	--	260[2]	700
Benzene	--	--	ND (0.5)	--	ND (0.1)	1
Toluene	WT22-1	11/96	0.32[1]	--	ND (0.1)	680
Ethylbenzene	--	--	ND (0.5)	--	ND (0.1)	1,000
Xylene	--	--	ND (0.5)	--	ND (1)	1,750
MTBE	--	--	NS	--	NS	13
TPH-e as JP-5	--	--	ND (50-100)	--	ND (50-100)	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	GWT22-2	7/95	450[2]	--	NS	NL
TPH-e as other light components	--	--	ND (50)	--	NS	NL
TPH-e as kerosene	--	--	ND (50-100)	--	ND (50-100)	NL
TPH-e as motor oil	WT22-1	2/96	370	11/96	160	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

[1]	Estimated concentration
[2]	Pattern does not match calibrated fuel pattern but does resemble a fuel pattern
--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 27 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

Tank 27 never existed; no soil or groundwater samples were collected.
Therefore, there are no summary tables for soil and groundwater for this tank.

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 28 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 28	Steel UST 28	150	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	June 1991	Good	Good

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
0	0

REPORTS

Author and Title	Date
Quorum Environmental Consultants, Inc. (Quorum). Letter Report of Underground Storage Tank Removal	August 1991
PRC. Closure Report for Underground Storage Tanks 15, 28, 78, 88 and 41B	April 1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 28

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	NS	150
TPH-e as diesel	--	--	ND (10)	400
Benzene	--	--	ND (0.005)	4.4
Toluene	--	--	ND (0.005)	2,700
Ethylbenzene	--	--	ND (0.005)	3,100
Xylene	--	--	ND (0.005)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	S-05-T28	6/91	16	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L)		Most Recent Groundwater from Same Well (µg/L)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	NS	--	NS	50
TPH-e as diesel	--	--	NS	--	NS	700
Benzene	--	--	NS	--	NS	1
Toluene	--	--	NS	--	NS	680
Ethylbenzene	--	--	NS	--	NS	1,000
Xylene	--	--	NS	--	NS	1,750
MTBE	--	--	NS	--	NS	13
TPH-e as JP-5	--	--	NS	--	NS	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	--	--	NS	--	NS	NL
TPH-e as kerosene	--	--	NS	--	NS	NL
TPH-e as motor oil	--	--	NS	--	NS	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary-butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANKS 30 AND 31 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Tanks 30 and 31 were installed together in the same excavation and are discussed together in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

Tanks 30 and 31 were never used. The tanks were installed in the ground; however, their installations were not complete. No soil or groundwater samples were collected when the tanks were removed because the tanks were never filled. Therefore, there are no summary tables for soil and groundwater for this tank.

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 51 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

Tank 51 never existed; no soil or groundwater samples were collected.
Therefore, there are no summary tables for soil and groundwater for this tank.

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 55 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 55	UST 55	200	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	NA	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil and Groundwater

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
4	1

REPORTS

Author and Title	Date
ERM-West and Aqua Resources, Inc. Joint Venture. Hazardous Materials Underground Storage Tank Study	April 1986
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS – TANK 55

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	ND (0.56)	150
TPH-e as diesel	SBT55-1	8/95	49	400
Benzene	--	--	ND (0.00056)	4.4
Toluene	--	--	ND (0.00056)	2,700
Ethylbenzene	--	--	ND (0.00056)	3,100
Xylene	--	--	ND (0.00056)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	ND (28)	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	SBT55-1	8/95	440	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit or range in parentheses)		Most Recent Groundwater from Same Well (µg/L) (Detection limit or range in parentheses)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	WT55-1	8/95	43[1]	--	ND (50)	50
TPH-e as diesel	WT55-1	8/95	62	--	ND (100)	700
Benzene	WT55-1	5/97	6	--	ND (1)	1
Toluene	--	--	ND (1)	--	ND (1)	680
Ethylbenzene	--	--	ND (0.5)	--	ND (0.5-1)	1,000
Xylene	WT55-1	8/95	1.1	--	ND	1,750
MTBE	--	--	ND (1-10)	--	ND (1-10)	13
TPH-e as JP-5	--	--	ND (100-500)	--	ND (50-500)	700
Naphthalene	--	--	ND (10)	--	ND (10)	NL
2-Methylnaphthalene	--	--	ND (10)	--	ND (10)	NL
TPH-e as other heavy components	--	--	ND (50)	--	NS	NL
TPH-e as other light components	--	--	ND (50)	--	NS	NL
TPH-e as kerosene	--	--	ND (100)	--	NS	NL
TPH-e as motor oil	GWT55-2	7/95	1,600	--	NS	NL
Benzo(a)pyrene	--	--	ND (10)	--	ND (10)	NL

Notes:

[1]	Estimated concentration
--	No information (not sampled or not detected)
GWT	Groundwater sample location collected via Geoprobe. No additional samples are available from this location.
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 64 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 64	Concrete settling basin/ oil skimmer Tank 64	NA	Stormwater diversion box

Note:
NA Information not available

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	1994	NA	None

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Groundwater

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
1	1

REPORTS

Author and Title	Date
Navy. Tank Closure Summary Report Prepared by Don Chuck	1995
Science Applications International Corporation (SAIC). Soil Removal Project. Storm Drain Channel Area of Investigation	March 1997
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 64

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg)	Action level (mg/kg)
TPH-p as gasoline	--	--	NS	150
TPH-e as diesel	--	--	NS	400
Benzene	--	--	NS	4.4
Toluene	--	--	NS	2,700
Ethylbenzene	--	--	NS	3,100
Xylene	--	--	NS	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit in parentheses)		Most Recent Groundwater from Same Well (µg/L) (Detection limit in parentheses)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	ND (50)	--	ND (50)	50
TPH-e as diesel	--	--	ND (50)	--	ND (50)	700
Benzene	--	--	ND (0.5)	--	ND (0.5)	1
Toluene	--	--	ND (0.5)	--	ND (0.5)	680
Ethylbenzene	--	--	ND (0.5)	--	ND (0.5)	1,000
Xylene	--	--	ND (0.5)	--	ND (0.5)	1,750
MTBE	--	--	ND (10)	--	NS	13
TPH-e as JP-5	--	--	ND (50)	--	ND (50)	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	WNB-9	11/92	190[1]	6/93	67	NL
TPH-e as other light components	--	--	ND (0.5)	--	ND (0.5)	NL
TPH-e as kerosene	--	--	ND	--	ND (0.5)	NL
TPH-e as motor oil	--	--	ND (500)	--	ND (500)	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

[1]	Estimated concentration
--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 65 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

Tank 65 never existed; no soil or groundwater samples were collected.
Therefore, there are no summary tables for soil or groundwater for Tank 65.

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 67 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 67	Steel UST 67	16,000	Fuel oil

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	1990	Good	Good

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil and Groundwater

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
13	10

REPORTS

Author and Title	Date
PRC. Tank and Sump Removal Summary Report	July 1991
PRC. Final Operable Unit 2-West (Building 88) Project Summary Report	October 1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS – TANK 67

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit or range in parentheses)	Action level (mg/kg)
TPH-p as gasoline	SB68-1(A)-5-17.5	9/6/90	1.3	150
TPH-e as diesel	W68-1(A)-5-17.5	6/7/90	150	400
Benzene	SB68-1(A) (12.5)	9/6/90	0.003[1]	4.4
Toluene	TP67-5-7	6/7/90	0.47	2,700
Ethylbenzene	--	--	ND (0.005)	3,100
Xylene	--	--	ND (0.005)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	ND (1.3)	NL
Naphthalene	--	--	ND (0.42)	240
2-Methylnaphthalene	--	--	ND (0.42)	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	ND (1.3 – 100)	NL
TPH-e as motor oil	SU-66-S-1.5	6/7/90	63	NL
Benzo(a)pyrene	--	--	ND (0.42)	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit or range in parentheses)		Most Recent Groundwater from Same Well (µg/L) (Detection limit or range in parentheses)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	W9-46	11/5/91	2,000	--	ND (50)	50
TPH-e as diesel	W9-46	11/5/91	1,100	--	ND (50)	700
Benzene	W9-46	5/24/93	12	--	ND (0.5)	1
Toluene	W9-46	5/24/93	4	--	ND (10)	680
Ethylbenzene	W91-1	11/18/92	0.5[1]	--	ND (0.5)	1,000
Xylene	W9-46	12/9/93	3	--	ND (0.5)	1,750
MTBE	--	--	ND (6)	--	ND (59)	13
TPH-e as JP-5	--	--	ND (50)	--	ND (50)	700
Naphthalene	--	--	ND (10)	--	ND (10)	NL
2-Methylnaphthalene	--	--	ND (10)	--	ND (10)	NL
TPH-e as other heavy components	W91-1	6/18/92	350[1]	--	ND (50)	NL
TPH-e as other light components	ERM-4	9/10/92	2,600[1]	5/18/93	1,700[1]	NL
TPH-e as kerosene	--	--	NS		NS	NL
TPH-e as motor oil	--	--	ND (500)	--	ND (500)	NL
Benzo(a)pyrene	--	--	ND (10)	--	NS	NL

Notes:

[1]	Estimated concentration
--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 77 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 77	Fiberglass UST 77	1,360	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Closed In- Place	1995	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Groundwater

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
0	0

REPORTS

Author and Title	Date
Navy. Final Summary Report for Underground Storage Tank 77, Closure in Place	April 1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS – TANK 77

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit or range in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	NS	150
TPH-e as diesel	--	--	ND (1)	400
Benzene	--	--	NS	4.4
Toluene	--	--	NS	2,700
Ethylbenzene	--	--	NS	3,100
Xylene	--	--	NS	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit or range in parentheses)		Most Recent Groundwater from Same Well (µg/L)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	77-W-8	4/95	ND (50)	--	NS	50
TPH-e as diesel	77-W-8	4/95	62	--	NS	700
Benzene	77-W-8	4/95	0.51	--	NS	1
Toluene	77-W-8	4/95	0.56	--	NS	680
Ethylbenzene	77-W-8	4/95	ND (0.50)	--	NS	1,000
Xylene	77-W-8	4/95	1.4	--	NS	1,750
MTBE	--	--	NS	--	NS	13
TPH-e as JP-5	--	--	NS	--	NS	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	--	--	NS	--	NS	NL
TPH-e as kerosene	--	--	NS	--	NS	NL
TPH-e as motor oil	77-W-8	4/95	16	--	NS	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

--	No information (not sampled or not detected)
GWT	Groundwater sample collected via grab sample. No additional samples are available from this location.
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 78 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 78	Fiberglass UST 78	1,000	Containment bay for acid storage

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	January 1993	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	None

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
0	0

REPORTS

Author and Title	Date
PRC. Final Stationwide Remedial Investigation Report	May 1996
Navy. Tank Closure Summary Report Prepared by Don Chuck	1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS – TANK 78

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit or range in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	ND (1)	150
TPH-e as diesel	--	--	NS	400
Benzene	--	--	ND (0.005)	4.4
Toluene	--	--	ND (0.005)	2,700
Ethylbenzene	--	--	ND (0.005)	3,100
Xylene	--	--	ND (0.005)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L)		Most Recent Groundwater from Same Well (µg/L)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	NS	--	NS	50
TPH-e as diesel	--	--	NS	--	NS	700
Benzene	--	--	NS	--	NS	1
Toluene	--	--	NS	--	NS	680
Ethylbenzene	--	--	NS	--	NS	1,000
Xylene	--	--	NS	--	NS	1,750
MTBE	--	--	NS	--	NS	13
TPH-e as JP-5	--	--	NS	--	NS	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	--	--	NS	--	NS	NL
TPH-e as kerosene	--	--	NS	--	NS	NL
TPH-e as motor oil	--	--	NS	--	NS	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANKS 86A AND 86B CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Tanks 86A and 86B were installed together in the same excavation and are discussed together in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 86A/86B	Steel UST 86A	5,000	Gasoline
	Steel UST 86B	7,000	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
1948	No	Removed	January 1993	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	Soil and Groundwater

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
3	1

REPORTS

Author and Title	Date
PRC. Final Stationwide Remedial Investigation Report	May 1996
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS – TANKS 86A AND 86B

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	ND (13)	150
TPH-e as diesel	--	--	ND (12)	400
Benzene	--	--	ND (0.066)	4.4
Toluene	--	--	ND (0.066)	2,700
Ethylbenzene	--	--	ND (0.066)	3,100
Xylene	--	--	ND (0.066)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	ND (12)	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	GPT86B-1	6/95	190[1]	NL
TPH-e as kerosene	--	--	ND (12)	NL
TPH-e as motor oil	--	--	ND (12)	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit or range in parentheses)		Most Recent Groundwater from Same Well (µg/L) (Detection limit or range in parentheses)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	WT86B-1	2/96	910[1]	--	ND (50)	50
TPH-e as diesel	--	--	ND (100)	--	ND (100)	700
Benzene	WT86B-1	2/96	28[1]	--	ND (1)	1
Toluene	WT86B-1	2/97	ND (0.5-1)	--	ND (0.5-1)	680
Ethylbenzene	WT86B-1	2/96	1.3	--	ND (0.5)	1,000
Xylene	GWT86B-1	6/95	6	--	NS	1,750
MTBE	--	--	ND (1)	--	ND (10)	13
TPH-e as JP-5	--	--	ND (100-500)	--	ND (100-500)	700
Naphthalene	--	--	ND (10)	--	ND (10)	NL
2-Methylnaphthalene	--	--	ND (10)	--	NS	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	GWT86B-1	6/95	5,900[1]	--	NS	NL
TPH-e as kerosene	--	--	ND (100)	--	NS	NL
TPH-e as motor oil	--	--	ND (100)	--	ND (100)	NL
Benzo(a)pyrene	--	--	ND (10)	--	NS	NL

Notes:

[1]	Estimated concentration, surrogate recovery out of quality control limits.
--	No information (not sampled or not detected)
GWT	Groundwater sample collected via Geoprobe. No additional samples are available from this location.
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 110 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends tank closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 110	Steel UST 110	2,000	Diesel

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
NA	No	Removed	April 1994	NA	NA

Note:
NA Information not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
No	None

Note:
[1] Contaminants are defined as petroleum compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
0	0

REPORTS

Author and Title	Date
Navy. Tank Summary Report Prepared by Don Chuck	1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS – TANK 110

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	--	--	NS	150
TPH-e as diesel	--	--	ND (1)	400
Benzene	--	--	ND (0.1)	4.4
Toluene	--	--	ND (0.1)	2,700
Ethylbenzene	--	--	ND (0.1)	3,100
Xylene	--	--	ND (0.1)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L)		Most Recent Groundwater from Same Well (µg/L)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	NS	--	NS	50
TPH-e as diesel	--	--	NS	--	NS	700
Benzene	--	--	NS	--	NS	1
Toluene	--	--	NS	--	NS	680
Ethylbenzene	--	--	NS	--	NS	1,000
Xylene	--	--	NS	--	NS	1,750
MTBE	--	--	NS	--	NS	13
TPH-e as JP-5	--	--	NS	--	NS	700
Naphthalene	--	--	NS	--	NS	NL
2-Methylnaphthalene	--	--	NS	--	NS	NL
TPH-e as other heavy components	--	--	NS	--	NS	NL
TPH-e as other light components	--	--	NS	--	NS	NL
TPH-e as kerosene	--	--	NS	--	NS	NL
TPH-e as motor oil	--	--	NS	--	NS	NL
Benzo(a)pyrene	--	--	NS	--	NS	NL

Notes:

--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 111 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends site closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 111	Steel UST 111	2,500	Fuel Oil

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
Unknown	No	Closed In Place	November 1995	Rusted	NA

Note:
NA Not available

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
Yes	Soil and Groundwater

Note:
[1] Contaminants are defined as compounds detected exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
4	0

REPORTS

Author and Title	Date
Navy. Tank Closure Summary Report Prepared by Don Chuck	1995
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 111

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limits in parentheses)	Action level (mg/kg)
TPH-p as gasoline	TK111-SP-001	11/1/95	0.13	150
TPH-e as diesel	TK111-SP-001	11/1/95	64.1	400
Benzene	--	--	ND (0.005)	4.4
Toluene	--	--	ND (0.005)	2,700
Ethylbenzene	--	--	ND (0.005)	3,100
Xylene	--	--	ND (0.005)	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	ND (15)	NL
Naphthalene	--	--	ND (0.07)	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	UST111-SB-01	8/25/99	NS	NL
TPH-e as motor oil	--	--	12	NL
Benzo(a)pyrene	--	--	ND (0.0028)	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) (Detection limit in parentheses)		Most Recent Groundwater from Same Well (µg/L)		Action Level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	ND (50)	--	--	50
TPH-e as diesel	--	--	ND (100)	--	--	700
Benzene	--	--	ND (0.5)	--	--	1
Toluene	--	--	ND (0.5)	--	--	680
Ethylbenzene	--	--	ND (0.5)	--	--	1,000
Xylene	UST111-SB-04	8/99	4.4	NS	NS	1,750
MTBE	--	--	ND (1)	--	--	13
TPH-e as JP-5	--	--	ND (100)	--	--	700
Naphthalene	--	--	NS	--	--	NL
2-Methylnaphthalene	--	--	NS	--	--	NL
TPH-e as other heavy components	--	--	NS	--	--	NL
TPH-e as other light components	--	--	NS	--	--	NL
TPH-e as kerosene	--	--	NS	--	--	NL
TPH-e as motor oil	--	--	ND (100)	--	--	NL
Benzo(a)pyrene	--	--	NS	--	--	NL

Notes:

--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
ND	No detections
NL	No defined action level
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 112 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends site closure.
- ☐ The Navy recommends further action.

Tank 112 never existed; no soil or groundwater samples were collected.
Therefore, there are no summary tables for soil or groundwater for Tank 112.

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 116 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends site closure.
- ☐ The Navy recommends further action.

TANK INFORMATION

Site Number	Tank Type and Number	Tank Size (gallons)	Contents
Tank 116	Steel UST 116	5,000	Aviation Gasoline

Note:
UST Underground storage tank

TANK INSTALLATION AND REMOVAL

Date Installed	Active (Yes, No)	Closed In-place, Removed, Active	Date Closed	Condition of Tank	Condition of Piping
1933	No	Removed	Unknown	Unknown	Unknown

LEAK AND CONTAMINATION

Identified Source or Leak (Yes, No)	Contaminants Identified in Medium (Soil, Groundwater, None)[1]
Yes	Soil

Note:
[1] Contaminants are defined as compounds exceeding instrument detection limits.

INVESTIGATION CONDUCTED

Number of Soil Borings	Number of Monitoring Wells
4	0

REPORTS

Author and Title	Date
Navy. Tank Closure Summary Report Prepared by Don Chuck	1995
ECC. 1996. Draft Closure Report for Mod. #3. Underground Storage Tank Removal at Moffett Federal Airfield	January 1996
TtEMI. November 1999 Quarterly Report	May 2000

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT
MAXIMUM CHEMICAL CONCENTRATIONS - TANK 116

SOIL

Chemical	Sample Name	Date	Soil Concentration (mg/kg) (Detection limit in parentheses)	Action level (mg/kg)
TPH-p as gasoline	TK116-EX-001	11/1/95	5.1	150
TPH-e as diesel	TK116-EX-003	11/1/95	371	400
Benzene	--	--	ND (0.005)	4.4
Toluene	TK116-EX-001	11/1/95	0.01	2,700
Ethylbenzene	TK116-EX-001	11/1/95	ND (0.006)	3,100
Xylene	TK116-EX-001	11/1/95	0.028	980
MTBE	--	--	NS	NL
TPH-e as JP-5	--	--	NS	NL
Naphthalene	--	--	NS	240
2-Methylnaphthalene	--	--	NS	NL
TPH-e as other heavy components	--	--	NS	NL
TPH-e as other light components	--	--	NS	NL
TPH-e as kerosene	--	--	NS	NL
TPH-e as motor oil	--	--	NS	NL
Benzo(a)pyrene	--	--	NS	0.26

GROUNDWATER

Chemical	Well Name	Maximum Concentration (µg/L) Detection limit in parentheses)		Most Recent Groundwater From Same Well (µg/L)		Action level
		Date	Concentration	Date	Concentration	(µg/L)
TPH-p as gasoline	--	--	ND (50)	--	--	50
TPH-e as diesel	--	--	NS	--	--	700
Benzene	--	--	ND (0.5)	--	--	1
Toluene	--	--	ND (0.5)	--	--	680
Ethylbenzene	--	--	ND (0.5)	--	--	1,000
Xylene	--	--	ND (1)	--	--	1,750
MTBE	--	--	ND (1)	--	--	13
TPH-e as JP-5	--	--	NS	--	--	700
Naphthalene	--	--	NS	--	--	NL
2-Methylnaphthalene	--	--	NS	--	--	NL
TPH-e as other heavy components	--	--	NS	--	--	NL
TPH-e as other light components	--	--	NS	--	--	NL
TPH-e as kerosene	--	--	NS	--	--	NL
TPH-e as motor oil	--	--	NS	--	--	NL
Benzo(a)pyrene	--	--	NS	--	--	NL

Notes:

--	No information (not sampled or not detected)
JP	Jet petroleum
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary butyl ether
N/A	Not applicable
ND	Not detected
NS	Not sampled
TPH	Total petroleum hydrocarbons

MOFFETT FEDERAL AIRFIELD
TANK CLOSURE REPORT

TANK 123 CLOSURE CHECKLIST

A tank closure checklist is included in this Executive Summary for each of the tanks assessed in this Tank Closure Report. Because all tanks were evaluated separately and are located far apart, each tank and its site conditions will be presented separately in the document.

- ■ The Navy recommends site closure.
- ☐ The Navy recommends further action.

Tank 123 never existed; no soil or groundwater samples were collected.
Therefore, there are no summary tables for soil or groundwater for Tank 123