

**QUARTERLY POST-CLOSURE MONITORING REPORT**  
**MOFFETT FEDERAL AIRFIELD**  
**MOFFETT FIELD, CALIFORNIA**

**Contract No. N62474-93-D-2151**  
**Delivery Order 0108**

Submitted to:

Department of the Navy  
Southwest Division  
Naval Facilities Engineering Command  
1220 Pacific Highway  
San Diego, California 92132-5187

Submitted by:

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A Member of The IT Group

773189-ITNHO-1008

April 10, 2000



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Addressee: Mr. Ed Dias, BLTL, Code 5SEN.ED

Contract: N62474-93-D-2151, Environmental Remediation Contract for Sites in Northern and Central California and in Nevada

Subject: Quarterly Post-Closure Monitoring Report (3<sup>rd</sup> Quarter), Delivery Order No. 0108, Sites 1 and 2 Monitoring and Landfill Maintenance, Moffett Federal Airfield, Moffett Field, California

Dear Mr. Dias:

Enclosed are three (3) copies of the 3<sup>rd</sup> Quarter Post-Closure Monitoring Report for the Site 1 and 2 Landfills at Moffett Federal Airfield. Sampling and Monitoring was performed on January 24, and 26, 2000. The report includes summary tables of the analytical results. Copies have also been sent directly to the individuals listed below.

Should you have any questions or require further information, please contact the undersigned at (925) 288-9898.

Sincerely,  
IT CORPORATION

  
Dennis R. Julio, P.E.  
Project Manager  
D.O. 0108

  
Don Marini, P.E.  
Deputy Program Manager  
EFA West PMO

Enclosures

cc: Mr. Al Fung, COTR, Code 7022 (w/o enclosure)  
Mr. Hubert Chan, EFA West RPM, Code 6421  
Mr. Don Chuck, Moffett Field RPM (including complete copy of original laboratory data)  
Mr. Jerry Taleghani, Moffett Field, ROICC NTR  
Mr. Timothy Mower, Tetra Tech EM Inc. (including electronic version of data)  
Ms. Rose Condit, IT  
Project Files

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**Adams, Debi**

**From:** Julio, Dennis  
**to:** Monday, April 10, 2000 11:53 AM  
Condit, Rose  
Adams, Debi  
**Subject:** Moffett/D.O. 108 Report

Hi Rose.

The distribution list for the D.O. 108 3rd Quarter Report is as follows (8 report copies total - 1 recipient gets a cover letter only):

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2. Ms. Rose Condit	IT Concord
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4. Mr. Al Fung, COTR, Code 7022	Alameda Point (without enclosure - letter only)
5. Mr. Hubert Chan, RPM, Code 6421	San Bruno
6. Mr. Don Chuck, RPM	Moffett Field
7. Mr. Jerry Taleghani, ROICC NTR	Moffett Field
8. Mr. Timothy Mower, Tetra Tech EM Inc.	Tetra Tech - Denver (including electronic version of data)
9. Project Files	IT Concord

Nida Bjork is currently preparing the cover letter. Both she and Barbara Marin have complete addresses for the recipients. Reports going to non-IT Concord recipients can be sent regular mail. Project number is 773189-02106084.

Thanks,

Dennis



# DOCUMENT RELEASE FORM

<b>Client:</b> NAVY	<b>Author:</b> R. Condit	<b>Submittal Register Item No.:</b>	<b>Date:</b> March 26, 2000							
<b>Document Title:</b> Quarterly Post-closure Monitoring Report		<b>Revision:</b> 0	<b>D.O./WAD No.:</b> 108							
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<b>Program Reviewer's Acceptance for Document Submittal</b>									<b>Signature</b>	
1) Technical Conclusions adequately supported by text and data?									<b>Yes</b>	<b>No</b>
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## Acronyms and Abbreviations

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µg/L	micrograms per liter
%D	percent difference
APCL	Applied Physics and Chemistry Laboratory
CCV	continuing calibration verification
CLP	Contract Laboratory Program
DCB	decachlorobiphenyl
EPA	U.S. Environmental Protection Agency
GC/MC	gas chromatograph/mass spectrometer
ICP	Inductively Coupled Plasma
ICS	interference check sample
ID	identification number
IT	IT Corporation
LCS	Laboratory Control Samples
MFA	Moffett Federal Airfield
MS/MSD	matrix spike/matrix spike duplicate
NFESC	Naval Facilities Engineering Services Center
OU1	Operable Unit 1
PCB	polychlorinated biphenyl
PQL	practical quantitation limit
RPD	relative percent difference
RSD	relative standard deviation
SDG	sample delivery group
SVOA	semivolatile organic analysis
TCE	trichloroethylene
TCMX	tetrachloro-m-xylene
TOC	total organic compound
TPH	total petroleum hydrocarbons
VOA	volatile organic analysis
VOC	volatile organic compound

## 1.0 Introduction

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Quarterly post-closure monitoring of the Operable Unit 1 (OU1) at Moffett Federal Airfield (MFA), California, was performed by IT Corporation (IT) in compliance with the IT's *Sampling and Analysis Plan (SAP), Postclosure Monitoring (Site 1) and Groundwater Monitoring (Site 2), June 1999 (Revision 0)*. OU1 consist of two landfills: Runway Landfill (Site 1) and the former Golf Course Landfill (Site 2). Quarterly monitoring was performed on January 24 and 26, 2000. This report summarizes the analytical and field results obtained during this sampling event and includes the following information:

- Landfill gas monitoring results
- Analytical results from groundwater monitoring
- Data quality assessment report.

## 2.0 Landfill Gas Sampling

Landfill gas sampling was performed from 19 passive gas vents and 4 landfill gas monitoring wells at Site 1. The location of all gas monitoring points are shown on Figure 1. Landfill gas monitoring was performed using a Landtec GA 90™ portable methane monitor. Results from methane monitoring at each sampling location are shown below.

Monitoring Location	% Methane in Landfill Gas	Monitoring Location	% Methane in Landfill Gas
<b>Gas Venting Points</b>			
GV-1	0	GV-11	0
GV-2	0	GV-12	0
GV-3	0	GV-13	23.7
GV-4	0	GV-14	37
GV-5	12.9	GV-15	0
GV-6	0.4	GV-16	0
GV-7	1.3	GV-17	0
GV-8	21.1	GV-18	0
GV-9	0.3	GV-19	0
GV-10	0.3		
<b>Landfill Gas Monitoring Wells</b>			
LGMW1-1	0	LGMW 1-3	0
LGMW1-2	0	LGMW 1-4	0

### 3.0 Groundwater Monitoring

Groundwater samples were collected from nine monitoring wells at Site 1 and from six monitoring wells at Site 2. The monitoring well identification numbers (IDs) and analyses performed at each well are shown below. Water level measurements were collected from 14 wells and piezometers at Site 1 and eight wells at Site 2. The locations of all groundwater sampling/measurement points are shown on Figure 1 for Site 1, and on Figure 2 for Site 2. Water level measurement data are presented in Table 1. All monitoring well sampling was performed using low flow micro-purging technique. Field parameters such as pH, temperature, conductivity, turbidity, and oxidation/reduction potential were measured throughout the well purging procedure. The field parameter data are recorded on the "Groundwater Monitoring Data Forms," which are included in Appendix A. A summary of analytical results for each monitoring well is provided in Appendix B.

ID	Analyses
<b>Site 1</b>	
W1-1	Monitoring well not found
W1-5	Volatile Organic Compounds (VOCs) (EPA 8260)
W1-8	Total Metals (EPA 6010B)
W1-12	Dissolved Metals (EPA 6010B)
W1-14	Pesticides/PCBs (EPA 8081/8082)
W1-15	Total Organic Carbon (TOC) (EPA 415.1)
W1-16	Nitrite/Nitrate as Nitrogen (EPA 353.1)
W1-19	
W1-22	
W1-23	
W1-24	Not installed
<b>Site 2</b>	
W2-5	CLP SOW Volatile Organic Analysis (VOA)
W2-6	CLP SOW Semivolatile Organic Analysis (SVOA)
W2-12	CLP Pesticides/PCBs
W2-14	Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil (EPA
W2-15	8015)
W2-16	

*CLP denotes EPA Contract Laboratory Program Statement of Work*

*EPA denotes U.S. Environmental Protection Agency*

*PCB denotes polychlorinated biphenyls*

*SOW denotes Statement of Work*

## 4.0 Data Quality Assessment

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Quarterly groundwater samples collected from monitoring wells located at the MFA Sites 1 and 2 were sent to Applied Physics and Chemistry Laboratory (APCL) in Chino, California. APCL is a state of California-certified and Naval Facilities Engineering Services Center (NFESC)-approved laboratory. Sampling was performed by IT personnel according to the approved Sampling and Analysis Plan.

Samples collected at Site 1 were analyzed by APCL according to the requirements of the following documents:

- U.S. Environmental Protection Agency (EPA) SW-846, Test Methods for Evaluating Solid Waste, Third Edition, December, 1996
- EPA-600/4-79-020 Methods of Chemical Analysis of Water and Wastes, 1983

Samples collected at Site 2 were analyzed by APCL according to the EPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Organic Analyses (OLM 4.0).

Data evaluation/validation was performed by an IT Project Chemist following the CLP National Functional Guidelines for Organic and Inorganic Data Review, February 1994. The results of analysis for all samples are summarized in the tables in Appendix B. Data qualifying flags are applied to the data in the summary tables according to the data validation findings. The following data qualifying flags were applied:

- **U**—The analyte was analyzed for, but not detected. The associated numerical value is at or below the practical quantitation limit (PQL)
- **B**—The analyte was also detected in the associated blanks
- **J**—The analyte was positively identified, the quantitation is an estimate
- **R**—The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
- **UJ**—The analyte was not detected and the associated PQL is an estimate

Sample results were reported by APCL in the following three sample delivery groups (SDGs):

SDG # 00-1328	SDG # 00-1394	SDG # 00-1392
W1-5	W1-14	W2-5
W1-8	W1-15	W2-6
W1-15	Trip Blank #2	W2-12
W1-16		W2-14
W1-19		W2-15
W1-22		W2-16
W99-1		W99-2
(field duplicate of W1-16)		(field duplicate of W2-15)
W1-23		Trip Blank
Trip Blank #1		

#### 4.1 Sample Receipt, Storage and Holding Times

All samples were received by APCL within one to two days after sample collection. Samples that could not be shipped on the same day they were collected were maintained in the custody of the IT Project Chemist, in a locked cold storage until they could be shipped. All of the samples were received at the laboratory within the required temperature range of 2° – 6° C. All of the samples were extracted and analyzed within the required holding times as stated by the methods.

#### 4.2 Volatile Organic Compounds

A total of 20 samples were analyzed for volatile organic compounds (VOCs) either by EPA Method 8260 or CLP-VOA. This total includes samples from 15 monitoring wells, 2 field duplicates, and 3 trip blanks.

##### 4.2.1 Gas Chromatograph/Mass Spectrometer Tuning

Gas Chromatograph/Mass Spectrometer (GC/MS) tuning was performed every 12-hour interval as specified by the method. All tuning criteria for ion abundances were within the method-specified ranges.

### 4.2.2 Initial and Continuing Calibration

All requirements for initial and continuing calibration were met for all SDGs with the following exceptions:

- The relative percent difference (RPD) of acetone, 2-butanone, and 2-hexanone in initial calibration for CLP-VOA analysis (SDG 001392) was above the method-specified 30% control limit. All of the Site 2 sample results associated with this calibration were qualified as estimated (J) concentrations for these three analytes, due to this deficiency.
- The percent difference (%D) of trans-1,4 dichlorobutene (41.8%) and bromomethane (31.6%) were above the method-specified control limit of 20% in SDG 001394. Sample results W1-14 and W1-15 were qualified as estimated (J) for these two analytes.
- The percent difference (%D) of trans-1,4 dichlorobutene (39.2%), methylene chloride (22.6%) and bromomethane (51.8%) were above the method-specified control limit of 20 %D in SDG 001328. Sample results W1-19 and W1-18 were qualified as estimated (J) for these two analytes.
- The percent difference (%D) of trans-1,4 dichlorobutene (32.5%) and bromomethane (26.5%) were above the method specified control limit of 20% in SDG 001328. Samples W1-5, W1-22, W1-8, W1-12, W1-16, and W1-99 were qualified as estimated (J) for these two analytes.

### 4.2.3 Blanks

Target compounds were not detected in the VOC method blanks or trip blanks with the exception of methylene chloride, acetone, and 2-butanone in the CLP method blank and trip blank associated with SDG # 00-1392. Methylene chloride and ketones which common laboratory contaminants were detected in the blanks and samples shown below.

Samples	2-Butanone (µg/L)	Acetone (µg/L)	Methylene Chloride (µg/L)
Method Blank – CLP VOA	0.6 J	2 J	0.6J
Trip Blank CLP	1 J	3	0.6 J
W2-5, W2-6, W2-12, W2-14, W2-15, W2-16, W99-2	0.6 J – 1 J	1 J – 2	2 U

Concentrations of 2-butanone and acetone detected below the PQL were reported as not detected at the PQL, and flagged with a U qualifier. Concentrations of 2-butanone and acetone detected in the samples above the PQL were flagged with a B qualifier indicating that analytes were also detected in the associated trip or method blank samples.

#### **4.2.4 Surrogate Compound Recoveries**

All surrogate compound recoveries were within the established control limits for all samples analyzed with the following exceptions:

- One surrogate compound, toluene-d8, was recovered at 121 % in sample number W1-5, which is above the upper control limit of 118 %. All three other surrogate compounds were in control for the analysis. No corrective action was taken due to this minor deficiency. No data were qualified and data usability was not affected.
- One surrogate compound, 1,2-dichloroethane, was recovered at 126 % in sample number W1-14, which is above the upper control limit of 119 %. All three other surrogates were in control for the analysis. No corrective action was taken due to this minor deficiency. No data were qualified and data usability was not affected.

#### **4.2.5 Laboratory Control Samples**

All percent recoveries were within the specified control limits for the Laboratory Control Samples (LCS) in all SDGs.

#### **4.2.6 Matrix Spike/Matrix Spike Duplicate**

Two site-specific Matrix Spike/Matrix Spike Duplicate (MS/MSD) pairs were analyzed for this sampling event. Samples W1-16 and W2-15 were used for the MS/MSD pairs in SDG 00-1328 and SDG 00-1392. All analyte recoveries and RPDs were within the established control limits.

#### **4.2.7 Internal Standard Performance**

All internal standard results were within the method specified limits.

#### **4.2.8 Compound Identification**

All sample spectra met the compound identification criteria.

#### **4.2.9 System Performance and Other Observations**

No adverse changes in instrument performance during sample analysis were observed.

### **4.3 Contract Laboratory Program Semivolatile Organic Analysis**

A total of seven samples were submitted for CLP semivolatile compound analysis (SVOA) from Site 2, including six monitoring wells and 1 field duplicate. The data were reported in SDG 00-1392.

#### **4.3.1 Gas Chromatograph/Mass Spectrometer Tuning**

GC/MS tuning was performed within the specified 12-hour time interval. All ion abundances met the specified tuning criteria for the method.

### 4.3.2 Initial and Continuing Calibration

All compounds met the requirements for initial calibration for CLP SVOAs. Both continuing calibrations (CCV) standards associated with project sample analysis met the method-specific criteria of maximum percent difference (%D) of 25% and relative response factor (RRF) greater than 0.05 for all compounds with the following exceptions:

Compound	Continuing Calibration Deficiencies
Date:1/28/2000 (samples affected: W2-15MS, W2-15MSD, W2-5)	
2,4 Dinitrophenol	%D = 84.5%; RRF = 0.027
4-Nitrophenol	%D = 28.1%
4,6-Dinitro-2-methylphenol	%D = 69.8%; RRF=0.036
Date:1/29/2000 (samples affected: W2-6, W2-12, W2-14, W2-15, W2-16, W99-2)	
4-Nitrophenol	%D = 26%
Pentachlorophenol	%D = 28.8%

None of these compounds were detected in any of the project samples. 2,4-Dinitrophenol and 4,6-dinitro-2-methylphenol had the RRFs below 0.05. These analytes were rejected (R-qualifier) as unusable due to this deficiency. The results for remaining analytes were qualified as estimate values (UJ) based on the CCV deficiencies shown above, and data usability was not affected.

### 4.3.3 Blanks

One method blank was extracted and analyzed with SDG 00-1392. There were no semivolatile compounds detected in the method blank.

### 4.3.4 Surrogate Compound Recoveries

All surrogate compound recoveries were within the specified control limits.

### 4.3.5 Laboratory Control Samples

One LCS/LCS duplicate pair was extracted and analyzed with SDG 00-1392. All recoveries and RPDs were within the specified control limits.

### 4.3.6 Matrix Spike/Matrix Spike Duplicate

One project-specific MS/MSD pair was analyzed with this SDG. Sample W2-15 was used for the MS/MSD samples. All recoveries and RPDs were within the specified control limits with the following exceptions:

- 2,4-dinitrotoluene and 4-chloro 3-methylphenol were recovered at 105% and 102%, respectively, which are above the upper control limits for these analytes. No

corrective action was taken due to this anomaly. No data were qualified and data usability was not affected.

#### **4.3.7 Internal Standard Performance**

All internal standard results were within the specified control limits.

#### **4.3.8 Compound Identification**

All sample spectra met compound identification criteria.

#### **4.3.9 System Performance and Other Observations**

No adverse changes in instrument performance during sample analysis were observed.

### **4.4 Pesticides and Polychlorinated Biphenyls**

A total of 17 samples were analyzed for pesticides and polychlorinated biphenyls (PCBs) either by EPA Methods 8081/8082 or CLP Pesticide/PCB. This total includes the 15 monitoring wells and two field duplicates.

#### **4.4.1 Pesticides Instrument Performance**

All peak separation, retention time window, and degradation/breakdown criteria were within the method-specified control limits.

#### **4.4.2 Initial and Continuing Calibration**

The initial calibration for each individual pesticide and PCBs met all of the method-specified criteria. All continuing calibration verifications were analyzed at the required time intervals and met the established method acceptance criteria for all pesticides and PCBs.

#### **4.4.3 Blanks**

Individual pesticides and PCBs were not detected in the method extraction blanks or instrument blanks.

#### **4.4.4 Surrogate Recoveries**

Surrogate compounds tetrachloro-m-xylene (TCMX) and decachlorobiphenyl (DCB) were recovered within the specified control limits of 30% to 150% for all samples and blanks analyzed with the exception shown below:

- Surrogate compound DCB was recovered above the upper control limit in samples W2-2 (160%), W2-15 (154%), and W2-16 (151 %). No pesticides or PCBs were detected in any of the samples. Data qualification was not necessary and data usability was not affected.

#### **4.4.5 Laboratory Control Samples**

Two LCS/LCS duplicate pairs were extracted and analyzed with this sample set. All recoveries and RPDs were within the specified control limits for the method.

#### **4.4.6 Matrix Spike/Matrix Spike Duplicate**

Two site-specific MS/MSD pairs were analyzed for this sampling event. Sample W1-15 was used for the MS/MSD for SDG 00-1394 and was spiked with pesticides only. Sample W2-15 was used for the MS/MSD for SDG 00-1392 and was spiked with pesticides only. All analyte recoveries and RPDs were within the established control limits.

#### **4.4.7 Instrument Performance**

One instrument used for pesticide/PCB analysis for SDG 00-1392 exhibited signs of detector failure during the analysis of project samples. Negative dips in the baseline of column 1 (detector A) were present in all samples. The second column and detector appeared in good operating condition. Since no pesticides or PCBs were detected in any of the samples in SDG 00-1392 on the second column and detector, there was no impact to data quality or usability due to the malfunctioning detector.

### **4.5 Total Petroleum Hydrocarbons**

A total of seven samples were analyzed for total petroleum hydrocarbons (TPH) as diesel fuel and motor oil and were reported in SDG 00-1392. This total includes six monitoring wells and one field duplicate.

#### **4.5.1 Initial and Continuing Calibration**

The initial calibration for diesel and motor oil met the method-specified criteria. All continuing calibration verifications were analyzed at the required time intervals and met the established method acceptance criteria for both diesel and motor oil.

#### **4.5.2 Blanks**

Diesel and motor oil were not detected in the method extraction blank.

#### **4.5.3 Surrogate Recoveries**

Surrogate compound octacosane was recovered within the specified control limits for all samples and blanks analyzed.

#### **4.5.4 Laboratory Control Samples**

One LCS/LCS duplicate pair was extracted and analyzed with SDG 99-6403. All recoveries and RPDs were within the specified control limits for diesel fuel analysis.

#### **4.5.5 Matrix Spike/Matrix Spike Duplicate**

One project-specific MS/MSD pair was analyzed with this SDG. Sample W2-15 was used for the MS/MSD sample. The recovery and RPD for diesel fuel in the MS/MSD of W2-15 was within the specified control limits for the method.

#### **4.5.6 Hydrocarbon Pattern Recognition**

The hydrocarbon pattern present in sample W2-14 was not characteristic of fresh diesel fuel or motor oil. The laboratory qualified the results as "atypical diesel / motor oil." A review of the chromatogram revealed a symmetric distribution of peaks indicative of those of normal paraffin were most likely introduced to the sample through contamination in the laboratory.

### **4.6 Inorganic Parameters**

A total of ten samples were analyzed for metals by method EPA 6010B. This total includes nine monitoring wells and one field duplicate. All samples were analyzed twice, as total and dissolved metals. The data were reported in both SDGs 00-1394 and 00-1328.

#### **4.6.1 Initial and Continuing Calibration**

All initial and continuing calibration criteria for metals were met.

#### **4.6.2 Blanks**

The following analytes were detected in either the preparation blank and/or the continuing calibration blank: arsenic, antimony, beryllium, barium, cadmium, copper, cobalt, nickel, lead, thallium, and zinc. All sample results of less than five times the associated blank concentrations have been reported as not detected at the PQL.

#### **4.6.3 Interference Check Sample**

All Interference Check Sample (ICS) recoveries were within the required control limits.

#### **4.6.4 Laboratory Control Samples**

All LCS and LCS duplicate recoveries were within the established control limits.

#### **4.6.5 Matrix Spike Sample Analysis**

One MS was analyzed with each SDG. Sample W1-15 was used for the MS/MSD with SDG 00-1394 for total metal analysis and W1-5 was used for the MS/MSD for dissolved metal analysis with SDG 00-1328. All analyte recoveries were within the established control limits with the following exceptions:

- Thallium was recovered at 70% in both the MS and MSD samples of W1-15. A post-digestion spike was performed, and thallium recoveries were also below the lower control limit. Thallium was not detected in sample W1-15, and the results were qualified as "UJ," indicating that the analyte was not detected and the quantitation limit is approximated due to matrix interference and a possible low bias.
- Barium, beryllium, chromium, cobalt, lead, nickel, selenium, thallium, and vanadium were all recovered between 61% and 74% in the MS/MSD of sample W1-5, which are below the lower control limit of 75%. A post digestion spike was performed on the sample and similar low recoveries were obtained, indicating matrix interference present in the sample. The results for all associated batch samples were qualified as estimated values "J," due matrix interference and a possible low bias.

#### **4.6.6 Inductively Coupled Plasma Serial Dilution**

The percent difference for metals with concentrations greater than five times the reporting limit in samples W1-5 and W1-15 was above the 10% control limit, indicating a matrix interference and element suppression during analysis. The laboratory noted that high concentrations of sodium in the samples were causing analysis problems.

#### **4.7 Field Duplicates**

Two field duplicates were collected and analyzed during this sampling event. The field duplicate results are summarized in Table 2. The field duplicate precision indicates acceptable sampling and analytical precision.

#### **4.8 Overall Assessment**

The laboratory data generated from the first quarter sampling event for year 2000 are indicative of acceptable analytical performance. With the exception of 2,4-dinitrophenol and 4,6-dinitro-2-methylphenol, which were rejected due to analytical deficiencies, the discrepancies noted above do not invalidate the data for its intended use of groundwater monitoring.

**TABLES**

**Table 1  
Water Level Measurements**

<b>Well I.D.</b>	<b>Depth to Water (feet)</b>
<b>Site 1</b>	
W1-1	Well not found
W1-5	5.48
W1-6	2.18
W1-7	3.03
W1-8	5.55
W1-12	3.64
W1-14	5.12
W1-15	5.14
W1-16	6.80
W1-19	4.93
W1-20	5.72
W1-22	3.79
W1-23	4.65
W1-24	Not installed
PZ1-18	5.15
PZ1-21	5.34
<b>Site 2</b>	
W2-3	2.60
W2-5	5.60
W2-6	6.17
W2-12	6.21
W2-13	5.88
W2-14	6.44
W2-15	3.24
W2-16	3.45

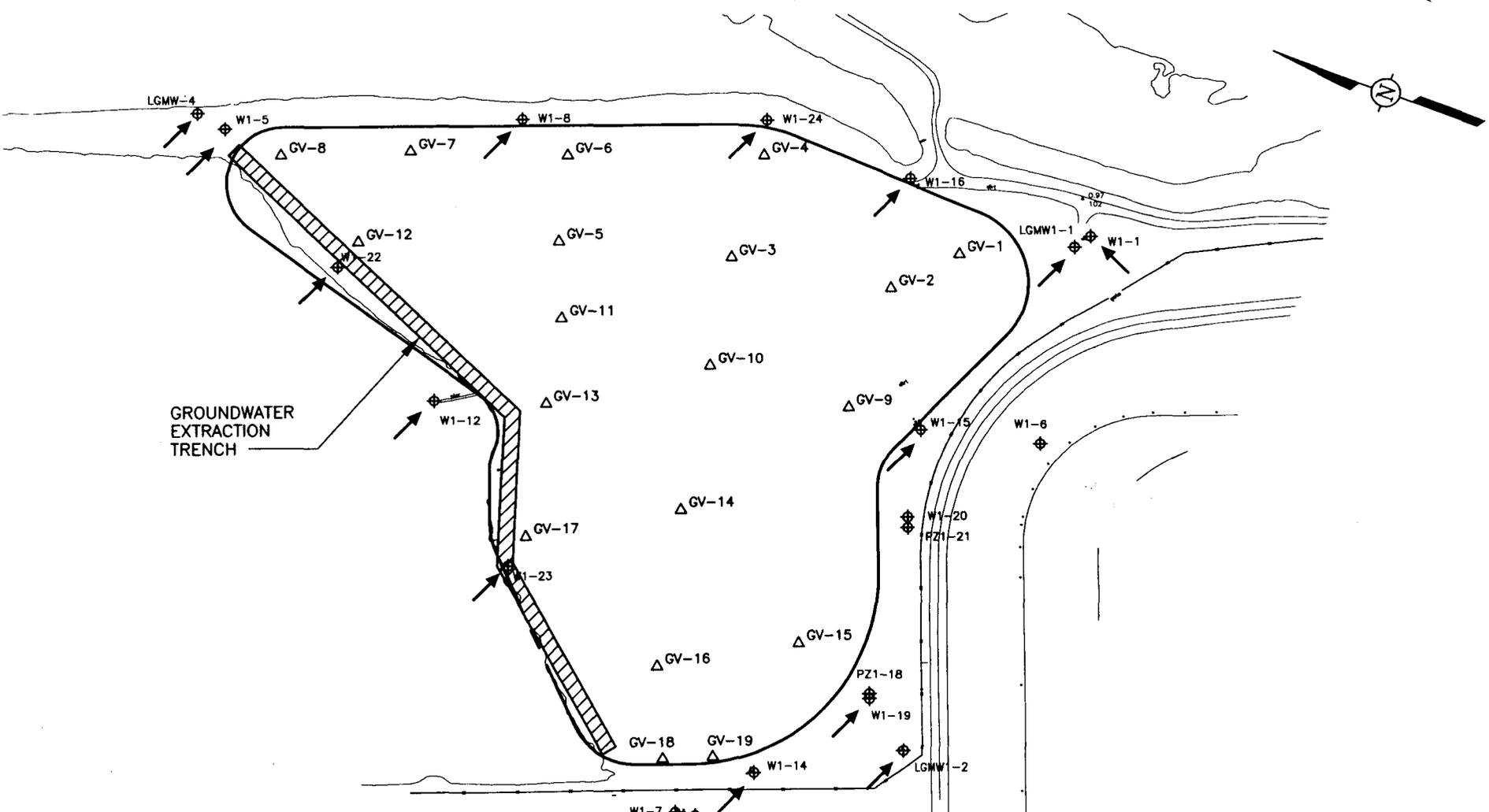
Notes:

1. Depth to water measured from top of well casing.

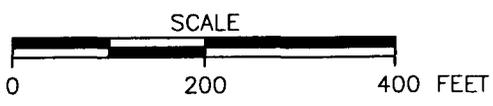
**Table 2  
Field Duplicate Summary**

Analyte	Sample Result	Sample Duplicate Result	RPD (%)
<b>W1-16 (W99-1)</b>			
VOCs	All compounds not detected	All compounds not detected	Not calculable
Pesticides	All compounds not detected	All compounds not detected	Not calculable
PCBs	All compounds not detected	All compounds not detected	Not calculable
Total Metals	Concentration, µg/L		
Arsenic	5.9 J	4 J	38.3 %
Barium	673 J	576 J	15.5 %
Cadmium	4	4	0
Chromium	2 J	1.5 J	28.5 %
Nickel	10 J	9.9 J	1.0 %
Cobalt	7.7 J	8.5 J	9.8 %
Selenium	ND	4.1 J	Not calculable
All other total metals	All metals not detected or below reporting limit	All metals not detected or below reporting limit	Not calculable
Dissolved Metals	Concentration, µg/L		
Arsenic (D)	5.5 J	3.3 J	50 %
Barium (D)	544 J	539 J	0.9 %
Cadmium(D)	3.9	4	2.5
Chromium (D)	1.3 J	ND	Not calculable
Cobalt (D)	8.8	8.9	1.1 %
Copper (D)	3.9 J	ND	Not calculable
Nickel (D)	11.1 J	10.5 J	5.6 %
Selenium	3.2 J	4.1 J	24.6 %
Zinc	5.7 J	8.5 J	39.4 %
All other dissolved metals	All metals not detected or below reporting limit	All metals not detected or below reporting limit	Not calculable
Nitrate-Nitrite	1.7	0.1	100 %
TOC	63	51	21 %
<b>W2-6 (W99-2)</b>			
SVOCs	All compounds not detected	All compounds not detected	Not calculable
Acetone	2 JB	ND	Not calculable
Toluene	2 J	1 J	66.6 %
All other VOCs	All compounds not detected	All compounds not detected	Not calculable
Pesticides	All compounds not detected	All compounds not detected	Not calculable
PCBs	All compounds not detected	All compounds not detected	Not calculable
Motor Oil	ND	0.07 J	Not calculable
Diesel	0.21	0.13	47%

## FIGURES



- LEGEND**
- △ = GAS VENT LOCATION
  - ⊕ = EXISTING WELL LOCATION
  - LGMW = LANDFILL GAS MONITORING WELL
  - W = GROUNDWATER MONITORING WELL
  - W1-22 AND W1-23 = GROUNDWATER EXTRACTION WELLS
  - PZ = PIEZOMETER WELL
  - ↗ = WELLS TO BE MONITORED
  - = APPROXIMATE SITE 1 BOUNDARY



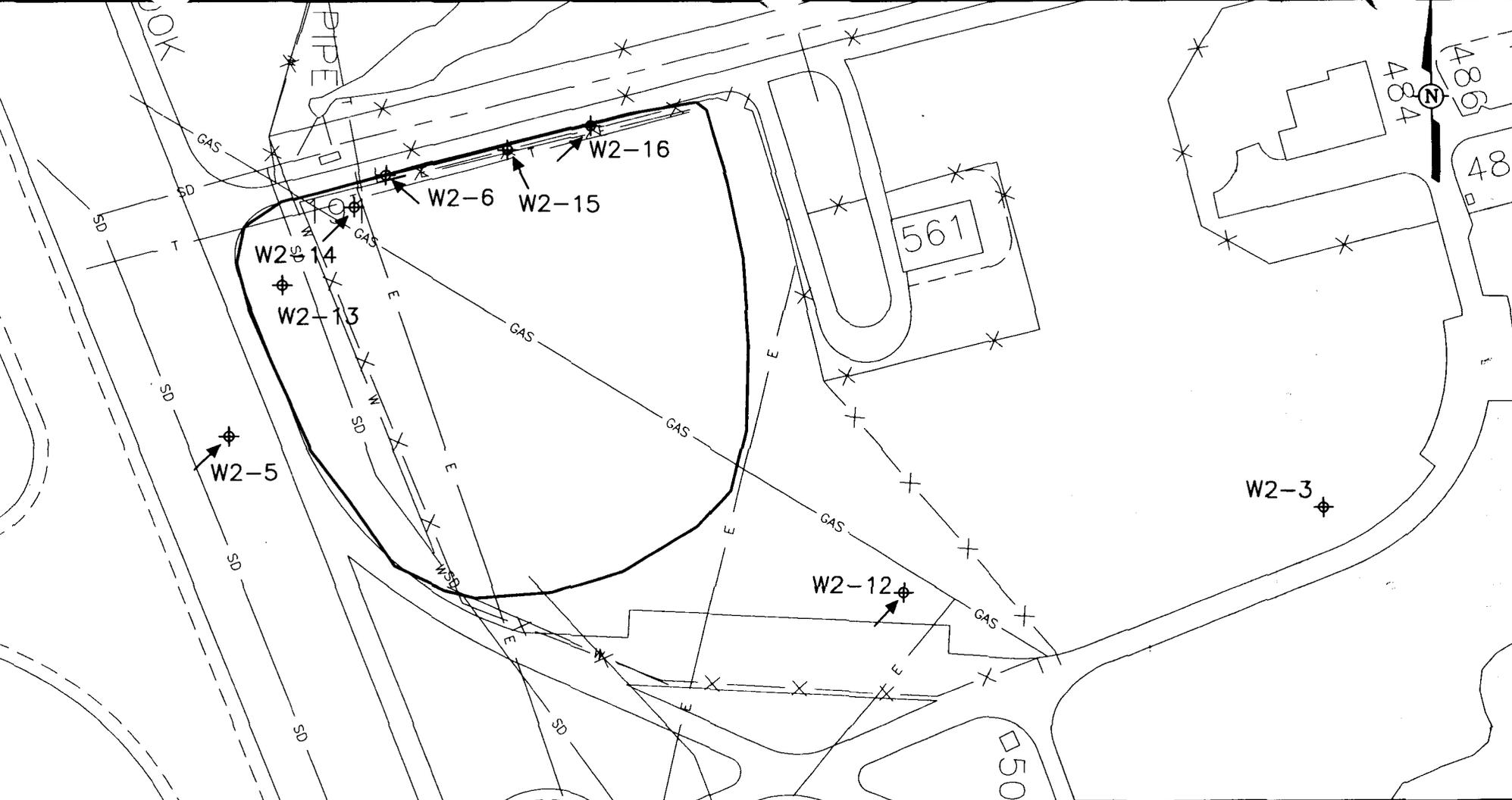
CONTRACT N62474-93-D-2151  
 DELIVERY ORDER 108  
 MOFFETT FEDERAL AIRFIELD  
 MOFFETT FIELD, CALIFORNIA

FIGURE 1  
 MONITORING WELL AND  
 GAS VENT LOCATIONS  
 LANDFILL SITE 1

IMAGE	X-REF	OFFICE	DRAWN BY	
---	MF-TOPO	MTZ	SJZ	9/2

CHECKED BY	APPROVED BY

DRAWING NUMBER	773	-A15
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**LEGEND**

- ⊕ EXISTING WELL LOCATION
- W = GROUNDWATER MONITORING WELL
- ↗ = WELLS TO BE MONITORED
- APPROXIMATE SITE 2 BOUNDARY

- GAS - EXISTING UNDERGROUND GAS LINE (PHOTO 4/26/96)
- T - EXISTING UNDERGROUND TELEPHONE LINE
- E - EXISTING UNDERGROUND ELECTRICAL LINE
- W - EXISTING UNDERGROUND WATER LINE
- SD - EXISTING UNDERGROUND STORM DRAIN



CONTRACT N62474-93-D-2151  
 DELIVERY ORDER 108  
 MOFFETT FEDERAL AIRFIELD  
 MOFFETT FIELD, CALIFORNIA

FIGURE 2  
 MONITORING WELL  
 LOCATIONS  
 LANDFILL SITE 2

**APPENDIX A  
GROUNDWATER MONITORING DATA FORMS**































**APPENDIX B  
SUMMARY OF ANALYTICAL RESULTS**

Table Summary of Analytical Results for Moffett Site 1

Sample ID	W1-5	W1-8	W1-12	W1-14	W1-15	W1-16
Date Collected	01/24/2000	01/24/2000	01/24/2000	01/26/2000	01/26/2000	01/24/2000
Analysis						
EPA 8260A	Concentration, ug/L					
Acetone	11U	11U	11U	11U	11U	11U
Acrylonitrile	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U
Benzene	2U	2U	2U	2U	2U	2U
Bromobenzene	2U	2U	2U	2U	2U	2U
Bromochloromethane	2U	2U	2U	2U	2U	2U
Bromodichloromethane	2U	2U	2U	2U	2U	2U
Bromoform	2U	2U	2U	2U	2U	2U
Bromomethane	2U J	2U J	2U J	2U J	2U J	2U J
2-Butanone	4.4U	4.4U	4.4U	4.4U	4.4U	4.4U
Carbon disulfide	2U	2U	2U	2 J	2U	2U
Carbon tetrachloride	2U	2U	2U	2U	2U	2U
Chlorobenzene	2U	2U	2U	2U	2U	2U
Chloroethane	2U	2U	2U	2U	2U	2U
Chloroform	2U	2U	2U	2U	2U	2U
Chloromethane	2U	2U	2U	2U	2U	2U
1,2-Dibromo-3-chloropropane	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	2U	2U	2U	2U	2U	2U
Dibromomethane	2U	2U	2U	2U	2U	2U
trans-1,4-Dichlorobutene	2U J	2U J	2U J	2U J	2U J	2U J
1,2-Dichlorobenzene	2U	2U	2U	2U	2U	2U
1,4-Dichlorobenzene	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	2U	2U	2U	2U	2U	2U
1,2-Dichloroethane	3U	3U	3U	2U	2U	3U
1,1-Dichloroethene	2U	2U	2U	2U	2U	2U
cis-1,2-Dichloroethene	2U	2U	2U	2U	2U	2U
trans-1,2-Dichloroethene	2U	2U	2U	2U	2U	2U
1,2-Dichloropropane	2U	2U	2U	2U	2U	2U
cis-1,3-Dichloropropene	2U	2U	2U	2U	2U	2U
trans-1,3-Dichloropropene	2U	2U	2U	2U	2U	2U
Ethylbenzene	2U	2U	2U	2U	2U	2U
2-Hexanone	2U	2U	2U	2U	2U	2U
Methylene chloride	2U	2U	2U	2U	2U	2U
4-Methyl-2-pentanone	2U	2U	2U	2U	2U	2U
Styrene	2U	2U	2U	2U	2U	2U
1,1,1,2-Tetrachloroethane	2U	2U	2U	2U	2U	2U
1,1,2,2-Tetrachloroethane	2U	2U	2U	2U	2U	2U
Tetrachloroethene	2U	2U	2U	2U	2U	2U
Toluene	2U	2U	2U	0.9J	1J	2U
1,1,1-Trichloroethane	2U	2U	2U	2U	2U	2U

Table 1. Summary Analytical Results for Office 1

Sample ID	W1-5	W1-8	W1-12	W1-14	W1-15	W1-16
Date Collected	01/24/2000	01/24/2000	01/24/2000	01/26/2000	01/26/2000	01/24/2000
Analysis						
<b>EPA 8260A cont.</b>						
1,1,2-Trichloroethane	2U	2U	2U	2U	2U	2U
Trichloroethene	2U	2U	2U	2U	2U	2U
Trichlorofluoromethane	2U	2U	2U	2U	2U	2U
Vinyl chloride	2U	2U	2U	2U	2U	2U
1,2,3-Trichloropropane	2U	2U	2U	2U	2U	2U
Vinyl Acetate	3.6U	3.6U	2.3U	2.3U	3.6U	3.6U
m/p-Xylene	<b>0.8J</b>	<b>0.6J</b>	2U	2U	<b>3</b>	2U
o-Xylene	2U	2U	2U	2U	<b>0.7J</b>	2U
<b>EPA 8081</b>						
Concentration, ug/L						
Aldrin	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
alpha-BHC	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
beta-BHC	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
delta-BHC	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
gamma-BHC (Lindane)	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
alpha Chlordane	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
gamma Chlordane	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
4,4'-DDD	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
4,4'-DDE	0.1U	0.1U	0.1U	0.1UJ	<b>0.1</b>	0.1U
4,4'-DDT	0.1U	0.1U	0.1U	0.1UJ	<b>0.1</b>	0.1U
Dieldrin	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Endosulfan I	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
Endosulfan II	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Endosulfan sulfate	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Endrin	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Endrin aldehyde	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Endrin ketone	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Heptachlor	0.05U	0.05U	0.05U	0.05UJ	0.05U	0.05U
Heptachlor epoxide	0.1U	0.1U	0.1U	0.1UJ	0.1U	0.1U
Methoxychlor	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U
Toxaphene	2U	2U	2U	2UJ	2U	2U
<b>EPA 8082</b>						
Concentration, ug/L						
Aroclor-1016	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1221	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1232	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1242	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1248	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1254	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1260	0.5U	0.5U	0.5U	0.5U	<b>0.7</b>	0.5U

Table 2 Summary of Analytical Results for Offset 1

Sample ID	W1-5	W1-8	W1-12	W1-14	W1-15	W1-16
Date Collected	01/24/2000	01/24/2000	01/24/2000	01/26/2000	01/26/2000	01/24/2000
Analysis						
<b>EPA 6010B (total)</b>	<b>Concentration, ug/L</b>					
Antimony	50U	50U	50U	50U	50U	50U
Arsenic	50U	50U	50U	3.2J	3.9J	5.9J
Barium	349 J	87.4J	32.6J	134	170	673
Beryllium	2U J	2U J	2U J	2U	2U	2U J
Cadmium	3.9	3.5	3.8	2U	2U	4
Chromium	3.8J	10U J	3.3J	5.3J	5.6J	2J
Cobalt	5.1J	2.6J	10U J	8.1J	10U J	7.7J
Copper	10U	10U	10U	10U	10U	10U
Lead	5U J	5U J	5U J	5U	5U	5U J
Nickel	7.7J	10U J	10U J	5.8J	2.6J	10J
Selenium	4.5J	3.8J	20U	15.8J	11.2J	4J
Silver	5U	5U	5U	5U	5U	5U
Thallium	10U J	10U J	1.4J	2.2J	10U	10U J
Vanadium	10U J	10U J	10U J	10U	10U	10U J
Zinc	20U	3.9J	20U	20U	20U	20U
<b>EPA 6010B (dissolved)</b>	<b>Concentration, ug/L</b>					
Antimony	50 U	50 U	50 U	50 U	50 U	50 U
Arsenic	50U	50U	50U	50U	50 U	5.5J
Barium	350 J	89.8J	44.4J	122	166	544 J
Beryllium	2U J	2U J	2U J	2U	2U	2U J
Cadmium	3.9	3.7	4	2U	2U	3.9
Chromium	10U J	10U J	10U J	5.7J	5.8J	1.3J
Cobalt	5.3J	2.7J	10U J	7.8J B	10U	8.8J
Copper	5J	4.4J	10U	10U	10U	3.9J
Lead	5U J	5U J	5U J	5U	5U	5U J
Nickel	6.2J B	5.1J B	10U J	7.6J B	10U	11.1J
Selenium	6.6J	5.6J	3.2J	15.4J	11.2J	3.2J
Silver	5U	5U	5U	5U	5U	5U
Thallium	10U J	10U J	10U J	10U J	10U J	10U J
Vanadium	10U J	10U J	10U J	10U	10U	10U J
Zinc	20U	7.9J	20U	20U	20U	5.7J
<b>EPA 353.3</b>	<b>Concentration, ug/L</b>					
Nitrate-Nitrite as N	4.55	7.43	1.2	0.1U	0.5J	1.7
<b>EPA 415.1</b>	<b>Concentration, ug/L</b>					
TOC	35	30	19	59	43	63

1. W99-1 is a field duplicate of sample W1-16

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the analyte was positively identified but the associated numerical value is below the reporting limit (RL).

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

B qualifier indicates that the analyte was also detected in the associated blank

Table 1. Summary of Analytical Results for Offset Line 1

Sample ID	W1-19	W1-22	W1-23	W99-1
Date Collected	01/24/2000	10/18/1999	10/18/1999	10/18/1999
Analysis				field duplicate <sup>1</sup>
EPA 8260A	Concentration ug/L			
Acetone	11U	11U	11U	11U
Acrylonitrile	2.3U	2.3U	2.3U	2.3U
Benzene	2U	2U	2U	2U
Bromobenzene	2U	2U	2U	2U
Bromochloromethane	2U	2U	2U	2U
Bromodichloromethane	2U	2U	2U	2U
Bromoform	2U	2U	2U	2U
Bromomethane	2U J	2U J	2U J	2U J
2-Butanone	4.4U	4.4U	4.4U	4.4U
Carbon disulfide	2U	2U	2U	2U
Carbon tetrachloride	2U	2U	2U	2U
Chlorobenzene	2U	2U	2U	2U
Chloroethane	2U	2U	2U	2U
Chloroform	2U	2U	2U	2U
Chloromethane	2U	2U	2U	2U
1,2-Dibromo-3-chloropropane	2U	2U	2U	2U
1,2-Dibromoethane	2U	2U	2U	2U
Dibromomethane	2U	2U	2U	2U
trans-1,4-Dichlorobutene	2U J	2U J	2U J	2U J
1,2-Dichlorobenzene	2U	2U	2U	2U
1,4-Dichlorobenzene	2U	2U	2U	2U
1,1-Dichloroethane	2U	2U	2U	2U
1,2-Dichloroethane	3U	3U	3U	3U
1,1-Dichloroethene	2U	2U	2U	2U
cis-1,2-Dichloroethene	2U	2U	2U	2U
trans-1,2-Dichloroethene	2U	2U	2U	2U
1,2-Dichloropropane	2U	2U	2U	2U
cis-1,3-Dichloropropene	2U	2U	2U	2U
trans-1,3-Dichloropropene	2U	2U	2U	2U
Ethylbenzene	2U	2U	2U	2U
2-Hexanone	2U	2U	2U	2U
Methylene chloride	2U J	2U	2U J	2U
4-Methyl-2-pentanone	2U	2U	2U	2U
Styrene	2U	2U	2U	2U
1,1,1,2-Tetrachloroethane	2U	2U	2U	2U
1,1,2,2-Tetrachloroethane	2U	2U	2U	2U
Tetrachloroethene	2U	2U	2U	2U
Toluene	1J	0.6J	1J	2U
1,1,1-Trichloroethane	2U	2U	2U	2U

Table 2 Summary of Analytical Results for Offset Site 1

Sample ID	W1-19	W1-22	W1-23	W99-1
Date Collected	01/24/2000	10/18/1999	10/18/1999	10/18/1999
Analysis				field duplicate
<b>EPA 8260A</b>	<b>Concentration ug/L</b>			
1,1,2-Trichloroethane	2U	2U	2U	2U
Trichloroethene	2U	2U	2U	2U
Trichlorofluoromethane	2U	2U	2U	2U
Vinyl chloride	2U	2U	2U	2U
1,2,3-Trichloropropane	2U	2U	2U	2U
Vinyl Acetate	3.6U	3.6U	2.3U	3.6U
m/p-Xylene	2U	2U	2U	2U
o-Xylene	2U	2U	2U	2U
<b>EPA 8081</b>	<b>Concentration ug/L</b>			
Aldrin	0.05U	0.05U	0.05U	0.05U
alpha-BHC	0.05U	0.05U	0.05U	0.05U
beta-BHC	0.05U	0.05U	0.05U	0.05U
delta-BHC	0.05U	0.05U	0.05U	0.05U
gamma-BHC (Lindane)	0.05U	0.05U	0.05U	0.05U
alpha Chlordane	0.05U	0.05U	0.05U	0.05U
gamma Chlordane	0.05U	0.05U	0.05U	0.05U
4,4'-DDD	0.1U	0.1U	0.1U	0.1U
4,4'-DDE	0.1U	0.1U	0.1U	0.1U
4,4'-DDT	0.1U	0.1U	0.1U	0.1U
Dieldrin	0.1U	0.1U	0.1U	0.1U
Endosulfan I	0.05U	0.05U	0.05U	0.05U
Endosulfan II	0.1U	0.1U	0.1U	0.1U
Endosulfan sulfate	0.1U	0.1U	0.1U	0.1U
Endrin	0.1U	0.1U	0.1U	0.1U
Endrin aldehyde	0.1U	0.1U	0.1U	0.1U
Endrin ketone	0.1U	0.1U	0.1U	0.1U
Heptachlor	0.05U	0.05U	0.05U	0.05U
Heptachlor epoxide	0.1U	0.1U	0.1U	0.1U
Methoxychlor	0.5U	0.5U	0.5U	0.5U
Toxaphene	2U	2U	2U	2U
<b>EPA 8082</b>	<b>Concentration ug/L</b>			
Aroclor-1016	0.5U	0.5U	0.5U	0.5U
Aroclor-1221	0.5U	0.5U	0.5U	0.5U
Aroclor-1232	0.5U	0.5U	0.5U	0.5U
Aroclor-1242	0.5U	0.5U	0.5U	0.5U
Aroclor-1248	0.5U	0.5U	0.5U	0.5U
Aroclor-1254	0.5U	0.5U	0.5U	0.5U
Aroclor-1260	0.5U	0.5U	0.5U	0.5U

Table 1. Summary of Analytical Results for Moffett Site 1

Sample ID	W1-19	W1-22	W1-23	W99-1
Date Collected	01/24/2000	10/18/1999	10/18/1999	10/18/1999
Analysis				field duplicate <sup>1</sup>
<b>EPA 6010B (total)</b>	<b>Concentration ug/L</b>			
Antimony	50U	50U	50U	50U
Arsenic	50U	4.2J	3J	4J
Barium	57.7J	556 J	99J	576 J
Beryllium	2U J	2U J	2U J	2U J
Cadmium	4.5	4.4	8.3	4
Chromium	10U J	5.8J	16.5 J	1.5J
Cobalt	9.9J	8.6J	5.1J	8.5J
Copper	10U	10 U	47.9	11.3 B
Lead	5U J	5U J	3.4J	5U J
Nickel	9.4J	26.2J	118 J	9.9J
Selenium	6.2J	9.2J	8.6J	4.1J
Silver	5U	5U	5U	5U
Thallium	10U J	10U J	10U J	10U J
Vanadium	10U J	10U J	9.4JB	10U J
Zinc	20U	10.8J	37.2	20U
<b>EPA 6010B (dissolved)</b>	<b>Concentration ug/L</b>			
Antimony	50 U	50 U	50 U	50 U
Arsenic	50U	2.3J	5J	3.3J
Barium	59.7J	537 J	77J	539 J
Beryllium	2U J	2U J	2U J	2U J
Cadmium	4.5	4.1	8.4	4
Chromium	10U J	5.6J	1.9J	10U J
Cobalt	10.1 J	8.2J	5J	8.9J
Copper	10U	10U	31.5 B	10U
Lead	5U J	5U J	5U J	5U J
Nickel	9.9J	24J	128 J	10.5J
Selenium	4.6J	6.9J	11.9J	4.1J
Silver	5U	5U	5U	5U
Thallium	10U J	10U J	10U J	10U J
Vanadium	10U J	10U J	10U J	10U J
Zinc	2.3J	26.9	21.2	8.5J
<b>EPA 353.3</b>	<b>Concentration ug/L</b>			
Nitrate-Nitrite as N	0.8J	2.74	0.41	0.1
<b>EPA 415.1</b>	<b>Concentration ug/L</b>			
TOC	42	141	72	51

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the analyte was positively identified but the associated numerical value is below the reporting limit (RL).

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

B qualifier indicates that the analyte was also detected in the associated blank

**Table Summary of Analytical Results for Moffett Site 2**

Sample ID	W2-5	W2-6	W2-12	W2-14	W2-15	W2-16	W99
Date Collected	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000
Analysis							field duplicate <sup>1</sup>
CLP SVOA	Concentration, ug/L						
Acenaphthylene	10U	10U	10U	10U	10U	10U	10U
Acenaphthene	10U	10U	10U	10U	10U	10U	10U
Anthracene	10U	10U	10U	10U	10U	10U	10U
Benzo(a)anthracene	10U	10U	10U	10U	10U	10U	10U
Benzo(a)pyrene	10U	10U	10U	10U	10U	10U	10U
Benzo(b)fluoranthene	10U	10U	10U	10U	10U	10U	10U
Benzo(k)fluoranthene	10U	10U	10U	10U	10U	10U	10U
2,2'-Oxybis(1-chloropropane)	10U	10U	10U	10U	10U	10U	10U
bis(2-Ethylhexyl)phthalate	4U	4U	4U	4U	3J	2J	4U
4-Bromophenyl-phenylether	10U	10U	10U	10U	10U	10U	10U
Butylbenzylphthalate	10U	10U	10U	10U	10U	10U	10U
Carbazole	10U	10U	10U	10U	10U	10U	10U
4-Chloro-3-Methylphenol	10U	10U	10U	10U	10U	10U	10U
4-Chloroaniline	30U	30U	30U	30U	30U	30U	30U
2-Chloronaphthalene	10U	10U	10U	10U	10U	10U	10U
2-Chlorophenol	10U	10U	10U	10U	10U	10U	10U
4-Chlorophenyl-phenylether	10U	10U	10U	10U	10U	10U	10U
Chrysene	10U	10U	10U	10U	10U	10U	10U
Di-n-butylphthalate	10U	10U	10U	10U	1J	1J	10U
Di-n-octylphthalate	10U	10U	10U	10U	10U	10U	10U
Dibenz(a,h)anthracene	10U	10U	10U	10U	10U	10U	10U
Dibenzofuran	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	5U	5U	5U	5U	5U	5U	5U
1,3-Dichlorobenzene	5U	5U	5U	5U	5U	5U	5U
1,4-Dichlorobenzene	5U	5U	5U	5U	5U	5U	5U
3,3'-Dichlorobenzidine	12U	12U	12U	12U	12U	12U	12U
2,4-Dichlorophenol	10U	10U	10U	10U	10U	10U	10U
Diethylphthalate	10U	10U	1J	10U	10U	10U	10U
Dimethylphthalate	10U	10U	10U	10U	10U	10U	10U
2,4-Dimethylphenol	10U	10U	10U	10U	10U	10U	10U
4,6-Dinitro-2-methylphenol	25U R	25U	25U	25U	25U	25U	25U
2,4-Dinitrophenol	25U R	25U	25U	25U	25U	25U	25U
2,4-Dinitrotoluene	10U	10U	10U	10U	10U	10U	10U
2,6-Dinitrotoluene	10U	10U	10U	10U	10U	10U	10U
Fluoranthene	10U	10U	10U	10U	10U	10U	10U
Fluorene	10U	10U	10U	10U	10U	10U	10U
Hexachlorobenzene	10U	10U	10U	10U	10U	10U	10U
Hexachlorobutadiene	10U	10U	10U	10U	10U	10U	10U
Hexachlorocyclopentadiene	23U	23U	23U	23U	23U	23U	23U
Hexachloroethane	10U	10U	10U	10U	10U	10U	10U
Indeno(1,2,3-cd)pyrene	10U	10U	10U	10U	10U	10U	10U



**Table Summary of Analytical Results for Moffett Site 2**

Sample ID	W2-5	W2-6	W2-12	W2-14	W2-15	W2-16	W99
Date Collected	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000
Analysis							field duplicate
<b>CLP VOA cont.</b>							
	<b>Concentration, ug/L</b>						
trans-1,3-Dichloropropene	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	2U	2U	2U	2U	2U	2U	2U
2-Hexanone	2U J	2U J	2U J	2U J	2U J	2U J	2U J
Methylene chloride	2U	2U	2U	2U	2U	2U	2U
4-Methyl-2-pentanone	2U	2U	2U	2U	2U	2U	2U
Styrene	2U	2U	2U	2U	2U	2U	2U
1,1,2,2-Tetrachloroethane	2U	2U	2U	2U	2U	2U	2U
Tetrachloroethene	2U	2U	2U	2U	2U	2U	2U
Toluene	<b>1J</b>	<b>2J</b>	<b>0.9J</b>	<b>0.9J</b>	<b>1J</b>	<b>1J</b>	<b>1J</b>
1,1,1-Trichloroethane	2U	2U	2U	2U	2U	2U	2U
1,1,2-Trichloroethane	2U	2U	2U	2U	2U	2U	2U
Trichloroethene	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	2U	2U	2U	2U	2U	2U	2U
<b>CLP Pesticides</b>							
	<b>Concentration, ug/L</b>						
alpha-BHC	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
beta-BHC	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
delta-BHC	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
gamma-BHC (Lindane)	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Heptachlor	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Aldrin	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Heptachlor epoxide	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Endosulfan I	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Dieldrin	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
4,4'-DDE	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Endrin	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Endosulfan II	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
4,4'-DDD	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Endosulfan sulfate	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
4,4'-DDT	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Methoxychlor	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Endrin ketone	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Endrin aldehyde	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Toxaphene	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
alpha Chlordane	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
gamma Chlordane	2U	2U	2U	2U	2U	2U	2U

**Table Summary of Analytical Results for Moffett Site 2**

Sample ID	W2-5	W2-6	W2-12	W2-14	W2-15	W2-16	W99-2
Date Collected	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000	01/26/2000
Analysis							field duplicate <sup>1</sup>
<b>CLP PCB</b>	<b>Concentration, ug/L</b>						
Aroclor-1016	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1221	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1232	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1242	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1248	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1254	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Aroclor-1260	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
<b>TPH</b>	<b>Concentration, ug/L</b>						
Diesel	0.05U	<b>0.21</b>	0.05U	<b>0.15<sup>2</sup></b>	0.05U	0.05U	<b>0.13</b>
Motor Oil	0.1U	0.1U	0.1U	<b>0.33<sup>2</sup></b>	0.1U	0.1U	<b>0.07J</b>

1. Sample W99-2 is a field duplicate of sample W2-6.

2. Hydrocarbon pattern present is not characteristic of fuel hydrocarbons, laboratory contamination is likely.

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the analyte was positively identified but the associated numerical value is below the reporting limit (RL).

NA indicates that the sample was not analyzed for this parameter due to a laboratory error

B qualifier indicates that the analyte was also detected in the associated blank

R qualified indicates that the data are rejected due to deficiencies in analytical quality control