



ENVIRONMENTAL AUDIT, INC.

1000-A ORTEGA WAY • PLACENTIA, CA 92670-7125

714/632-8521 • FAX: 714/632-6754

July 1, 1996

Project No. 1233

Ms. Eva Chu
Alameda County Health Care Services
Department of Environmental Health
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

RE: GROUND WATER MONITORING REPORT
SECOND QUARTER 1996
Montgomery Ward Auto Service Center
7575 Dublin Boulevard, Dublin, California

Dear Ms. Chu:

Enclosed herewith are two copies of our report entitled, "Ground Water Monitoring Report, Second Quarter 1996, Montgomery Ward Auto Service Center, 7575 Dublin Boulevard, Dublin, California," dated June 27, 1996.

Please call the undersigned if you have any questions or need additional information.

Sincerely,

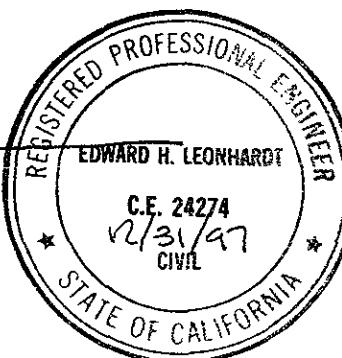
ENVIRONMENTAL AUDIT, INC.

Edward H. Leonhardt, R.C.E.
Manager, Civil Engineering

EHL:SH

enclosure

cc: E. Koberstein, Montgomery Ward (w/enclosure)
G. Jonas, Montgomery Ward (w/enclosure)
M. Gilmartin, Straw & Gilmartin (w/enclosure)
R. Enea, Enea Properties (w/enclosure)
S. Bezark, Altheimer & Gray (w/enclosure)



JRC.WORD 1233M96B

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GROUND WATER MONITORING REPORT SECOND QUARTER 1996

**Montgomery Ward Auto Service Center
7575 Dublin Boulevard
Dublin, California**

Prepared for:

**MONTGOMERY WARD & CO., INCORPORATED
1331 South Harbor Boulevard
Fullerton, CA 92632**

Submitted to:

**ALAMEDA COUNTY HEALTH CARE SERVICES
DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIVISION
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577**

Project No. 1233

June 27, 1996

ENVIRONMENTAL AUDIT, INC. ®

**Planning, Environmental Analyses and Hazardous
Substances Management and Remediation**

**1000-A ORTEGA WAY
PLACENTIA, CA 92670-7125
714/632-8521**

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1.0 INTRODUCTION

This document constitutes the Second Quarter 1996 ground water monitoring report for the Montgomery Ward Auto Service Center property located at 7575 Dublin Boulevard, Dublin, California (Montgomery Ward site) (see Figure 1). Environmental Audit, Inc. (EAI) was retained by Montgomery Ward to complete the quarterly monitoring. The quarterly ground water monitoring activities are conducted during the first month of each calendar quarter, i.e., in January, April, July, and October.

A ground water extraction and treatment system (System) was formerly operated at the Montgomery Ward site between 1990 and 1995. Pursuant to approval from the Alameda County Health Care Services, Department of Environmental Health (County Health) the ground water extraction and treatment system was deactivated on October 20, 1995, and an oxygen releasing compound (ORC) was placed in Montgomery Ward wells B-5 and B-12. Post remediation monitoring is now being conducted. This report documents the second quarter sampling event after deactivation of the System.

As requested by County Health, ground water monitoring wells MW-1 through MW-4 associated with the Enea Properties sites located immediately south of the intersection of Amador Plaza Road and Dublin Boulevard (see Figure 1), are included in the quarterly ground water monitoring activities for the Montgomery Ward site.

All wells associated with the Montgomery Ward site and Enea Properties sites are gauged on a quarterly basis. The following lists the wells sampled on a quarterly basis:

- January: Montgomery Ward wells: B-5, B-10, B-12, MW-100 and MW-102
Enea wells: MW-1 and MW-3
- April: Montgomery Ward wells: B-5, B-10, B-12, B-16, MW-100 and MW-102
Enea wells: MW-1, MW-2, MW-3 and MW-4
- July: Montgomery Ward wells: B-5, B-10, B-12, MW-100 and MW-102
Enea wells: MW-1 and MW-3
- October: Montgomery Ward wells: B-5, B-10, B-12, B-16, MW-100 and MW-102
Enea wells: MW-1 and MW-3

2.0 FIELD INVESTIGATION

2.1 GROUND WATER ELEVATION SURVEY

On April 10, 1996, EAI gauged all wells associated with the Montgomery Ward site and Enea Properties sites using an Oil Recovery System interface probe accurate to 0.01 feet. No free-product was detected in any of the wells. The measured water levels were converted to elevations relative to mean sea level datum by subtracting the measured water level for each

well from the ground level datum (see Table 1). Ground water elevation data obtained from the wells were used to construct a ground water elevation map (see Figure 2).

2.2 DISSOLVED OXYGEN READINGS

On April 10, 1996 dissolved oxygen readings were obtained from each well using a YSI Model 50B dissolved oxygen meter. Readings were obtained at the water surface and from one, three, five and seven feet below the water surface (see Table 2).

2.3 GROUND WATER SAMPLING

On April 11, 1996, ground water samples were obtained for analytical testing from Montgomery Ward wells B-5, B-10, B-12, B-16, MW-100 and MW-102, and from Enea Properties wells MW-1, MW-2, MW-3 and MW-4. Prior to sampling, all wells except extraction well B-12 were purged using a Whale Supersub 921 submersible pump. Well B-12 was purged by turning the System on for approximately 30 minutes. Purging activities continued until the temperature, conductivity and pH of the extracted water had stabilized (see Appendix A).

*Don't purge well
B-5 & B-12
in future*

All wells were sampled in the order that purging activities were completed. Well B-12 was sampled before all other wells were sampled. The water samples were collected from just below the water surface using Voss Technologies disposable bottom bailers equipped with volatile organic compound samplers. Use of these bailers precludes the potential for cross-contamination. The water samples were sealed in a one-liter plastic bottle and two 40-milliliter Volatile Organic Analysis vials with Teflon septa lined lids. The containers were completely filled so that no head space existed between the samples and the lids. The samples were labeled with the sample point identification, date, time and EAI project number, and immediately placed into an ice chest, chilled using ice. The samples remained chilled until delivered to the laboratory for analytical testing. All samples were logged on a chain of custody record form (see Appendix B).

Ground water samples from wells B-5, B-10 and B-12 also were collected for physicochemical and microbiological analyses.

2.4 SAMPLING EQUIPMENT CLEANING PROTOCOL

The submersible pump and hose system (Equipment) used to purge the wells prior to sampling was decontaminated between each purging activity using the following procedure:

- the Equipment was flushed in a solution of Alconox detergent and tap water; and
- the Equipment was flushed with tap water.

2.5 EFFLUENT HANDLING

All effluent generated during this quarter and the previous quarter (first) purging, sampling and equipment decontamination activities was temporarily stored in seven 55-gallon drums which were then emptied into the System for treatment and subsequent discharge into the sanitary sewerage system. A treated effluent sample was obtained from the sampling port located

downstream of the two 180-pound carbon treatment units when the System was turned on to treat and dispose of the purged ground water.

3.0 ANALYTICAL TESTING

All samples were delivered for analytical testing to BC Analytical, a state certified hazardous waste testing laboratory (Certificate No. 1353) located in Concord, California. The samples were tested for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 8015, benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020, and total lead using EPA Method 7421. The results of the testing are shown in Table 3 along with the results from previous testing periods. The laboratory reports are contained in Appendix B. Figure 3 shows the testing results for TPH-G, BTEX and MTBE.

Physicochemical and/or microbiological analyses were conducted on ground water samples obtained from wells B-5, B-10 and B-12. Physicochemical analyses were conducted only on sample B-12, utilizing a HACH Spectrophotometric and ion-specific procedures. Microbiological analyses were performed on all samples utilizing standard plate count procedures on Trypticase Soy Agar (TSA, general/heterotrophic enumeration), and Minimal Salts Agar supplemented with 500 parts per million (ppm) gasoline as the sole carbon source (MS, selective degrader enumeration). Plates were incubated under aerobic conditions for four days at room temperature prior to enumeration. The results of these analyses are shown on Table 4.

4.0 DISCUSSION AND CONCLUSIONS

The water level in wells sampled this quarter, excluding Montgomery Ward well B-12, rose on average about 1 foot. Generally, the analytical results are similar to the previous quarters. There was a slight increase in some of the BTEX concentrations detected in the water samples obtained from the Montgomery Ward wells, especially well B-5. This is expected given that the source of contamination was from underground tanks formerly located on the site and that residual contamination (below levels at which County Health requires remediation) is present in capillary fringe soils. Under these circumstances, a rise in the water table of 1 foot will result in higher dissolved BTEX concentrations.

Conversely, on the Enea Properties sites where contamination is confined to the saturated zone, a rise in the water table typically results in lower BTEX concentrations. This is in fact what occurred at the Enea Properties sites.

The results of the physicochemical and microbiological analyses conducted on ground water samples obtained from Montgomery Ward wells B-5, B-10 and B-12 collected on April 11, 1996 show improved microbial population dynamics over previous sampling events. In particular, the contaminant-specific biodegradative subpopulation improved for all samples.

In a letter date April 25, 1996, the Alameda County Environmental Health Services indicated that analysis for MTBE may be discontinued for future sampling events.

5.0 LIMITATION

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities. This report has been prepared for Montgomery Ward Auto Service Center. The conclusions and recommendations included in this report are based on information contained or referenced herein, and our best judgment. No other warranty, expressed or implied, is made as to the professional advice contained in this report.

6.0 MONTGOMERY WARD CERTIFICATION

I certify under penalty of perjury that, based upon the professional reputation of and the information supplied by the environmental consultant and laboratory who prepared or who participated in the preparation of this report, the information contained in this report and all attachments is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Montgomery Ward & Co., Incorporated

Ed Koberstein
Field Engineer
Montgomery Ward
1331 South Harbor Boulevard
Fullerton, CA 92632

EJ Tolosa 4/27/96
Signature Date

JRC:EHL:SAB:sh

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TABLES

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Page 1 of 6

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
B-5	340.05				
04/16/92		10.62	-	0.00	329.43
07/24/92		11.91	-	0.00	328.14
10/22/92		12.97	-	0.00	327.08
01/15/93		12.97	-	0.00	327.08
04/15/93		09.75	-	0.00	330.30
05/14/93		10.07	-	0.00	329.98
07/14/93		10.80	-	0.00	329.25
10/14/93		12.08	-	0.00	327.97
01/13/94		12.23	-	0.00	327.82
04/04/94		11.30	-	0.00	328.75
07/05/94		12.37	-	0.00	327.68
10/04/94		13.04	-	0.00	327.01
01/18/95		10.43	-	0.00	329.62
04/20/95		09.70	-	0.00	330.35
07/27/95		10.85	-	0.00	329.20
10/19/95		12.08	-	0.00	327.97
01/11/96		11.50	-	0.00	328.55
04/10/96		10.38	-	0.00	329.67
B-10	339.70				
04/16/92			-	0.00	329.38
07/24/92		11.69	-	0.00	328.01
10/22/92		12.67	-	0.00	327.03
01/15/93		09.48	-	0.00	330.22
04/15/93		09.49	-	0.00	330.21
05/14/93		09.87	-	0.00	329.83
07/14/93		10.64	-	0.00	329.06
10/14/93		11.80	-	0.00	327.90
01/13/94		11.94	-	0.00	327.76
04/04/94		11.00	-	0.00	328.70
07/05/94		12.08	-	0.00	327.62
10/04/94		12.69	-	0.00	327.01
01/18/95		09.89	-	0.00	329.81
04/20/95		09.40	-	0.00	330.30
07/27/95		10.55	-	0.00	329.15
10/19/95		11.76	-	0.00	327.94
01/11/96		11.19	-	0.00	328.51
04/10/96		10.09	-	0.00	329.61
B-12	339.10				
04/16/92		09.95	-	0.00	329.15

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Page 2 of 6

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
07/24/92		11.57	-	0.00	327.53
10/22/92		12.82	-	0.00	326.28
01/15/93		08.66	-	0.00	330.44
04/15/93		08.70	-	0.00	330.40
05/14/93		09.32	-	0.00	329.78
07/14/93		09.95	-	0.00	329.15
10/14/93		10.94	-	0.00	328.16
01/13/94		11.28	-	0.00	327.82
04/04/94		10.32	-	0.00	328.78
07/05/94		19.25	-	0.00	319.85
10/04/94		19.27	-	0.00	319.83
01/18/95		10.99	-	0.00	328.11
04/20/95		08.60	-	0.00	330.50
07/27/95		14.62	-	0.00	324.48
10/19/95		20.43	-	0.00	318.67
01/11/96		10.39	-	0.00	328.71
04/10/96		09.20	-	0.00	329.90
B-15	340.62				
04/16/92		11.09	-	0.00	329.53
07/24/92		12.33	-	0.00	328.29
10/22/92		13.25	-	0.00	327.37
01/15/93		10.22	-	0.00	330.40
04/15/93		10.26	-	0.00	330.36
05/14/93		10.64	-	0.00	329.98
07/14/93		11.35	-	0.00	329.27
10/14/93		12.41	-	0.00	328.21
01/13/94		12.59	-	0.00	328.03
04/04/94		11.74	-	0.00	328.88
07/05/94		12.86	-	0.00	327.76
10/04/94		13.35	-	0.00	327.27
01/18/95		10.71	-	0.00	329.91
04/20/95		10.15	-	0.00	330.47
07/27/95		11.30	-	0.00	329.32
10/19/95		12.47	-	0.00	328.15
01/11/96		11.86	-	0.00	328.76
04/10/96		10.81	-	0.00	329.81
B-16	339.82				
04/16/92		10.63	-	0.00	329.19
07/24/92		11.90	-	0.00	327.92
10/22/92		12.88	-	0.00	326.94
01/15/93		09.79	-	0.00	330.03

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Page 3 of 6

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
04/15/93		09.83	-	0.00	329.99
05/14/93		10.20	-	0.00	329.62
07/14/93		10.92	-	0.00	328.90
10/14/93		11.99	-	0.00	327.83
01/13/94		12.16	-	0.00	327.66
04/04/94		11.28	-	0.00	328.54
07/05/94		12.28	-	0.00	327.54
10/04/94		12.89	-	0.00	326.93
01/18/95		10.21	-	0.00	329.61
04/20/95		09.79	-	0.00	330.03
07/27/95		10.85	-	0.00	328.97
10/19/95		11.97	-	0.00	327.85
01/11/96		11.43	-	0.00	328.39
04/10/96		10.42	-	0.00	329.40
MW-100					
	339.61				
05/14/93		10.34	-	0.00	329.27
07/14/93		11.00	-	0.00	328.61
10/14/93		12.12	-	0.00	327.49
01/13/94		12.25	-	0.00	327.36
04/04/94		11.36	-	0.00	328.25
07/05/94		12.22	-	0.00	327.39
10/04/94		12.88	-	0.00	326.73
01/18/95		10.27	-	0.00	329.34
04/20/95		10.00	-	0.00	329.61
07/27/95		10.91	-	0.00	328.70
10/19/95		11.95	-	0.00	327.66
01/11/96		11.53	-	0.00	328.08
04/10/96		10.58	-	0.00	329.03
MW-101					
	338.54				
05/14/93		09.91	-	0.00	328.63
07/14/93		10.38	-	0.00	328.16
10/14/93		11.30	-	0.00	327.24
01/13/94		11.21	-	0.00	327.33
04/04/94		10.69	-	0.00	327.85
07/05/94		11.39	-	0.00	327.15
10/04/94		11.98	-	0.00	326.56
01/18/95		09.84	-	0.00	328.70
04/20/95		09.61	-	0.00	328.93
07/27/95		10.27	-	0.00	328.27
10/19/95		11.14	-	0.00	327.40
01/11/96		10.83	-	0.00	327.71

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Page 4 of 6

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
04/10/96		10.23	-	0.00	328.31
MW-102	339.23				
05/14/93		09.60	-	0.00	329.63
07/14/93		10.31	-	0.00	328.92
10/14/93		11.57	-	0.00	327.66
01/13/94		11.71	-	0.00	327.52
04/04/94		10.83	-	0.00	328.40
07/05/94		11.65	-	0.00	327.96
10/04/94		12.36	-	0.00	326.87
01/18/95		09.59	-	0.00	329.64
04/20/95		09.27	-	0.00	329.96
07/27/95		10.22	-	0.00	329.01
10/19/1995 ⁽¹⁾		NM	-	0.00	NM
01/11/96	338.44	10.13	-	0.00	328.31
04/10/96		09.04	-	0.00	329.40
ENEA MW-1	335.84				
10/14/93		09.05	-	0.00	326.79
01/13/94		NM	-	0.00	NM
04/04/94		08.36	-	0.00	327.48
07/05/94		09.04	-	0.00	326.80
10/04/94		09.66	-	0.00	326.18
01/18/95		07.53	-	0.00	328.31
04/20/95		07.41	-	0.00	328.43
07/27/95		08.03	-	0.00	327.81
10/19/95		08.82	-	0.00	327.02
01/11/96		08.52	-	0.00	327.32
04/10/96		07.84	-	0.00	328.00
ENEA MW-2	335.61				
10/14/93		08.90	-	0.00	326.71
01/13/94		NM	-	0.00	NM
04/04/94		08.05	-	0.00	327.56
07/05/94		08.84	-	0.00	326.77
10/04/94		09.59	-	0.00	326.02
01/18/95		07.01	-	0.00	328.60
04/20/95		06.85	-	0.00	328.76
07/27/95		07.65	-	0.00	327.96
10/19/95		08.63	-	0.00	326.98
01/11/96		08.22	-	0.00	327.39
04/10/96		07.38	-	0.00	328.23

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Page 5 of 6

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
ENEA MW-3	336.93				
10/14/93		09.89	-	0.00	327.84
01/13/94		NM	-	0.00	NM
04/04/94		09.19	-	0.00	327.74
07/05/94		09.92	-	0.00	327.01
10/04/94		10.56	-	0.00	326.37
01/18/95		08.26	-	0.00	328.67
04/20/95		08.09	-	0.00	328.84
07/27/95		08.81	-	0.00	328.12
10/19/95		09.68	-	0.00	327.25
01/11/96		09.32	-	0.00	327.61
04/10/96		08.61	-	0.00	328.32
ENEA MW-4	335.76				
10/14/93		NI	-	0.00	NI
01/13/94		NM	-	0.00	NM
04/04/94		08.55	-	0.00	327.21
07/05/94		09.15	-	0.00	326.61
10/04/94		09.77	-	0.00	325.99
01/18/95		07.79	-	0.00	327.97
04/20/95		07.72	-	0.00	328.04
07/27/95		08.24	-	0.00	327.52
10/19/95		08.95	-	0.00	326.81
01/11/96		08.70	-	0.00	327.06
04/10/96		08.11	-	0.00	327.65
ENEA EW-1	336.08				
10/14/93		NI	-	0.00	NI
01/13/94		NM	-	0.00	NM
04/04/94		08.62	-	0.00	327.46
07/05/94		09.28	-	0.00	326.80
10/04/94		09.89	-	0.00	326.19
01/18/95		07.76	-	0.00	328.32
04/20/95		07.66	-	0.00	328.42
07/27/95		08.27	-	0.00	327.81
10/19/95		09.05	-	0.00	327.03
01/11/96		08.75	-	0.00	327.33
04/10/96		08.08	-	0.00	328.00

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Page 6 of 6

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
NOTES:					
(1) = Well MW-102 was not measured because the well was inaccessible due to street construction.					
NI	Not installed, NM - Not measured				
MSL	Mean Sea Level				
bgs	below ground surface				
Depth to water is as measured from the cut notch at the top side of each PVC well casing.					
The elevations of all wells were surveyed in October 1993 to City of Dublin Benchmark No. DUB-680 (elevation=331.60 MSL), located along Dublin Boulevard, 0.60 miles easterly from San Ramon Road.					
All depth to water measurements were converted to MSL elevations using well casing elevation datum surveyed on 10/14/93.					
Wells B-5, B-10, B-12, B-15, B-16, MW-100, MW-101 and MW-102 are owned by Montgomery Ward and are associated with 7575 Dublin Blvd.					
Wells MW-1, MW-2, MW-3, MW-4 and EW-1 are owned by Enea Properties and are located at Amador Plaza Road and Dublin Boulevard.					
K:\1233\ELEV.XLS					

TABLE 2
DISSOLVED OXYGEN MEASUREMENTS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California
Milligrams per liter (mg/l)

Page 1 of 2

Date Measured	At Water Surface	One foot bgs	Three feet bgs	Five feet bgs	Seven feet bgs
B-5					
10/19/95	1.68	0.69	0.23	0.13	0.12
01/11/96	>20	1.59	0.48	0.25	0.21
04/10/96	>20	0.81	0.25	0.19	0.20
B-10					
10/19/95	2.77	0.56	0.43	0.76	0.18
01/11/96	2.96	0.29	0.18	0.17	0.16
04/10/96	0.74	0.33	0.19	0.17	0.15
B-12					
10/19/95	5.86	0.42	0.09	0.03	0.00
01/11/96	9.02	0.87	0.25	0.12	0.11
04/10/96	7.36	5.76	0.55	0.09	0.06
B-15					
10/19/95	6.15	1.63	0.85	0.17	0.18
01/11/96	4.81	1.01	0.85	0.77	0.30
04/10/96	0.52	0.32	0.31	0.29	0.21
B-16					
10/19/95	0.91	0.21	0.13	0.09	0.12
01/11/96	2.57	0.46	0.28	0.27	0.26
04/10/96	0.39	0.20	0.15	0.12	0.13
MW-100					
10/19/95	1.58	0.54	0.40	0.39	0.35
01/11/96	2.44	0.28	0.22	0.18	0.16
04/10/96	0.32	0.16	0.13	0.10	0.09
MW-101					
10/19/95	3.38	2.38	1.90	1.12	0.70
01/11/96	5.40	1.32	1.24	1.26	0.87
04/10/96	0.68	0.63	0.74	0.63	0.41
MW-102					
10/19/95 ⁽¹⁾	NM	NM	NM	NM	NM
01/11/96	7.78	0.57	0.20	0.16	0.11
04/10/96	0.49	0.27	0.14	0.11	0.09
ENEA MW-1					
10/19/95	7.50	2.07	0.71	0.54	0.20
01/11/96	8.75	0.63	0.25	0.16	0.12
04/10/96	0.19	0.17	0.09	0.07	0.05
ENEA MW-2					
10/19/95	4.63	1.27	0.34	0.28	NM

TABLE 2
DISSOLVED OXYGEN MEASUREMENTS

Montgomery Ward Auto Service Center

Enea Properties

Dublin, California

Page 2 of 2

Milligrams per liter (mg/l)

Date Measured	At Water Surface	One foot bgs	Three feet bgs	Five feet bgs	Seven feet bgs
01/11/96	3.67	0.56	0.34	0.31	NM
04/10/96	1.33	1.25	1.17	0.73	NM
ENEA MW-3					
10/19/95	7.22	2.66	1.20	0.94	0.14
01/11/96	8.03	0.65	0.33	0.14	0.11
04/10/96	0.76	0.24	0.20	0.10	0.07
ENEA MW-4					
10/19/95	4.04	0.95	0.45	0.27	0.36
01/11/96	4.60	0.50	0.19	0.16	0.15
04/10/96	0.25	0.18	0.06	0.04	0.03
ENEA EW-1					
10/19/95	5.42	1.10	0.36	0.22	0.09
01/11/96	5.55	0.76	0.22	0.17	0.13
04/10/96	0.13	0.11	0.04	0.02	0.02
NOTES:					
(I) = Well MW-102 was not measured because the well was inaccessible due to street construction.					
NM - Not measured					
bgs - below ground surface					
Wells B-5, B-12, B-15, B-16, MW-100, MW-101 and MW-102 are owned by Montgomery Ward and are associated with 7575 Dublin Blvd.					
Wells MW-1, MW-2, MW-3, MW-4 and EW-1 are owned by Enea Properties and are located at Amador Plaza Road and Dublin Boulevard.					
K:1233:OXYGEN.XLS					

TABLE 3
ANALYTICAL TESTING RESULTS
Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Page 1 of 5

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	MTBE
Well B-5							
04-16-92	4400	670	160	280	320	<5	NA
07-24-92	31000	5400	2600	2200	5800	<5	NA
10-22-92	9100	1100	190	520	740	<5	NA
01-15-93	2300	530	160	300	470	7.9	NA
04-15-93	4900	600	160	470	390	<5	NA
07-14-93	8800	590	210	840	1100	9.9	NA
10-14-93	4500	530	46	490	350	<20	NA
01-13-94	120	15	1.9	12	11	<20	NA
04-04-94	5700	450	39	350	400	<20	NA
07-05-94	2200	69	13	150	95	<20	NA
10-03-94	4700	190	38	510	570	<50	NA
01-18-95	2200	53	27	120	280	<2	NA
04-21-95	5800	90	74	300	910	4.0	NA
07-28-95	2600	57	26	190	570	2.5	<100
10-20-95	3400	27	15	210	530	4.2	<50
01-12-96	2100	37	12	130	320	7.5	<250
04-11-96	5700	120	41	450	1200	<2	290
Well B-10							
04-16-92	7300	1400	640	880	1100	<5	NA
07-24-92	27000	3800	1600	2000	4000	<5	NA
10-22-92	16000	2300	340	1100	1200	<5	NA
01-15-93	10000	1400	310	730	1100	13	NA
04-15-93	8100	580	270	810	580	19	NA
07-14-93	6400	840	120	750	800	7.1	NA
10-14-93	100000	720	120	930	1100	<20	NA
01-13-94	18000	990	180	1300	2400	<20	NA
04-04-94	12000	370	96	900	1800	<20	NA
07-05-94	7800	170	50	550	810	<20	NA
10-03-94	6300	120	33	480	630	<50	NA
01-18-95	3300	38	28	160	450	2.9	NA
04-21-95	4200	39	8.6	220	310	<2	NA
07-28-95	2900	22	4.3	140	330	2.0	55
10-20-95	1900	3.9	1.5	74	170	<2	13
01-12-96	3400	24	5.4	130	260	4.5	94
04-11-96	2200	3.6	<1	180	84	<2	<100
Well B-12							
04-16-92	12000	1300	1100	510	1200	<5	NA
07-24-92	12000	1000	630	520	1000	<5	NA
10-22-92	11000	370	230	400	940	<5	NA
01-15-93	120	2.8	<0.5	1.6	3.6	11	NA
04-15-93	7100	730	240	350	570	<5	NA
07-14-93	4500	540	97	380	610	<5	NA

TABLE 3

ANALYTICAL TESTING RESULTS
Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Page 2 of 5

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	MTBE
10-14-93	11000	710	170	650	1600	<20	NA
01-13-94	6000	330	100	330	620	24	NA
04-04-94	8700	350	58	350	660	<20	NA
07-05-94	8800	250	340	370	920	<20	NA
10-03-94	1300	63	42	110	140	<50	NA
01-18-95	5000	93	65	190	510	<2	NA
04-21-95	14000	190	320	420	1500	<2	NA
07-28-95	10000	110	120	490	1500	<2	<100
10-20-95	1400	16	13	81	180	<2	<10
01-12-96	2900	23	3.6	130	240	7.0	<50
04-11-96	2600	23	12	130	200	16	82
Well B-15							
04-16-92	65	4.4	2.4	6.1	2.8	<5	NA
07-24-92	<50	3.6	1.5	3.1	1.6	<5	NA
10-22-92	<50	1.7	0.89	0.78	0.88	<5	NA
01-15-93	<50	<0.5	<0.5	<0.5	<0.5	13	NA
04-15-93	<50	2.8	<0.5	3.0	1.5	<5	NA
07-14-93	<50	<0.5	<0.5	0.57	0.74	7.8	NA
10-14-93	<50	0.96	2.6	1.3	3.6	25	NA
01-13-94	<50	<0.5	0.92	0.70	2.0	<20	NA
04-04-94	<50	<0.5	<0.5	0.56	1.0	<20	NA
07-05-94	<50	<0.5	<0.5	<0.5	<0.5	<20	NA
10-03-94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
01-18-95	<50	<0.5	0.69	<0.5	2.2	<2	NA
04-21-95	<50	<0.5	1.0	<0.5	2.5	<2	NA
07-28-95	<50	<0.5	<0.5	<0.5	<0.5	<2	<10
10-20-95	<50	<0.5	<0.5	<0.5	<0.5	<2	<10
01-12-96	NS	NS	NS	NS	NS	NS	NS
04-11-96	NS	NS	NS	NS	NS	NS	NS
Well B-16							
04-16-92	1300	390	1.7	35	9.3	5.7*	NA
07-24-92	1600	120	5.7	120	410	<5	NA
10-22-92	1000	76	<0.5	55	130	<5	NA
01-15-93	160	6.5	0.86	2.3	2.6	5.5	NA
04-15-93	300	65	<0.5	13	2.0	13*	NA
07-14-93	170	5.9	<0.5	4.6	12	<5	NA
10-14-93	390	11	2.4	16	45	21	NA
01-13-94	350	8.7	0.62	25	68	<20	NA
04-04-94	550	8.7	<0.5	35	81	<20	NA
07-05-94	850	14	5.6	52	130	<20	NA
10-03-94	210	5.3	<0.5	26	5.8	<50	NA
01-18-95	<50	<0.5	0.94	<0.5	1.3	2.7	NA
04-21-95	<50	<0.5	0.66	<0.5	<0.5	<2	NA
07-28-95	57	0.71	<0.5	1.6	2.6	<2	<10
10-20-95	810	4.1	<0.5	22	100	<2	<10

TABLE 3
ANALYTICAL TESTING RESULTS
Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Page 3 of 5

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	MTBE
01-12-96	NS	NS	NS	NS	NS	NS	NS
04-11-96	55	<0.5	<0.5	0.73	0.60	<2	<50
Well MW-100							
05-13-93	13000	83	<0.5	960	820	NA	NA
07-14-93	13000	32	<0.5	1400	790	8.0	NA
10-14-93	7500	48	16	900	520	22	NA
01-13-94	7000	51	<0.5	590	330	<20	NA
04-04-94	9800	69	<0.5	540	410	<20	NA
07-05-94	5900	31	8.7	190	190	<20	NA
10-03-94	3900	<0.5	<0.5	220	200	<50	NA
01-18-95	3700	48	31	190	120	2.8	NA
04-21-95	3100	10	<3	130	44	<2	NA
07-28-95	3300	<3	<3	100	42	<2	<50
10-20-95	2200	<0.5	<0.5	72	27	<2	15
01-12-96	1400	<0.5	<0.5	43	19	<2	<50
04-11-96	1600	7.7	1.3	23	9.0	<2	<50
Well MW-101							
05-13-93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
07-14-93	<50	<0.5	<0.5	<0.5	<0.5	11	NA
10-14-93	<50	0.65	0.89	<0.5	1.1	<20	NA
01-13-94	<50	<0.5	<0.5	<0.5	<0.5	28	NA
04-04-94	<50	<0.5	<0.5	<0.5	<0.5	<20	NA
07-05-94	<50	<0.5	<0.5	<0.5	<0.5	<20	NA
10-03-94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
01-18-95	<50	<0.5	<0.5	<0.5	<0.5	2.6	NA
04-21-95	<50	<0.5	<0.5	<0.5	<0.5	<2	NA
07-28-95	<50	<0.5	<0.5	<0.5	<0.5	<2	<10
10-20-95	<50	<0.5	<0.5	<0.5	<0.5	<2	<10
01-12-96	NS	NS	NS	NS	NS	NS	NS
04-11-96	NS	NS	NS	NS	NS	NS	NS
Well MW-102							
05-13-93	3600	17	<0.5	130	63	NA	NA
07-14-93	1500	13	<0.5	64	4.9	<5	NA
10-14-93	24000	9.6	5.2	60	60	<20	NA
01-13-94	2000	22	<0.5	26	55	<20	NA
04-04-94	2100	16	2.5	15	35	<20	NA
07-05-94	1300	7.0	2.9	10	23	<20	NA
10-03-94	620	5.1	<0.5	5.2	11	<50	NA
01-18-95	440	<0.5	<0.5	3.0	5.3	3.7	NA
04-21-95	250	<0.5	0.78	0.96	0.63	<2	NA
07-28-95	140	<0.5	<0.5	<0.5	0.70	<2	<10
10-20-95 ⁽¹⁾	NS	NS	NS	NS	NS	NS	NS
01-12-96	1500	<0.5	<0.5	0.68	<0.5	<2	<50

TABLE 3
ANALYTICAL TESTING RESULTS
Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Page 4 of 5

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	MTBE
04-11-96	190	<0.5	<0.5	<0.5	<0.5	<2	<50
ENEA MW-1							
10-14-93	5700	76	19	460*	160*	<20	NA
01-13-94	NS	NS	NS	NS	NS	NS	NS
04-04-94	7000	27	<0.5	260	49	<20	NA
07-05-94	5100	23	<0.5	260	50	<20	NA
10-03-94	4400	8.1	<0.5	170	50	<50	NA
01-18-95	2000	7.1	2.4	47	5.5	2.2	NA
04-21-95	1400	2.9	9.0	22	1.2	5.8	NA
07-28-95	1100	<0.5	<0.5	14	1.4	<2	10
10-20-95	1700	<0.5	2.2	22	3.6	<2	23
01-12-96	920	<0.5	<0.5	9.9	2.2	<2	<50
04-11-96	1100	<0.5	<0.5	3.3	1.6	<2	<50
ENEA MW-2							
10-14-93	<50	<0.5	<0.5	0.71*	1.1*	21	NA
01-13-94	NS	NS	NS	NS	NS	NS	NS
04-04-94	<50	<0.5	<0.5	<0.5	<0.5	21	NA
07-05-94	<50	<0.5	<0.5	<0.5	<0.5	<20	NA
10-03-94	590	1.1	<0.5	22	6.5	<50	NA
01-18-95	<50	<0.5	<0.5	<0.5	<0.5	2.4	NA
04-21-95	<50	<0.5	<0.5	<0.5	<0.5	<2	NA
07-28-95	<50	<0.5	<0.5	<0.5	0.57	<2	<10
10-20-95	<50	<0.5	<0.5	<0.5	<0.5	<2	<10
01-12-96	NS	NS	NS	NS	NS	NS	NS
04-11-96	<50	<0.5	<0.5	<0.5	<0.5	<2	<50
ENEA MW-3							
10-14-93	2600	26	30	130*	100*	<20	NA
01-13-94	NS	NS	NS	NS	NS	NS	NS
04-04-94	2600	13	3.4	90	140	<20	NA
07-05-94	3400	15	5.0	31	48	<20	NA
10-03-94	1400	6.3	<0.5	31	36	<50	NA
01-18-95	2300	5.1	1.6	2.9	18	2.1	NA
04-21-95	1900	5.3	<0.5	7.5	4.2	<2	NA
07-28-95	1400	<0.5	<0.5	5.5	1.5	<2	11
10-20-95	730	<0.5	<0.5	1.7	<0.5	<2	<10
01-12-96	370	<0.5	<0.5	<0.5	<0.5	<2	<50
04-11-96	410	<0.5	<0.5	<0.5	<0.5	<2	<50
ENEA MW-4							
04-04-94	<50	<0.5	<0.5	<0.5	<0.5	23	NA
07-05-94	<50	<0.5	0.5	<0.5	0.62	<20	NA
10-03-94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
01-18-95	<50	<0.5	0.87	<0.5	<0.5	7.2	NA

TABLE 3

ANALYTICAL TESTING RESULTS
Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Page 5 of 5

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	MTBE
04-21-95	<50	<0.5	1.7	<0.5	<0.5	2.8	NA
07-28-95	<50	<0.5	<0.5	<0.5	<0.5	2.9	<10
10-20-95	<50	<0.5	<0.5	<0.5	<0.5	<2	<10
01-12-96	NS	NS	NS	NS	NS	NS	NS
04-11-96	<50	<0.5	<0.5	<0.5	<0.5	2.6	<50

NOTES:

(1) - Well MW-102 was not sampled because well was inaccessible due to street construction.

NA-Not Analyzed

ND-Not Detected

NS-Not Sampled

* - Data points corrected on June 1, 1996.

< = Not detected at or above concentration limit listed.

DTP:1233:ANALYTIC.DOC

TABLE 4

PHYSICOCHEMICAL AND MICROBIOLOGICAL RESULTS
Montgomery Ward Auto Service Center
Dublin, California

Page 1 of 1

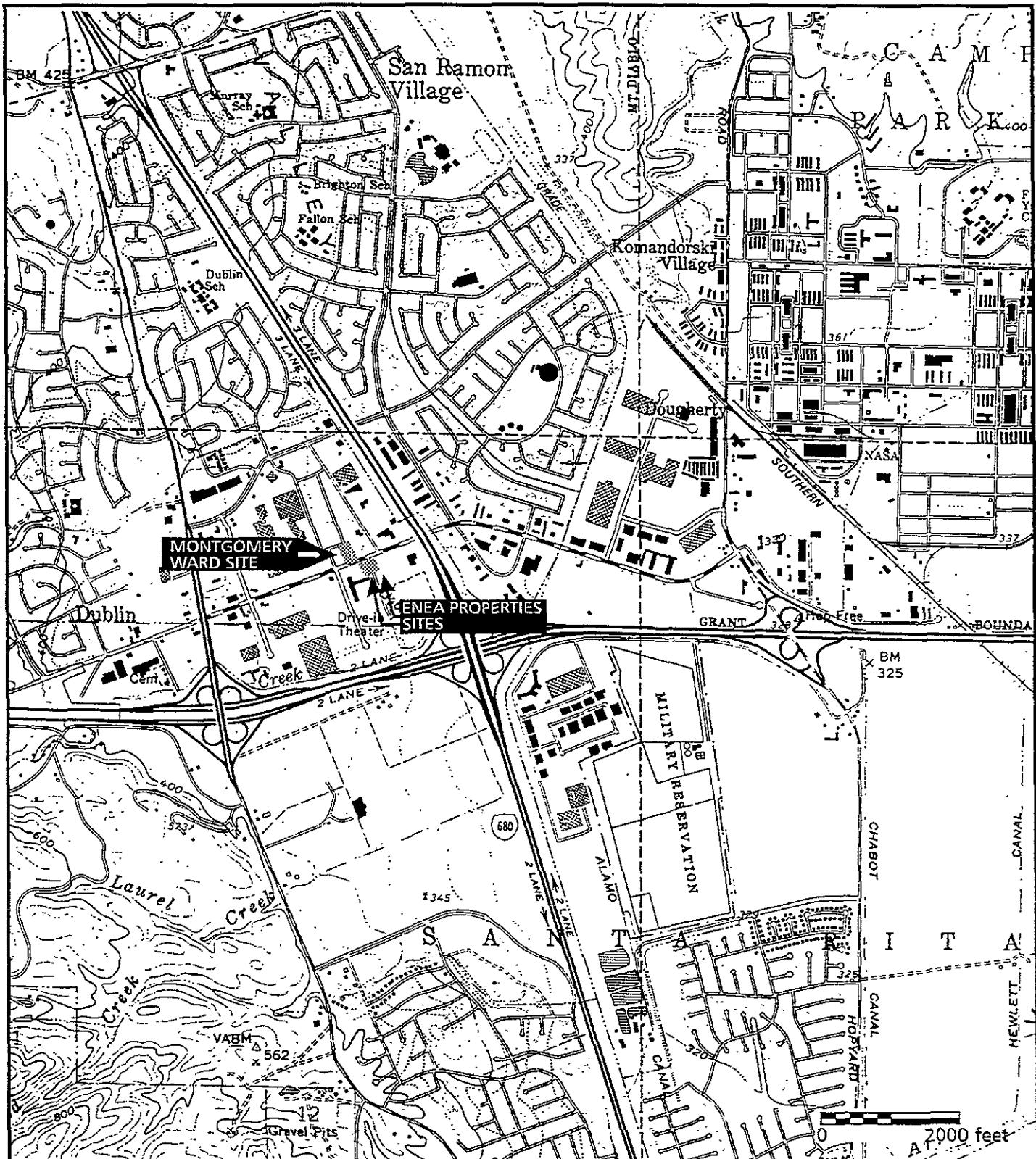
Parameter	pH	Nitrate (ppm)	Nitrite (ppm)	Ammonium (ppm)	Phosphate (ppm)	GME	SME	%BIO
Well B-5								
10-20-95	NA	NA	NA	NA	NA	2.4	0.23	9.6
01-12-96	NA	NA	NA	NA	NA	0.88	0.05	5.7
04-11-96	NA	NA	NA	NA	NA	4.4	1.9	43.2
Well B-10								
10-20-95	NA	NA	NA	NA	NA	13	0.02	1.5
01-12-96	NA	NA	NA	NA	NA	1.6	0.04	2.5
04-11-96	NA	NA	NA	NA	NA	3.2	1.1	34.4
Well B-12								
10-20-95	6.9	2.6	ND	0.17	0.2	2.8	0.11	3.9
01-12-96	7.1	0.2	0.3	1.6	5.2	9.9	0.27	2.7
04-11-96	7.3	0.7	2.0	0.64	2.5	2.2	0.56	25.5

NOTES:

GME-Gen. Microb. Enumeration (Colony forming units (Viable cells) X10⁴/ml)
 NA-Not Analyzed
 ND-Not Detected at detection limit of 0.1 ppm
 ppm -Parts per million
 SME-Sel. Microb. Enumeration (Colony forming units (Viable cells) X 10⁵/ml)
 %BIO-Percent Biodegraders

DTP-1233-BIOLRES.DOC

FIGURES



Environmental Audit, Inc.[®]

LOCATION MAP

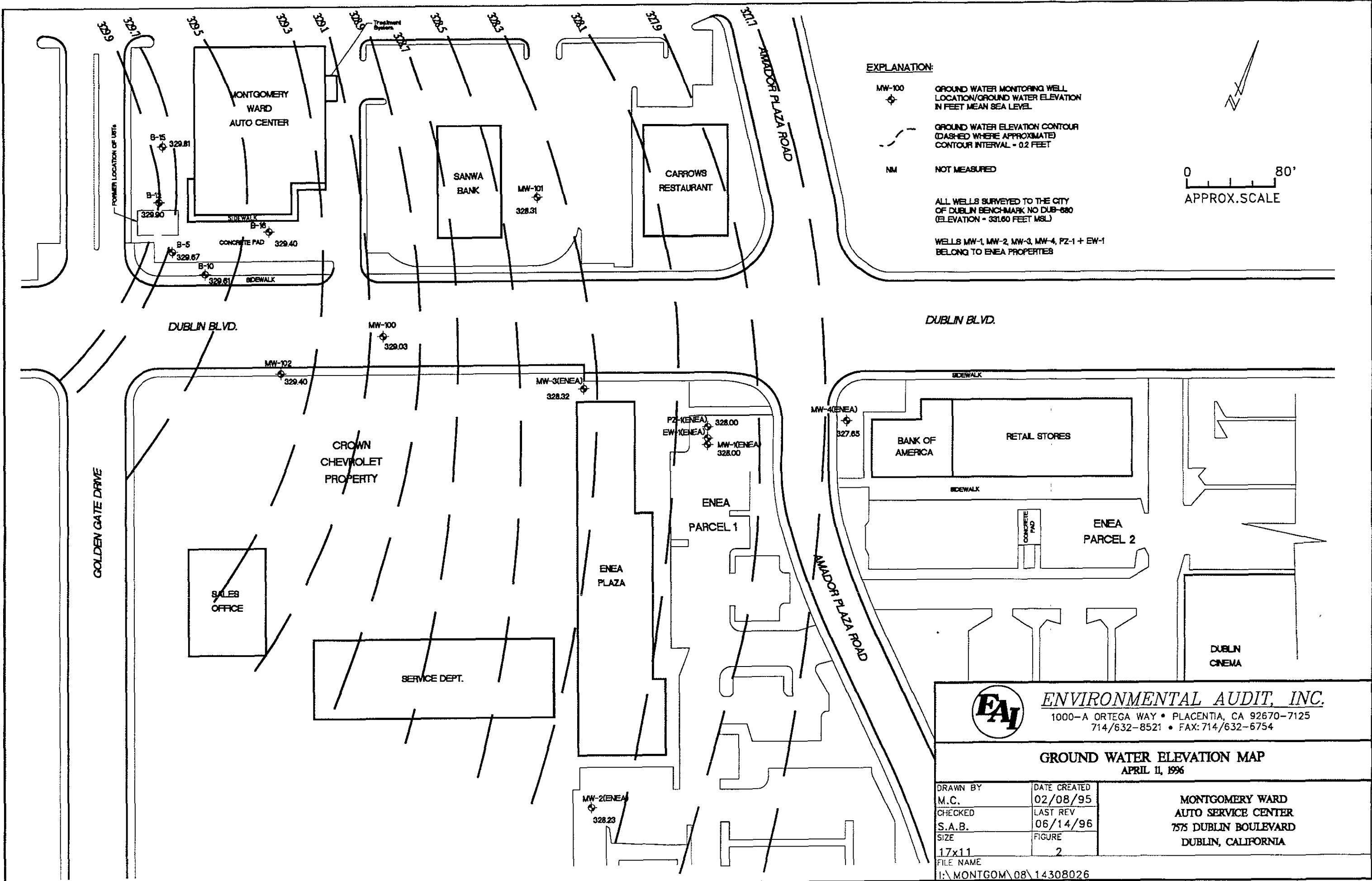
**Montgomery Ward Auto Service Center
Enea Properties
Dublin, California**

SOURCE: USGS TOPOGRAPHIC 7.5 MINUTE SERIES
DUBLIN, CALIFORNIA QUADRANGLE

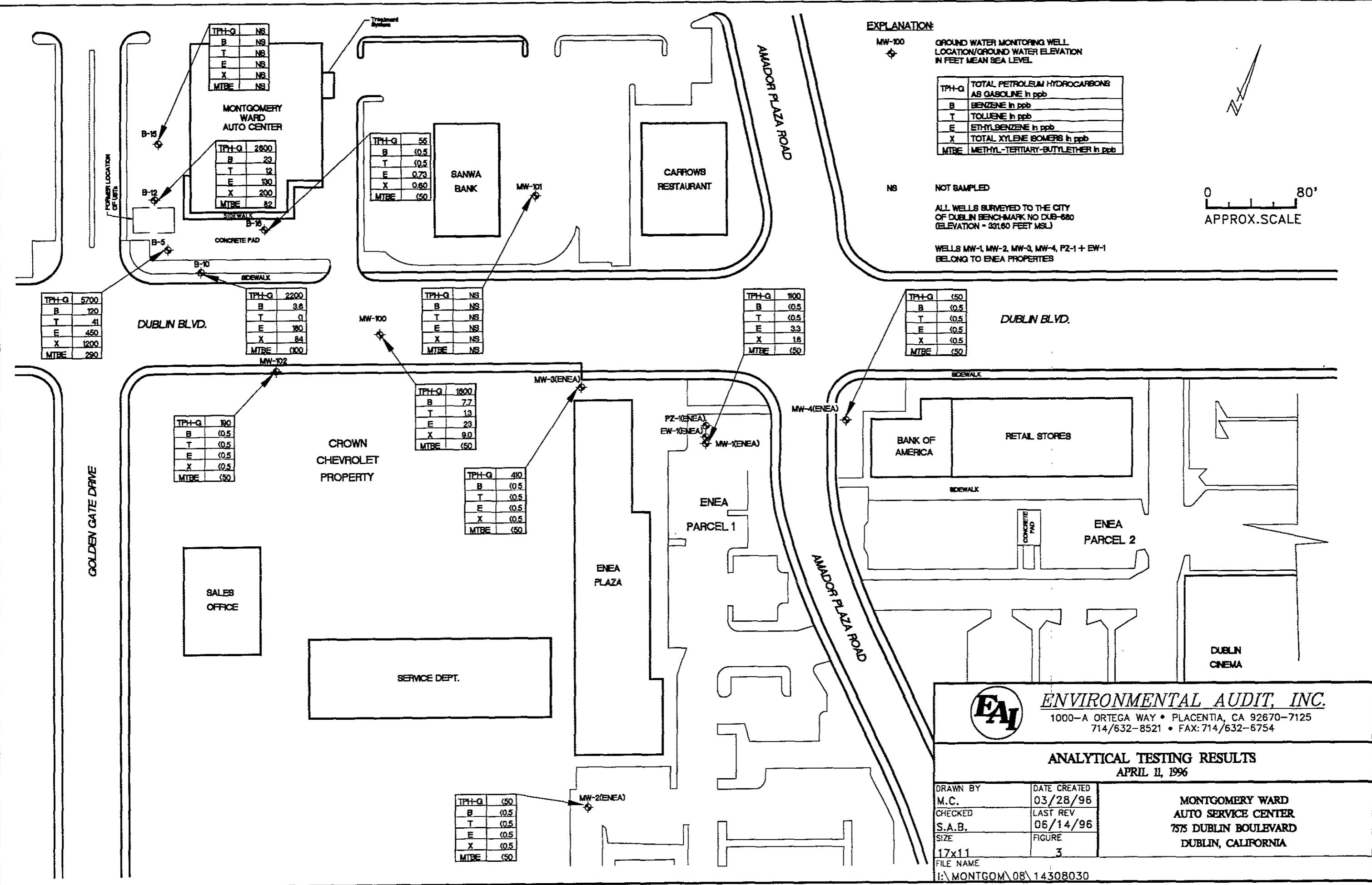
Project No. 1233
K:1233:1233-LM.CDR



Figure 1



Job No. 1233



APPENDIX A: GROUND WATER SAMPLING LOG FORMS

GROUND WATER Sampling Log



ENVIRONMENTAL AUDIT, INC.

Planning, Environmental Analyses and Hazardous
Substances Management and Remediation

1000 ORTEGA WAY, SUITE A (714) 632 - 8521
PLACENTIA, CA 92670-7125 FAX (714) 632 - 6754

DATE:	4/11/96
PROJECTNO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELLNO.:	MW-100
WELLDIAMETER(INCHES):	4"
SAMPLEDBY:	AH/JRC

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)	DEPTH TO WATER LEVEL (ft. bgs)	DEPTH TO FREE PRODUCT (ft. bgs)	WELL VOLUME FACTORS
WELL CASING ID (inches)	VOLUME FACTOR		
28.00	10.58	—	2.0 0.16
			4.0 0.65
			6.0 1.47
		17.42	X 0.65 =
			ONE CASING VOLUME OF WATER (GALLONS)
PURGE TIME (hrs.):	START 11:15	STOP 11:35	

METHOD: DOWN HOLE PUMP DEDICATED PUMP BAILER OTHER

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10 ³ <input type="checkbox"/>	pH	TURBIDITY (NTU)	DISSOLVED OXYGEN	REMARKS
5	56.9	1.20x10 ³	7.13	63.9		
10	62.6	1.24x10 ³	7.13	14.60		
15	65.3	1.26x10 ³	7.07	11.80		
20	65.9	1.27x10 ³	7.10	9.91		
25	65.4	1.26x10 ³	7.05	6.63		
30	65.5	1.27x10 ³	7.05	3.69		
35	65.3	1.20x10 ³	7.03	3.92		
40	64.1	1.23x10 ³	7.28	2.79		
45	64.0	1.22x10 ³	7.21	2.51		

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 11:55

METHOD: DOWN HOLE PUMP DEDICATED PUMP BAILER OTHER

TYPE/MODEL: Voss Technologies Disposable

COMMENTS:

GROUND WATER Sampling Log



ENVIRONMENTAL AUDIT, INC.

Planning, Environmental Analyses and Hazardous
Substances Management and Remediation

1000 ORTEGA WAY, SUITE A **(714) 632 - 8521**
PLACENTIA, CA 92670-7125 **FAX (714) 632 - 6754**

DATE:	4/11/96
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW - 102
WELL DIAMETER (INCHES):	4"
SAMPLED BY:	AH/JRC

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)

28

DEPTH TO WATER LEVEL (ft. bgs)

9.04

DEPTH TO FREE PRODUCT (ft. bgs)

—

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47



18.96

0.65

X

12.32

ONE CASING VOLUME OF WATER (GALLONS)

PURGE TIME (hrs.):

START

14:00

STOP

14:25

METHOD: DOWN HOLE PUMP DEDICATED PUMP BAILER OTHER

TYPE/MODEL:

Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10 ³ <input type="checkbox"/>	pH	TURBIDITY (NTU)	DISSOLVED OXYGEN	REMARKS
5	69.7	1.27×10^3	8.61	18.44		
10	67.2	1.29×10^3	8.16	8.01		
15	65.7	1.27×10^3	7.83	5.25		
20	65.7	1.27×10^3	7.67	3.47		
25	65.7	1.28×10^3	7.57	2.62		
30	65.6	1.28×10^3	7.53	2.18		
35	65.6	1.28×10^3	7.49	2.50		
40	65.7	1.28×10^3	7.46	2.25		
45	64.5	1.25×10^3	7.42	2.31		

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.):

14:35

METHOD: DOWN HOLE PUMP DEDICATED PUMP BAILER OTHER

TYPE/MODEL :

Voss Technologies Disposable

COMMENTS:

GROUND WATER Sampling Log



ENVIRONMENTAL AUDIT, INC.

Planning, Environmental Analyses and Hazardous Substances Management and Remediation

1000 ORTEGA WAY, SUITE A
PLACENTIA, CA 92670-7125

DATE:	4-11 196
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	FNEA - MU - 1
WELL DIAMETER (INCHES):	4"
SAMPLED BY:	AH/JRC

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF
WELL (ft.)

DEPTH TO WATER
LEVEL (ft. bgs)

DEPTH TO FREE
PRODUCT (ft. bas.)

WELL VOLUME FACTORS	
WELL CASINGID (inches)	VOLUMEFACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGETIME(hrs):

START

15:05

STOP

15:23

4.72

METHOD: DOW

WhaleSupersub921

METHOD: DOWN HOLE PUMP DEDICATED PUMP BAUER OTHER

TYPE/MODEL:

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.):

15:45

METHOD: DOWN HOLE PUMP DEDICATED PUMP BAILER OTHER

TYPE/MODEL: Voss Technologies Disposable

COMMENTS:

**APPENDIX B: CHAIN OF CUSTODY RECORD FORMS
AND
LABORATORY REPORTS**

ANALYTICAL REPORT

B C Analytical

1085 Shary Circle
 Concord, CA 94518
 510/825-3894
 Fax: 510/825-3924

LOG NO: G96-04-276

RECEIVED

Received: 12 APR 96

APR 27 1996

Mailed: APR 25 1996

Mr. Ed Leonhardt
 Environmental Audit
 1000 A Ortega Way
 Placentia, CA 92670

ENVIRONMENTAL AUDIT

Project: 1233

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED				
04-276-1	Effluent					11 APR 96
04-276-2	B-12					11 APR 96
04-276-3	B-5					11 APR 96
04-276-4	B-10					11 APR 96
04-276-5	MW-100					11 APR 96
PARAMETER		04-276-1	04-276-2	04-276-3	04-276-4	04-276-5
Lead (7421), mg/L		<0.002	0.016	<0.002	<0.002	<0.002
Furnace Digestion (3020), Date	04/17/96	04/17/96	04/17/96	04/17/96	04/17/96	04/17/96
GRO (8015M.TX)						
Date Analyzed	04/17/96	04/17/96	04/18/96	04/19/96	04/18/96	
Dilution Factor, Times	1	1	5	2	1	
Benzene, ug/L	<0.5	23	120	3.6	7.7	
Toluene, ug/L	<0.5	12	41	<1	1.3	
Ethylbenzene, ug/L	<0.5	130	450	180	23	
Methyl-tert-butylether, ug/L	<50	82	290	<100	<50	
Total Xylene Isomers, ug/L	<0.5	200	1200	84	9.0	
Carbon Range, .	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12	
TPH (Gasoline Range), ug/L	<50	2600	5700	2200	1600	
Surrogates **						
a,a,a-Trifluorotoluene Rep., ug/L	51.7	47.6	206	106	43.7	
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	250	100	50.0	

BCA

B C Analytical

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

LOG NO: G96-04-276

Received: 12 APR 96

Mr. Ed Leonhardt
Environmental Audit
1000 A Ortega Way
Placentia, CA 92670

Project: 1233

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED				
04-276-6	B-16					11 APR 96
04-276-7	MW-102					11 APR 96
04-276-8	ENEA MW 3					11 APR 96
04-276-9	ENEA MW 1					11 APR 96
04-276-10	ENEA MW 4					11 APR 96
PARAMETER		04-276-6	04-276-7	04-276-8	04-276-9	04-276-10
Lead (7421), mg/L		<0.002	<0.002	<0.002	<0.002	0.0026
Furnace Digestion (3020), Date	04/17/96	04/17/96	04/17/96	04/17/96	04/17/96	04/17/96
GRO (8015M.TX)						
Date Analyzed		04/17/96	04/17/96	04/17/96	04/17/96	04/18/96
Dilution Factor, Times		1	1	1	1	1
Benzene, ug/L		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene, ug/L		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene, ug/L		0.73	<0.5	<0.5	3.3	<0.5
Methyl-tert-butylether, ug/L		<50	<50	<50	<50	<50
Total Xylene Isomers, ug/L		0.60	<0.5	<0.5	1.6	<0.5
Carbon Range, .	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	55	190	410	1100	<50	
Surrogates **						
a,a,a-Trifluorotoluene Rep., ug/L	49.7	52.3	52.7	48.8	60.6	
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0	50.0	50.0	

BCA

B C Analytical

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

LOG NO: G96-04-276

Received: 12 APR 96

Mr. Ed Leonhardt
Environmental Audit
1000 A Ortega Way
Placentia, CA 92670

Project: 1233

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
04-276-11	ENEA MW 2	11 APR 96
PARAMETER		04-276-11
Lead (7421), mg/L	<0.002	
Furnace Digestion (3020), Date	04/17/96	
GRO (8015M.TX)		
Date Analyzed	04/17/96	
Dilution Factor, Times	1	
Benzene, ug/L	<0.5	
Toluene, ug/L	<0.5	
Ethylbenzene, ug/L	<0.5	
Methyl-tert-butylether, ug/L	<50	
Total Xylene Isomers, ug/L	<0.5	
Carbon Range, .	C6-C12	
TPH (Gasoline Range), ug/L	<50	
Surrogates **		
a,a,a-Trifluorotoluene Rep., ug/L	56.9	
a,a,a-Trifluorotoluene Th., ug/L	50.0	

BCA

B C Analytical

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

LOG NO: G96-04-276

Received: 12 APR 96

Mr. Ed Leonhardt
Environmental Audit
1000 A Ortega Way
Placentia, CA 92670

Project: 1233

REPORT OF ANALYTICAL RESULTS

Page 4



Dick Swenson, Laboratory Director

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

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BCA

: ORDER PLACED FOR CLIENT: Environmental Audit 9604276 :
: BC ANALYTICAL : GLEN LAB : 17:19:37 24 APR 1996 - P. 1 :
=====

SAMPLES... SAMPLE DESCRIPTION.. DETERM..... DATE..... METHOD.... EQUIP. BATCH.. ID.NO
ANALYZED

9604276*1	Effluent	PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*2	B-12	GAS.MTBE.TESNC	04.17.96	8015M.TX	536-21	96244	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*3	B-5	GAS.MTBE.TESNC	04.17.96	8015M.TX	536-21	96244	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*4	B-10	GAS.MTBE.TESNC	04.18.96	8015M.TX	536-30	96917	8501
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*5	MW-100	GAS.MTBE.TESNC	04.19.96	8015M.TX	536-23	96557	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*6	B-16	GAS.MTBE.TESNC	04.18.96	8015M.TX	536-30	96917	8501
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*7	MW-102	GAS.MTBE.TESNC	04.17.96	8015M.TX	536-21	96244	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*8	ENEA MW 3	GAS.MTBE.TESNC	04.17.96	8015M.TX	536-21	96244	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*9	ENEA MW 1	GAS.MTBE.TESNC	04.17.96	8015M.TX	536-21	96244	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*10	ENEA MW 4	GAS.MTBE.TESNC	04.17.96	8015M.TX	536-21	96244	8171
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
9604276*11	ENEA MW 2	GAS.MTBE.TESNC	04.18.96	8015M.TX	536-30	96917	8501
		PB,GFA	04.18.96	7421	534-07	96802	8488
		DIG,AQ,GFA	04.17.96	3020		96802	7620
		GAS.MTBE.TESNC	04.17.96	8015M.TX	536-23	96555	8171

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

BC ANALYTICAL
ORDER QC REPORT FOR G9604276

DATE REPORTED : 04/24/96

Page 1

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER		DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. Lead	C6041655*1	04.18.96	96802	0.0465	0.0500	mg/L	93
2. Lead	C6041656*1	04.18.96	96802	0.0465	0.0500	mg/L	93
3. GRO	C6041719*1						
Date Analyzed		04.17.96	96244	04/17/96	04/17/96	Date	N/A
Benzene		04.17.96	96244	19.0	15.2	ug/L	125
Toluene		04.17.96	96244	108	97.4	ug/L	111
Ethylbenzene		04.17.96	96244	19.4	20.4	ug/L	95
Total Xylene Isomers		04.17.96	96244	108	119	ug/L	91
TPH (Gasoline Range)		04.17.96	96244	1020	1100	ug/L	93
a,a,a-Trifluorotoluene Rep.		04.17.96	96244	56.6	50.0	ug/L	113
a,a,a-Trifluorotoluene Th.		04.17.96	96244	50.0	50.0	ug/L	100
4. GRO	C6042012*1						
Date Analyzed		04.17.96	96917	04/17/96	04/17/96	Date	N/A
Benzene		04.17.96	96917	16.2	15.2	ug/L	107
Toluene		04.17.96	96917	103	97.4	ug/L	106
Ethylbenzene		04.17.96	96917	21.2	20.4	ug/L	104
Total Xylene Isomers		04.17.96	96917	118	119	ug/L	99
TPH (Gasoline Range)		04.17.96	96917	1040	1100	ug/L	95
a,a,a-Trifluorotoluene Rep.		04.17.96	96917	45.5	50.0	ug/L	91
a,a,a-Trifluorotoluene Th.		04.17.96	96917	50.0	50.0	ug/L	100
5. BTEX/GRO (8020)	C6042149*1						
Date Analyzed		04.19.96	96557	04/19/96	04/19/96	Date	N/A
Benzene		04.19.96	96557	16.2	15.2	ug/L	107
Toluene		04.19.96	96557	100	97.4	ug/L	103
Ethylbenzene		04.19.96	96557	20.5	20.4	ug/L	100
Total Xylene Isomers		04.19.96	96557	120	119	ug/L	101
TPH (Gasoline Range)		04.19.96	96557	1040	1100	ug/L	95
a,a,a-Trifluorotoluene Rep.		04.19.96	96557	58.0	50.0	ug/L	116
a,a,a-Trifluorotoluene Th.		04.19.96	96557	50.0	50.0	ug/L	100
6. GRO (8020)	C6041783*1						
Date Analyzed		04.17.96	96555	04/17/96	04/17/96	Date	N/A
Benzene		04.17.96	96555	16.0	15.2	ug/L	105
Toluene		04.17.96	96555	94.7	97.4	ug/L	97
Ethylbenzene		04.17.96	96555	19.9	20.4	ug/L	98
Total Xylene Isomers		04.17.96	96555	119	119	ug/L	100
TPH (Gasoline Range)		04.17.96	96555	1150	1100	ug/L	105
a,a,a-Trifluorotoluene Rep.		04.17.96	96555	53.9	50.0	ug/L	108
a,a,a-Trifluorotoluene Th.		04.17.96	96555	50.0	50.0	ug/L	100
7. GRO (8020)	C6041784*1						
Date Analyzed		04.17.96	96555	04/17/96	04/17/96	Date	N/A
Benzene		04.17.96	96555	15.1	15.2	ug/L	99
Toluene		04.17.96	96555	92.9	97.4	ug/L	95
Ethylbenzene		04.17.96	96555	19.2	20.4	ug/L	94
Total Xylene Isomers		04.17.96	96555	114	119	ug/L	96
TPH (Gasoline Range)		04.17.96	96555	1130	1100	ug/L	103

BC ANALYTICAL
ORDER QC REPORT FOR G9604276

DATE REPORTED : 04/24/96

Page 2

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
a,a,a-Trifluorotoluene Rep.	04.17.96	96555	55.0	50.0	ug/L	110
a,a,a-Trifluorotoluene Th.	04.17.96	96555	50.0	50.0	ug/L	100

BC ANALYTICAL
ORDER QC REPORT FOR G9604276

DATE REPORTED : 04/24/96

Page 1

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
1. Lead		04.18.96	96802	0.0465	0.0465	mg/L	0
2. GRO (8020)							
Date Analyzed		04.17.96	96555	04/17/96	04/17/96	Date	N/A
Benzene		04.17.96	96555	16.0	15.1	ug/L	6
Toluene		04.17.96	96555	94.7	92.9	ug/L	2
Ethylbenzene		04.17.96	96555	19.9	19.2	ug/L	4
Total Xylene Isomers		04.17.96	96555	119	114	ug/L	4
TPH (Gasoline Range)		04.17.96	96555	1150	1130	ug/L	2
a,a,a-Trifluorotoluene Rep.		04.17.96	96555	53.9	55.0	ug/L	2
a,a,a-Trifluorotoluene Th.		04.17.96	96555	50.0	50.0	ug/L	0

BC ANALYTICAL
ORDER QC REPORT FOR G9604276

DATE REPORTED : 04/24/96

Page 1

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
1. GRO	9604275*1						
Benzene		04.17.96	96244	112	114	15.2	ug/L
Toluene		04.17.96	96244	101	101	97.4	ug/L
Ethylbenzene		04.17.96	96244	89	88	20.4	ug/L
Total Xylene Isomers		04.17.96	96244	85	85	120	ug/L
TPH (Gasoline Range)		04.17.96	96244	98	97	1100	ug/L
a,a,a-Trifluorotoluene Rep.		04.17.96	96244	84	85	50.0	ug/L
a,a,a-Trifluorotoluene Th.		04.17.96	96244	100	100	50.0	ug/L
2. GRO	9604276*10						
Benzene		04.18.96	96917	128 Q	131 Q	15.2	ug/L
Toluene		04.18.96	96917	94	95	97.4	ug/L
Ethylbenzene		04.18.96	96917	93	95	20.4	ug/L
Total Xylene Isomers		04.18.96	96917	89	91	119	ug/L
TPH (Gasoline Range)		04.18.96	96917	95	95	1100	ug/L
a,a,a-Trifluorotoluene Rep.		04.18.96	96917	118	117	50.0	ug/L
a,a,a-Trifluorotoluene Th.		04.18.96	96917	100	100	50.0	ug/L
3. GRO	9604264*3						
Benzene		04.19.96	96557	103	103	15.6	ug/L
Toluene		04.19.96	96557	95	97	97.4	ug/L
Ethylbenzene		04.19.96	96557	95	95	20.4	ug/L
Total Xylene Isomers		04.19.96	96557	96	96	119	ug/L
TPH (Gasoline Range)		04.19.96	96557	123	115	1100	ug/L
a,a,a-Trifluorotoluene Rep.		04.19.96	96557	113	116	50.0	ug/L
a,a,a-Trifluorotoluene Th.		04.19.96	96557	100	100	50.0	ug/L

BC ANALYTICAL
ORDER QC REPORT FOR G9604276

DATE REPORTED : 04/24/96

Page 1

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. GRO	9604275*1						
Date Analyzed		04.17.96	96244	04/17/96	04/17/96	Date	N/A
Benzene		04.17.96	96244	17.0	17.3	ug/L	2
Toluene		04.17.96	96244	97.9	98.3	ug/L	0
Ethylbenzene		04.17.96	96244	18.1	17.9	ug/L	1
Total Xylene Isomers		04.17.96	96244	102	102	ug/L	0
TPH (Gasoline Range)		04.17.96	96244	1080	1070	ug/L	1
a,a,a-Trifluorotoluene Rep.		04.17.96	96244	41.9	42.3	ug/L	1
a,a,a-Trifluorotoluene Th.		04.17.96	96244	50.0	50.0	ug/L	0
2. GRO	9604276*10						
Date Analyzed		04.18.96	96917	04/18/96	04/18/96	Date	N/A
Benzene		04.18.96	96917	19.5	19.9	ug/L	2
Toluene		04.18.96	96917	91.2	92.1	ug/L	1
Ethylbenzene		04.18.96	96917	18.9	19.3	ug/L	2
Total Xylene Isomers		04.18.96	96917	106	108	ug/L	2
TPH (Gasoline Range)		04.18.96	96917	1040	1050	ug/L	1
a,a,a-Trifluorotoluene Rep.		04.18.96	96917	59.0	58.3	ug/L	1
a,a,a-Trifluorotoluene Th.		04.18.96	96917	50.0	50.0	ug/L	0
3. BTEX/GRO (8020)	9604264*3						
Date Analyzed		04.19.96	96557	04/19/96	04/19/96	Date	N/A
Benzene		04.19.96	96557	16.1	16.1	ug/L	0
Toluene		04.19.96	96557	92.7	94.1	ug/L	1
Ethylbenzene		04.19.96	96557	19.4	19.4	ug/L	0
Total Xylene Isomers		04.19.96	96557	114	114	ug/L	0
TPH (Gasoline Range)		04.19.96	96557	1350	1260	ug/L	7
a,a,a-Trifluorotoluene Rep.		04.19.96	96557	56.4	58.2	ug/L	3
a,a,a-Trifluorotoluene Th.		04.19.96	96557	50.0	50.0	ug/L	0

BC ANALYTICAL

ORDER QC REPORT FOR G9604276

DATE REPORTED : 04/24/96

Page 1

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER		DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
1. Lead	B604855*1	04.18.96	96802	0	0.002	mg/L	7421
2. GRO	B604888*1						
Date Analyzed		04.17.96	96244	04/17/96	NA	Date	8015M.TX
Benzene		04.17.96	96244	0	0.5	ug/L	8015M.TX
Toluene		04.17.96	96244	0	0.5	ug/L	8015M.TX
Ethylbenzene		04.17.96	96244	0	0.5	ug/L	8015M.TX
Methyl-tert-butylether		04.17.96	96244	0	NA	ug/L	8015M.TX
Total Xylene Isomers		04.17.96	96244	0	0.5	ug/L	8015M.TX
TPH (Gasoline Range)		04.17.96	96244	0	50	ug/L	8015M.TX
a,a,a-Trifluorotoluene Rep.		04.17.96	96244	41.2	NA	ug/L	8015M.TX
a,a,a-Trifluorotoluene Th.		04.17.96	96244	50.0	NA	ug/L	8015M.TX
3. GRO	B6041037*1						
Date Analyzed		04.18.96	96917	04/18/96	NA	Date	8015M.TX
Benzene		04.18.96	96917	0	0.5	ug/L	8015M.TX
Toluene		04.18.96	96917	0	0.5	ug/L	8015M.TX
Ethylbenzene		04.18.96	96917	0	0.5	ug/L	8015M.TX
Methyl-tert-butylether		04.18.96	96917	0	NA	ug/L	8015M.TX
Total Xylene Isomers		04.18.96	96917	0	0.5	ug/L	8015M.TX
TPH (Gasoline Range)		04.18.96	96917	0	50	ug/L	8015M.TX
a,a,a-Trifluorotoluene Rep.		04.18.96	96917	61.2	NA	ug/L	8015M.TX
a,a,a-Trifluorotoluene Th.		04.18.96	96917	50.0	NA	ug/L	8015M.TX
4. BTEX/GRO (8020)	B6041112*1						
Date Analyzed		04.19.96	96557	04/19/96	NA	Date	8015M
Benzene		04.19.96	96557	0	0.3	ug/L	8015M
Toluene		04.19.96	96557	0	0.3	ug/L	8015M
Ethylbenzene		04.19.96	96557	0	0.3	ug/L	8015M
Total Xylene Isomers		04.19.96	96557	0	0.6	ug/L	8015M
TPH (Gasoline Range)		04.19.96	96557	0	100	ug/L	8015M
a,a,a-Trifluorotoluene Rep.		04.19.96	96557	45.5	0.5	ug/L	8015M
a,a,a-Trifluorotoluene Th.		04.19.96	96557	50.0	NA	ug/L	8015M
5. GRO (8020)	B604920*1						
Date Analyzed		04.17.96	96555	04/17/96	NA	Date	8015M
Benzene		04.17.96	96555	0	0.3	ug/L	8015M
Toluene		04.17.96	96555	0	0.3	ug/L	8015M
Ethylbenzene		04.17.96	96555	0	0.3	ug/L	8015M
Methyl-tert-butylether		04.17.96	96555	0	30	ug/L	8015M
Total Xylene Isomers		04.17.96	96555	0	0.6	ug/L	8015M
TPH (Gasoline Range)		04.17.96	96555	0	100	ug/L	8015M
a,a,a-Trifluorotoluene Rep.		04.17.96	96555	47.6	0.5	ug/L	8015M
a,a,a-Trifluorotoluene Th.		04.17.96	96555	50.0	NA	ug/L	8015M

G9604276

PAGE 1 of 2



ENVIRONMENTAL AUDIT, INC.®

Planning, Environmental Analyses and Hazardous
Substances Management and Remediation

1000 ORTEGA WAY, SUITE A (714) 632 - 8521
PLACENTIA, CA 92670-7125 FAX (714) 632 - 6754

Chain of Custody Record

SAMPLING REQUIREMENTS: RCRA NPDES SDWA _____

WRITTEN QC REPORT	TURNAROUND TIME:
ROUTINE QC <input checked="" type="checkbox"/> RWQCB QC <input type="checkbox"/>	SAME DAY <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> NORMAL <input checked="" type="checkbox"/>

PROJECT NO. 1233	PROJECT NAME Montgomery Ward-Dublin	CONTR TYPE	ANALYSES REQUESTED										REMARKS			
			Glass	Plastic	Brass/SS Tube	TPH-D 8015M	TPH-G 8015M	TPH-H 418.1	BTEX 8020	VOC 8240	EOC 8270	Oil & Grease		CAM METALS TOT WET	LEAD	HVOC 8010
Effluent	4/1/96 9:00	/	/	/	/	/	/	/	/	/	/	/	/	/	3	- One liter Plastic Bottle - Two 40ml -VOA vials
B-12	" 1025	/	/	/	/	/	/	/	/	/	/	/	/	/	3	
B-5	" 10:50	/	/	/	/	/	/	/	/	/	/	/	/	/	3	
B-10	" 11:10	/	/	/	/	/	/	/	/	/	/	/	/	/	3	
MW-100	" 11:55	/	/	/	/	/	/	/	/	/	/	/	/	/	3	
B-16	" 11:30	/	/	/	/	/	/	/	/	/	/	/	/	/	3	
MW-102	" 14:35	/	/	/	/	/	/	/	/	/	/	/	/	/	3	
													TOTAL NUMBER OF CONTAINERS	21		
RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)											RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	
<i>J. R. Cambria</i>	4/1/96 10:15	<i>Bill & Jones</i>											<i>Bill & Jones</i>	4/1/96 10:25	<i>RECEIVED BY: (Signature/Name)</i>	
RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)											RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	
SAMPLES SHIPPED VIA: FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> AIRBORNE <input type="checkbox"/> HAND <input type="checkbox"/> AIRFREIGHT <input type="checkbox"/>	AIRBILL #:	SHIPPED BY: (Signature/Name)											COURIER: (Signature/Name)	RECEIVED FOR BY: (Signature/Name)	LAB: <i>ASP</i>	DATE/TIME
		<i>J. Farley 4-12-96</i>											<i>J. Farley 4-12-96</i>	<i>4/15/96 3:30</i>		



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PLACENTIA, CA 92670-7125

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WRITTEN QC REPORT | **TURNAROUND TIME:**

ROUTINE OC
RWOQB OC

TURNAROUND TIME:

SAME DAY 24hr 48hr NORMAL

RENOUNISHED BY: [Signature/Name] <i>John R. Ambrose</i>	DATETIME <i>4/12/96 10:15</i>	RECEIVED BY: [Signature/Name] <i>R. L. Lyons</i>	REUNOUNISHED BY: [Signature/Name] <i>R. L. Lyons</i>	DATETIME <i>4/12/96 1:25</i>	RECEIVED BY: [Signature/Name]
RENUONISHED BY: [Signature/Name]	DATETIME	RECEIVED BY: [Signature/Name] <i>V-12-96 St. Landry 4.0</i>	RENUONISHED BY: [Signature/Name] <i>S. Landry</i>	DATETIME <i>4/14/96 3:05</i>	RECEIVED BY: [Signature/Name] <i>St. Landry</i>
SAMPLES SHIPPED VIA: FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> AIRBORNE <input type="checkbox"/> HAND <input type="checkbox"/> AIRFREIGHT <input type="checkbox"/>		SHIPPED BY: [Signature/Name] <i>AIRBILL #:</i>	COURIER: [Signature/Name] <i>Shaeby</i>	RECEIVED BY: [Signature/Name] <i>Shaeby</i>	DATE/TIME <i>4/15/96 3:30</i>
			LAB:		



A. Keith Kaufman, M.S.

Consultant in Environmental Biotechnology
Serving Industry, Government, Academia and the Legal Profession

April 26, 1996

R E C E I V E D

TO: Mr. Ed Leonhardt (Environmental Audit, Inc.)

APR 27 1996

FROM: A. Keith Kaufman *(PK)*

ENVIRONMENTAL AUDIT

Subject: Results of Physicochemical and Microbiological Analyses of Three (3) Water Samples (Montgomery Ward-Dublin)

Listed below are the results from the referenced analyses performed on three (3) samples of water collected on 4/11/96. As requested, physicochemical analyses were performed for Sample B-12 only, utilizing HACH Spectrophotometric and ion-specific procedures. Microbiological analyses were performed utilizing standard plate count procedures on Trypticase Soy Agar (TSA, general/heterotrophic enumeration), and Minimal Salts agar supplemented with 500 ppm gasoline as sole carbon source (MS, selective degrader enumeration). Plates were incubated under aerobic conditions for four (4) days at room temperature prior to enumeration. For comparative purposes, the results from the previous sampling event (1/25/96) are included in parentheses.

RESULTS

Parameter	SAMPLE I.D.		
	B-12	B-5	B-10
pH	7.3 (7.1)	—	—
Nitrate (ppm)	0.7 (0.2)	—	—
Nitrite (ppm)	2.0 (0.3)	—	—
Ammonium (ppm)	0.64 (1.6)	—	—
Phosphate (ppm)	2.5 (5.2)	—	—
Gen. Microb. Enumeration (CFU X 10 ⁵ /ml)	2.2 (9.9)	4.4 (0.88)	3.2 (1.6)
Sel. Microb. Enumeration (CFU X 10 ⁵ /ml)	0.56 (0.27)	1.9 (0.05)	1.1 (0.04)
% Biodegraders	25.5 (2.7)	43.2 (5.7)	34.4 (2.5)

CFU = Colony-forming Units (Viable cells)

Environmental Audit, Inc.
Montgomery Ward-Dublin
April 26, 1996

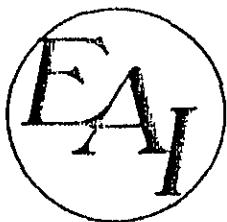
Page 2

COMMENT

Inorganic nutrient levels continue to remain below those levels normally accepted for active microbial activity and biodegradation. As before, it is unclear whether these data reflect insufficient levels/dispersion of nutrients or whether such results are indicative of microbial nutrient utilization and assimilation (or some combination of the two). Unlike for the previous sampling event however, evidence of significantly improved microbial population dynamics were observed during these analyses. In particular, the proportion of the contaminant-specific biodegradative subpopulation improved for all samples tested. Such results would tend to support, therefore, nutrient utilization over time. Nonetheless, we believe it important to maintain a relatively steady-state condition with respect to inorganic nutrient supplementation such that the rate of resupplementation keeps pace with (but does not exceed) microbial utilization rates. Maintenance of such conditions facilitates continued bioremedial activity by minimizing the development of lag periods of growth as a result of nutrient exhaustion.

Should you have any questions concerning these results, please do not hesitate to contact me.

AKK:ch



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PLACENTIA, CA 92670-7125

Chain of Custody Record

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ROUTINE QC <input checked="" type="checkbox"/>	SAME DAY <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/>
RWOCB QC <input type="checkbox"/>	NORMAL <input checked="" type="checkbox"/>

RElinquished By: [Signature/Name] John P Cimbres II Fed-X		DATE/TIME 12/15 4/11/96	RECEIVED BY: [Signature/Name]	RElinquished By: [Signature/Name]	DATE/TIME	RECEIVED BY: [Signature/Name]
RElinquished By: [Signature/Name]		DATE/TIME	RECEIVED BY: [Signature/Name]	RElinquished By: [Signature/Name]	DATE/TIME	RECEIVED BY: [Signature/Name]
SAMPLES SHIPPED VIA: FEDEX <input checked="" type="checkbox"/> UPS <input type="checkbox"/> AIRBORNE <input type="checkbox"/> HAND <input type="checkbox"/> AIRFREIGHT <input type="checkbox"/> _____ <input type="checkbox"/>		SHIPPED BY: [Signature/Name] AIRBILL #	COURIER: [Signature/Name]	RECEIVED FOR BY: [Signature/Name] Lab:		DATE/TIME 4/16/96