

**BLAES ENVIRONMENTAL MANAGEMENT, INC.** \_\_\_\_\_

October 31, 2003

Mr. Robert Westin  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway  
Alameda, California 94602

Alameda County  
NOV 10 2003  
Environmental Health


Re: Well Installation and Groundwater Monitoring Report  
19100-19600 Mission Boulevard  
Hayward, California

Dear Mr. Westin:

Blaes Environmental Management, Inc. (Blaes Environmental), on behalf of Amerco Real Estate Company /U-Haul International, is submitting the *Well Installation and Groundwater Monitoring Report, 2003* for the above-mentioned facility (the site). If you have any questions please call me at (602) 728-0707.

Sincerely,

Blaes Environmental Management, Inc.



Steven Woodhull  
Staff Geologist

cc: Reid Riner, U-Haul

Alameda County

NOV 10 2003

*Environmental Health*

**WELL INSTALLATION AND GROUNDWATER MONITORING  
REPORT**

**AMERCO REAL ESTATE COMPANY PROPERTY  
ALAMEDA COUNTY ASSESSOR PARCEL  
NUMBERS 414-11-4-6 AND 414-11-4-7  
19100 – 19600 MISSION BOULEVARD  
HAYWARD, CALIFORNIA**

---

*Prepared For:*

**AMERCO REAL ESTATE COMPANY/U-HAUL INTERNATIONAL  
2727 NORTH CENTRAL AVENUE, SUITE 500  
PHOENIX, ARIZONA 85004**

*Prepared By:*

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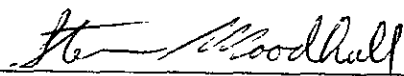
**BLAES PROJECT #001-00008-02**

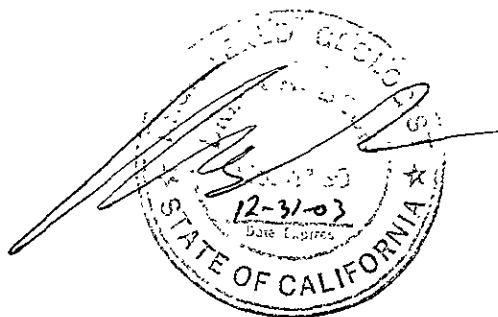
**OCTOBER 16, 2003**

This Well Installation and Groundwater Monitoring Report has been prepared by Blaes Environmental Management, Inc. for the exclusive use of Amerco Real Estate Company/U-Haul International, Inc. (Amerco/U-Haul) as it pertains to the Amerco Property located at 19100-19600 Mission Boulevard in Hayward, California. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists, engineers, and environmental consultants practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report. *Any use of or reliance on this report by a third party shall be at such a party's sole risk.*


Blaes Environmental Management, Inc. can offer no assurances and assumes no responsibility for site conditions or activities outside the scope of the inquiry requested by Amerco Real Estate Company/U-Haul International, Inc. as outlined in this document. It should be understood by all parties that Blaes Environmental Management, Inc. has relied on the accuracy of documents, oral information, and other materials, services, and information provided by Amerco Real Estate Company/U-Haul International, subcontractors, and other associated parties. Any subsequent modification, revision or verification of this report must be provided in writing by Blaes Environmental Management, Inc.

REPORT PREPARED BY:

  
\_\_\_\_\_  
Steven Woodhull  
Blaes Environmental Management, Inc.  
Project Geologist



REPORT REVIEWED BY

  
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Blaes Project #001-00008-02

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## 1.0 INTRODUCTION

This report documents the procedures and findings of monitoring well installation activities and a groundwater monitoring and sampling event conducted at the Amerco Real Estate Company Property (the site) located at 19100 - 19600 Mission Boulevard in Hayward, California (Figure 1). Blaes Environmental Management, Inc. (Blaes Environmental) conducted the well installation in April 2003 and the groundwater monitoring event in June 2003 at the request and authorization of Amerco Real Estate Company/U-Haul International, Inc. (Amerco/U-Haul). This investigation was conducted in response to the detection of petroleum hydrocarbons initially encountered in the soil and groundwater during an underground storage tank (UST) removal program conducted at the site in 1990. The objective of this investigation was to evaluate the extent and concentration of dissolved-phase petroleum hydrocarbons in the groundwater at the site.

## **2.0 SITE BACKGROUND**

### **2.1 SITE LOCATION AND DESCRIPTION**

The subject property consists of approximately 2.73 acres (comprised of two adjacent properties) located immediately south of State Highway 238 and northeast of Mission Boulevard in Hayward, California. The site is currently an empty lot with no surface cover. Several vacant structures formerly occupied the site; however, all structures have since been removed. The former structures included two multi-story residential buildings, a water tower/pump house, and two single-story commercial buildings. The current site features are shown on the Site Map in Figure 2. The former site features are shown on the Site Map from Pinnacle Environmental's Environmental Site Assessment Report (1998) presented in Appendix A.

### **2.2 LOCAL HYDROLOGY**

The nearest surface water is San Lorenzo Creek, located approximately 0.2 miles south of the site. Based on observations from the installation of MW-1, the depth to groundwater was estimated at approximately 32 feet below the ground surface (bgs) in late 1992. The average depth to water encountered at the site during this investigation was 22.49 feet below the ground surface.

### **2.3 GENERAL LITHOLOGY OF THE SITE**

As identified during well installation activities, subsurface sediments at the site consist predominantly of clays and silty clays to a depth of approximately 34 feet bgs, where an eight foot thick sand unit was encountered. The sand unit was underlain by clay from 42 to 43 feet bgs, where the boring was terminated.

### **2.4 SUMMARY OF UST REMOVAL AND PREVIOUS GROUNDWATER MONITORING**

According to the Geocon Environmental Consultants Preliminary Site Assessment Report (1994), a 550-gallon unleaded gasoline UST and a 280-gallon waste-oil UST were removed from the site on June 5, 1990 by Decon Environmental Services, Inc. (DES). One soil sample was obtained from beneath the center of each tank pit at a depth of approximately one-foot below the bottom of the tank excavation. The analytical test results from the soil sample collected from beneath the gasoline UST for total petroleum hydrocarbons as gasoline (TPHg) indicated no detectable concentrations. Benzene and Toluene concentrations of 4 and 3 parts per billion (ppb), respectively, were detected. The soil sample collected

from beneath the waste oil tank was analyzed for total oil and grease. The analytical test results indicated 51 parts per million (ppm) total oil and grease in the sample.

Additional soil was removed from the tank excavation beneath the location of the former waste oil UST on June 8, 1990. Soil samples were collected from the tank pit at depths of one, two, and three feet below the bottom of the tank pit. Two of the tank pit samples (one and three feet below the excavation bottom) were analyzed for total oil and grease. Oil and grease concentrations in the sample from a depth of one foot were reported to be 140 ppm. Oil and grease concentrations in the soil sample obtained from a depth of three feet were below detectable limits.

Subsequent investigative work at the site was required by the Alameda County Health Care Services Agency (ACHCSA). On November 6, 1992, one well (MW-1) was installed at the site near the former location of the gasoline UST and single dispenser. Soil samples taken at five foot intervals to a total depth of 43 feet for monitoring well MW-1 were analyzed for concentrations of TPHg, total petroleum hydrocarbons as diesel (TPHd) and as motor oil (TPHmo), Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), and halogenated volatile organics. No detectable concentrations of the constituents listed above were reported. A second monitor well (MW-2) was found by Pinnacle during a site visit conducted in March 1998. No records could be found regarding the installation or construction details of MW-2.

Following installation, a groundwater sample from MW-1 was collected and analyzed for the same constituents as the soil samples. No detectable concentrations of the above listed constituents were reported in the groundwater sample. Groundwater monitoring well MW-1 was sampled again on December 7, 1992. The groundwater sample was analyzed for the same constituents analyzed in the samples obtained during the soil and groundwater investigation. TPHg concentrations of 78 ppb, and Ethylbenzene and Total Xylene concentrations of 1.6 and 6.4 ppb, respectively were reported. Two additional groundwater monitoring events were conducted on March 15, 1993 and June 10, 1993. No detectable concentrations of the above listed constituents were reported in either well (Geocon, 1994)

Pinnacle sampled monitoring wells MW-1 and MW-2 again in March 1998. The samples did not contain concentrations of TPHG, BTEX, or MTBE above detection limits. However, the screened interval of



well MW-1 (33 to 43 feet bgs) was below the measured depth to groundwater (15.91 feet below top of casing), indicating that groundwater may be under confined conditions and that the analytical results may not be representative of TPHG and BTEX concentrations at depth (Pinnacle, 1998).

Blaes Environmental also conducted another groundwater monitoring event at the site on October 21, 1999. The depth to groundwater measured at monitoring wells MW-1 and MW-2 was 23.98 and 24.00 feet below top of casing, respectively. This is approximately eight feet lower than measurements presented in the previous Pinnacle report (1998). Analytical results of groundwater collected from monitoring well MW-1 indicated that the sample did not contain reportable concentrations of petroleum hydrocarbons or fuel oxygenate compounds. Analytical results of groundwater collected from monitoring well MW-2 indicated the presence of TPH-G (290 micrograms per liter [ $\mu\text{g/L}$ ]), MTBE (0.6  $\mu\text{g/L}$ ), toluene (32  $\mu\text{g/L}$ ), ethylbenzene (26  $\mu\text{g/L}$ ), and total xylenes (110  $\mu\text{g/L}$ ). With exception to MTBE, no other analyzed fuel oxygenate compounds were reported in the groundwater sample from MW-2.

### 3.0 WELL INSTALLATION AND GROUNDWATER MONITORING ACTIVITIES

Based on the detection of petroleum hydrocarbons in the soil and groundwater following the tank removal program and subsequent periodic groundwater monitoring events, Amerco/U-Haul authorized Blaes Environmental to investigate the extent of petroleum hydrocarbon impacted groundwater at the site. The investigation involved three tasks including: (1) drilling and installing groundwater monitoring wells (MW-3, MW-4, MW-5, MW-6, and MW-7) on the site property; (2) collecting groundwater samples; and (3) analyzing the groundwater samples at a California certified laboratory. This section presents a description of the equipment, procedures, and findings of monitor well installation and subsequent groundwater monitoring activities.

#### 3.1 DRILLING AND WELL INSTALLATION ACTIVITIES

On April 24 and 25, 2003, Blaes Environmental supervised the installation of five groundwater monitoring wells at the site. One monitoring well (MW-3) was installed in the area next to the former UST's and fuel dispenser. Two monitoring wells (MW-2 and MW-4) were installed approximately 30 and 70 feet south of the former UST locations. The remaining two monitoring wells (MW-6 and MW-7) were installed approximately 25 and 70 feet north of the former UST locations. The locations of the monitoring wells are shown on the site map (Figure 2). The following sections describe the subtasks associated with the drilling and well installation program.

##### 3.1.1 Health and Safety Meeting

Prior to initiating field activities, Blaes Environmental conducted a health and safety meeting at the site. Attendees at the meeting included each member of the drilling crew and the Blaes Environmental staff member. During the meeting, the Health and Safety Plan was reviewed and discussed by all personnel. The field program was conducted in strict adherence with the provisions described in the site-specific Health and Safety Plan.

##### 3.1.2 Drilling Activities

On April 24, 2003, a California licensed drilling company drilled five soil borings on the site property using a CME-75 hollow-stem auger drilling rig. Soil boring MW-3 was drilled within the location of

the former fuel USTs and fuel dispenser. Soil borings MW-2 and MW-4 were drilled approximately 30 and 70 feet south of the former UST locations. The remaining two soil borings, MW-6 and MW-7, were drilled approximately 25 and 70 feet north of the former UST locations. Soil borings MW-3, MW-4, MW-5, and MW-7 were each drilled to a depth of approximately 30 feet bgs. Soil boring B-6 was drilled to approximately 42 feet bgs. Subsurface sediments observed from soil borings MW-3, MW-4, MW-5, and MW-7 consist predominantly of clays and silty clays to a depth of approximately 30 feet bgs. Subsurface sediments observed from soil boring MW-6 consist predominantly of clays and silty clays to a depth of approximately 33.5 feet bgs and sand and gravelly sand from 33.5 to 42 feet bgs.

Based on the boring log of MW-1, historic groundwater levels, and the lack of observed groundwater within MW-6 to 33.5 feet bgs, it was suspected that groundwater was under confined conditions within the sand unit observed from approximately 33.5 to 42 feet bgs. As such, MW-6 was screened from 31 to 40 feet bgs. During subsequent drilling activities, it was discovered that groundwater was present above the sand unit at approximately 23 feet bgs. As such, the remaining monitoring wells (MW-3, MW-4, MW-5, and MW-7) were screened from 10 to 30 feet bgs.

#### *3.1.2.1 Soil Sampling*

Soil samples were collected from soil borings MW-3 through MW-7 at five-foot depth intervals beginning at a depth of approximately five feet bgs. Blaes Environmental logged the physical characteristics of the soil samples from each soil boring using the Unified Soil Classification System (USCS) in order to evaluate stratigraphy and visually verify the absence or presence of petroleum hydrocarbons. Soil samples were collected using a modified California split-spoon sampler consisting of an outer sampling barrel lined with three 6-inch long brass sample sleeves. Lithologic descriptions from the soil borings are presented in Appendix B.

#### *3.1.2.2 Soil Disposal*

Excess soil cuttings generated during the drilling program were containerized in 11 Department of Transportation (DOT) 17H 55-gallon steel drums. The soil drums were labeled and left on-site pending proper treatment/disposal. On September 17, 2003, Integrated Waste Management, Inc. (IWM) removed the soil drums from the site and transported them to Republic Services Vasco Road Landfill in Livermore, California for treatment and disposal. The certificate of disposal is included in Appendix C.

### 3.1.3 Monitoring Well Installation and Development

Upon completion of each of the five soil borings, each soil boring was converted into a 2-inch diameter Schedule 40 PVC groundwater monitoring well. Monitoring wells MW-3, MW-4, MW-5, and MW-7 consist of 20-feet of slotted well casing (0.020-inch slots) installed from depths of approximately 10-feet to 30-feet bgs. Monitoring well MW-6 consists of nine feet of slotted well casing (0.020-inch slots) installed from a depth of approximately 31-feet to 40-feet bgs. In each monitoring well, blank well casing was installed above the screen interval to the ground surface. A sand pack was placed in the annular space between the slotted well casing and the borehole wall from the bottom of each boring to approximately one foot above the screened interval. A layer of hydrated bentonite was placed in the annular space above the sand pack. The remaining annular space was filled with cement grout to the ground surface. At the ground surface, the monitor wells were capped and enclosed within 12-inch diameter, flush mounted, locking well box, and cemented in place. Due to the lack of an existing well box for MW-2, a 24-inch square locking well box was also installed over the monitoring well. Well construction diagrams are presented in Appendix D.

Following well installation, the two existing monitoring wells (MW-1 and MW-2) as well as the five recently installed monitoring wells (MW-3, MW-4, MW-5, MW-6, and MW-7) were developed. Each well was surged approximately 50 times to allow communication of the well fluids with the surrounding formation fluids. Groundwater monitoring wells MW-1, MW-3, MW-4, MW-5, MW-6, and MW-7 were purged of 20 to 30-gallons of water (until the water was clear of sediment) using a stainless steel bailer. Groundwater monitoring well MW-2 was purged of 55-gallons of water using a stainless steel bailer. A total of 180-gallons of groundwater was purged from the monitoring wells on-site.

Groundwater developed from each well was contained on site in Department of Transportation (DOT) 17H 55-gallon drums pending analytical results and proper recycling or disposal. Each drum was labeled with the site name, address, date, contents (water), and well number. The water generated during development activities was transported to a recycling facility for treatment and disposal with the purged groundwater generated during the scheduled groundwater monitoring and sampling event.

### 3.1.4 Monitor Well Survey

On June 19, 2003, Morrow Surveying, located in West Sacramento, California, conducted a level survey of each of the groundwater monitoring wells at the site. The objective of the survey was to obtain the elevation of the top of the well casing for each well. These measurements together with the groundwater depth measurements within each well were used to calculate the elevation of the groundwater surface body below the site and the resultant groundwater flow direction. The Monitor Well Survey Report is included in Appendix E.

## 3.2 GROUNDWATER MONITORING AND SAMPLING

On June 3 and 4, 2003, Blaes Environmental returned to the site to conduct a groundwater monitoring and sampling event. A description of each task associated with groundwater monitoring and sampling activities is presented in the following sections.

### 3.2.1 Groundwater Depth Measurements

Blaes Environmental measured the depth to groundwater in monitoring wells MW-1 through MW-7 to the nearest 0.01-foot using a Heron™ water level meter. The water level meter was decontaminated with an Alconox™ wash and tap water rinse prior to initiating groundwater depth measurements and between each well. Groundwater depth measurements were performed in accordance with industry standards and followed the requirements described in documents ASTM D4448-85a and ASTM D5088-90.

The average depth to groundwater recorded during the June 2003 sampling event was 22.49 feet below the top of individual well casings. The average groundwater hydraulic gradient across the site in June 2003 was 0.0065 feet/foot with a groundwater flow direction to the south (Figure 3). In addition to collecting groundwater level information, Blaes Environmental also collected dissolved oxygen readings from the undisturbed water in the wells. Dissolved oxygen measurements were obtained using a YSI-85 dissolved oxygen probe. A summary of the depth to water and dissolved oxygen measurements recorded by Blaes Environmental is provided in Table 1

### 3.2.2 Groundwater Sampling

Prior to groundwater sampling, Blaes Environmental purged a minimum of three casing volumes of water from each monitoring well. Blaes Environmental purged each well using a portable, 12-volt,

battery operated whale pump. The pump was decontaminated with an Alconox™ wash and tap water rinse prior to initiating the purging process and between each well. All purged groundwater was stored on-site in properly labeled DOT 17H 55-gallon drums pending analytical results and proper recycling and disposal. A description of the purging process is included in Appendix F. A copy of the field notes is presented as Appendix G.

Following purging activities, groundwater samples were collected from each monitoring well using dedicated disposable bailers. Each groundwater sample was decanted from the bailer into laboratory supplied sample containers. The sample containers were sealed with a teflon lined cap, labeled, and placed on ice in a cooler. A written record of each sample was entered onto a chain-of-custody document for transport to the analytical laboratory.

### 3.2.3 Purged Groundwater Disposal

On September 17, 2003, Integrated Waste Management, Inc. (IWM) removed the six drums containing purged groundwater/development water from the site and transported them to Seaport Refining and Environmental in Redwood City, California for treatment and disposal. The certificate of disposal is included in Appendix H.

## 3.3 LABORATORY ANALYSIS

### 3.3.1 Groundwater Laboratory Analytical Results

Groundwater samples were transported, under proper chain-of-custody record, to Sequoia Analytical for laboratory analysis. Each groundwater sample was analyzed for Gasoline Range Organics (GRO), Benzene, Toluene, Ethyl-benzene, and Total Xylenes (BTEX), and Fuel Oxygenates including tert-Butyl alcohol (TBA), Methyl tert-butyl ether (MTBE), Di-isopropyl ether (DIPE), Ethyl tert-butyl ether (ETBE), tert-Amyl methyl ether (TAME), 1,2 Dichloroethane (1,2 DCA), and 1,2 Dibromoethane (EDB) according to EPA Method 8260B. In addition, monitoring wells MW-1 and MW-3 were analyzed for the full list Volatile Organic Compounds (VOC's) according to EPA Method 8260B as well as Polynuclear Aromatic Compounds (PAC's) according to EPA Method 8310

Laboratory analytical results of the groundwater samples collected from monitoring wells MW-1 through

MW-7 indicated no detectable concentrations of GRO, BTEX, TBA, MTBE, DIPE, ETBE, TAME, 1,2 DCA OR EDB above laboratory reporting limits for the June 2003 groundwater sampling event. Additionally, laboratory analytical results of the groundwater samples collected from monitoring wells MW-1 and MW-3 indicated no detectable concentrations of VOC's or PAC's above laboratory reporting limits. A summary of the groundwater laboratory analytical results is presented in Table 2. Copies of the corresponding June 2003 laboratory analytical reports and chain-of-custody documentation are provided in Appendix H.

#### 4.0 CONCLUSIONS

Including the results of the groundwater Site Characterization Investigation, Blaes Environmental has obtained records of at least six groundwater monitoring events that have been conducted at the site since the two UST's were removed in 1990. According to the records obtained by Blaes Environmental, all analytical results for all monitoring wells sampled from the six groundwater sampling events have been below reporting limits with the exception of monitoring well MW-1 on December 7, 1992 (78 ppb THPg, 1.6 ppb Ethylbenzene, and 6.4 ppb Total Xylenes) and MW-2 on October 21, 1999 (290 TPHg, 32 ppb Toluene, 26 ppb Ethylbenzene, 110 ppb Total Xylenes, and 0.6 ppb MTBE). There is no established California Department of Health Services (CDHS) Maximum Contaminant Level (MCL) established for TPHg, and the above results are below the published MCL's of 150, 300, 1,750, and 5.0 ppb for Toluene, Ethylbenzene, Total Xylenes, and MTBE, respectively. Since all laboratory analytical results are below the respective MCL's, and the most recent groundwater sampling event did not indicate the presence of any hydrocarbon compounds above laboratory reporting limits, it appears that the impact to groundwater at the site from the former UST's does not pose a threat to human health or the environment.



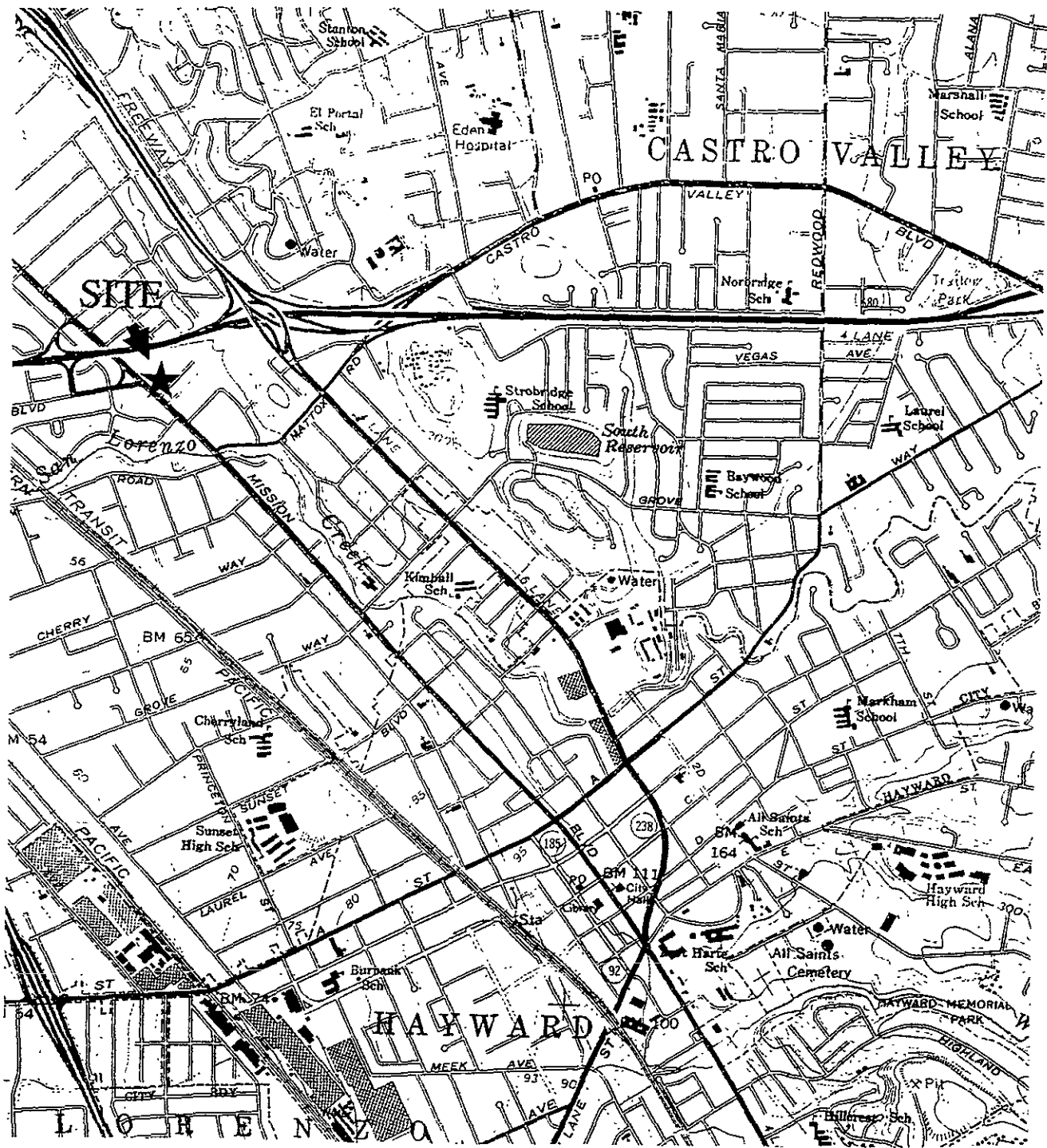
## 5.0 RECOMMENDATIONS

Blaes Environmental recommends drilling additional soil borings and collecting soil samples at the location of the former waste-oil UST to confirm the presence of oil and grease concentrations of 140 ppm detected in the soil sample collected one foot below the bottom of the over-excavation performed in on June 8, 1990.

## 6.0 REFERENCES

- Blaes Environmental Management, Inc, January 17, 2000, Results of Groundwater Sampling Event Conducted on October 21, 1999, Amerco Real Estate Property located at 19100 – 19600 Mission Boulevard, Hayward, California.
- Geocon Environmental Consultants, May 10, 1994, Preliminary Site Assessment Report, Amerco Real Estate Property located at 19100 – 19600 Mission Boulevard, Hayward, California.
- Pinnacle Environmental Technologies, March 18, 1998, Limited Environmental Site Assessment Report, Amerco Real Estate Property located at 19100 – 19600 Mission Boulevard, Hayward, California.
- U.S. Geological Survey (USGS), Hayward, California Quadrangle, 7.5 Minute Series (topographic): Scale 1:24,000, 1 sheet.

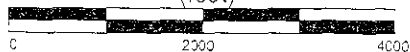
**FIGURES**



Base Map - USGS 7 5 Minute Quadrangle, Hayward

Reprinted from Pinnacle Environmental's  
Environmental Site Assessment Report

Approximate Scale  
(feet)



**BLAES**

Environmental Management Inc.

Amerco Real  
Estate Company

**SITE LOCATION MAP**

Amerco Property  
19100-19600 Mission Blvd.  
Hayward, California

8/12/03

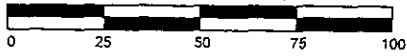
Project # 001-00008-01

Figure

File name Site Location Map

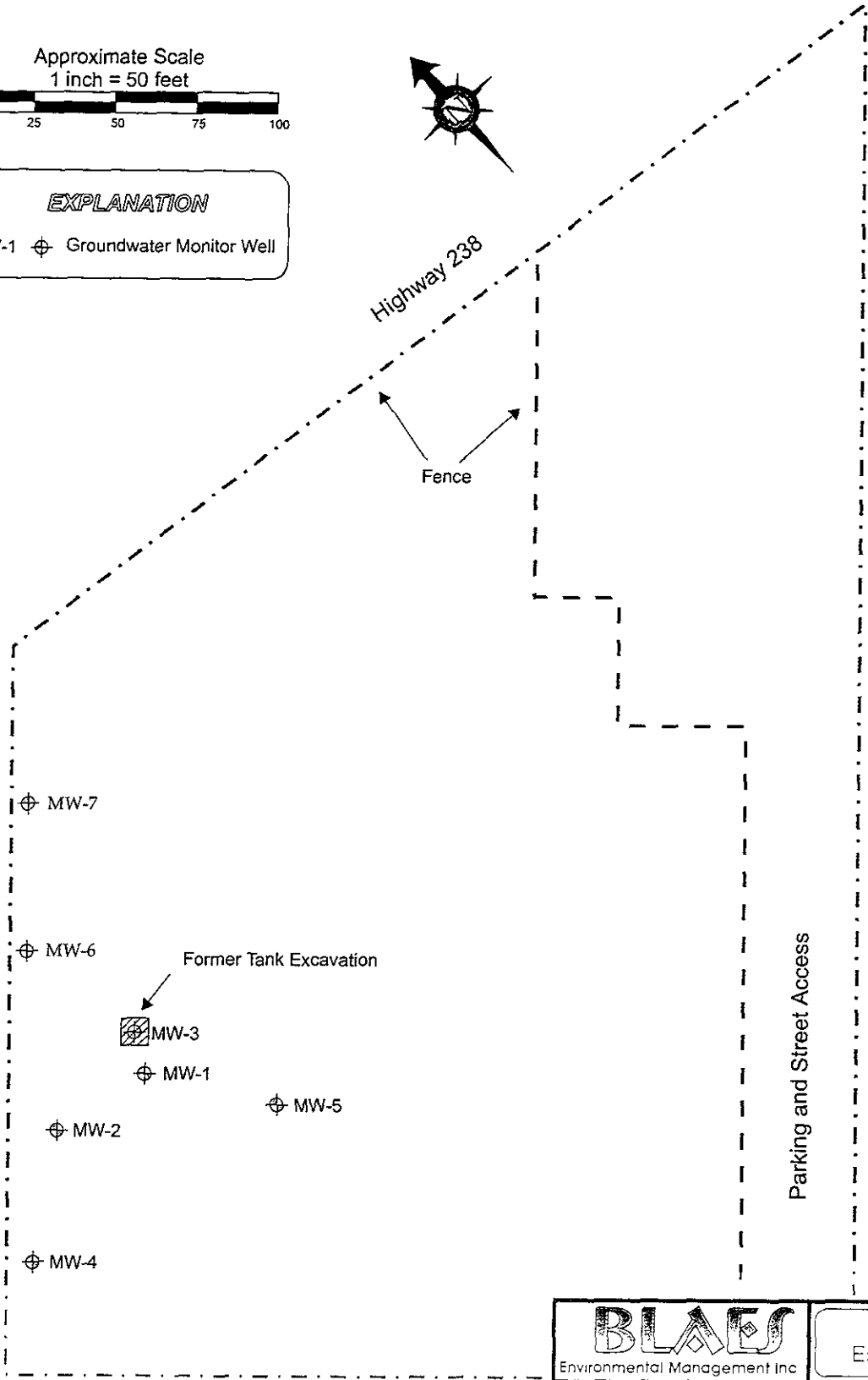
1

Approximate Scale  
1 inch = 50 feet



**EXPLANATION**

MW-1 ⊕ Groundwater Monitor Well



**BLAES**  
Environmental Management Inc

Amerco Real Estate Company

**SITE MAP**  
Amerco Property  
19100-19600 Mission Blvd.  
Hayward, California

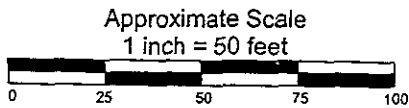
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Project # 001-00008-01

Figure

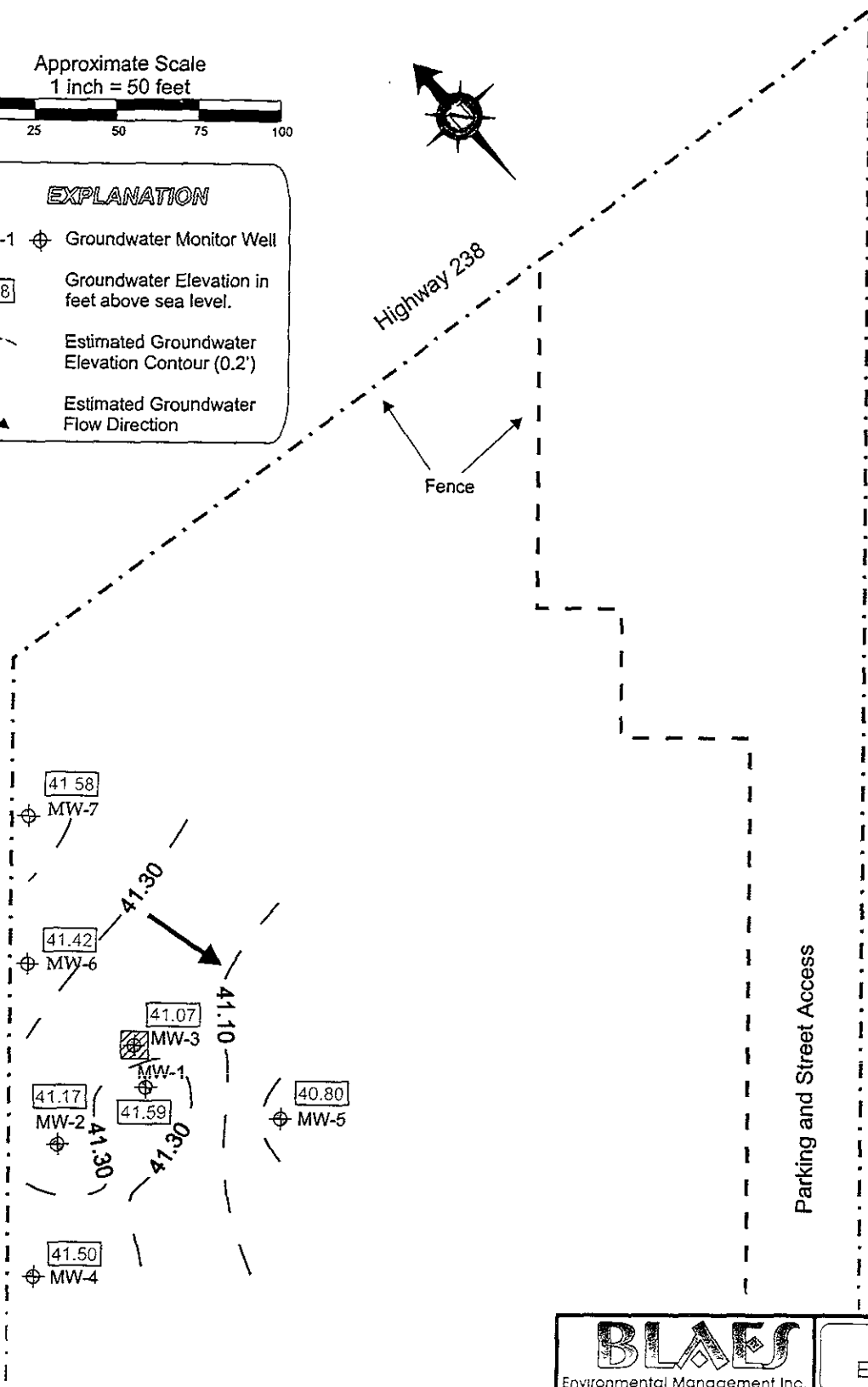
File name Site Map

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**EXPLANATION**

- MW-1 ⊕ Groundwater Monitor Well
- 41.58 Groundwater Elevation in feet above sea level.
- - - Estimated Groundwater Elevation Contour (0.2')
- ↘ Estimated Groundwater Flow Direction



Note: Data from MW-3 was not used to determine the groundwater flow direction because the screen interval is submerged

 Environmental Management Inc.	Amerco Real Estate Company
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**Groundwater Gradient Map**  
 Amerco Property  
 19100-19600 Mission Blvd.  
 Hayward, California

8/12/03	Project # 001-00008-01	Figure 3
File name: GWC Map		

## TABLES

**TABLE 1  
SUMMARY OF GROUNDWATER MONITORING DATA**

Amerco Real Estate Company Property  
19100 - 19600 Mission Blvd.  
Hayward, California

Well ID	Date	Depth to Water (feet)	Groundwater Elevation (feet above MSL)	D.O. (%)	D.O. (mg/l)	Salinity (ppt)	Temperature (degree C)
MW-1	10/21/99	23.98	40.23	NA	NA	0.6	19.1
	6/3/03	22.62	41.59	24.6	2.26	0.5	19.3
MW-2	10/21/99	24.00	39.72	NA	NA	0.1	18.9
	6/3/03	22.55	41.17	14.0	1.26	0.5	19.7
MW-3	6/3/03	22.65	41.07	27.5	2.53	0.7	19.0
MW-4	6/3/03	22.22	41.50	49.4	4.58	0.4	19.5
MW-5	6/3/03	22.92	40.80	51.6	5.04	0.9	19.4
MW-6	6/3/03	22.30	41.42	40.0	3.71	0.5	18.3
MW-7	6/3/03	22.14	41.58	45.1	4.18	0.4	18.5

Notes: D.O. Dissolved Oxygen (YSI 85 D.O. Meter)  
NA Not Available



**TABLE 2**  
**SUMMARY OF GROUNDWATER LABORATORY ANALYTICAL RESULTS**

Amerco Real Estate Company Property  
 19100 - 19600 Mission Blvd.  
 Hayward, California

Sample ID	Date	EPA 8260B											EPA 8310
		EPA 8015 Gasoline Range	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	DIPE	ETBE	TAME	MTBE	TBA	Remaining VOC's	PAC's
MW-1	10/21/99	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0	<0.5	<50		NA
	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	ND	ND
MW-2	10/21/99	290	<0.5	32	26	110	<5.0	<5.0	<5.0	0.6	<50	NA	NA
	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	NA	NA
MW-3	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	ND	ND
MW-4	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	NA	NA
MW-5	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	NA	NA
MW-6	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	NA	NA
MW-7	6/3/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	NA	NA

Notes: All results are reported in ug/l (micrograms per liter: parts per billion)

**ND:** Non Detect, See Laboratory Analytical Report for Detection/Reporting Limits

**NA:** Not Available

**DIPE:** Di-isopropyl Ether

**ETBE:** Ethyl tert-Butyl Ether

**TAME:** tert-Amyl Methyl Ether

**BTEX:** Benzene, Toluene, Ethylbenzene, Total Xylenes

**MTBE:** Methyl tert-butyl Ether

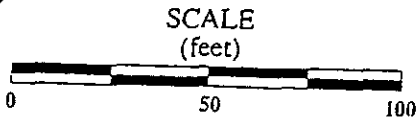
**TBA:** tert-Butanol

**PAC:** Polynuclear Aromatic Compounds

**APPENDIX A**

**HISTORIC SITE MAP**

**(PINNACLE ENVIRONMENTAL)**



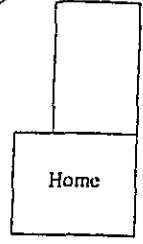
**Legend**

- Groundwater Monitoring Well
- Soil Boring
- Hydraulic Lift

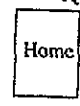
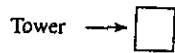
Approximate Location of A-P Zone Boundary

Highway 238

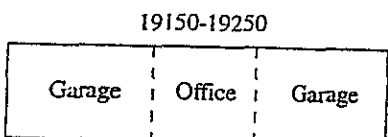
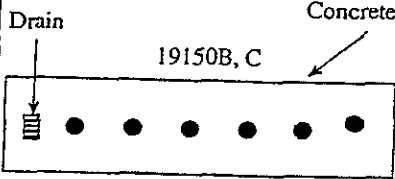
Fence



19610-19610A

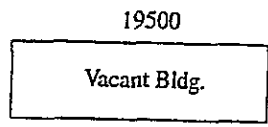
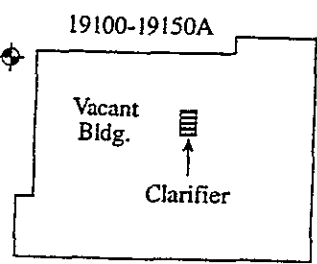


Grassy Storage Area



Locked Gate

BART  
Transformer  
Station



Parking and  
Street Access

Former Drains (?)

Locked Gate

Mission Boulevard



**PINNACLE**  
ENVIRONMENTAL TECHNOLOGIES  
#2 Santa Maria, Foothill Ranch, CA 92610  
Tel: (714) 470-3691 • Fax: (714) 595-0459

19100-19600 Mission Blvd.  
Alameda County, California

Site  
Map

Figure  
2

**APPENDIX B**  
**SOIL BORING LOG NOTES**

# BLAES

Environmental  
Management, Inc.  
1433 N. 3rd Avenue  
Phoenix, AZ 85003

## FIELD LOG OF EXPLORATORY SOIL BORING

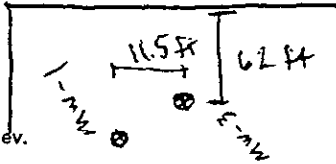
Project No. 001-00008-02  
Client Utah 707 00  
Location 19100 Mission Blvd  
Logged By MPA  
Permit No. \_\_\_\_\_ Date: 4-23-03

Boring No.

Sheet 1  
of 1

Field location of boring:

DART



Ground Elev.

Drilling Co.: Cascade  
Drill Rig Model: CME-75  
Drilling Method: Hollow Stem Auger  
Hole Diameter: 8  
Drillers Name: JD

Soil Boring Completion:

MW-3

Time	Blows/12 in.	PID (ppm)	Recovery (ft/ft)	Sample I.D.	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	Depth to	Depth to
										Date 4-23-03	Time 1450
DESCRIPTION											
										0'-7'	Sand, brown (f-m grained) dry, loose. Looks like fill material.
1420	-	0.01		5'	5					At 7 feet driller hit <del>clay</del>	7'-9' clayey silt, moist, loose.
1435	10/12/18	0.22		10'	10					8.5'-10' - Silty clay, dark brown, dense, moist, <del>trace silt</del> , med. plasticity.	
1440	8/13/19	0.2		15'	15					13.5'-15' - Silty clay, dark brown, dense, moist, low plasticity.	
1445	26/26/5/6	0.1		20'	20					18.5'-20' - Clay, dark brown, trace silt, slightly moist, very dense, low plasticity.	
1450	26/50/6	0.2		25'	25					23.5'-25' - Clay, brown, trace silt, high plasticity, moist, very dense.	
1500	16, 39, 50/6	0.2		30'	30					28.5'-30' - Clay, brown, trace silt, high plasticity, moist wet, very dense.	

Prepared By: \_\_\_\_\_

Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_

# BLAES

Environmental Management, Inc.  
1433 N. 3rd Avenue  
Phoenix, AZ 85003

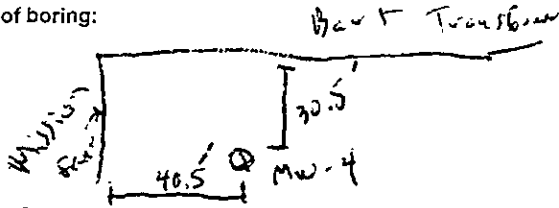
## FIELD LOG OF EXPLORATORY SOIL BORING

Project No. 001-00008-02  
Client *Uhaul 707 00*  
Location *19100 Mission Blvd*  
Logged By *MPG*  
Permit No. \_\_\_\_\_ Date: *4/24/03*

Boring No. \_\_\_\_\_

Sheet *1*  
of *1*

Field location of boring:



Ground Elev. \_\_\_\_\_

Drilling Co.: *Cesrock*  
Drill Rig Model: \_\_\_\_\_  
Drilling Method: \_\_\_\_\_  
Hole Diameter: \_\_\_\_\_  
Drillers Name: \_\_\_\_\_

Soil Boring Completion: \_\_\_\_\_

*MW-4*

Time	Blows/12 in.	PID (ppm)	Recovery (ft/ft)	Sample I.D.	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	Depth to Date <i>4/24/03</i>	Time <i>0855</i>	Depth to Date <i>4/24/03</i>	Time <i>0940</i>
										<i>23</i>		<i>30</i>	
<b>DESCRIPTION</b>													
<i>0815</i>		<i>0.1</i>			<i>5</i>								
<i>825</i>	<i>3/11/20</i>	<i>0.1</i>		<i>8 10"</i>	<i>10</i>								
<i>830</i>	<i>5/7/12</i>	<i>0.2</i>		<i>15</i>	<i>15</i>								
<i>0845</i>	<i>4/11/22</i>	<i>0.1</i>		<i>20</i>	<i>20</i>								
<i>0850</i>	<i>22/54/6</i>	<i>0.1</i>		<i>20-21.5</i>									
<i>0855</i>	<i>23, 34, 39</i>	<i>0.0</i>		<i>21.5-23</i>									
<i>0910</i>	<i>17, 23, 54</i>	<i>0.1</i>		<i>23-24.5</i>	<i>25</i>								
<i>0920</i>	<i>26, 35, 39</i>	<i>0.2</i>		<i>25-26.5</i>									
<i>0930</i>	<i>14, 27, 45</i>	<i>0.1</i>		<i>26.5-28</i>									
<i>0940</i>	<i>17, 35, 49</i>	<i>0.1</i>		<i>28.5-30</i>	<i>30</i>								

*0-6" Hand analyzed*  
*0-3" - Clay, Dark Brown, moist mod. plasticity.*  
*3-6" - Clayey silt, moist, dense.*  
*8.5-10" - Clay, Brown, mod. plasticity, dense, moist, No odor.*  
*13.5-15" - Silty Clay Brown, dense, moist, low-mid plasticity.*  
*18.5-20" - Clay, Dark Brown trace silt slightly moist, very dense, high plasticity.*  
*20-21.5" - Clay, Dark Brown, moist, very dense, high plasticity.*  
*21.5-23" - dense, high plasticity. same ↑*  
*23-24.5" - Clay, brown, trace silt, moist, very dense, high plasticity*  
*25-26.5" - Clay, Brown, trace silt, very dense, mod. plasticity.*  
*26.5-28" - Silty Clay, Brown, trace fine sand, low-mid plasticity dense.*  
*28.5-30" - Clay, light brown, trace silt, moist, dense mod plasticity.*

Prepared By \_\_\_\_\_

Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_

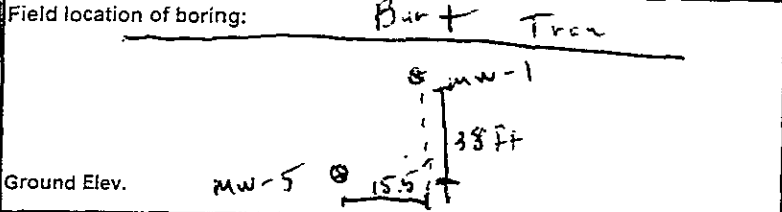
# BLAES

Environmental Management, Inc.  
1433 N. 3rd Avenue  
Phoenix, AZ 85003

## FIELD LOG OF EXPLORATORY SOIL BORING

Project No. \_\_\_\_\_  
Client \_\_\_\_\_  
Location \_\_\_\_\_  
Logged By \_\_\_\_\_  
Permit No. \_\_\_\_\_ Date: 4-24-03

Boring No. \_\_\_\_\_  
Sheet \_\_\_\_\_  
of \_\_\_\_\_



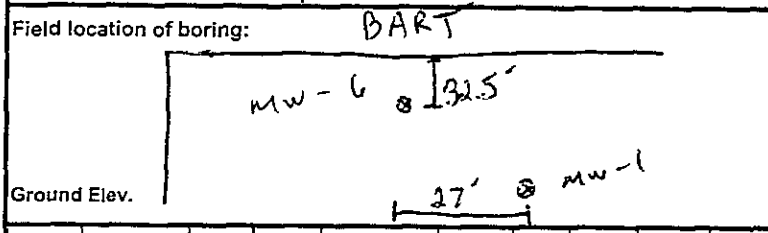
Drilling Co.: \_\_\_\_\_  
Drill Rig Model: \_\_\_\_\_  
Drilling Method: \_\_\_\_\_  
Hole Diameter: \_\_\_\_\_  
Drillers Name: \_\_\_\_\_  
Soil Boring Completion: MW-5

Time	Blows/12 in.	PID (ppm)	Recovery (fuff)	Sample I.D.	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	Depth to	Depth to	DESCRIPTION
										Date	Date	
1230	6-9-14	0.1		8.5-10	5							0-3' = Series of asphalt-dirt layers (3). 3'-6' - Clayey silt, loose, moist No odor. 8.5-10' - Silty clay, Dark Brown dense, moist, low plasticity. 13.5-15' - Silty clay, Dark brown dense, moist, low plasticity.
235	9-11-16	0.0		13.5-15	15							20'-21.5' 20-21 ↑ 21.8-21.5 - clay, Dark brown trace silt, moist, mod. plasticity
240	14/50/6	0.2		20-21.5	20							21.5-23.0 - Clay, Dark Brown, moist, high mod. plasticity, dense.
245	21/44/50/5	0.1		21.5-23								23.0-24.5 - Clay, Dark Brown, very dense, high plasticity, moist.
55	47/42/50/5	0.1		23-24.5								25.0-26.5 - Clay, Brown, trace silt dense, mod-high plasticity, moist <del>and</del> moist
05	33/50/5	0.2		25-26.5	25							26.5 - 28 Silty clay, Brown, med plasticity, wet, dense.
110	17-29-37	0.2		26.5-28								28.5 - 30 - Silty clay, Brown, med plasticity, wet, dense.
15	25, 31, 39	0.2		28-30	30							

**FIELD LOG OF  
EXPLORATORY SOIL  
BORING**

Project No. 001-00008-02  
Client Utah 707-00  
Location 19108 Mission Blvd  
Logged By M.G.  
Permit No. \_\_\_\_\_ Date: 4-23-03

Boring No. \_\_\_\_\_  
Sheet 1  
of 1



Drilling Co.: Cascade Drilling  
Drill Rig Model: CME-75  
Drilling Method: Hydro Stem Auger  
Hole Diameter: 8"  
Drillers Name: JD

Soil Boring Completion: MW-6

Time	Blows/12 In.	PID (ppm)	Recovery (ft/ft)	Sample I.D.	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	Depth to	Depth to	DESCRIPTION
										Date	Date	
1115		0.2		5'	3 -							0-3' Clay, Dark brown, moist moderate plasticity. No odor
					6 -							3'-6' Clay/Silt, moist, dense. Hand augered to 6 feet.
1130	8-17-21	0.3		10'	9 -							<del>10'-12'</del> 8.5'-10' - Clay, med plasticity, dense, moist. No odor
1135	18-23-34	0.2		15'	15 -							13.5'-15' - Silty Clay, Brown, dense, moist, med. plasticity.
1140	16, 50/6	0.3		20'	21 -							18.5'-20' - Clay, Dark brown, trace silt, slightly moist, very dense.
1145	18, 74, 51/6	0.3		25'	24 -							23.5'-25.0' - Clay, Brown, trace silt, slightly moist, very dense high-med. plasticity.
1152	15, 27, 41	0.2		30'	30 -							28.5'-30' - Clay, Light Brown, trace silt, moist, very dense high plasticity.
1202	28, 50/4	0.1		35'	36 -							33.5'-35' - Sand, Brown, (fine grained) trace clay, saturated, loose. No plasticity.
1210	18, 50/6	0.2		40'	39 -							38.5' - 40' - Gravelly Sand, saturated fine gravel, w-c sand. loose
1215	21, 35, 48	0.2		42'	42 -							42' - Gravelly Sand, saturated fine gravel, w-c sand, loose.



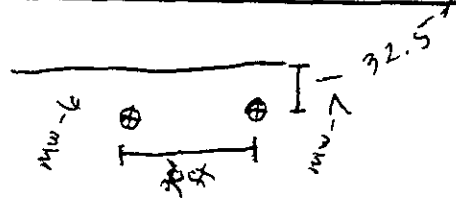
**BLAES**  
 Environmental  
 Management, Inc.  
 1433 N. 3rd Avenue  
 Phoenix, AZ 85003

**FIELD LOG OF  
 EXPLORATORY SOIL  
 BORING**

Project No.  
 Client  
 Location  
 Logged By  
 Permit No. \_\_\_\_\_ Date: **4-24-03**

Boring No.  
  
 Sheet \_\_\_\_\_  
 of \_\_\_\_\_

Field location of boring:



Ground Elev. \_\_\_\_\_

Drilling Co.:  
 Drill Rig Model:  
 Drilling Method:  
 Hole Diameter:  
 Drillers Name:

Soil Boring Completion: **MW-7**

Time	Blows/12 in.	PID (ppm)	Recovery (ft/ft)	Sample I.D.	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	Depth to	Depth to	DESCRIPTION
										Date	Date	
440		0.1			5							0-5' Hand augered Clayey Silt, moist, loose.
475	9-18-21	0.1		8.5-10'	10							8.5-10' <del>Clayey Silt</del> Silty Clay, Dark Brown moist, dense, low plasticity No odor.
485	9-17-21	0.1		13.5-15'	15							13.5-15' Silty Clay, Dark Brown, moist, dense, low plasticity.
495	10-23-45	0.0		18.5-20'	20							18.5-20' Clay, Dark Brown, trace Silt, slightly moist, mod plasticity, very dense.
505	12-24-34	0.2		27.5-28'	25							23.5-25' Clay, Dark Brown, moist, high plasticity, very dense.
10	16-36-41	0.2		28.5-30'	30							28.5-30' Silty Clay, Light Brown, wet, low plasticity, dense.

**APPENDIX C**  
**CERTIFICATE OF DISPOSAL FOR SOIL**



INTEGRATED WASTESTREAM MANAGEMENT, INC.  
 950 AMES AVENUE, MILPITAS, CA 95035  
 PHONE: 408.942.8955 FAX: 408.942.1499

# CERTIFICATE OF DISPOSAL

Generator Name: U-Haul International  
 Address: 2701 N Central Avenue, Ste. 700  
Phoenix, AZ 85004  
 Contact: Reid L. Riner  
 Phone: 602-263-6647

Facility Name: U-Haul #001  
 Address: 19100 Mission Blvd.  
Hayward, CA  
 Facility Contact: Steven Woodhull, BLAES Environmental  
 Phone: 602-728-0707

IWM Job #:	<u>93090-DE</u>
Description of Waste:	<u>11 Drum(s) of</u> <u>Non-Hazardous</u> <u>Soil</u>
Removal Date:	<u>17 September 2003</u>
Ticket #:	<u>RSVRJ170903</u>

### Transporter Information

Name: IWM, Inc.  
 Address: 950 Ames Avenue  
Milpitas, CA 95035  
 Phone: (408) 942-8955

### Disposal Facility Information

Name: Republic Services Vasco Road Landfill  
 Address: 4001 N. Vasco Road  
Livermore, CA 94550  
 Phone: (925) 447-0491

**IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.**

William T DeLon  
 Authorized Representative (Print Name and Signature)

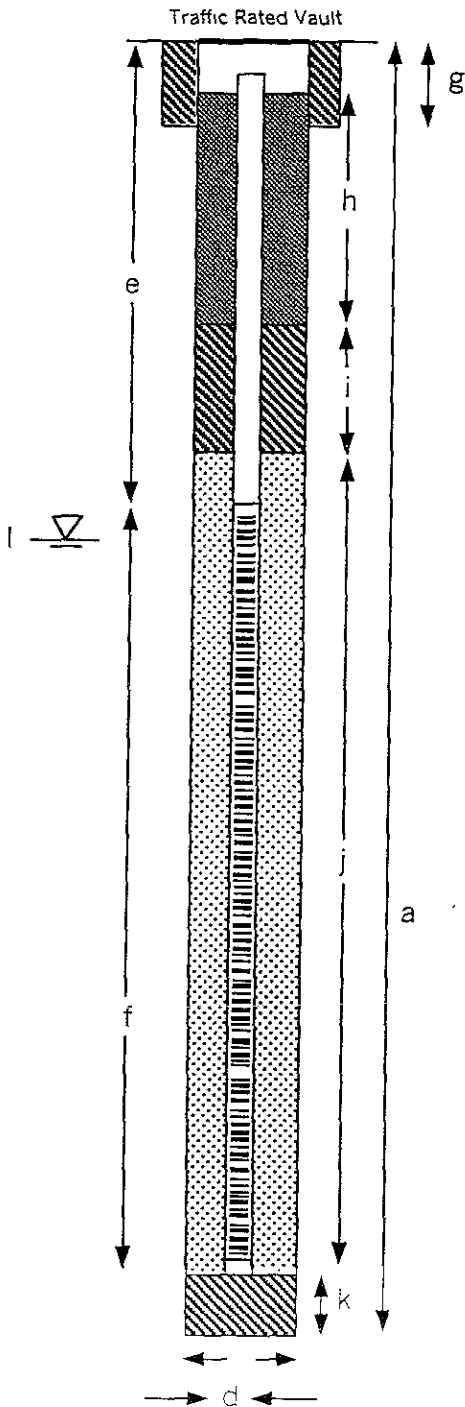
09/17/03  
 Date

**APPENDIX D**

**WELL CONSTRUCTION DIAGRAMS**

PROJECT NUMBER 001-0011-01  
 PROJECT NAME Amerco Property  
 LOCATION 19100 to 19600 Mission Blvd.  
Hayward, California  
 WELL PERMIT NO. Alameda Public Works

BORING / WELL NO. MW-3  
 TOP OF CASING ELEV. 64.22  
 GROUND SURFACE ELEV 64.54  
 DATUM Mean Sea Level  
 INSTALLATION DATE 4/23/03



**EXPLORATORY BORING**

a. Total depth 30 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

**WELL CONSTRUCTION**

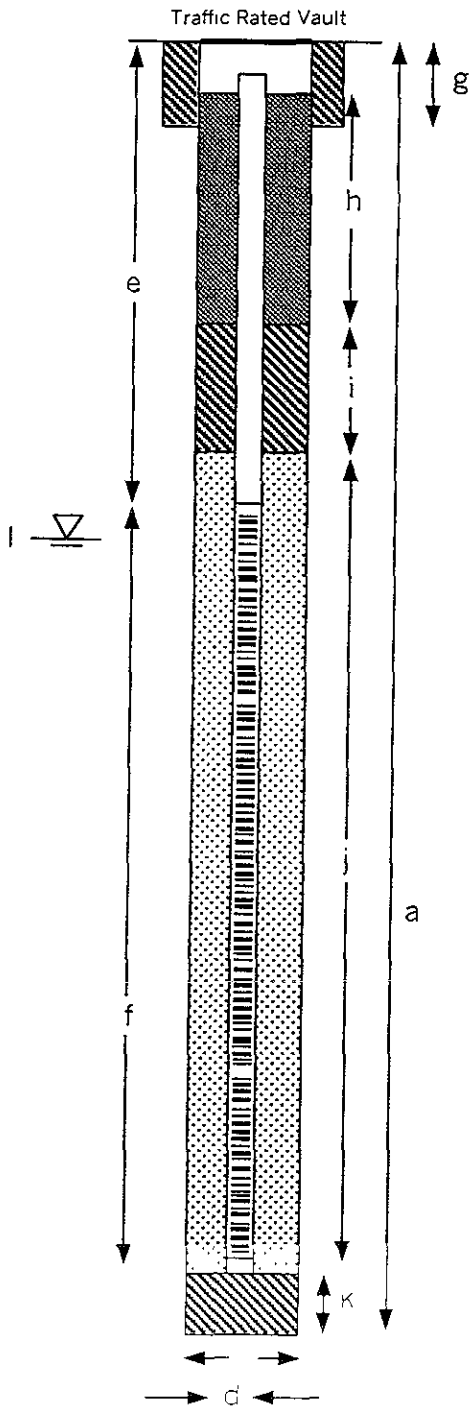
c. Total casing length 30 ft.  
 Material Schedule 40 PVC  
 d. Casing Diameter 2 in.  
 e. Depth to top of screen 10 ft.  
 f. Screen Interval 20 ft. @ 10-30 ft.  
 Perforation type Machine Slot  
 Perforation size 0.020 inch  
 g. Surface Completion 1 ft.  
 Seal material concrete grout  
 h. Surface Seal 5 ft.  
 Seal material bentonite grout  
 i. Seal 2 ft.  
 Seal material bentonite  
 j. Sand Pack interval 22 ft. @ 8 to 30 ft.  
 Pack material 10-20 sand  
 k. Bottom seal 0 ft.  
 Seal material None  
 l. Depth to groundwater 22.88 ft.  
 below ground surface

Prepared by S Woodhull Date Aug-03

BLAES Environmental Management, Inc.	
Well Construction Diagram	Appendix
Amerco Property 19100 to 19600 Mission Blvd Hayward, California	D
Project No. 001-001-1-01	File C:\baes\technical\J-Rau\

PROJECT NUMBER 001-0011-01  
 PROJECT NAME Amerco Property  
 LOCATION 19100 to 19600 Mission Blvd.  
Hayward, California  
 WELL PERMIT NO. Alameda Public Works

BORING / WELL NO. MW-4  
 TOP OF CASING ELEV. 63.76  
 GROUND SURFACE ELEV. 63.97  
 DATUM Mean Sea Level  
 INSTALLATION DATE 4/24/03



**EXPLORATORY BORING**

a. Total depth 30 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

**WELL CONSTRUCTION**

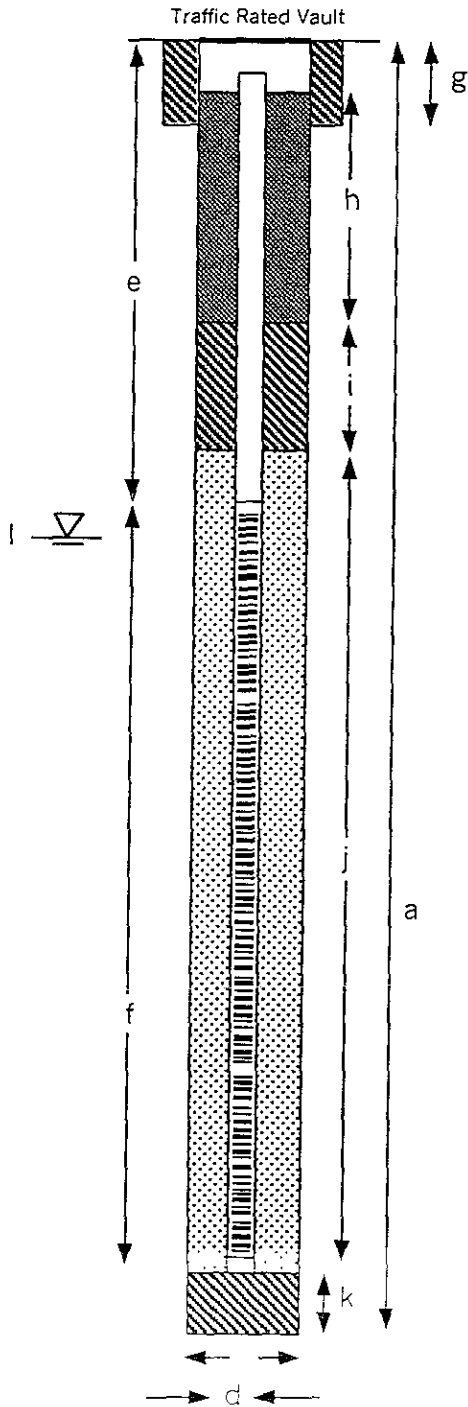
c. Total casing length 30 ft.  
 Material Schedule 40 PVC  
 d. Casing Diameter 2 in.  
 e. Depth to top of screen 10 ft.  
 f. Screen Interval 20 ft. @ 10-30 ft.  
 Perforation type Machine Slot  
 Perforation size 0.020 inch  
 g. Surface Completion 1 ft.  
 Seal material concrete grout  
 h. Surface Seal 5.5 ft.  
 Seal material benonite grout  
 i. Seal 1.5 ft.  
 Seal material benonite  
 j. Sand Pack interval 22 ft. @ 8 to 30 ft.  
 Pack material 10-20 sand  
 k. Bottom seal 0 ft.  
 Seal material None  
 l. Depth to groundwater 22.75 ft.  
 below ground surface

BLAES Environmental Management, Inc.	
Well Construction Diagram	Appendix
Amerco Property 19100 to 19600 Mission Blvd. Hayward, California	
D	
Project No. 001-0011-01	File: C:\baes\technical\U-Haul

Prepared by S. Woodhull Date Aug-03

PROJECT NUMBER 001-0011-01  
 PROJECT NAME Amerco Property  
 LOCATION 19100 to 19600 Mission Blvd.  
Hayward, California  
 WELL PERMIT NO. Alameda Public Works

BORING / WELL NO. MW-5  
 TOP OF CASING ELEV. 64.50  
 GROUND SURFACE ELEV. 64.81  
 DATUM Mean Sea Level  
 INSTALLATION DATE 4/24/03



**EXPLORATORY BORING**

a. Total depth 30 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

**WELL CONSTRUCTION**

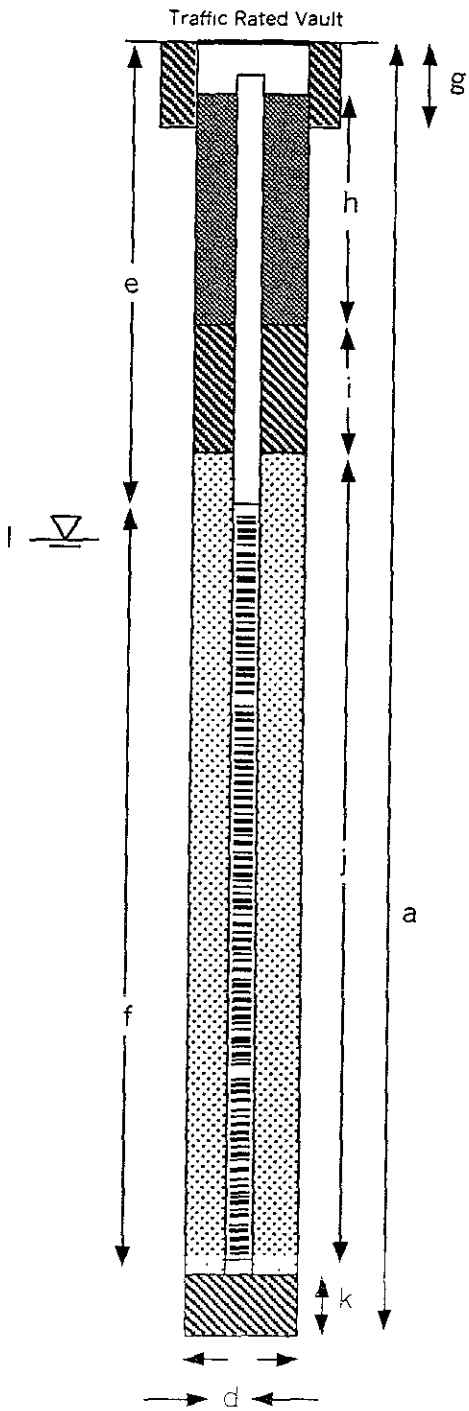
c. Total casing length 30 ft.  
 Material Schedule 40 PVC  
 d. Casing Diameter 2 in.  
 e. Depth to top of screen 10 ft.  
 f. Screen Interval 20 ft. @ 10-30 ft.  
 Perforation type Machine Slot  
 Perforation size 0.020 inch  
 g. Surface Completion 1 ft.  
 Seal material concrete grout  
 h. Surface Seal 5.5 ft.  
 Seal material bentonite grout  
 i. Seal 1.5 ft.  
 Seal material bentonite  
 j. Sand Pack interval 22 ft. @ 8 to 30 ft.  
 Pack material 10-20 sand  
 k. Bottom seal 0 ft.  
 Seal material None  
 l. Depth to groundwater 23.11 ft.  
 below ground surface

Prepared by S Woodhull Date Aug-03

BLAES Environmental Management, Inc.	
Well Construction Diagram	Appendix
Amerco Property 19100 to 19600 Mission Blvd Hayward, California	D
Project No 001-0011-01	File: C:\blaes\technical\U-0011

PROJECT NUMBER 001-0011-01  
 PROJECT NAME Amerco Property  
 LOCATION 19100 to 19600 Mission Blvd.  
Hayward, California  
 WELL PERMIT NO. Alameda Public Works

BORING / WELL NO. MW-6  
 TOP OF CASING ELEV. 64.50  
 GROUND SURFACE ELEV 64.81  
 DATUM Mean Sea Level  
 INSTALLATION DATE 4/24/03



**EXPLORATORY BORING**

a. Total depth 42 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

**WELL CONSTRUCTION**

c. Total casing length 40 ft.  
 Material Schedule 40 PVC  
 d. Casing Diameter 2 in.  
 e. Depth to top of screen 31 ft.  
 f. Screen Interval 9 ft. @ 31-40 ft.  
 Perforation type Machine Slot  
 Perforation size 0.020 inch  
 g. Surface Completion 1 ft.  
 Seal material concrete grout  
 h. Surface Seal 26 ft.  
 Seal material bentonite grout  
 i. Seal 2 ft.  
 Seal material bentonite  
 j. Sand Pack interval 11 ft. @ 29 to 40 ft.  
 Pack material 10-20 sand  
 k. Bottom seal 0 ft.  
 Seal material None  
 l. Depth to groundwater 22.35 ft  
 below ground surface

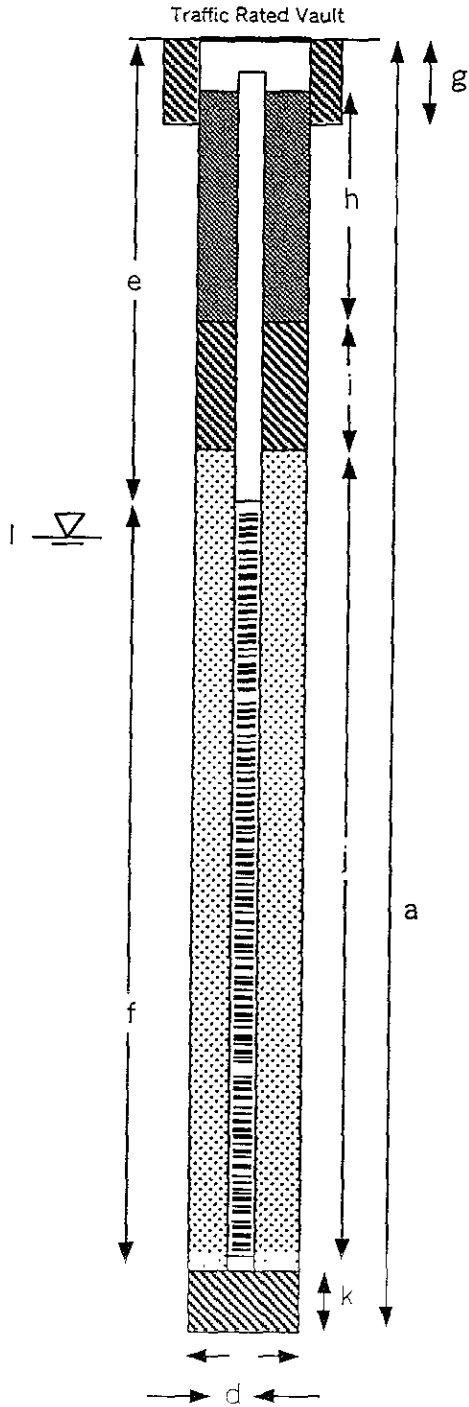
Prepared by S Woodhull Date Aug-03

BLAES Environmental Management, Inc.	
Well Construction Diagram	Appendix
Amerco Property 19100 to 19600 Mission Blvd Hayward, California	
D	
Project No 001-0011-01	File: C:\baes\technical\U-Haul



PROJECT NUMBER 001-0011-01  
 PROJECT NAME Amerco Property  
 LOCATION 19100 to 19600 Mission Blvd.  
Hayward, California  
 WELL PERMIT NO. Alameda Public Works

BORING / WELL NO. MW-7  
 TOP OF CASING ELEV. 63.72  
 GROUND SURFACE ELEV 64.11  
 DATUM Mean Sea Level  
 INSTALLATION DATE 4/24/03



**EXPLORATORY BORING**

a. Total depth 30 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

**WELL CONSTRUCTION**

c. Total casing length 30 ft.  
 Material Schedule 40 PVC  
 d. Casing Diameter 2 in.  
 e. Depth to top of screen 10 ft.  
 f. Screen Interval 20 ft. @ 10-30 ft.  
 Perforation type Machine Slot  
 Perforation size 0.020 inch  
 g. Surface Completion 1 ft.  
 Seal material concrete grout  
 h. Surface Seal 5 ft.  
 Seal material bentonite grout  
 i. Seal 2 ft.  
 Seal material bentonite  
 j. Sand Pack interval 22 ft. @ 8 to 30 ft.  
 Pack material 10-20 sand  
 k. Bottom seal 0 ft.  
 Seal material None  
 l. Depth to groundwater 22.38 ft  
 below ground surface

Prepared by S Woodhull Date Aug-03

BLAES Environmental Management, Inc.	
Well Construction Diagram	Appendix
Amerco Property 19100 to 19600 Mission Blvd Hayward, California	D
Project No 001-0011-01	File C blaestechincal\U-Hall

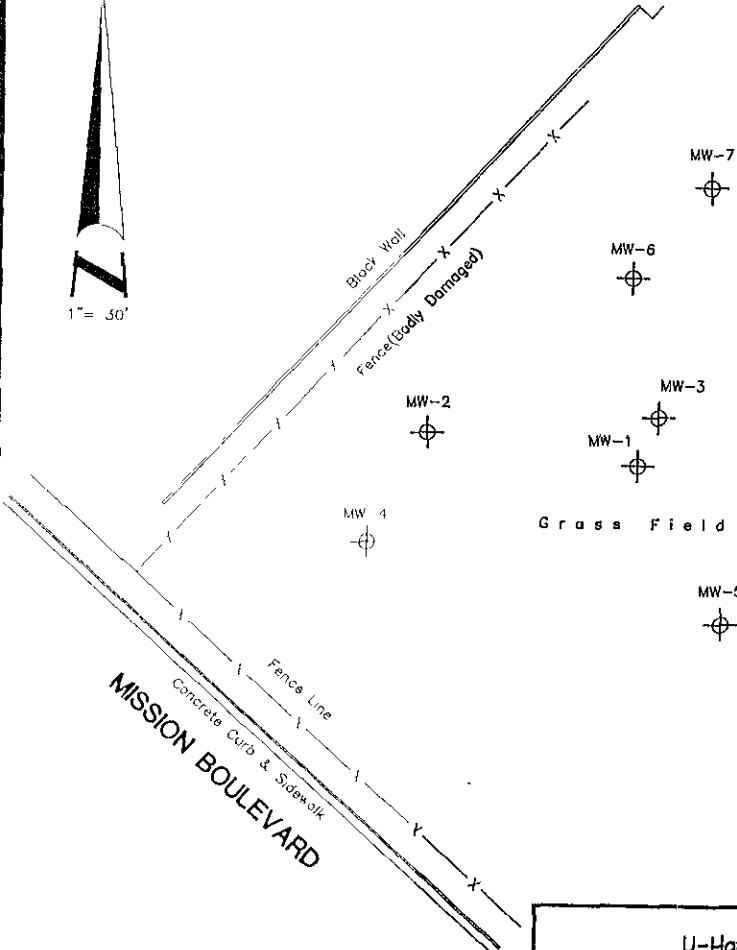
**APPENDIX E**  
**MONITOR WELL SURVEY REPORT**

# Monitoring Well Exhibit

Prepared for:  
Blaes Environmental



1" = 30'



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV (PVC)	ELEV (BOX)
MW-1	2077093.0	6097636.1	37.6883799	-122.1037315	64.21	64.54
MW-2	2077100.7	6097585.7	37.6883986	-122.1038061	63.72	64.21
MW-3	2077104.9	6097641.1	37.6884127	-122.1037149	64.22	64.54
MW-4	2077073.7	6097571.6	37.6883239	-122.1039535	63.76	63.97
MW-5	2077054.7	6097656.4	37.6882756	-122.1036593	64.50	64.81
MW-6	2077139.0	6097634.4	37.6885062	-122.1037401	63.89	64.25
MW-7	2077161.1	6097653.1	37.6885678	-122.1036770	63.72	64.11

**BASIS OF COORDINATES AND ELEVATIONS:**

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

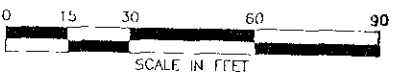
COORDINATE DATUM IS NAD 83(1986).

DATUM ELLIPSOID IS GRS80.

REFERENCE GEOID IS NGS96.

CORS STATIONS USED WERE TIBB AND DIAB.

VERTICAL DATUM IS ASSUMED NAVD 88 FROM GPS OBSERVATIONS.



U-Haul Property  
19100-19600 Mission Blvd.  
Hayward  
Alameda County  
California



1450 Harbor Blvd. Ste. D  
West Sacramento  
California 95691  
(916) 372-8124  
tom@morrowssurveying.com

Date: 6-19-03  
Scale: 1" = 30'  
Sheet 1 of 1  
Revised:  
Field Book: MW-12  
Dwg. No. 0504-001 AZ

**APPENDIX F**

**GROUNDWATER MONITORING AND SAMPLING PROCEDURES**

## GROUNDWATER MONITORING AND SAMPLING PROCEDURES

### Groundwater Depth Measurements

Groundwater depth measurements were obtained at each groundwater monitoring well using a Heron water level meter. Groundwater depth measurements are recorded from a mark that is typically on the north side of the top of the uncapped PVC monitoring well casing. The groundwater elevation at each well was calculated by subtracting the measured depth to groundwater from the surveyed well head elevation. The well head elevation is established at a designated point on the top of each monitor well casing.

The water level meter is decontaminated prior to arrival on the site and between each groundwater monitoring well measurement. Decontamination procedures include washing the probe with a non-phosphate detergent and tap water followed by rinsing with deionized water.

### Groundwater Dissolved Oxygen Measurements

Groundwater dissolved oxygen measurements are obtained at each groundwater monitoring well using a YSI-85 dissolved oxygen probe. The probe is decontaminated before and after taking a measurement at a well. Measurements are taken by lowering the probe approximately two to four feet into groundwater. The probe is then slowly raised and lowered through the water within an approximate one-foot interval. The measurement is taken when the reading stabilizes and shows signs of reversal. Several minutes may pass before the measurement stabilizes. The measurement is recorded on the field data sheet along with the depth to groundwater measurements.

### Groundwater Monitoring Well Purging Procedures

Each groundwater monitoring well is purged using a new disposable Teflon bailer or a Whale In-Line 925, 12-volt D.C. pump. Groundwater purged from each monitor well is temporarily stored in a 55-gallon steel drum pending waste characterization, removal and disposal.

During the purging process in each well, field parameters such as salinity, conductivity, and groundwater temperature are recorded in approximate 4 to 10 gallon intervals. The final stabilized field parameters for each well are recorded on the field data sheets (Appendix G).

**APPENDIX G**

**GROUNDWATER MONITORING AND SAMPLING FIELD SHEETS**

Well ID	Time	Depth to Product (ft btoc)	Depth to GW (ft btoc)	DO (%)	DO (mg/L)	Cond.	Cond.	Salinity (mS/L)	Temp (deg. C)	Well Diam (inches)	Total Depth (feet)	Calc. Purge Vol. (gal)	Act. Purge Vol. (gal)	Notes
MW-1	1425	--	22.62	24.6	2.26	983	1101	0.5	19.3	2"	43	10.0	10.5	
MW-2	1510	--	22.55	14.6	1.26	833	977	0.5	19.7	6"	46	103		
MW-3	1410	--	22.65	27.5	2.53	1253	1408	0.7	19.0	2"	30	3.6	5	
MW-4	1230	--	22.22	49.4	4.58	747	834	0.4	19.5	2"	30	3.8	5	
MW-5	1300	--	22.92	51.6	5.04	1598	1788	0.9	19.4	2"	30	3.5	5	
MW-6	1340	--	22.30	40.0	3.71	0.9 mS	1.0 mS	0.5	18.3	2"	40	8.7	10	
MW-7	1320	--	22.14	45.1	4.18	755	867	0.4	18.5	2"	30	3.5	5	
						<del>875</del>	<del>877</del>	<del>0</del>						

Project No 001-0008-02  
 Task No. 1454  
 Client U Haul  
 Site 19100 Mission Blvd  
 Address Hayward, CA  
 City, State  
 Date 6-3-03

Notes:

**BLAES** Environmental Management, Inc.  
 1433 North Third Avenue  
 Phoenix, Arizona 85003  
 602-728-0707

**GROUNDWATER SAMPLING FORM**

Site ID: U Haul Hayward  
 Project No.: 001-00008-02  
 Recorded By: MPG

Well No.: MW-1  
 Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_  
 Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

**WELL PURGING**

Purge Volume: \_\_\_\_\_ Purge Date: 6-3-03 Purge Method: \_\_\_\_\_  
 Casing Diameter (D) in inches: \_\_\_\_\_  
 2-inch  4-inch  6-inch  Other: \_\_\_\_\_  
 Bailer - Type: \_\_\_\_\_  
 Submersible  Submersible Whale  
 Other: \_\_\_\_\_  
 Total Depth of Casing (TD in feet) 43  
 Water Level Depth (WL in feet BTOC): 22.62  
 Number of Well Volumes (# Vols) to be \_\_\_\_\_  
 3  4  5  Other: \_\_\_\_\_  
**Pump Intake Setting**  
 Near Bottom  Near Top  Other: Middle  
 Depth in feet (BTOC): 34  
 Screen Interval in Feet (BTOC): \_\_\_\_\_  
 Purge Volume Calculation:  

$$\left( \frac{43}{\text{TD (feet)}} - \frac{22.62}{\text{WL}} \right) \times \frac{2^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0409 = 10.0 \text{ gallons}$$
 Calculated Purge Volume

**Pump Time** Start 1430 Stop: 1440 Time 10min Initial ~1 gpm Final ~1 gpm  
**Purge Rate** \_\_\_\_\_ **Actual Purge Volume** ~10.5 gallons

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond. 1 (umhos/cm)	Cond. 2 (umhos/cm)	Salinity	Temp	DO %	Notes
1432	2min	2	1053	1169	0.6	19.8	24.3	2.21
1434	4min	4	1040	1177	0.6	18.9	25.6	2.37
1436	6min	6	1034	1170	0.6	19.0	25.4	2.34
1438	8min	8	1030	1168	0.6	18.9	25.4	2.35
1440	10min	10.5	1030	1167	0.6	18.9	25.4	2.35

Observations During Purging (well Condition, Turbidity, Color, Odor, very clear, no odor.

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0930

Sampling Method: \_\_\_\_\_ Water Level Before Sampling (in feet BTOC): \_\_\_\_\_  
 Bailer Type: Hand  Same as Above  
 Submersible  Whale  Grab Type \_\_\_\_\_  
 Other \_\_\_\_\_  Other Type \_\_\_\_\_

Sampling Distribution Sample Series

Sample No	Containers, Vol., =	Analysis	Preservative	Lab	Comments
MW-1	3 Vols	8015, 8260	HCl	Segura	
MW-1	2 - 1 liter	8310	—	TT	

Other Notes \_\_\_\_\_



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 1433 North Third Avenue  
 Phoenix, Arizona 85003  
 602-728-0707

**GROUNDWATER SAMPLING FORM**

Site ID: U Haul Hayward  
 Project No.: 001-00008-02  
 Recorded By: MPG

Well No.: MW-2  
 Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_  
 Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

**WELL PURGING**

Purge Volume: \_\_\_\_\_ Purge Date: 6-3-03 Purge Method: \_\_\_\_\_  
 Casing Diameter (D) in inches:  2-inch  4-inch  6-inch  Other: \_\_\_\_\_  
 Bailer - Type: \_\_\_\_\_  
 Submersible  Submersible Whale  
 Other: \_\_\_\_\_  
 Total Depth of Casing (TD in feet) 46  
 Water Level Depth (WL in feet BTOC): 22.55  
 Number of Well Volumes (# Vols) to be:  3  4  5  Other: \_\_\_\_\_  
**Pump Intake Setting**  
 Near Bottom  Near Top  Other: middle  
 Depth in feet (BTOC): 34  
 Screen Interval in Feet (BTOC): \_\_\_\_\_

Purge Volume Calculation:  

$$\left( \frac{46 - 22.55}{\text{TD (feet)}} - \frac{22.55}{\text{WL}} \right) \times \frac{6^2}{\text{D (inches)}} \times 3 \times 0.0409 = 104 \text{ gallons}$$
 Calculated Purge Volume

**Pump Time** Start 1516 Stop: 1650 Time 94  
**Purge Rate** Initial ~1 gpm Final ~1 gpm  
**Actual Purge Volume** 105 gallons

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond. 1 (umhos/cm)	Cond. 2 (umhos/cm)	Salinity	Temp	DO %	Notes
1614	58 min	50	927	1032	0.5	20.0	17.5	DO mg/L
1619	63 min	60	910	1025	0.5	19.2	16.7	1.58
1625	69 min	70	907	1021	0.5	19.4	17.4	1.58
1633	77 min	80	910	1028	0.5	19.0	17.2	1.58
1640	84 min	90	911	1027	0.5	19.2	17.0	1.56
1645	89 min	100	906	1025	0.5	18.9	17.2	1.66
1650	94 min	105	907	1023	0.5	19.1	16.9	1.56

Observations During Purging (well Condition, Turbidity, Color, Odor, Very clear, no odor)

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0950

Sampling Method: \_\_\_\_\_ Water Level Before Sampling (in feet BTOC): \_\_\_\_\_  
 Bailer Type: Hand  Same as Above  
 Submersible  Whale  Grab Type: \_\_\_\_\_  
 Other: \_\_\_\_\_  Other Type: \_\_\_\_\_

Sampling Distribution: \_\_\_\_\_ Sample Series: \_\_\_\_\_

Sample No	Containers, Vol	Analysis	Preservative	Lab	Comments
<u>MW-2</u>	<u>3 (100)</u>	<u>PVS, 8260</u>	<u>HEI</u>	<u>Sequencia</u>	

Other Notes: \_\_\_\_\_

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 602-728-0707

**GROUNDWATER SAMPLING FORM**

Well No.: MW-3

Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_

Site ID: U Hall Hayward

Project No.: 001-00008-02

Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

Recorded By: MPG

**WELL PURGING**

Purge Volume: \_\_\_\_\_ Purge Date: 6-3-03 Purge Method: \_\_\_\_\_

Casing Diameter (D) in inches:  
 2-inch  4-inch  6-inch  Other: \_\_\_\_\_

Bailor - Type: \_\_\_\_\_  
 Submersible  Submersible Whale  
 Other: \_\_\_\_\_

Total Depth of Casing (TD in feet) 30

Water Level Depth (WL in feet BTOC): 22.65

Pump Intake Setting  
 Near Bottom  Near Top  Other: \_\_\_\_\_

Number of Well Volumes (# Vols) to be  
 3  4  5  Other: \_\_\_\_\_

Depth in feet (BTOC): 28

Purge Volume Calculation:

Screen Interval in Feet (BTOC): \_\_\_\_\_

$$\left( \frac{30}{\text{TD (feet)}} - \frac{22.65}{\text{WL}} \right) \times \frac{2^2}{\text{D (inches)}} \times 3 \times 0.0409 = 3.61 \text{ gallons}$$

Calculated Purge Volume

**Pump Time**

**Purge Rate**

**Actual Purge Volume**

Start 1411 Stop: 1417 Time 6 min

Initial 21.2 gpm

5 gallons

Final 21.2 gpm

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond 1 (umhos/cm)	Cond 2 (umhos/cm)	Salinity	Temp.	DO %	Notes DO mg/L
1413	2 min	1.5	1268	1431	0.7	19.2	26.6	2.44
1414	3 min	3.0	1179	1335	0.7	18.9	28.5	2.63
1415	4 min	4.0	1131	1284	0.6	18.9	28.6	2.64
1417	6 min	5.0	1118	1266	0.6	18.9	29.1	2.67

Observations During Purging (well Condition, Turbidity, Color, Odor, Very clear, no odor.

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0915

Sampling Method: \_\_\_\_\_ Water Level Before Sampling (in feet BTOC): \_\_\_\_\_

Bailor - Type Hand  Same as Above  
 Submersible  Whale  Grab Type \_\_\_\_\_  
 Other: \_\_\_\_\_  Other - Type: \_\_\_\_\_

**Sampling Distribution**

Sample Series

Sample No	Containers, Vol. =	Analysis	Preservative	Lab	Comments
MW-3	3 vial	805 8260	He 1	Sepulpa	
MW-3	2 liter	8310	-	"	

Other Notes

**BLAES Environmental Management, Inc.**  
 1433 North Third Avenue  
 Phoenix, Arizona 85003  
 602-728-0707

**GROUNDWATER SAMPLING FORM**

Well No.: MW-4  
 Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_  
 Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

Site ID: Uhaul Hayward  
 Project No.: 001-00008-02  
 Recorded By: MPG

**WELL PURGING**

Purge Volume \_\_\_\_\_ Purge Date: 6-3-03 Purge Method \_\_\_\_\_  
 Casing Diameter (D) in inches:  
 2-inch  4-inch  6-inch  Other: \_\_\_\_\_  
 Total Depth of Casing (TD in feet) 30  
 Water Level Depth (WL in feet BTOC): 22.22  
 Number of Well Volumes (# Vols) to be  
 3  4  5  Other: \_\_\_\_\_  
 Pump Intake Setting  
 Near Bottom  Near Top  Other: \_\_\_\_\_  
 Depth in feet (BTOC): 28  
 Screen Interval in Feet (BTOC): \_\_\_\_\_  
 Purge Volume Calculation:  

$$\left( \frac{30}{\text{TD (feet)}} - \frac{22.22}{\text{WL}} \right) \times \frac{2^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0409 = \frac{3.8}{\text{to}} \text{ gallons}$$
 Calculated Purge Volume

Pump Time \_\_\_\_\_ Purge Rate \_\_\_\_\_ Actual Purge Volume \_\_\_\_\_  
 Start 1241 Stop: 1247 Time 6 min Initial ~1 gpm Final ~1 gpm  
~5 gallons

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond. 1 (umhos/cm)	Cond. 2 (umhos/cm)	Salinity	Temp.	DO %	DO Notes mg/L
1243	2 min	1.5	771	844	0.4	20.5	55.8	4.96
1244	3 min	3.0	640	710	0.3	19.9	48.7	4.41
1246	5 min	4.0	580	647	0.3	19.6	49.0	4.42
1247	6 min	5.0	555	618	0.3	19.7	40.7	3.71

Observations During Purging (well Condition, Turbidity, Color, Odor, slightly turbid, no odor.)  
cleared up during purging

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0320

Sampling Method \_\_\_\_\_ Water Level Before Sampling (in feet BTOC): \_\_\_\_\_  
 Bailer Type Hand  Same as Above  
 Submersible  Whale  Grab Type \_\_\_\_\_  
 Other \_\_\_\_\_  Other Type \_\_\_\_\_

Sampling Distribution \_\_\_\_\_ Sample Series \_\_\_\_\_

Sample No	Containers, Vol., #	Analysis	Preservative	Lab	Comments
MW-4	3 vols	8015, 8260	HCl	Sequiza	

Other Notes \_\_\_\_\_

**BLAES Environmental Management, Inc.**  
 1433 North Third Avenue  
 Phoenix, Arizona 85003  
 602-728-0707

**GROUNDWATER SAMPLING FORM**

Well No.: MW-5

Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_

Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

Site ID: Uhaul Hayward  
 Project No.: 001-0008-02  
 Recorded By: MPG

**WELL PURGING**

Purge Volume \_\_\_\_\_ Purge Date: 6-3-03 Purge Method \_\_\_\_\_

Casing Diameter (D) in inches:  
 2-inch  4-inch  6-inch  Other: \_\_\_\_\_

Bailer - Type: \_\_\_\_\_  
 Submersible  Submersible Whale  
 Other: \_\_\_\_\_

Total Depth of Casing (TD in feet) 30

Water Level Depth (WL in feet BTOC): 22.92

Number of Well Volumes (# Vols) to be  
 3  4  5  Other: \_\_\_\_\_

**Pump Intake Setting**  
 Near Bottom  Near Top  Other: \_\_\_\_\_

Depth in feet (BTOC): 28

Purge Volume Calculation:

Screen Interval in Feet (BTOC): \_\_\_\_\_

$$\left( \frac{30}{\text{TD (feet)}} - \frac{22.92}{\text{WL}} \right) \times \frac{2^2}{\text{D (inches)}} \times 3 \times 0.0409 = 3.5 \text{ to } \text{gallons}$$

Calculated Purge Volume

**Pump Time** \_\_\_\_\_ **Purge Rate** \_\_\_\_\_ **Actual Purge Volume** \_\_\_\_\_

Start 1304 Stop: 1310 Time 6 min Initial ~1 gpm Final ~1 gpm  
 ~5 gallons

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond. 1 (umhos/cm)	Cond. 2 (umhos/cm)	Salinity	Temp	DO %	Notes
1306	2 min	1.5	1664	1835	0.9	20.1	57.8	4.99
1308	4 min	3.0	1532	1712	0.9	19.4	56.4	5.13
1309	5 min	4.0	1470	1649	0.8	19.3	50.0	4.56
1310	6 min	5.0	1444	1617	0.8	19.7	43.1	3.89

Observations During Purging (well Condition, Turbidity, Color, Odor, slightly turbid, closed up  
no odor.)

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0835

Sampling Method \_\_\_\_\_ Water Level Before Sampling (in feet BTOC): \_\_\_\_\_

Bailer Type: Hand  Same as Above  
 Submersible  Whale  Grab - Type \_\_\_\_\_  
 Other: \_\_\_\_\_  Other - Type \_\_\_\_\_

**Sampling Distribution** \_\_\_\_\_ Sample Series \_\_\_\_\_

Sample No	Containers, Vol =	Analysis	Preservative	Lab	Comments
<u>MW-5</u>	<u>3 600</u>	<u>8015, 8260</u>	<u>HCl</u>	<u>Sequoia</u>	

Other Notes \_\_\_\_\_

**BLAES Environmental Management, Inc.**  
 1433 North Third Avenue  
 Phoenix, Arizona 85003  
 602-728-0707

**GROUNDWATER SAMPLING FORM**

Well No.: Mw-6

Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_

Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

Site ID: U Hunt Hayward  
 Project No.: 001-00008-02  
 Recorded By: MPG

**WELL PURGING**

Purge Volume \_\_\_\_\_ Purge Date: 6-3-03 Purge Method \_\_\_\_\_

Casing Diameter (D) in inches:  
 2-inch  4-inch  6-inch  Other: \_\_\_\_\_  
 Total Depth of Casing (TD in feet) 40  
 Water Level Depth (WL in feet BTOC): 22.30  
 Number of Well Volumes (# Vols) to be  
 3  4  5  Other: \_\_\_\_\_

Bailer - Type: \_\_\_\_\_  
 Submersible  Submersible Whirl  
 Other: \_\_\_\_\_

**Pump Intake Setting**  
 Near Bottom  Near Top  Other: \_\_\_\_\_  
 Depth in feet (BTOC): 35  
 Screen Interval in Feet (BTOC): \_\_\_\_\_

Purge Volume Calculation:  

$$\left( \frac{40}{\text{TD (feet)}} - \frac{22.30}{\text{WL}} \right) \times \frac{2^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0409 = 8.7 \text{ gallons}$$
 Calculated Purge Volume

**Pump Time** Start 1346 Stop: 1354 Time 13 min  
**Purge Rate** Initial 61 gpm Final 61 gpm  
**Actual Purge Volume** 10 gallons

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond. 1 (umhos/cm)	Cond. 2 (umhos/cm)	Salinity	Temp.	DO %	Notes
1348	2 min	2	930	1049	0.5	19.3	29.3	DO mg/L
1350	4 min	4	912	1033	0.5	18.9	30.2	2.69
1352	6 min	6	918	1038	0.5	19.5	29.6	2.70
1355	9 min	8	912	1028	0.5	19.3	29.4	2.70
1359	13 min	10	913	1037	0.5	19.2	29.0	2.68

Observations During Purging (well Condition, Turbidity, Color, Odor, no odor, slightly turbid.

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0855

Sampling Method \_\_\_\_\_ Water Level Before Sampling (in feet BTOC) \_\_\_\_\_

Bailer - Type: Hand  Same as Above  
 Submersible  Whirl  Grab - Type \_\_\_\_\_  
 Other \_\_\_\_\_  Other - Type \_\_\_\_\_

Sampling Distribution \_\_\_\_\_ Sample Series \_\_\_\_\_

Sample No	Containers, Vol, #	Analysis	Preservative	Lab	Comments
Mw-6	3 vol	8015, 8260	He1	Sequoia	

Other Notes: \_\_\_\_\_

**BLAES** Environmental Management, Inc.  
 1433 North Third Avenue  
 Phoenix, Arizona 85003  
 602-728-0707

**GROUNDWATER SAMPLING FORM**

Site ID: Uhaul Hayward  
 Project No.: 001-00008-02  
 Recorded By: MPG

Well No.: MW-7  
 Well Type:  Monitor  Remedial - VE AS  
 Other: \_\_\_\_\_  
 Well Material:  PVC  St. Steel  
 Other: \_\_\_\_\_

**WELL PURGING**

Purge Volume: \_\_\_\_\_ Purge Date: 6-3-03 Purge Method: \_\_\_\_\_

Casing Diameter (D) in inches:  
 2-inch  4-inch  6-inch  Other: \_\_\_\_\_  
 Total Depth of Casing (TD) in feet: 30  
 Water Level Depth (WL) in feet (BTOC): 22.14  
 Number of Well Volumes (# Vols) to be:  
 3  4  5  Other: \_\_\_\_\_

Bailer - Type: \_\_\_\_\_  
 Submersible  Submersible Whale  
 Other: \_\_\_\_\_

**Pump Intake Setting**

Near Bottom  Near Top  Other: \_\_\_\_\_  
 Depth in feet (BTOC): 28  
 Screen Interval in Feet (BTOC): \_\_\_\_\_

Purge Volume Calculation:

$$\left( \frac{30}{\text{TD (feet)}} - \frac{22.14}{\text{WL}} \right) \times \frac{2^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0409 = 3.9 \text{ to } \underline{\hspace{1cm}} \text{ gallons}$$

Calculated Purge Volume

**Pump Time**

Start 1325 Stop: 1331 Time: 6 min

**Purge Rate**

Initial ~1.2 gpm  
 Final ~1.2 gpm

**Actual Purge Volume**

~5 gallons

**Field Parameter Measurements**

Time	Time Lapsed	Gallons Purged	Cond. 1 (umhos/cm)	Cond. 2 (umhos/cm)	Salinity	Temp	DO %	Notes
1327	2 min	1.5	777	879	0.4	18.8	58.3	5.66
1328	3 min	3.0	756	864	0.4	18.5	47.5	4.12
1329	4 min	4.0	696	797	0.4	18.4	39.3	3.67
1331	6 min	5.0	653	744	0.4	18.5	39.1	3.65

Observations During Purging (well Condition, Turbidity, Color, Odor, slightly turbid, no odor,  
cleared up during purging.

Purge Water Storage/Disposal:  Drum(s), Number: \_\_\_\_\_  Storm Sewer  Sanitary Sewer  
 Other / Comments: \_\_\_\_\_

**WELL SAMPLING**

Sampled By: MPG Sampling Date: 6-4-03 Sampling Time: 0845

Sampling Method: \_\_\_\_\_ Water Level Before Sampling (in feet BTOC): \_\_\_\_\_

Bailer Type: Hand  Same as Above  
 Submersible  Whale  Grab - Type: \_\_\_\_\_  
 Other: \_\_\_\_\_  Other Type: \_\_\_\_\_

**Sampling Distribution**

Sample Series: \_\_\_\_\_

Sample No	Containers Vol =	Analysis	Preservative	LAB	Comments
<u>MW-7</u>	<u>3 vials</u>	<u>8015, 8262</u>	<u>HCl</u>	<u>Jepson</u>	

Other Notes: \_\_\_\_\_

**APPENDIX H**

**CERTIFICATE OF DISPOSAL FOR PURGED GROUNDWATER**

**IWM, Inc.**

INTEGRATED WASTESTREAM MANAGEMENT, INC.  
950 AMES AVENUE, MILPITAS, CA 95035  
PHONE: 408.942.8955 FAX: 408.942.1499

## CERTIFICATE OF DISPOSAL

Generator Name: U-Haul International  
Address: 2701 N Central Avenue, Ste. 700  
Phoenix, AZ 85004  
Contact: Reid L Riner  
Phone: 602-263-6647

Facility Name: U-Haul #001  
Address: 19100 Mission Blvd.  
Hayward, CA  
Facility Contact: Steve Woodhull, BLAES Environmental  
Phone: 602-728-0707

IWM Job #:	<u>93328-DW</u>
Description of Waste:	<u>4 Drum(s) of</u> <u>Non-Hazardous</u> <u>Water</u>
Removal Date:	<u>17 September 2003</u>
Ticket #:	<u>SP170903-MISC</u>

### Transporter Information

Name: IWM, Inc.  
Address: 950 Ames Avenue  
Milpitas, CA 95035  
Phone: (408) 942-8955

### Disposal Facility Information

Name: Seaport Refining & Environmental  
Address: 675 Seaport Blvd  
Redwood City, CA 94063  
Phone: 650-364-6158

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T DeLon  
Authorized Representative (Print Name and Signature)

09/17/03  
Date



**IWM, Inc.**

INTEGRATED WASTESTREAM MANAGEMENT, INC.  
 830 AMES AVENUE, MILPITAS, CA 95035  
 PHONE: 408.942.8955 FAX: 408.942.1499

**CERTIFICATE OF DISPOSAL**

Generator Name	<u>U-Haul International</u>	Facility Name:	<u>U-Haul #001</u>
Address:	<u>2701 N Central Avenue, Ste. 700</u>	Address:	<u>19100 Mission Blvd.</u>
	<u>Phoenix AZ 85004</u>		<u>Hayward, CA</u>
Contact:	<u>Reid L. Riner</u>	Facility Contact	<u>Steven Woodhull, BLAES Environmental</u>
Phone:	<u>602-263-6647</u>	Phone	<u>602-728-0707</u>

IWM Job #:	<u>93328-DW</u>
Description of Waste:	<u>2 Drum(s) of</u>
	<u>Non-Hazardous</u>
	<u>Mud/Water</u>
Removal Date:	<u>17 September 2003</u>
Ticket #:	<u>SP170903-MISC</u>

**Transporter Information**

Name: IWM, Inc.  
 Address: 950 Ames Avenue  
Milpitas, CA 95035  
 Phone: (408) 942-8955

**Disposal Facility Information**

Name: Seaport Refining & Environmental  
 Address: 675 Seaport Blvd  
Redwood City, CA 94063  
 Phone: 650-364-6158

**IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.**

William T DeLon  
 Authorized Representative (Print Name and Signature)

09/17/03  
 Date

**APPENDIX I**

**JUNE 2003 GROUNDWATER  
LABORATORY ANALYTICAL REPORT**



**Sequoia  
Analytical**

885 Jarvis Dr  
Morgan Hill, CA 95037  
(408) 776-9600  
FAX (408) 782-6308  
www.sequoialabs.com

---

11 July, 2003

Steve Woodhull  
BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix, ARIZONA 85003

RE: U-Haul  
Sequoia Work Order: MMF0128

Enclosed are the results of analyses for samples received by the laboratory on 06/05/03 12:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James Hartley  
Project Manager

CA ELAP Certificate #1210



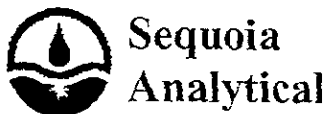
BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4	MMF0128-01	Water	06/04/03 08:20	06/05/03 12:00
MW-5	MMF0128-02	Water	06/04/03 08:35	06/05/03 12:00
MW-7	MMF0128-03	Water	06/04/03 08:45	06/05/03 12:00
MW-6	MMF0128-04	Water	06/04/03 08:55	06/05/03 12:00
MW-3	MMF0128-05	Water	06/04/03 09:15	06/05/03 12:00
MW-1	MMF0128-06	Water	06/04/03 09:30	06/05/03 12:00
MW-2	MMF0128-07	Water	06/04/03 09:50	06/05/03 12:00



885 Jarvis Dr  
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BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (MMF0128-01) Water</b> Sampled: 06/04/03 08:20 Received: 06/05/03 12:00									
Ethanol	ND	100	ug/l	1	3F17033	06/17/03	06/18/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.4 %	78-129	"	"	"	"	"	
<b>MW-4 (MMF0128-01RE1) Water</b> Sampled: 06/04/03 08:20 Received: 06/05/03 12:00									
Xylenes (total)	ND	0.50	ug/l	1	3F20022	06/20/03	06/20/03	EPA 8260B	HT-04
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.2 %	78-129	"	"	"	"	"	HT-04
<b>MW-5 (MMF0128-02) Water</b> Sampled: 06/04/03 08:35 Received: 06/05/03 12:00									
Ethanol	ND	100	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	78-129	"	"	"	"	"	

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.



BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

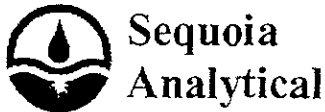
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-7 (MMF0128-03) Water** Sampled: 06/04/03 08:45 Received: 06/05/03 12:00

Ethanol	ND	100	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
Benzene	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	78-129	"	"	"	"	"	"

**MW-6 (MMF0128-04) Water** Sampled: 06/04/03 08:55 Received: 06/05/03 12:00

Ethanol	ND	100	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
Benzene	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	78-129	"	"	"	"	"	"



885 Jarvis Dr  
Morgan Hill, CA 95037  
(408) 776-9600  
FAX (408) 782-6308  
www.sequoialabs.com

BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-3 (MMF0128-05) Water** Sampled: 06/04/03 09:15 Received: 06/05/03 12:00

Ethanol	ND	100	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	78-129						
Benzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	

Sequoia Analytical - Morgan Hill

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a per volume basis. This analytical report must be reproduced in its entirety.*

BLAES Environmental Management, Inc.  
 1433 N. Third Ave  
 Phoenix ARIZONA, 85005

 Project: U-Haul  
 Project Number: Hayward  
 Project Manager: Steve Woodhull

 MMF0128  
 Reported:  
 07/11/03 11:59

### Volatile Organic Compounds by EPA Method 8260B

#### Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (MMF0128-05) Water    Sampled: 06/04/03 09:15    Received: 06/05/03 12:00</b>									
1,1-Dichloroethene	ND	0.50	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	2.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.0	"	"	"	"	"	"	
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		105 %	73-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	78-129	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		101 %	81-116	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	71-117	"	"	"	"	"	





BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MMF0128-06) Water</b> <b>Sampled: 06/04/03 09:30</b> <b>Received: 06/05/03 12:00</b>									
Ethanol	ND	100	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	78-129	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	

Sequoia Analytical - Morgan Hill

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1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MMF0128-06) Water Sampled: 06/04/03 09:30 Received: 06/05/03 12:00</b>									
1,1-Dichloroethene	ND	0.50	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	2.0	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	2.0	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	"
Methylene chloride	ND	0.50	"	"	"	"	"	"	"
Naphthalene	ND	5.0	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	"
Styrene	ND	0.50	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	"
Trichloroethene	ND	0.50	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	"
Vinyl chloride	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
Surrogate: Dibromofluoromethane		102 %	73-130	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4		107 %	78-129	"	"	"	"	"	"
Surrogate: Toluene-d8		103 %	81-116	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		106 %	71-117	"	"	"	"	"	"



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Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-2 (MMF0128-07) Water Sampled: 06/04/03 09:50 Received: 06/05/03 12:00</b>									
Ethanol	ND	100	ug/l	1	3F12006	06/12/03	06/12/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		113 %		78-129	"	"	"	"	



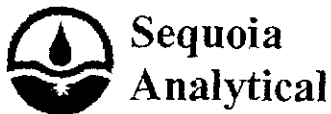
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1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

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Reported:  
07/11/03 11:59

**Polynuclear Aromatic Compounds by EPA Method 8310**  
**Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (MMF0128-05) Water</b> Sampled: 06/04/03 09:15 Received: 06/05/03 12:00									
Acenaphthene	ND	0.48	ug/l	1	3060183	06/09/03	06/11/03	EPA 8310	
Acenaphthylene	ND	0.95	"	"	"	"	"	"	
Anthracene	ND	0.048	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.048	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.095	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.048	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.095	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.048	"	"	"	"	"	"	
Chrysene	ND	0.048	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.19	"	"	"	"	"	"	
Fluoranthene	ND	0.095	"	"	"	"	"	"	
Fluorene	ND	0.095	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.048	"	"	"	"	"	"	
Naphthalene	ND	0.48	"	"	"	"	"	"	
Phenanthrene	ND	0.048	"	"	"	"	"	"	
Pyrene	ND	0.048	"	"	"	"	"	"	
Surrogate: Carbazole		80 %	58-108		"	"	"	"	
Surrogate: Terphenyl-d14		65 %	58-120		"	"	"	"	
<b>MW-1 (MMF0128-06) Water</b> Sampled: 06/04/03 09:30 Received: 06/05/03 12:00									
Acenaphthene	ND	0.48	ug/l	1	3060183	06/09/03	06/11/03	EPA 8310	
Acenaphthylene	ND	0.95	"	"	"	"	"	"	
Anthracene	ND	0.048	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.048	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.095	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.048	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.095	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.048	"	"	"	"	"	"	
Chrysene	ND	0.048	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.19	"	"	"	"	"	"	
Fluoranthene	ND	0.095	"	"	"	"	"	"	
Fluorene	ND	0.095	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.048	"	"	"	"	"	"	
Naphthalene	ND	0.48	"	"	"	"	"	"	
Phenanthrene	ND	0.048	"	"	"	"	"	"	
Pyrene	ND	0.048	"	"	"	"	"	"	
Surrogate Carbazole		94 %	58-108		"	"	"	"	
Surrogate Terphenyl-d14		83 %	58-120		"	"	"	"	



**Sequoia  
Analytical**

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BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F12006 - EPA 5035**

**Blank (3F12006-BLK1)**

Prepared & Analyzed: 06/12/03

Benzene	ND	0.50	ug/l							
Ethanol	ND	100	"							
Bromobenzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Bromochloromethane	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Bromodichloromethane	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Bromoform	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Bromomethane	ND	1.0	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
n-Butylbenzene	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
sec-Butylbenzene	ND	0.50	"							
Benzene	ND	0.50	"							
tert-Butylbenzene	ND	0.50	"							
Carbon tetrachloride	ND	0.50	"							
Toluene	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Chloroethane	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	0.50	"							
2-Chlorotoluene	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
4-Chlorotoluene	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Dibromomethane	ND	0.50	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							

Sequoia Analytical - Morgan Hill

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Phoenix ARIZONA, 85003

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Project Manager: Steve Woodhull

MMF0128  
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07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F12006 - EPA 5035**

**Blank (3F12006-BLK1)**

Prepared & Analyzed: 06/12/03

Dichlorodifluoromethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
1,3-Dichloropropane	ND	0.50	"							
2,2-Dichloropropane	ND	2.0	"							
1,1-Dichloropropene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Hexachlorobutadiene	ND	2.0	"							
Isopropylbenzene	ND	0.50	"							
p-Isopropyltoluene	ND	0.50	"							
Methylene chloride	ND	0.50	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	0.50	"							
Styrene	ND	0.50	"							
1,1,1,2-Tetrachloroethane	ND	0.50	"							
1,1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.50	"							
Toluene	ND	0.50	"							
1,2,3-Trichlorobenzene	ND	0.50	"							
1,2,4-Trichlorobenzene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
1,2,3-Trichloropropane	ND	0.50	"							
1,2,4-Trimethylbenzene	ND	0.50	"							
1,3,5-Trimethylbenzene	ND	0.50	"							
Vinyl chloride	ND	0.50	"							
Xylenes (total)	ND	0.50	"							

Surrogate 1,2-Dichloroethane-d4

5.19

"

5.00

104

78-129

Surrogate Dibromofluoromethane

4.67

"

5.00

93.4

75-130

Sequoia Analytical - Morgan Hill

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 1433 N. Third Ave  
 Phoenix ARIZONA, 85003

 Project: U-Haul  
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 MMF0128  
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 07/11/03 11:59

### Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F12006 - EPA 5035**
**Blank (3F12006-BLK1)**

Prepared &amp; Analyzed: 06/12/03

Surrogate: 1,2-Dichloroethane-d4	5.19		ug/l	5.00		104	78-129			
Surrogate: Toluene-d8	4.95		"	5.00		99.0	81-116			
Surrogate: 4-Bromofluorobenzene	4.95		"	5.00		99.0	71-117			

**Laboratory Control Sample (3F12006-BS1)**

Prepared &amp; Analyzed: 06/12/03

Benzene	10.6	0.50	ug/l	10.0		106	78-124			
Methyl tert-butyl ether	9.61	0.50	"	10.0		96.1	63-137			
Benzene	10.6	0.50	"	10.0		106	78-124			
Toluene	11.2	0.50	"	10.0		112	78-129			
Chlorobenzene	10.9	0.50	"	10.0		109	80-127			
1,1-Dichloroethene	11.8	0.50	"	10.0		118	75-124			
Toluene	11.2	0.50	"	10.0		112	78-129			
Trichloroethene	11.3	0.50	"	10.0		113	75-133			

Surrogate: 1,2-Dichloroethane-d4	5.16		"	5.00		103	78-129			
Surrogate: Dibromofluoromethane	4.96		"	5.00		99.2	73-130			
Surrogate: 1,2-Dichloroethane-d4	5.16		"	5.00		103	78-129			
Surrogate: Toluene-d8	5.00		"	5.00		100	81-116			
Surrogate: 4-Bromofluorobenzene	4.86		"	5.00		97.2	71-117			

**Laboratory Control Sample (3F12006-BS2)**

Prepared &amp; Analyzed: 06/12/03

Benzene	5.70	0.50	ug/l	6.40		89.1	78-124			
Methyl tert-butyl ether	7.46	0.50	"	9.92		75.2	63-137			
Benzene	5.70	0.50	"	6.40		89.1	78-124			
Toluene	35.5	0.50	"	29.7		120	78-129			
Gasoline Range Organics (C6-C10)	441	50	"	440		100	70-113			
Toluene	35.5	0.50	"	29.7		120	78-129			

Surrogate: 1,2-Dichloroethane-d4	5.50		"	5.00		110	78-129			
Surrogate: Dibromofluoromethane	5.39		"	5.00		105	73-130			
Surrogate: 1,2-Dichloroethane-d4	5.50		"	5.00		110	78-129			
Surrogate: Toluene-d8	5.17		"	5.00		103	81-116			
Surrogate: 4-Bromofluorobenzene	5.20		"	5.00		104	71-117			

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 07/11/03 11:59

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F12006 - EPA 5035**

<b>Matrix Spike (3F12006-MS1)</b>		<b>Source: MME0808-04</b>		<b>Prepared &amp; Analyzed: 06/12/03</b>						
Benzene	56.2	5.0	ug/l	64.0	ND	87.8	78-124			
Methyl tert-butyl ether	526	5.0	"	99.2	730	NR	63-137			E
Benzene	56.2	5.0	"	64.0	ND	87.8	78-124			
Toluene	328	5.0	"	297	ND	110	78-129			
Gasoline Range Organics (C6-C10)	4700	500	"	4400	590	93.4	70-113			
Toluene	328	5.0	"	297	ND	110	78-129			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.48		"	5.00		110	78-129			
<i>Surrogate: Dibromofluoromethane</i>	4.89		"	5.00		97.8	73-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.48		"	5.00		110	78-129			
<i>Surrogate: Toluene-d8</i>	4.90		"	5.00		98.0	81-116			
<i>Surrogate: 4-Bromofluorobenzene</i>	4.86		"	5.00		97.2	71-117			

<b>Matrix Spike Dup (3F12006-MSD1)</b>		<b>Source: MME0808-04</b>		<b>Prepared &amp; Analyzed: 06/12/03</b>						
Benzene	54.3	5.0	ug/l	64.0	ND	84.8	78-124	3.44	12	
Methyl tert-butyl ether	796	5.0	"	99.2	730	66.5	63-137	40.8	13	E
Benzene	54.3	5.0	"	64.0	ND	84.8	78-124	3.44	12	
Toluene	344	5.0	"	297	ND	116	78-129	4.76	10	
Gasoline Range Organics (C6-C10)	4670	500	"	4400	590	92.7	70-113	0.640	9	
Toluene	344	5.0	"	297	ND	116	78-129	4.76	10	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.18		"	5.00		104	78-129			
<i>Surrogate: Dibromofluoromethane</i>	4.57		"	5.00		91.4	73-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.18		"	5.00		104	78-129			
<i>Surrogate: Toluene-d8</i>	5.07		"	5.00		101	81-116			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.03		"	5.00		101	71-117			

**Batch 3F17033 - EPA 5030B P/T**

<b>Blank (3F17033-BLK1)</b>		<b>Prepared &amp; Analyzed: 06/17/03</b>								
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							0.09
Methyl tert-butyl ether	ND	0.50	"							0.09
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							

Sequoia Analytical - Morgan Hill

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.*





BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F17033 - EPA 5030B P/T**

**Blank (3F17033-BLK1)**

Prepared & Analyzed: 06/17/03

1,2-Dichloroethane	ND	0.50	ug/l							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							

*Surrogate: 1,2-Dichloroethane-d4*      5.16      "      5.00      103      78-129

**Laboratory Control Sample (3F17033-BS1)**

Prepared: 06/17/03 Analyzed: 06/18/03

tert-Butyl alcohol	167	20	ug/l	200		83.5				O-09
Methyl tert-butyl ether	9.52	0.50	"	10.0		95.2	63-137			
Benzene	10.1	0.50	"	10.0		101	78-124			
Toluene	10.2	0.50	"	10.0		102	78-129			

*Surrogate: 1,2-Dichloroethane-d4*      4.80      "      5.00      96.0      78-129

**Laboratory Control Sample (3F17033-BS2)**

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	8.65	0.50	ug/l	9.92		87.2	63-137			
Benzene	5.55	0.50	"	6.40		86.7	78-124			
Toluene	32.8	0.50	"	29.7		110	78-129			
Gasoline Range Organics (C6-C10)	446	50	"	440		101	70-113			

*Surrogate: 1,2-Dichloroethane-d4*      5.06      "      5.00      101      78-129

**Matrix Spike (3F17033-MS1)**

Source: MMF0098-08

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	440	25	ug/l	496	ND	88.7	63-137			
Benzene	870	25	"	320	680	59.4	78-124			QM-07
Toluene	1850	25	"	1480	260	107	78-129			QM-07
Gasoline Range Organics (C6-C10)	55500	2500	"	22000	44000	52.3	70-113			QM-07

*Surrogate: 1,2-Dichloroethane-d4*      4.58      "      5.00      97.6      78-129

BLAES Environmental Management, Inc.  
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 Project: U-Haul  
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 Project Manager: Steve Woodhull

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 07/11/03 11:59

### Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F17033 - EPA 5030B P/T**
**Matrix Spike Dup (3F17033-MSD1)**

Source: MMF0098-08

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	458	25	ug/l	496	ND	92.3	63-137	4.01	13	
Benzene	910	25	"	320	680	71.9	78-124	4.49	12	QM-07
Toluene	1940	25	"	1480	260	114	78-129	4.75	10	QM-07
Gasoline Range Organics (C6-C10)	58200	2500	"	22000	44000	64.5	70-113	4.75	9	QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.94</i>		"	<i>5.00</i>		<i>98.8</i>	<i>78-129</i>			

**Batch 3F20022 - EPA 5030B P/T**
**Blank (3F20022-BLK1)**

Prepared &amp; Analyzed: 06/20/03

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							O-09
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.14</i>		"	<i>5.00</i>		<i>103</i>	<i>78-129</i>			

**Laboratory Control Sample (3F20022-BS1)**

Prepared &amp; Analyzed: 06/20/03

Methyl tert-butyl ether	11.6	0.50	ug/l	10.0		116	63-137			
Benzene	10.4	0.50	"	10.0		104	78-124			
Toluene	10.0	0.50	"	10.0		100	78-129			

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 07/11/03 11:59

### Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3F20022 - EPA 5030B P/T**
**Laboratory Control Sample (3F20022-BS2)**

Prepared &amp; Analyzed: 06/20/03

Methyl tert-butyl ether	9.41	0.50	ug/l	9.92		94.9	63-137			
Benzene	5.40	0.50	"	6.40		84.4	78-124			
Toluene	31.5	0.50	"	29.7		106	78-129			
Gasoline Range Organics (C6-C10)	408	50	"	440		92.7	70-113			

Surrogate: 1,2-Dichloroethane-d4	5.28	0.50	"	5.00	ND	106	78-129	4.63	13	"
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**Matrix Spike (3F20022-MS1)**

Source:

Prepared &amp; Analyzed: 06/20/03

Methyl tert-butyl ether	464	25	ug/l	496	ND	93.5	63-137			
Benzene	925	25	"	320	710	67.2	78-124			QM-07
Toluene	1730	25	"	1480	250	100	78-129			
Gasoline Range Organics (C6-C10)	59000	2500	"	22000	41000	81.8	70-113			

Surrogate: 1,2-Dichloroethane-d4	5.23	0.50	"	5.00	ND	105	78-129	3.92	12	"
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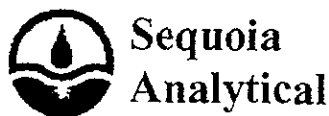
**Matrix Spike Dup (3F20022-MSD1)**

Source:

Prepared &amp; Analyzed: 06/20/03

Methyl tert-butyl ether	486	25	ug/l	496	ND	98.0	63-137	4.63	13	
Benzene	962	25	"	320	710	78.8	78-124	3.92	12	
Toluene	1850	25	"	1480	250	108	78-129	6.70	10	
Gasoline Range Organics (C6-C10)	61000	2500	"	22000	41000	90.9	70-113	3.33	9	

Surrogate: 1,2-Dichloroethane-d4	5.29	0.50	"	5.00	ND	106	78-129	6.70	10	"
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BLAES Environmental Management, Inc.  
1433 N. Third Ave  
Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Polynuclear Aromatic Compounds by EPA Method 8310 - Quality Control**  
**Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3060183 - EPA 3520B Liq Liquid**

Blank (3060183-BLK1)			Prepared: 06/09/03 Analyzed: 06/11/03							
Acenaphthene	ND	0.50	ug/l							
Acenaphthylene	ND	1.0	"							
Anthracene	ND	0.050	"							
Benzo (a) anthracene	ND	0.050	"							
Benzo (b) fluoranthene	ND	0.10	"							
Benzo (k) fluoranthene	ND	0.050	"							
Benzo (g,h,i) perylene	ND	0.10	"							
Benzo (a) pyrene	ND	0.050	"							
Chrysene	ND	0.050	"							
Dibenz (a,h) anthracene	ND	0.20	"							
Fluoranthene	ND	0.10	"							
Fluorene	ND	0.10	"							
Indeno (1,2,3-cd) pyrene	ND	0.050	"							
Naphthalene	ND	0.50	"							
Phenanthrene	ND	0.050	"							
Pyrene	ND	0.050	"							
Surrogate: Carbazole	0.913		"	1.00		91	58-108			
Surrogate: Terphenyl-d14	1.87		"	2.00		94	58-120			

**Laboratory Control Sample (3060183-BS1)**

Laboratory Control Sample (3060183-BS1)			Prepared: 06/09/03 Analyzed: 06/11/03							
Acenaphthene	7.76	0.50	ug/l	10.0		78	35-112			
Acenaphthylene	13.6	1.0	"	20.0		68	32-101			
Anthracene	0.759	0.050	"	1.00		76	22-111			
Benzo (a) anthracene	0.833	0.050	"	1.00		83	33-127			
Benzo (b) fluoranthene	1.79	0.10	"	2.00		90	31-129			
Benzo (k) fluoranthene	0.922	0.050	"	1.00		92	28-130			
Benzo (g,h,i) perylene	1.86	0.10	"	2.00		93	16-140			
Benzo (a) pyrene	0.756	0.050	"	1.00		76	27-122			
Chrysene	0.882	0.050	"	1.00		88	30-130			
Dibenz (a,h) anthracene	1.77	0.20	"	2.00		88	10-142			
Fluoranthene	1.59	0.10	"	2.00		80	29-115			
Fluorene	1.45	0.10	"	2.00		72	36-108			
Indeno (1,2,3-cd) pyrene	1.07	0.050	"	1.00		107	25-132			
Naphthalene	6.80	0.50	"	10.0		68	44-87			
Phenanthrene	0.745	0.050	"	1.00		74	29-114			

Sequoia Analytical - Morgan Hill

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Phoenix ARIZONA, 85003

Project: U-Haul  
Project Number: Hayward  
Project Manager: Steve Woodhull

MMF0128  
Reported:  
07/11/03 11:59

**Polynuclear Aromatic Compounds by EPA Method 8310 - Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3060183 - EPA 3520B Liq Liquid**

**Laboratory Control Sample (3060183-BS1)**

Prepared: 06/09/03 Analyzed: 06/11/03

Pyrene	0.947	0.050	ug/l	1.00		95	41-115			
<i>Surrogate: Carbazole</i>	<i>0.840</i>		"	<i>1.00</i>		<i>84</i>	<i>58-108</i>			
<i>Surrogate: Terphenyl-d14</i>	<i>1.81</i>		"	<i>2.00</i>		<i>90</i>	<i>58-120</i>			

**Laboratory Control Sample Dup (3060183-BSD1)**

Prepared: 06/09/03 Analyzed: 06/11/03

Acenaphthene	8.54	0.50	ug/l	10.0		85	35-112	10	40	
Acenaphthylene	14.8	1.0	"	20.0		74	32-101	8	20	
Anthracene	0.820	0.050	"	1.00		82	22-111	8	28	
Benzo (a) anthracene	0.818	0.050	"	1.00		82	33-127	2	29	
Benzo (b) fluoranthene	1.83	0.10	"	2.00		92	31-129	2	37	
Benzo (k) fluoranthene	0.956	0.050	"	1.00		96	28-130	4	30	
Benzo (g,h,i) perylene	1.93	0.10	"	2.00		96	16-140	4	51	
Benzo (a) pyrene	0.797	0.050	"	1.00		80	27-122	5	20	
Chrysene	0.885	0.050	"	1.00		88	30-130	0.3	32	
Dibenz (a,h) anthracene	1.85	0.20	"	2.00		92	10-142	4	20	
Fluoranthene	1.67	0.10	"	2.00		84	29-115	5	39	
Fluorene	1.65	0.10	"	2.00		82	36-108	13	25	
Indeno (1,2,3-cd) pyrene	1.11	0.050	"	1.00		111	25-132	4	35	
Naphthalene	7.40	0.50	"	10.0		74	44-87	8	33	
Phenanthrene	0.798	0.050	"	1.00		80	29-114	7	47	
Pyrene	0.979	0.050	"	1.00		98	41-115	3	30	
<i>Surrogate: Carbazole</i>	<i>0.872</i>		"	<i>1.00</i>		<i>87</i>	<i>58-108</i>			
<i>Surrogate: Terphenyl-d14</i>	<i>1.78</i>		"	<i>2.00</i>		<i>89</i>	<i>58-120</i>			



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### Notes and Definitions

- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- HT-04 This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
- O-09 The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference