Harding Lawson Associates

Groundwater Monitoring - 1997
Utility Trailer Manufacturing Company
17300 East Chestnut Street
City of Industry, California

Engineering and Environmental Services

UTM 006105

HLA

Groundwater Monitoring - 1997
Utility Trailer Manufacturing Company
17300 East Chestnut Street
City of Industry, California

Prepared for

Utility Trailer Manufacturing Company
17295 East Railroad Street
P.O. Box 1299
City of Industry, California 91749

HLA Project No. 30987 4

Kevin J. Trout
Project Engineer

Thomas S. Chandler
Consulting Principal Engineer

March 16, 1998

Harding Lawson Associates
Engineering and Environmental Services
30 Corporate Park, Suite 400
Irvine, California 92606 - (714) 260-1800

CONTENTS

INTRODUCTION 1

WORK CONDUCTED IN 1997 1
- Groundwater Depth Measurement 1
- Groundwater Sampling 1
- Groundwater Analytical Results 2

DISCUSSION 3

REFERENCES

TABLES

1 Groundwater Depth Measurement Data
2 Groundwater Chemical Analytical Data
3 Relative Percent Difference of Quality Control Sample
4 Groundwater Chemical Analytical Data from PVOU Well MW6-82 and UTM Wells MW-03 and MW-02

PLATES

1 Vicinity Map
2 Groundwater Elevation Contour Map - September 1997
3 Groundwater Elevation Hydrograph
4 Concentration and Groundwater Elevation Versus Time - Well MW-02
5 Concentration and Groundwater Elevation Versus Time - Well MW-03
6 Concentration and Groundwater Elevation Versus Time - Well MW-04
7 Concentration and Groundwater Elevation Versus Time - Well MW-05
8 Concentration and Groundwater Elevation Versus Time - Well MW-06
9 Average PCE Isoconcentration Contour Map - 1997
10 Average TCE Isoconcentration Contour Map - 1997
11 Average 1,1-DCE Isoconcentration Contour Map - 1997
12 Downgradient Concentration Variation

APPENDIXES

A WELL PURGING DATA
B SUPPORTING LABORATORY DOCUMENTATION

DISTRIBUTION

INTRODUCTION

This report presents groundwater depth measurement and groundwater sample analytical data compiled by Harding Lawson Associates (HLA) for the period from January 1 through December 31, 1997, for Utility Trailer Manufacturing Company (UTM), 17300 East Chestnut Street, City of Industry, California (Plate 1). These data are reported annually, as approved by the Regional Water Quality Control Board - Los Angeles Region (RWQCB). Although the RWQCB requires that groundwater sampling at UTM be performed only once per year, UTM performed two groundwater sampling events in 1997.

WORK CONDUCTED IN 1997

Groundwater Depth Measurement

Depth to groundwater was measured quarterly in each onsite monitoring well using an electric well sounder. Groundwater depth measurement data collected during 1997 are presented along with historical data in Table 1. Groundwater beneath the site occurs at an average depth of approximately 23 feet below ground surface (bgs), which is equivalent to an approximate elevation of 355 feet above mean sea level. The September 1997 data were used to produce the groundwater elevation contour map presented on Plate 2. The contour map indicates a northwesterly flow direction and a gradient with a magnitude of approximately 0.005 foot per foot. All of the available groundwater elevation data were used to produce the groundwater elevation hydrograph presented on Plate 3. For the first few months of 1997, the groundwater elevation increased; however, after March 1997, a decline in groundwater elevation began that continued until June 1997 when groundwater elevation began to increase again. Overall, groundwater elevations after early 1993 continue to be higher than those observed prior to that date. However, 1997 groundwater elevation data indicate a continuation of a decline trend that began in early 1993.

Groundwater Sampling

An HLA geologist collected groundwater samples for chemical analysis from site observation Wells MW-02 through MW-06 on March 25 and September 30, 1997. Prior to sampling, wells were purged of approximately four well volumes to remove standing water and to promote the flow of water from

the surrounding formation into the well casing. Water was purged from each well by lowering a submersible pump to a depth approximately 5 to 10 feet below the static water level.
The pH, electric conductance, temperature, and turbidity of the purged groundwater were monitored during purging. Wells were purged until at least four well volumes were removed and turbidity measurements were below 5 nephelometric turbidity units (NTU). Well purge data from both sampling events are presented in Appendix A. All equipment was decontaminated prior to each use with Liqui-Nox detergent solution followed by potable and distilled water rinses.

Before any samples were collected, water levels in the well casings were allowed to recover to at least 80 percent of the original static water level observed prior to purging. To minimize agitation/volatilization, the samples were collected by gently lowering a disposable bailer into the groundwater. The collected groundwater was then immediately and carefully transferred into laboratory-prepared 40-milliliter glass volatile organic analysis vials. The vials were immediately sealed with screw caps, labeled, and placed in an iced field cooler for shipment to Del Mar Analytical (DMA), a California state-certified laboratory, in accordance with chain-of-custody protocol.

To check laboratory quality control, duplicate groundwater samples (labeled as MW-07) were collected from Wells MW-03 and MW-04 during the March and September 1997 sampling events, respectively. To assess the effectiveness of decontamination procedures, an equipment blank (labeled as MW-08) was collected during both sampling events by running deionized water over a decontaminated pump. Equipment blanks and duplicate samples were submitted for analysis along with original groundwater samples. All samples were analyzed for chlorinated volatile organic compounds (CVOCs) using EPA Method 8010 following RWQCB Well Investigation Program (WIP) requirements.

Groundwater Analytical Results

A summary of groundwater analytical results from the March and September 1997 sampling events is presented in Table 2. Analytical laboratory reports and associated quality assurance/quality control (QA/QC) data are presented in Appendix B. Eight CVOCs were detected in the groundwater samples; the maximum concentrations detected in 1997 for four of these compounds are as follows:

- Tetrachloroethene (PCE) - 200 micrograms per liter (μg/l) in upgradient Well MW-04

- Trichloroethene (TCE) - 31 μg/l in upgradient Well MW-03

- 1,1-Dichloroethene (1,1-DCE) - 47 μg/l in Well MW-05

- 1,1,1-Trichloroethane (1,1,1-TCA) - 13 μg/l in Well MW-05

The relative percent differences (RPDs) between analytes for the duplicate sample and the original sample are presented in Table 3. RPDs for both sampling events were less than 15 percent. No CVOCs were detected above the reporting limit in either equipment blank sample. Analytical laboratory reports and QA/QC data from the laboratory analysis met acceptance criteria.

DISCUSSION

Plots of CVOC concentration and water elevation versus time for each well are presented on Plates 4 through 8. Isoconcentration contour maps of the average 1997 value for selected analytes at each well are presented on Plates 9 through 11. The following observations can be made regarding trends in individual site wells:

- MW-02 - Historically, PCE has been the predominant Method 8010 analyte detected in Well MW-02. The long-term decline trend of PCE concentrations in this well continued through 1997. The long-term decline trend of 1,1-DCE and 1,1,1-TCA also continued through 1997. The concentrations of TCE in this well continued to decline somewhat but remained generally within their historical ranges.

- MW-03 - CVOCs, predominantly PCE and TCE, together with trichlorofluoromethane (TCFM), continue to be detected in Well MW-03.

- MW-04 - Concentrations of PCE, TCE, and 1,1-DCE in Well MW-04 remained generally within historical ranges through 1997. Decreases in the concentrations of these CVOCs were observed over 1997 when compared to data from September 1996.

- MW-05 - Concentrations of CVOCs in Well MW-05 remained generally within their historical ranges.

- MW-06 - CVOC concentrations is samples collected from Well MW-06 remained generally within their historical ranges. Some CVOCs reflected slight decreases in concentration between the 1996 and 1997 events.

A review of these data together with data collected from the Puente Valley Steering Committee (PVSC's) groundwater monitoring Well MW6-82, installed in the shallow groundwater system, upgradient of the UTM facility (Plate 1), supports the contention that the elevated concentrations of PCE, TCE, and TCFM observed in UTM Wells MW-03 and MW-02 are from a source upgradient of the UTM facility. Data from Puente Valley Operable Unit (PVOU) Well MW6-82 collected over the period 1995 to 1998 are presented in Table 4 together with the data from MW-02 and MW-03 collected over a corresponding time period. The PVOU well data are essentially the same as data from MW-03.

The downgradient trends of the average concentrations from 1995 to 1998 of the primary products (PCE and TCE), breakdown products (1,1-DCE, cis-1,2-DCE, and 1,1-DCA), and TCFM are presented on Plate 12. Concentrations of PCE+TCE as well as TCFM are higher in the upgradient PVOU well and clearly decrease downgradient across the UTM facility. The concentration of breakdown products, generated by the degradation of the primary products, is observed to increase downgradient of the PVOU well. These trends are consistent and representative of a source of PCE/TCE and TCFM being located upgradient of the UTM facility.

REFERENCES

Harding Lawson Associates. 1997. *Groundwater monitoring - 1996, Utility Trailer Manufacturing Company, 17300 East Chestnut Street, City of Industry, California.*

The Puente Valley Operable Unit. 1995. *Draft remedial investigation report, Puente Valley Operable Unit Interim RI/FS, Camp Dresser and McKee Incorporated*, Table 4-4.

TABLES

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-02	376.66	6/1/89	22.95	353.71
		8/28/89	23.03	353.63
		9/15/89	23.05	353.61
		10/11/89	23.13	353.53
		11/16/89	23.20	353.46
		12/11/89	23.25	353.41
		1/15/90	23.26	353.40
		2/12/90	23.16	353.50
		3/9/90	23.07	353.59
		4/12/90	22.95	353.71
		5/14/90	23.48	353.18
		6/7/90	23.42	353.24
		7/10/90	23.35	353.31
		8/16/90	23.80	352.86
		9/11/90	23.47	353.19
		1/31/91	24.28	352.38
		2/27/91	24.52	352.14
		3/7/91	23.80	352.86
		4/8/91	23.36	353.30
		5/7/91	23.60	353.06
		6/7/91	23.76	352.90
		7/10/91	24.04	352.62
		8/8/91	24.22	352.44
		9/6/91	24.02	352.64
		10/7/91	23.77	352.89
		11/6/91	24.00	352.66
		12/5/91	24.10	352.56
		4/9/92	23.16	353.50
		5/7/92	23.12	353.54
		6/9/92	22.75	353.91
		7/7/92	22.90	353.76
		8/7/92	23.57	353.09
		9/8/92	23.50	353.16
		10/7/92	23.67	352.99
		11/4/92	23.66	353.00
		12/4/92	23.65	353.01
		1/8/93	22.61	354.05
		2/5/93	21.50	355.16
		3/4/93	20.99	355.67
		4/7/93	21.42	355.24
		5/4/93	21.60	355.06
		6/4/93	21.55	355.11
		7/6/93	21.60	355.06

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-02	376.66	8/2/93	21.96	354.70
		9/7/93	21.74	354.92
		10/4/93	21.83	354.83
		11/4/93	21.86	354.80
		12/3/93	22.38	354.28
		1/10/94	22.43	354.23
		2/9/94	22.40	354.26
		3/15/94	22.55	354.11
		4/8/94	22.45	354.21
		5/9/94	22.40	354.26
		6/8/94	22.56	354.10
		7/11/94	22.70	353.96
		8/3/94	22.84	353.82
		9/1/94	23.10	353.56
		10/4/94	23.02	353.64
		11/3/94	22.90	353.76
		12/29/94	22.68	353.98
		1/19/95	22.20	354.46
		3/16/95	21.85	354.81
		6/20/95	22.12	354.54
		7/12/95	22.19	354.47
		9/14/95	22.42	354.24
		12/4/95	22.42	354.24
		3/11/96	22.16	354.50
		6/4/96	22.31	354.35
		9/16/96	22.84	353.82
		12/2/96	22.71	353.95
		3/25/97	22.30	354.36
		6/20/97	22.58	354.08
		9/30/97	22.52	354.14
		12/10/97	22.25	354.41

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-03	378.03	6/1/89	21.77	356.26
		8/28/89	21.82	356.21
		9/15/89	21.88	356.15
		10/11/89	21.95	356.08
		11/16/89	22.02	356.01
		12/11/89	22.04	355.99
		1/15/90	22.04	355.99
		2/12/90	21.94	356.09
		3/9/90	21.77	356.26
		4/12/90	21.74	356.29
		5/14/90	22.15	355.88
		6/7/90	22.10	355.93
		7/10/90	22.09	355.94
		8/16/90	22.39	355.64
		9/11/90	22.16	355.87
		1/31/91	22.74	355.29
		2/27/91	22.92	355.11
		3/7/91	22.33	355.70
		4/8/91	21.93	356.10
		5/7/91	22.15	355.88
		6/7/91	22.46	355.57
		7/10/91	22.54	355.49
		8/8/91	22.67	355.36
		9/6/91	22.55	355.48
		10/7/91	22.37	355.66
		11/6/91	22.40	355.63
		12/5/91	22.61	355.42
		4/9/92	21.83	356.20
		5/7/92	21.97	356.06
		6/9/92	21.41	356.62
		7/7/92	21.51	356.52
		8/7/92	22.22	355.81
		9/8/92	22.16	355.87
		10/7/92	22.29	355.74
		11/4/92	22.30	355.73
		12/4/92	22.30	355.73
		1/8/93	21.54	356.49
		2/5/93	20.48	357.55
		3/4/93	20.05	357.98
		4/7/93	20.35	357.68
		5/14/93	20.55	357.48
		6/4/93	20.54	357.49
		7/6/93	20.55	357.48

N:\Utility\kjtutm\gw\gwdata.xls

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-03	378.03	8/2/93	20.89	357.14
		9/7/93	20.65	357.38
		10/4/93	20.74	357.29
		11/4/93	20.79	357.24
		12/3/93	21.37	356.66
		1/10/94	21.44	356.59
		2/9/94	21.45	356.58
		3/15/94	21.52	356.51
		4/8/94	21.43	356.60
		5/9/94	21.35	356.68
		6/8/94	21.53	356.50
		7/11/94	21.67	356.36
		8/3/94	21.77	356.26
		9/1/94	22.05	355.98
		10/4/94	21.95	356.08
		11/3/94	21.85	356.18
		12/29/94	21.62	356.41
		1/19/95	21.15	356.88
		3/16/95	20.75	357.28
		6/20/95	21.04	356.99
		7/12/95	21.12	356.91
		9/14/95	21.34	356.69
		12/4/95	21.45	356.58
		3/11/96	21.17	356.86
		6/4/96	21.29	356.74
		9/16/96	21.74	356.29
		12/2/96	21.66	356.37
		3/25/97	21.27	356.76
		6/20/97	21.53	356.50
		9/30/97	21.53	356.50
		12/10/97	21.26	356.77

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-04	383.21	6/1/89	27.34	355.87
		8/28/89	27.41	355.80
		9/15/89	27.43	355.78
		10/11/89	27.49	355.72
		11/16/89	27.58	355.63
		12/11/89	27.65	355.56
		1/15/90	27.68	355.53
		2/12/90	27.61	355.60
		3/9/90	27.47	355.74
		4/12/90	27.56	355.65
		5/14/90	27.89	355.32
		6/7/90	27.94	355.27
		7/10/90	27.93	355.28
		8/16/90	28.14	355.07
		9/11/90	28.06	355.15
		1/31/91	28.56	354.65
		2/27/91	28.77	354.44
		3/7/91	28.19	355.02
		4/8/91	27.70	355.51
		5/7/91	27.94	355.27
		6/7/91	28.27	354.94
		7/10/91	28.39	354.82
		8/8/91	28.48	354.73
		9/6/91	28.52	354.69
		10/7/91	28.37	354.84
		11/6/91	28.44	354.77
		12/5/91	28.56	354.65
		4/9/92	27.61	355.60
		5/7/92	27.78	355.43
		6/9/92	27.33	355.88
		7/7/92	27.53	355.68
		8/7/92	28.09	355.12
		9/8/92	27.99	355.22
		10/7/92	28.14	355.07
		11/4/92	28.20	355.01
		12/4/92	28.18	355.03
		1/8/93	27.19	356.02
		2/5/93	25.88	357.33
		3/4/93	25.35	357.86
		4/7/93	25.75	357.46
		5/14/93	26.00	357.21
		6/4/93	25.96	357.25
		7/6/93	26.02	357.19
		8/2/93	26.23	356.98

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-04	383.21	9/7/93	26.22	356.99
		10/4/93	26.35	356.86
		11/4/93	26.90	356.31
		12/3/93	26.82	356.39
		1/10/94	26.90	356.31
		2/9/94	26.92	356.29
		3/15/94	27.04	356.17
		4/8/94	26.89	356.32
		5/9/94	26.93	356.28
		6/8/94	27.16	356.05
		7/11/94	27.22	355.99
		8/3/94	27.36	355.85
		9/1/94	---	---
		10/4/94	27.56	355.65
		11/3/94	26.96	356.25
		12/29/94	27.35	355.86
		1/19/95	26.63	356.58
		3/16/95	26.25	356.96
		6/20/95	26.44	356.77
		7/12/95	26.58	356.63
		9/14/95	26.83	356.38
		12/4/95	26.92	356.29
		3/11/96	26.67	356.54
		6/4/96	26.80	356.41
		9/16/96	27.41	355.80
		12/2/96	27.26	355.95
		3/25/97	26.80	356.41
		6/20/97	27.14	356.07
		9/30/97	27.00	356.21
		12/10/97	26.74	356.47

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-05	380.61	6/1/89	25.71	354.90
		8/28/89	25.68	354.93
		9/15/89	25.72	354.89
		10/11/89	25.76	354.85
		11/16/89	25.87	354.74
		12/11/89	25.96	354.65
		1/15/90	25.98	354.63
		2/12/90	25.92	354.69
		3/9/90	25.81	354.80
		4/12/90	25.88	354.73
		5/14/90	26.25	354.36
		6/7/90	26.31	354.30
		7/10/90	26.28	354.33
		8/16/90	26.58	354.03
		9/11/90	26.40	354.21
		1/31/91	26.97	353.64
		2/27/91	27.17	353.44
		3/7/91	26.54	354.07
		4/8/91	26.11	354.50
		5/7/91	26.29	354.32
		6/7/91	26.62	353.99
		7/10/91	26.75	353.86
		8/8/91	26.60	354.01
		9/6/91	26.90	353.71
		10/7/91	26.77	353.84
		11/6/91	26.83	353.78
		12/5/91	26.92	353.69
		4/9/92	25.90	354.71
		5/7/92	26.08	354.53
		6/9/92	25.42	355.19
		7/7/92	25.63	354.98
		8/7/92	26.43	354.18
		9/8/92	26.31	354.30
		10/7/92	26.44	354.17
		11/4/92	26.53	354.08
		12/4/92	26.49	354.12
		1/8/93	25.43	355.18
		2/5/93	24.09	356.52
		3/4/93	23.54	357.07
		4/7/93	24.03	356.58
		5/14/93	24.27	356.34
		6/4/93	23.98	356.63
		7/6/93	24.33	356.28
		8/2/93	24.60	356.01

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-05	380.61	9/7/93	24.28	356.33
		10/4/93	24.42	356.19
		11/4/93	24.48	356.13
		12/3/93	25.06	355.55
		1/10/94	25.16	355.45
		2/9/94	25.18	355.43
		3/15/94	25.29	355.32
		4/8/94	25.15	355.46
		5/9/94	25.50	355.11
		6/8/94	25.42	355.19
		7/11/94	25.49	355.12
		8/3/94	25.64	354.97
		9/1/94	25.93	354.68
		10/4/94	25.85	354.76
		11/3/94	25.86	354.75
		12/29/94	25.59	355.02
		1/19/95	24.80	355.81
		3/16/95	24.45	356.16
		6/20/95	24.70	355.91
		7/12/95	24.85	355.76
		9/14/95	25.06	355.55
		12/4/95	25.15	355.46
		3/11/96	24.81	355.80
		6/4/96	25.02	355.59
		9/16/96	25.62	354.99
		12/2/96	25.48	355.13
		3/25/97	25.04	355.57
		6/20/97	25.36	355.25
		9/30/97	25.20	355.41
		12/10/97	24.92	355.69

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-06	379.79	6/1/89	24.04	355.75
		8/28/89	24.07	355.72
		9/15/89	24.12	355.67
		10/11/89	24.22	355.57
		11/16/89	24.26	355.53
		12/11/89	24.34	355.45
		1/15/90	24.35	355.44
		2/12/90	24.26	355.53
		3/9/90	24.11	355.68
		4/12/90	24.14	355.65
		5/14/90	24.52	355.27
		6/7/90	24.54	355.25
		7/10/90	24.51	355.28
		8/16/90	24.77	355.02
		9/11/90	24.63	355.16
		1/31/91	25.20	354.59
		2/27/91	25.38	354.41
		3/7/91	24.77	355.02
		4/8/91	24.35	355.44
		5/7/91	24.54	355.25
		6/7/91	24.88	354.91
		7/10/91	24.98	354.81
		8/8/91	24.92	354.87
		9/6/91	25.06	354.73
		10/7/91	24.89	354.90
		11/6/91	24.97	354.82
		12/5/91	25.11	354.68
		4/9/92	24.22	355.57
		5/7/92	24.39	355.40
		6/9/92	23.93	355.86
		7/7/92	24.09	355.70
		8/7/92	24.65	355.14
		9/8/92	24.15	355.64
		10/7/92	24.72	355.07
		11/4/92	24.79	355.00
		12/4/92	24.75	355.04
		1/8/93	23.95	355.84
		2/5/93	22.67	357.12
		3/4/93	22.19	357.60
		4/7/93	22.55	357.24
		5/14/93	22.79	357.00
		6/4/93	22.76	357.03
		7/6/93	22.76	357.03
		8/2/93	23.04	356.75
		9/7/93	22.98	356.81

Table 1. Groundwater Depth Measurement Data
Utility Trailer Manufacturing Company

WELL NUMBER	SURVEYED ELEVATION (FEET MSL)*	DATE	DEPTH TO GROUNDWATER (FEET)**	EQUIVALENT GROUNDWATER ELEVATION (FEET MSL)
MW-06	379.79	10/4/93	23.09	356.70
		11/4/93	23.14	356.65
		12/3/93	23.57	356.22
		1/10/94	23.54	356.25
		2/9/94	23.69	356.10
		3/15/94	23.76	356.03
		4/8/94	23.64	356.15
		5/9/94	23.64	356.15
		6/8/94	23.85	355.94
		7/11/94	23.93	355.86
		8/3/94	24.09	355.70
		9/1/94	24.31	355.48
		10/4/94	24.25	355.54
		11/3/94	24.23	355.56
		12/29/94	23.92	355.87
		1/19/95	23.30	356.49
		3/16/95	23.00	356.79
		6/23/95	23.22	356.57
		7/12/95	23.29	356.50
		9/14/95	23.53	356.26
		12/4/95	23.62	356.17
		3/11/96	23.31	356.48
		6/4/96	23.48	356.31
		9/16/96	24.03	355.76
		12/2/96	23.88	355.91
		3/25/97	23.48	356.31
		6/20/97	23.78	356.01
		9/30/97	23.70	356.09
		12/10/97	23.44	356.35

Table 2. Groundwater Chemical Analytical Data
Utility Trailer Manufacturing Company
EPA Test Method 8010

Well No.	Date	PCE (ug/L)	TCE (ug/L)	1,1-DCE (ug/L)	1,1,1-TCA (ug/L)	1,1,2-TCA (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	cis-1,2-DCE (ug/L)	TCFM (ug/L)	Chloroform (ug/L)
MW-02	9/16/96	68	12	3.2	1.5	(0.5)	5.4	(0.5)	5	0.91	(0.5)
MW-02	3/25/97	36	7.3	2.0	1.2	(0.5)	5.5	(0.5)	3.9	(0.5)	(0.5)
MW-02	9/30/97	45	6.3	1.0	1.0	(0.5)	1.9	(0.5)	3.4	(1.0)	(0.5)
MW-02 1997 Average		41	6.8	1.5							
MW-03	9/16/96	120	36	7.5	11	(1.0)	(1.0)	(1.0)	7.3	5.3	(1.0)
MW-03	3/25/97	82	21	5.8	7.3	(0.5)	0.66	(0.5)	7	(0.5)	0.78
MW-03 Duplicate	3/25/97	85	20	5.7	6.9	(0.5)	0.66	(0.5)	6.9	(0.5)	0.74
MW-03	9/30/97	140	31	8.2	7.1	(1.0)	(1.0)	(1.0)	8.1	3.5	(1.0)
MW-03 1997 Average		111	26	7.0							
MW-04	9/16/96	250	7.1	53	1.25	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	3.4
MW-04 Duplicate	9/16/96	250	6.4	54	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)
MW-04	3/25/97	200	7.0	22	0.87	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
MW-04	9/30/97	130	3.3	11	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(2.0)	(1.0)
MW-04 Duplicate	9/30/97	140	3.1	9.6	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(2.0)	(1.0)
MW-04 1997 Average		165	5.2	17							
MW-05	9/16/96	40	4.8	31	7.3	(0.5)	11	(0.5)	(0.5)	(0.5)	(0.5)
MW-05	3/25/97	55	9.6	47	13	(0.5)	20	(0.5)	0.89	(0.5)	(0.5)
MW-05	9/30/97	30	3.7	16	3.8	(0.5)	9.1	(0.5)	0.89	(1.0)	(0.5)
MW-05 1997 Average		43	6.7	32							
MW-06	9/16/96	54	8.5	12	8.4	(0.5)	3.3	(0.5)	(0.5)	(0.5)	(0.5)
MW-06	3/25/97	54	9.5	10	5.6	(0.5)	2.7	(0.5)	(0.5)	(0.5)	(0.5)
MW-06	9/30/97	45	6.2	6.5	2.6	(0.5)	1.2	(0.5)	(0.5)	(1.0)	(0.5)
MW-06 1997 Average		50	7.9	8.3							
equipment blank	9/16/96	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
equipment blank	3/25/97	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
equipment blank	9/30/97	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(1.0)	(0.5)
California MCL		5	5	6	200	32	5	0.5	6	150	100#

( ) indicates compound not detected above enclosed reporting limit.
ug/L=micrograms per liter.
PCE=tetrachloroethene, TCE=trichloroethene, DCE=dichloroethene, TCA=trichloroethane, DCA=dichloroethane, TCFM=trichlorofluoromethane
MCL=maximum contaminant level ; # = for total trihalomethanes

N:\Utility\kjtutm\gw\gwdata.xls

Table 3. Relative Percent Difference of Quality Control Sample
Utility Trailer Manufacturing Company

Well No.	Date	PCE (ug/L)	TCE (ug/L)	1,1-DCE (ug/L)	1,1,1-TCA (ug/L)	1,1,2-TCA (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	cis-1,2-DCE (ug/L)	TCFM (ug/L)	Chloroform (ug/L)
MW-03	3/25/97	82	21	5.8	7.3	(0.5)	0.66	(0.5)	7	(0.5)	0.78
MW-03 Duplicate	3/25/97	85	20	5.7	6.9	(0.5)	0.66	(0.5)	6.9	(0.5)	0.74
RPD	**3/25/97**	**3.59%**	**4.88%**	**1.74%**	**5.63%**	**N/A**	**0.00%**	**N/A**	**1.44%**	**N/A**	**5.26%**
MW-04	9/30/97	130	3.3	11	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(2.0)	(1.0)
MW-04 Duplicate	9/30/97	140	3.1	9.6	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(2.0)	(1.0)
RPD	**9/30/97**	**7.41%**	**6.25%**	**13.59%**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

( ) indicates compound not detected above enclosed reporting limit.
ug/L=micrograms per liter.
PCE=tetrachloroethene, TCE=trichloroethene, DCE=dichloroethene, TCA=trichloroethane, DCA=dichloroethane
TCFM=trichlorofluoromethane
NA = RPD is not applicable, compound not detected at or above enclosed reporting limit.

N:\Utility\kjtutm\gw\gwdata.xls

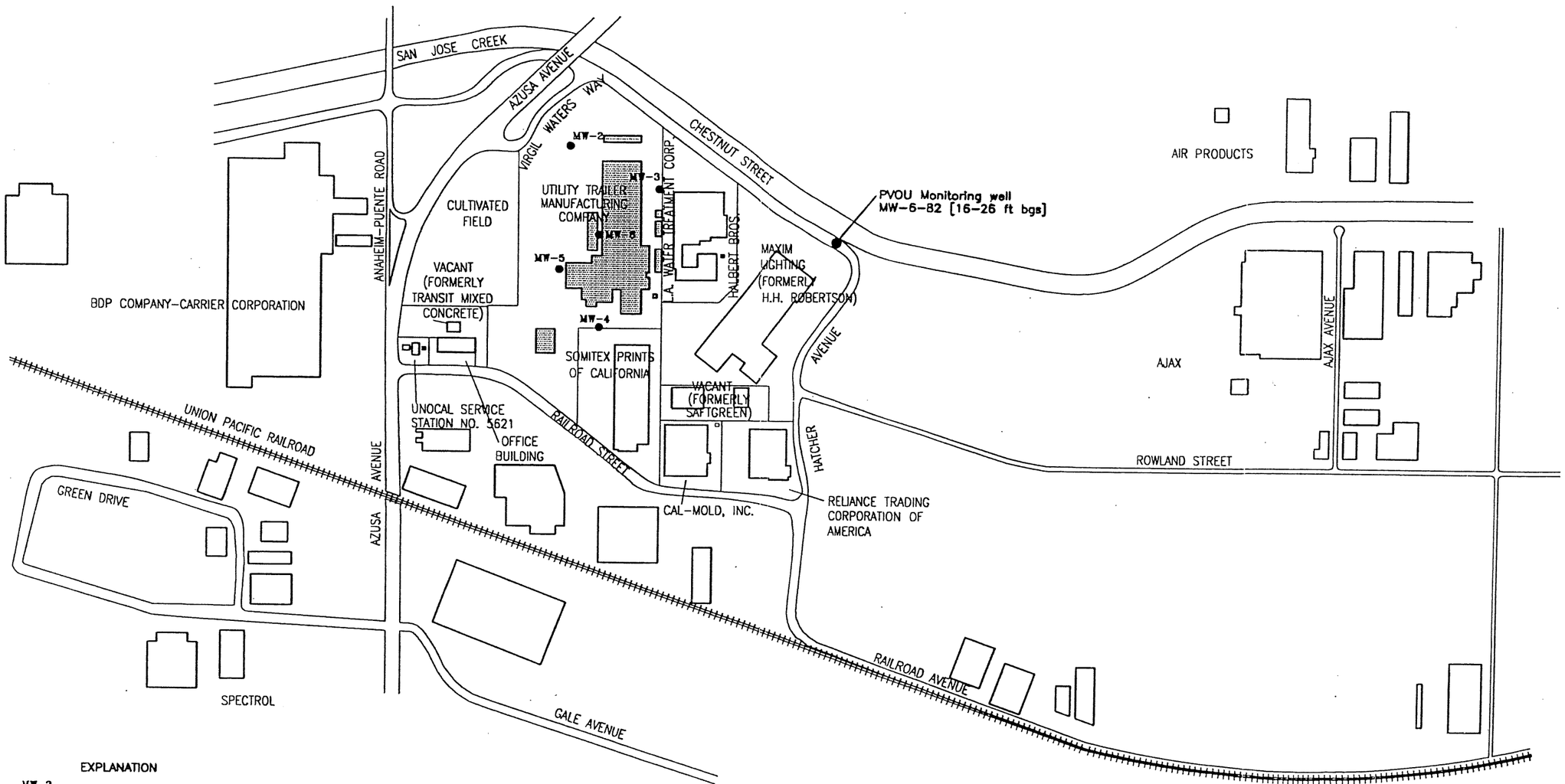
Table 4. Groundwater Chemical Analytical Data from PVOU Well MW6-82 and UTM Wells MW-3 and MW-2
Utility Trailer Manufacturing Company

		Primary Products		Combined	Breakdown Products			Combined	
Well No.	Date	PCE (ug/L)	TCE (ug/L)	PCE/TCE (ug/L)	1,1-DCA (ug/L)	cis-1,2-DCE (ug/L)	1,1-DCE (ug/L)	DCA/DCE's (ug/L)	TCFM (ug/L)
MW6-82	5/95	160	31	191	0.38	9.1	4.9	14.38	10
MW6-82	8/95	160	39	199	(.32)	7.9	6.5	14.08	7.6
MW6-82	10/95	88	35	123	0.8	6.8	4.4	12	5.6
MW6-82	7/97	130	22	152	0.6	4.9	5.6	11.1	6.7
MW6-82	2/98	98	13	111	0.44	4.5	3.2	8.14	6
Average				155				12	7.2
MW-03	7/95	100	58	158	1.3	6.1	5.2	12.6	6.4
MW-03	9/95	87	40	127	1.3	8.4	6.5	16.2	4.7
MW-03	3/96	140	40	180	2.1	6.6	6	14.7	4.8
MW-03	3/97	82	21	103	0.66	7	5.8	13.46	(0.5)
MW-03	9/97	140	31	171	(1.0)	8.1	8.2	15.3	3.5
Average				148				14	4.9
MW-02	7/95	97	15	112	19	4.1	10	33.1	3.1
MW-02	9/95	120	19	139	13	4	11	28	2
MW-02	3/96	94	17	111	57	5.9	19	81.9	0.5
MW-02	3/97	36	7.3	43.3	5.5	3.9	2	11.4	(0.5)
MW-02	9/97	45	6.3	51.3	1.9	3.4	1	6.3	(1.0)
Average				91				32	1.9

( ) indicates compound not detected above enclosed reporting limit.
ug/L=micrograms per liter.
PCE=tetrachloroethene, TCE=trichloroethene, DCE=dichloroethene, DCA=dichloroethane, TCFM=trichlorofluoromethane

PLATES

UTM 006127



Harding Lawson Associates
Engineering and Environmental Services

VICINITY MAP
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **1**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
JTL	30987-4		3/98	

UTM 006128

PLOT 1 = 100 TO 4&W HDT\CAD\309ar\4\1297GW

LOS ANGELES WATER COMPANY

MAXIM LIGHTING

SOMITEX PRINTS OF CALIFORNIA

MW-3 (356.50)

Maintenance and repair shed

Stationary crane

DRIVEWAY

Equipment & parts storage

Parts & storage Warehouse

DRIVEWAY

MANUFACTURING BUILDING

APPROXIMATE GROUNDWATER GRADIENT DIRECTION

DRIVEWAY

MW-6 (356.09)

DRIVE

MW-4 (355.21)

PLANT OFFICES

356.0

Parking

Drainage conduit

Aftermarket Parts Sales Office

Records storage area

MW-2 (354.14)

354.5

355.0

355.5

DRIVEWAY

MW-5 (355.41)

Guard shack

CORPORATE OFFICES

Test track (unpaved)

Parking

UTM 006129

EXPLANATION

Fence

MW-2 Groundwater monitoring well

(354.14) Groundwater elevation (feet above Mean Sea Level) measured 9-30-97

355.5 Groundwater elevation contour (contour interval 0.50 foot)

N

Scale 0 50 100 feet

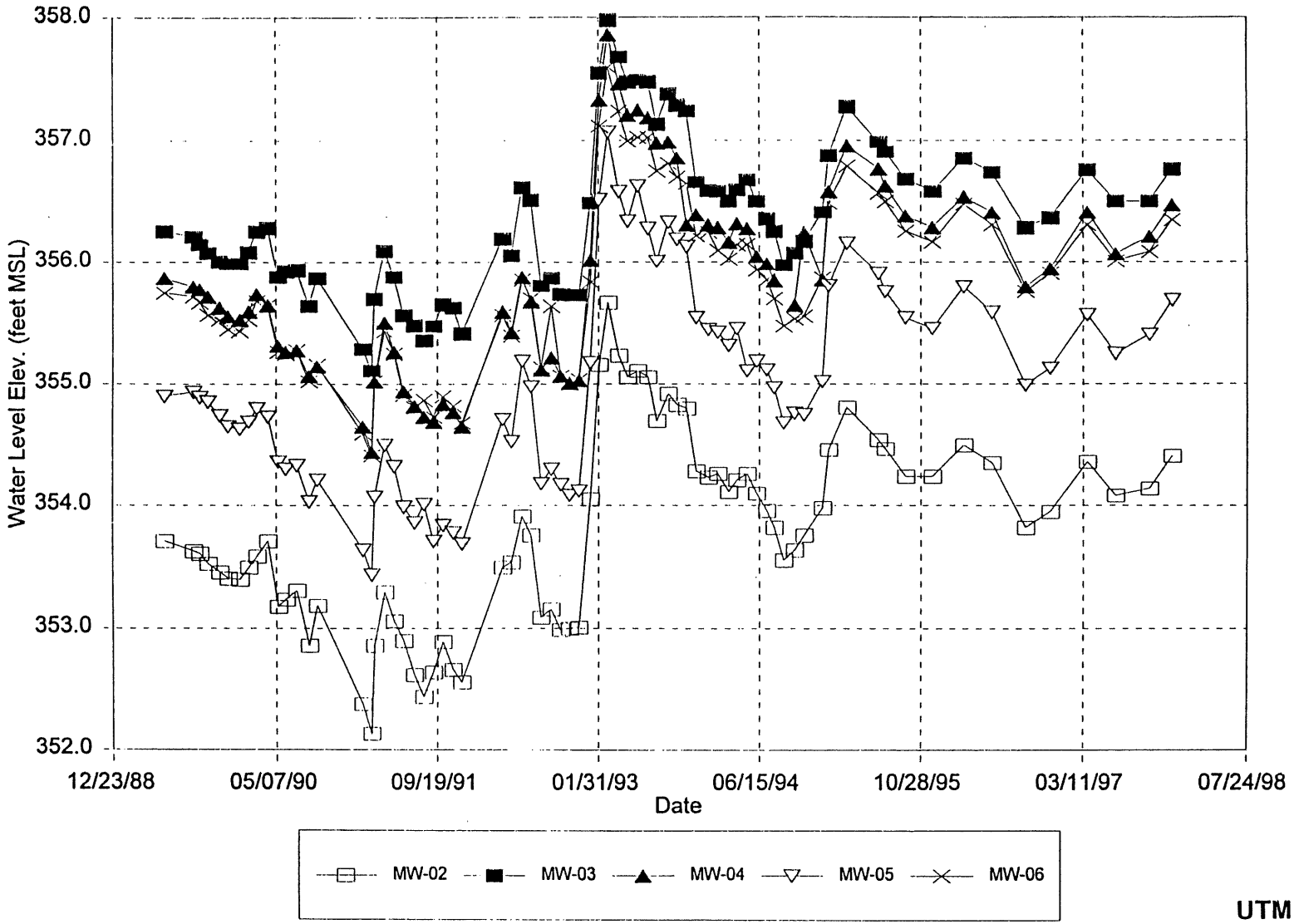
Harding Lawson Associates
Engineering and Environmental Services

GROUNDWATER ELEVATION CONTOUR MAP - SEPTEMBER 1997
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **2**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
JTL	30987-4	KJT	12/97	

R14 HOT\30987\4\GRAPH



UTM 006130

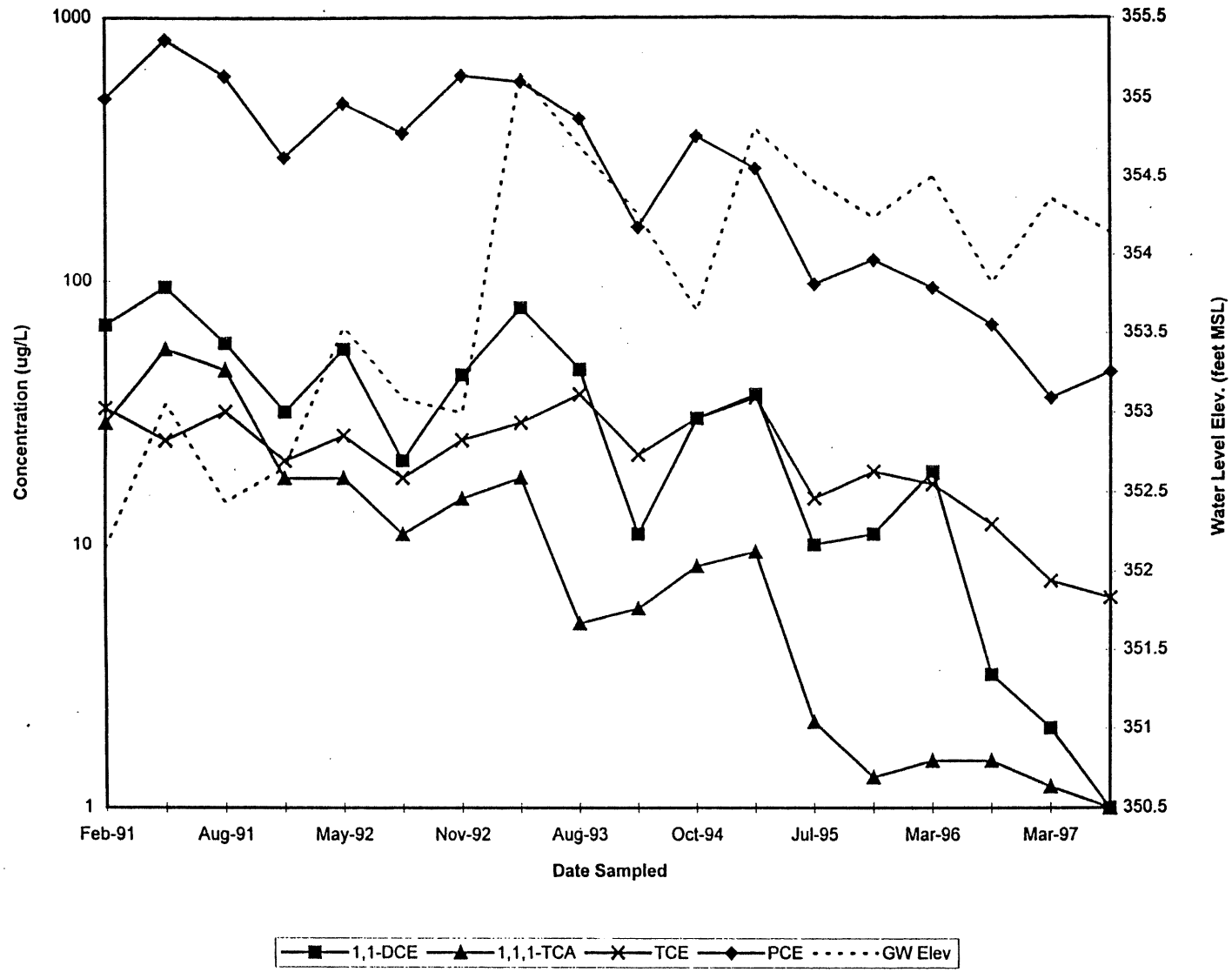
Harding Lawson Associates
Engineering and
Environmental Services

GROUNDWATER ELEVATION HYDROGRAPH
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **3**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

R13 HDT\30987\4\1295G1



UTM 006131

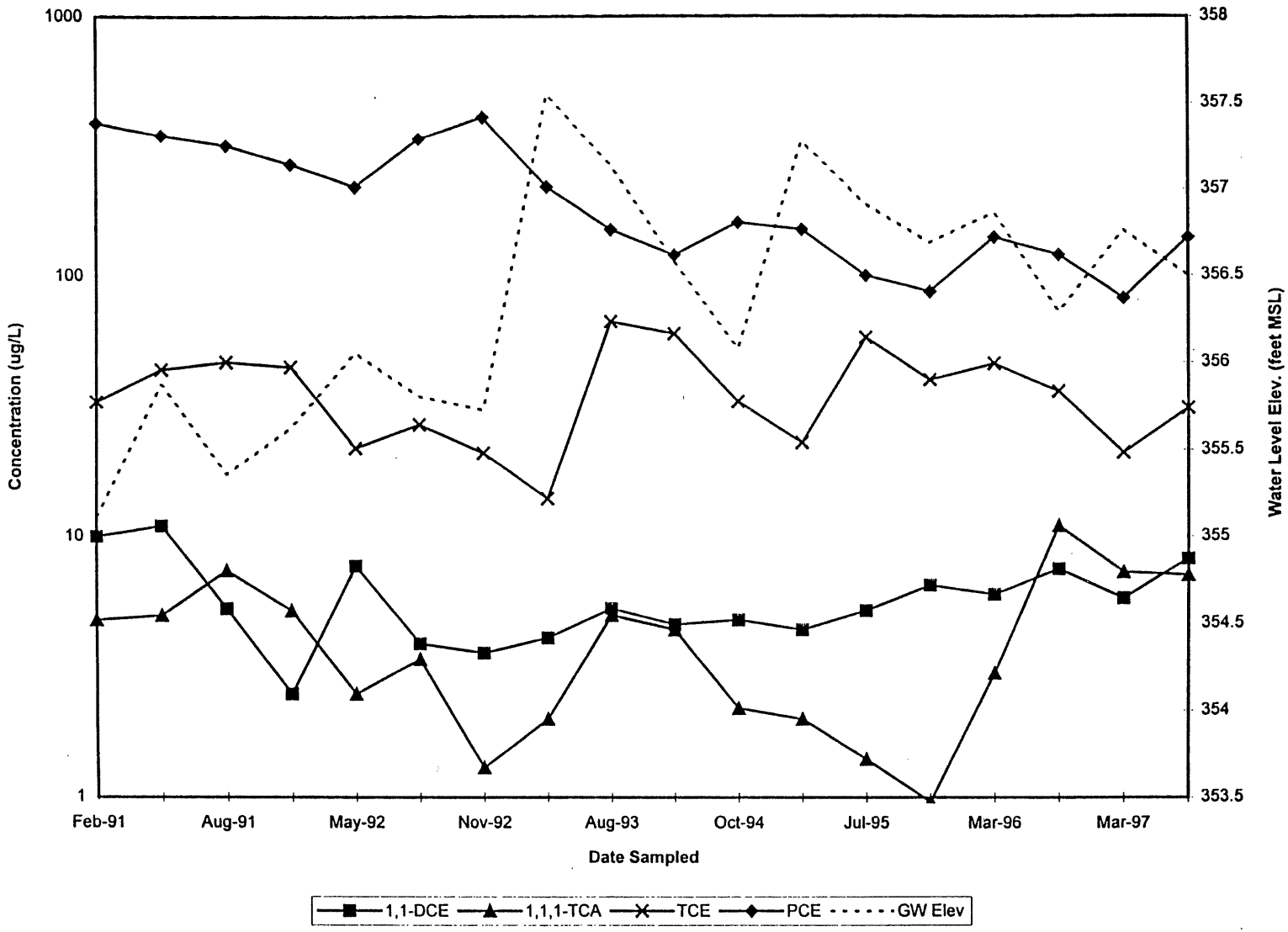
Harding Lawson Associates
Engineering and
Environmental Services

CONCENTRATION AND GROUNDWATER ELEVATION VERSUS TIME - MW-02
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **4**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

R13 HOT\30987\4\1295G1



UTM 006132

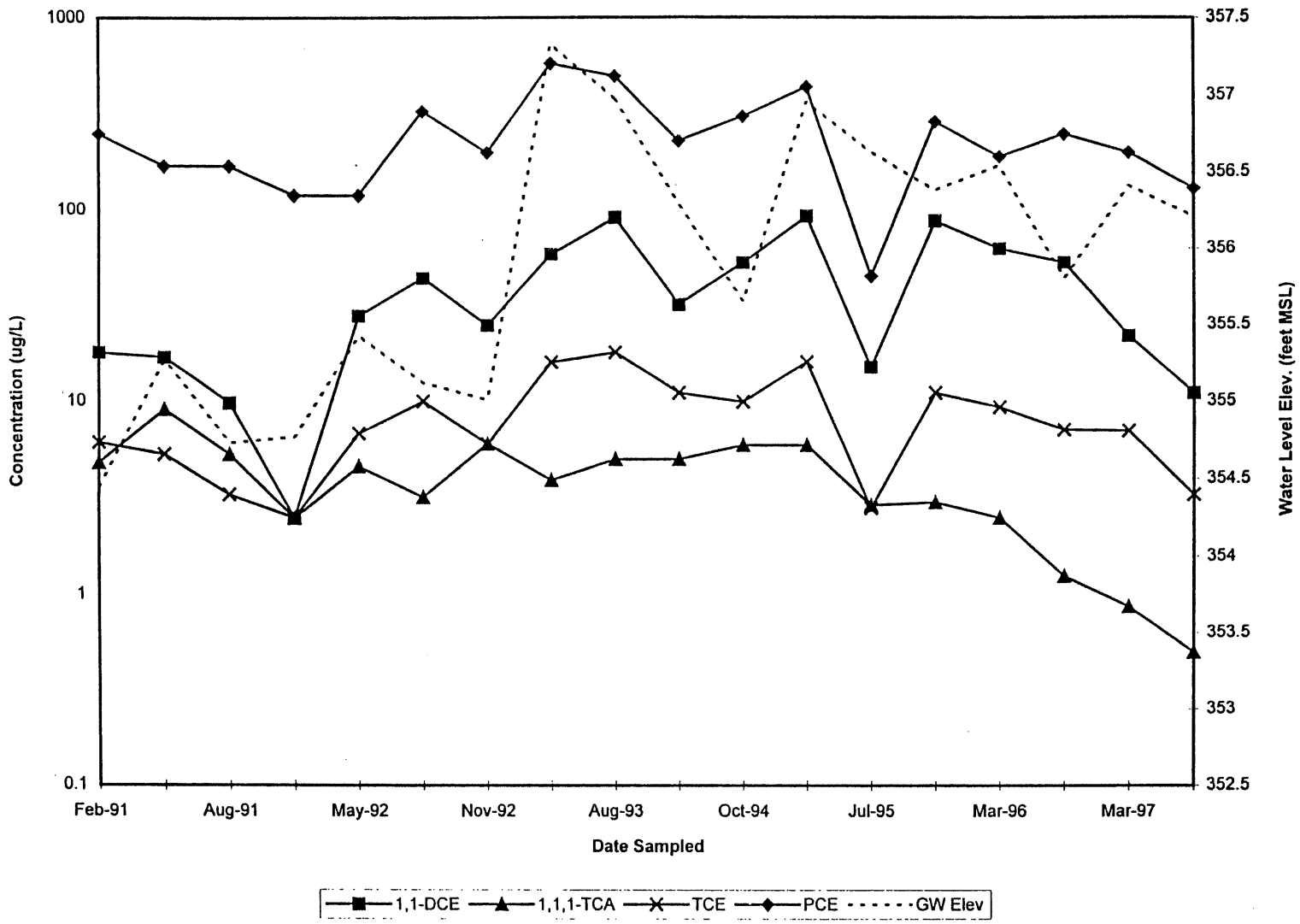
Harding Lawson Associates
Engineering and
Environmental Services

CONCENTRATION AND GROUNDWATER ELEVATION VERSUS TIME - MW-03
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **5**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

R14 HDT\30987\4\1295G1



UTM 006133

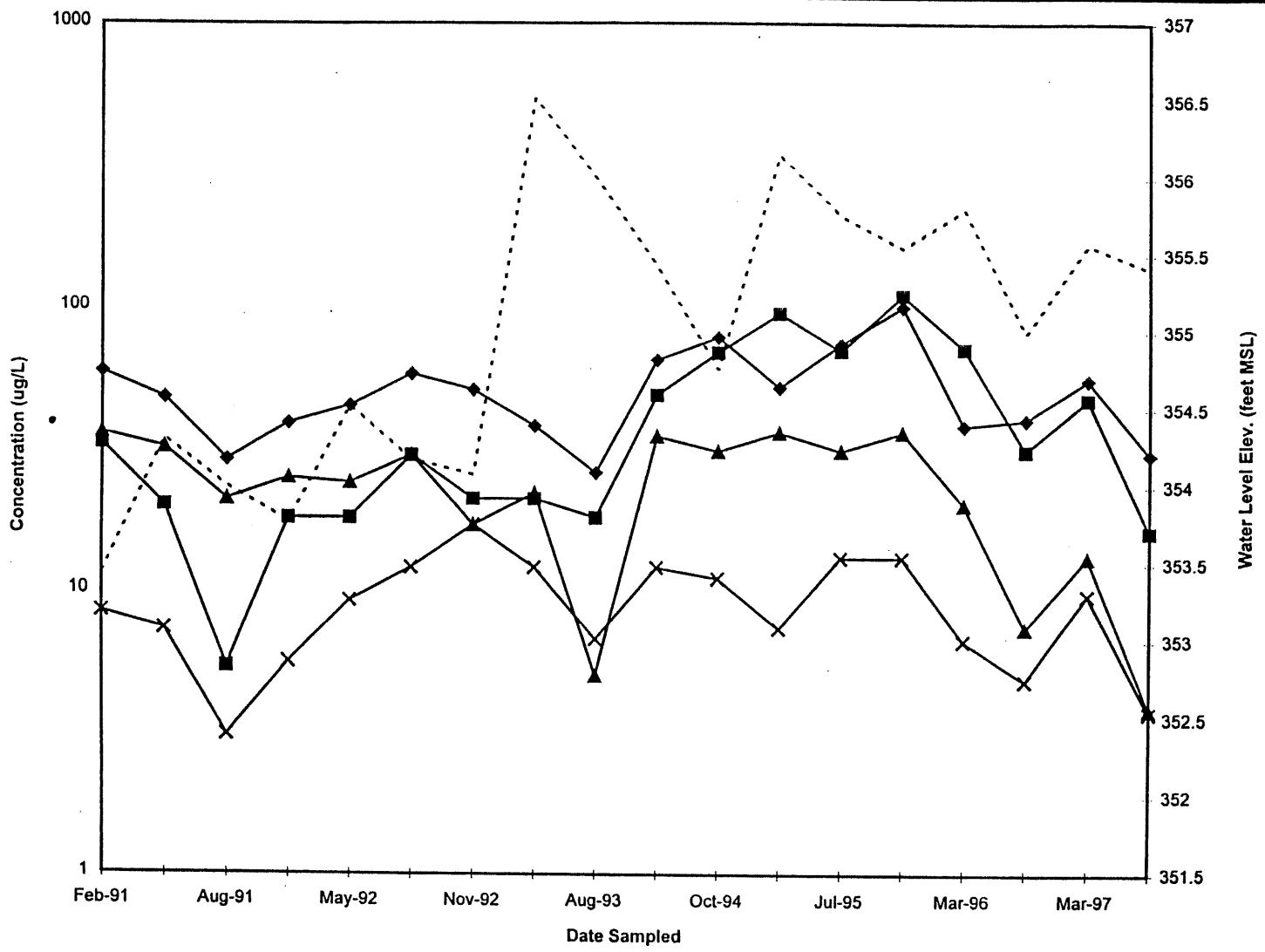
Harding Lawson Associates
Engineering and
Environmental Services

CONCENTRATION AND GROUNDWATER ELEVATION VERSUS TIME - MW-04
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **6**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

R14 HOT\30987\4\1295G1



UTM 006134

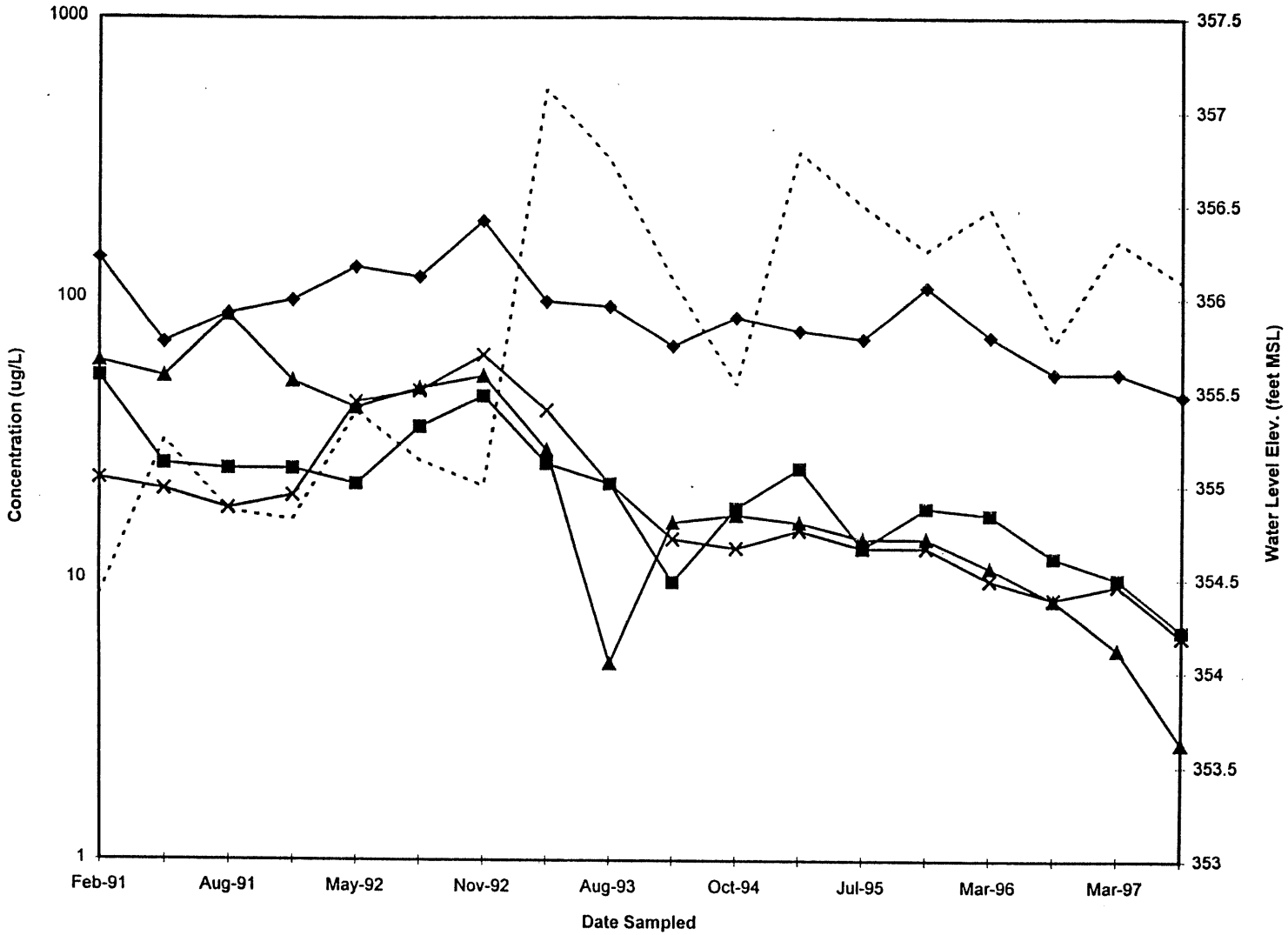
Harding Lawson Associates
Engineering and
Environmental Services

CONCENTRATION AND GROUNDWATER ELEVATION VERSUS TIME - MW-05
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **7**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

R14 HDT\30987\4\1295C1



UTM 006135

Harding Lawson Associates
Engineering and
Environmental Services

CONCENTRATION AND GROUNDWATER ELEVATION VERSUS TIME - MW-06
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **8**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

PLOT 1 = 100 TO 4WV HDT\CAD\30987\4\398PCE

LOS ANGELES WATER COMPANY

MAXIM LIGHTING

SOMITEX PRINTS OF CALIFORNIA

MW-3 111

Maintenance and repair shed

Stationary crane

DRIVEWAY

Equipment & parts storage

Parts & storage Warehouse

MANUFACTURING BUILDING

APPROXIMATE GROUNDWATER GRADIENT DIRECTION

MW-6 50

DRIVE

PLANT OFFICES

MW-4 165

Parking

Drainage conduit

Aftermarket Parts Sales Office

Records storage area

MW-2 41

Guard shack

MW-5 43

Test track (unpaved)

CORPORATE OFFICES

Parking

UTM 006136

EXPLANATION

Fence

MW-2 Groundwater monitoring well

41 PCE Concentration (ug/L) (Average of March and September 1997 sampling rounds)

100 PCE isoconcentration contour, queried where uncertain (contour interval 50 ug/L)

Scale 0 50 100 feet

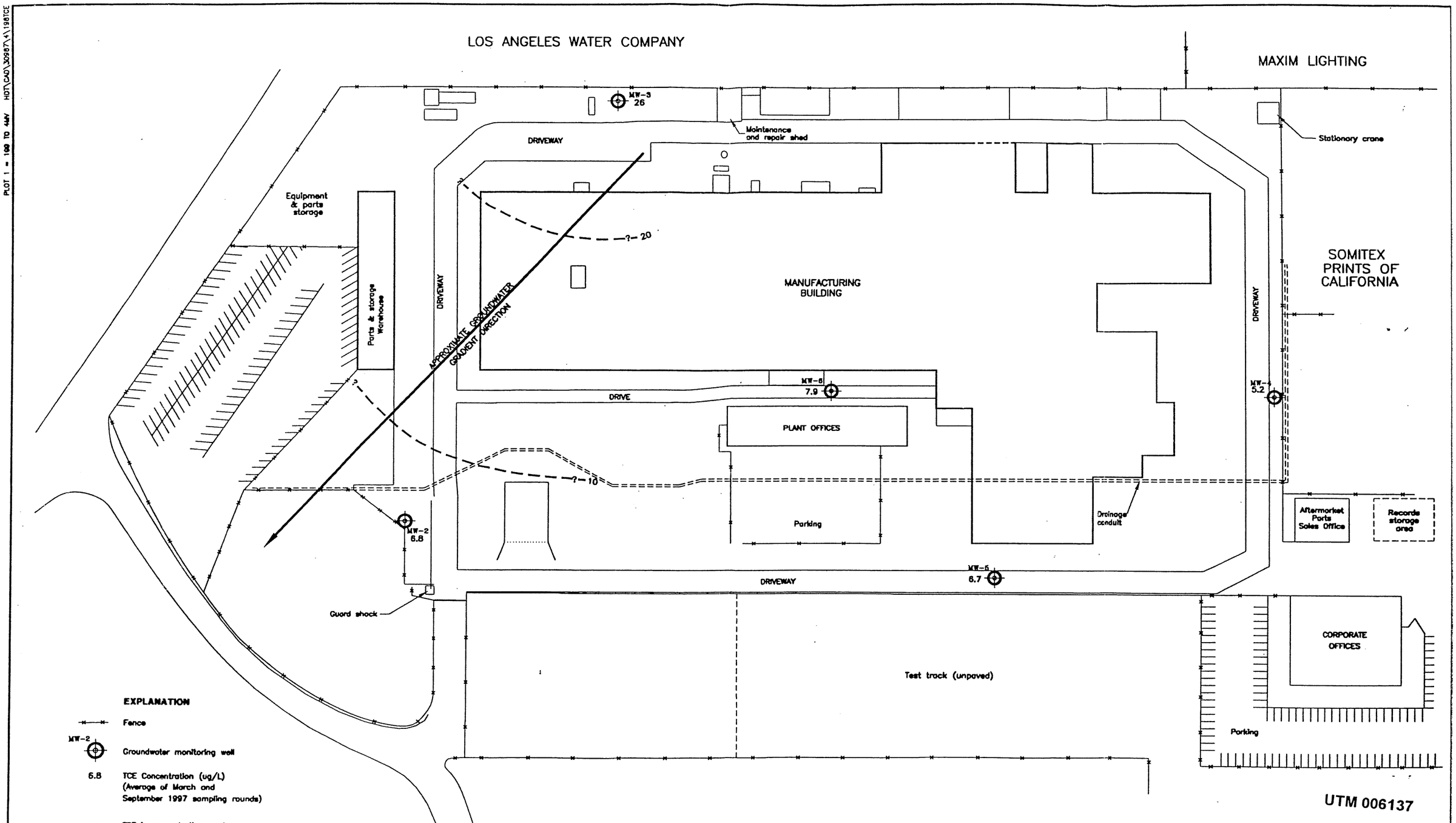
Harding Lawson Associates
Engineering and Environmental Services

AVERAGE PCE ISOCONCENTRATION CONTOUR MAP 1997
Utility Trailer Manufacturing Company
City of Industry, California

PLATE 9

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

PLOT 1 = 100 TO 44V HDT\CAD\30987\4\1987CE



Harding Lawson Associates
Engineering and Environmental Services

AVERAGE TCE ISOCONCENTRATION CONTOUR MAP 1997
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **10**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DAT
KJT	30987-4	Kov	3/98	

PLOT 1 = 100 TO 4MV HDT\CAD\30987\4\398OCE

LOS ANGELES WATER COMPANY

MAXIM LIGHTING

SOMITEX PRINTS OF CALIFORNIA

MW-3 7.0

Maintenance and repair shed

Stationary crane

DRIVEWAY

Equipment & parts storage

Parts & storage Warehouse

DRIVEWAY

MANUFACTURING BUILDING

DRIVEWAY

MW-6 8.3

DRIVE

MW-4 17

PLANT OFFICES

APPROXIMATE GROUNDWATER GRADIENT DIRECTION

Parking

Drainage conduit

Aftermarket Parts Sales Office

Records storage area

MW-2 1.5

DRIVEWAY

MW-5 32

Guard shack

CORPORATE OFFICES

Test track (Unpaved)

30

20

10

Parking

UTM 006138

EXPLANATION

Fence

MW-2 Groundwater monitoring well

1.5 1,1-DCE Concentration (ug/L) (Average of March and September 1997 sampling rounds)

30 1,1-DCE Isoconcentration contour, queried where uncertain (contour interval 10 ug/L)

N

Scale 0 50 100 feet

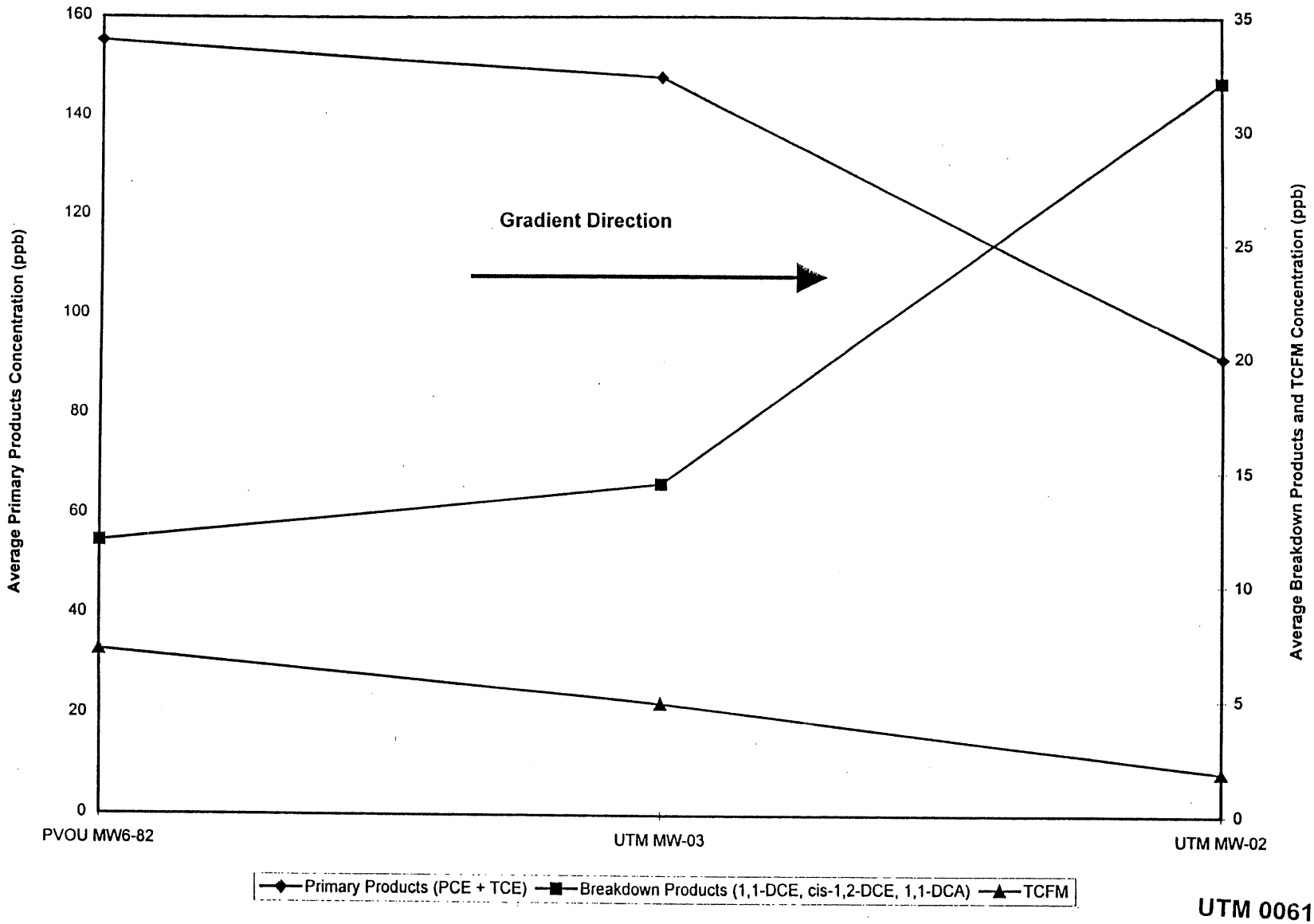
Harding Lawson Associates
Engineering and Environmental Services

AVERAGE 1,1-DCE ISOCONCENTRATION CONTOUR MAP 1997
Utility Trailer Manufacturing Company
City of Industry, California

PLATE **11**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

R14 HOT\30987\4\GRAPH2



UTM 006139

Harding Lawson Associates
Engineering and
Environmental Services

DOWNGRADIENT CONCENTRATION VARIATION
Utility Trailer Manufacturing Company
City of Industry, California

12

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
KJT	30987-4	KJT	3/98	

APPENDIX A

APPENDIX A

WELL PURGING DATA

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: Nadia [signature] (Signature)

Well No.: MW-2
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 3-25-97 Time: 1130
Sampled by: BTH / NLA (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other 4
Total Depth of Casing (TD in feet BTOC): 43.00
Water Level Depth (WL in feet BTOC): 22.30
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other 4

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type: 2" Grundfos

PUMP INTAKE SETTING

☐ Near Bottom ☒ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

$(43.00 - 22.30) \times 4^2 \times 4 \times 0.0408 = \sim 54$ gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE TIME

1130 Start 1151 Stop 21 Elapsed

PURGE RATE

Initial 3.0 gpm Final 2.25 gpm

ACTUAL PURGE VOLUME

54 gallons

FIELD PARAMETER MEASUREMENT

PM ↓

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T. ☐ °C ☒ °F	~~Other~~ WL	Turb
INITIAL	6.84	1330	72.5	22.30	12.3
3	6.69	1408	71.7	27.05	27.6
6	6.66	1430	71.8	25.65	2.5
9	6.70	1440	71.7	25.32	1.8
12	6.71	1440	71.8	25.30	2.3

3.0
2.25 ↓

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T. ☐ °C ☒ °F	~~Other~~ WL	Turb
15	6.68	1434	71.6	25.30	0.9
18	6.69	1428	71.4	"	0.8
21	6.69	1430	71.7	"	0.9
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☐ Bailer - Type: Disposable
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-2	4/40 ml	EPA 8010	HCl	DMA	1210

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: Mark Lequ (Signature)

Well No.: MW-3
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 3-25-97 Time: 1316
Sampled by: BJH / NLA (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other 4
Total Depth of Casing (TD in feet BTOC): 37.60
Water Level Depth (WL in feet BTOC): 21.27
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other 4

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type: 2" Grundfos

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(37.60 - 21.27) X 4 ^{2} X 4 X 0.0408 = 42.6 gallons

TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE TIME

1316 Start 1345 Stop 29 Elapsed

PURGE RATE

Initial 1.5 gpm Final 1.5 gpm

ACTUAL PURGE VOLUME

43.5 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☒ °F	Other WL	Other Turb
INITIAL	7.23	1537	75.4	21.27	8.7
5	6.73	1556	73.4	23.51	2.3
10	6.69	1551	73.1	23.63	CLR
15	6.66	1556	73.0	23.73	CLR
20	6.64	1550	73.5	23.77	CLR

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☒ °F	Other WL	Other Turb
25	6.62	1557	73.0	23.80	CLR
29	6.63	1550	72.9	23.83	CLR
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: Disposable
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-3	4/40ml	EPA 8010	HCl	DMA	1400

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.
MW-3	MW-7

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: [signature] (Signature)

Well No.: MW-4
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 3-25-97 Time: 1509
Sampled by: BJH / NLA (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other 4
Total Depth of Casing (TD in feet BTOC): 53.55
Water Level Depth (WL in feet BTOC): 26.80
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other 4

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type: 2" Grundfos

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(53.55 TD (feet) - 26.80 WL (feet)) X 4 D (inches) ^{2} X 4 # Vols X 0.0408 = 69.8 gallons Calculated Purge Volume

PURGE TIME

1509 Start 1537 Stop 30 Elapsed

PURGE RATE

Initial 2.5 gpm Final 2.5 gpm

ACTUAL PURGE VOLUME

~75 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other WL	Turb.
Initial	7.28	1623	74.5	27.49	CLR
5	6.93	1396	70.3	27.51	CLR
10	6.83	1365	69.7	"	CLR
15	6.83	1359	69.7	"	CLR
20	6.83	1349	69.7	"	CLR

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other WL	Turb.
25	6.83	1327	69.0	27.51	CLR
30	6.82	1328	69.2	"	CLR
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: Disposable
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-4	4/40ml	EPA 8010	HCl	OMA	1545

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.
~~Bat~~ Equip Blk	MW-8

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: Mark Arcuda (Signature)

Well No.: MW-5
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 3-25-97 Time: 1025
Sampled by: BJH / NLA (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other 4
Total Depth of Casing (TD in feet BTOC): 25.04
Water Level Depth (WL in feet BTOC): 4
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type: 2" Grundfos

PUMP INTAKE SETTING

☐ Near Bottom ☒ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(44.04 TD (feet) - 25.04 WL (feet)) X 4 D (inches)^2 X 4 # Vols X 0.0408 = ~50 gallons Calculated Purge Volume

PURGE TIME

1025 Start 1040 Stop 15 Elapsed

PURGE RATE

Initial 3.5 gpm Final 3.5 gpm

ACTUAL PURGE VOLUME

~53 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☒ °F	~~Other~~ WL	Turbid
INITIAL	6.80	1322	69.6	25.00	CLR
3	6.77	1325	68.7	25.78	2.5
6	6.76	1330	68.4	25.60	1.30
9	6.83	1327	68.6	25.78	1.50
12	6.81	1325	68.4	"	0.7

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☒ °F	~~Other~~ WL	Turbid
15	6.83	1325	68.2	25.75	0.8
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISPOSABLE
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-5	4/40 ml	EPA 8010	HCl	DMA	1055

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and Environmental Services

GROUND-WATER SAMPLING FORM

Job Name UTM
Job Number 30987-3
Recorded by [signature] (Signature)

Well No. MW-6
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date 3-25-97 Time 0915
Sampled by BJH / NLA (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC): 39.25
Water Level Depth (WL in feet BTOC): 23.48
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type: 2" GUNDFOS

PUMP INTAKE SETTING

☐ Near Bottom ☒ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

$(39.25 - 23.48) \times 4^2 \times 4 \times 0.0408 = \sim 41$ gallons

TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE TIME

0915 Start 0928 Stop 13 Elapsed

PURGE RATE

Initial 3.5 gpm Final 3.5 gpm

ACTUAL PURGE VOLUME

~45 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	~~Other~~ WL	Turbid
INITIAL	6.93	1366	63.5	23.70	CLR
3	6.66	1368	66.9	"	CLR
6	6.70	1138	67.5	"	CLR (1.23)
9	6.70	1343	67.7	"	1.42
11	6.71	1343	67.6	"	0.74

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	~~Other~~ WL	Turbid
13	6.69	1432	67.2	"	0.89
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: Disposable
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-6	4/40 ml	EPA 8010	HCl	DMA	0950

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: [signature]

Well No.: MW-2
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 9-30-97 Time: 0830
Sampled by: BJH (initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC):
Water Level Depth (WL in feet BTOC): BELOW
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☐ Near Bottom ☒ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(42.84 − 22.52) × 4² × 4 × 0.0408 = 53.0 gallons
TD (feet) − WL (feet) × D (inches)² × # Vols × 0.0408 = Calculated Purge Volume

PURGE TIME

905 ~~0855~~ Start 0930 Stop 25 Elapsed

PURGE RATE

Initial 2.16 gpm Final 2.16 gpm

ACTUAL PURGE VOLUME

54 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	Turb	T ☒ °C ☐ °F	Other	D.O.	W.L.
* INITIAL	6.88	1.73	9.0	23.0	1.53	~~22.58~~	
5	7.18	1.99	51.0	22.7	2.59	26.75	
10	7.12	2.00	10.0	22.7	1.42	26.92	
15	7.11	2.00	7.0	22.6	0.85	26.98	
20	7.10	2.00	10.0	22.6	0.25	27.23	

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	Turb	T ☒ °C ☐ °F	Other	D.O.	W.L.
25	7.10	2.01	3.0	0.22	22.6		
Meter Nos.							

Observations During Purging (Well Condition, Turbidity, Color, Odor): * REDIAL PUMP DISC. PUT IN 4" GRUNDFOS

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISPOSIBLE
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-2	4 X 40ml	8010	HCL	DEL MAR	0945

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: [signature]

Well No.: MW-3
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 9-30-97 Time:
Sampled by: (initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC):
Water Level Depth (WL in feet BTOC): Below
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☐ Near Bottom ☒ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(37.38 TD (feet) - 21.53 WL (feet)) X 4 D (inches)^2 X 4 # Vols X 0.0408 = 41.4 gallons Calculated Purge Volume

PURGE TIME

1150 Start 1225 Stop 35 Elapsed

PURGE RATE

Initial 2.0 gpm Final 1.25 gpm

ACTUAL PURGE VOLUME

42 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	D.O. Other	W.L.
INITIAL	6.70	2.23	12.0	24.1	1.21	21.53
4	6.88	2.23	37.0	22.9	0.71	30.00
8	6.86	2.22	45.0	23.9	1.55	26.24
11	6.86	2.23	16.0	22.4	1.39	26.60
15	6.88	2.23	2.0	22.5	1.07	26.66

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	D.O. Other	W.L.
20	6.88	2.23	1.0	22.5	1.03	26.71
25	6.88	2.23	0.0	22.7	1.05	26.78
30	6.87	2.23	0.0	22.8	1.08	26.75
35	6.87	2.23	0.0	22.9	0.99	26.78
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISPOSABLE
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-3	4 X 40ml	8010	HCL	DEL MAR	@ 1235

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name UTM
Job Number 30987-3
Recorded by [signature]

Well No. MW-4
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date 9-30-97 Time 1445
Sampled by BJH (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC):
Water Level Depth (WL in feet BTOC): BELOW
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(53.30 - 27.00) X 4² X 4 X 0.0408 = 68.7 gallons
TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE TIME

1454 Start 1517 Stop 23 Elapsed

PURGE RATE

Initial 2.00 gpm Final 2.00 gpm

ACTUAL PURGE VOLUME

69 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other D.O.	Other W.L.
INITIAL	7.10	1.53	17.0	21.9	1.09	27.00
5	7.08	1.72	9.0	21.6	0.96	28.03
10	7.05	1.72	8.0	21.4	0.54	28.20
15	7.07	1.71	7.0	21.3	0.48	28.06
19	7.07	1.71	7.6	21.3	0.57	28.08

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other D.O.	Other W.L.
23	7.07	1.71	4.0	21.3	0.53	28.08
Meter Nos.					

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISPOSIBLE
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-4	4 x 40 ml	8010	HCL	DEL MAR	@ 1530

QUALITY CONTROL SAMPLES

* FICTICIOUS TIMES

Duplicate Samples

Original Sample No.	Duplicate Sample No.
MW-4	MW-7
	@ 1550 *

Blank Samples

Type	Sample No.
EQUIP	MW-8
	@ 1615 *

Other Samples

Type	Sample No.

UTM 006149

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: (Signature)

Well No.: MW-5
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 9-30-97 Time:
Sampled by: BJH (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC):
Water Level Depth (WL in feet BTOC):
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(94.00 TD (feet) - 25.20 WL (feet)) X 4 D (inches)^2 X 4 # Vols X 0.0408 = 49.1 gallons Calculated Purge Volume

PURGE TIME

1335 Start 1408 Stop 33 Elapsed

PURGE RATE

Initial 1.5 gpm Final 1.5 gpm

ACTUAL PURGE VOLUME

50 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other D.O.	W.L.
INITIAL	7.11	1.99	26.0	24.0	1.53	25.20
5	7.08	1.80	22.0	22.6	0.33	25.45
10	7.08	1.81	23.0	22.7	0.25	25.5
15	7.07	1.81	24.0	22.7	0.21	25.55
20	7.07	1.81	23.0	22.5	0.18	25.54

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other D.O.	W.L.
25	7.07	1.80	11.0	21.9	0.11	25.62
29	7.07	1.81	10.0	22.0	0.11	25.60
33	7.07	1.81	4.0	22.1	0.11	25.61
Meter Nos.						

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISPOSIBLE
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-5	4 X 40ml	8010	HCL	DELMAR	1415

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name: UTM
Job Number: 30987-3
Recorded by: [signature]

Well No.: MW-6
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date: 9-30-97 Time: 1015
Sampled by: BJH (initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC): BELOW
Water Level Depth (WL in feet BTOC):
Number of Well Volumes to be purged (# Vols)
☐ 3 ☒ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☒ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☐ Near Bottom ☒ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION

(39.03 TD (feet) - 23.70 WL (feet)) X 4 D (inches)^2 X 4 # Vols X 0.0408 = 40.0 gallons Calculated Purge Volume

PURGE TIME

1024 Start 1.50 Stop 1051 Elapsed

PURGE RATE

Initial 1.50 gpm Final 1.50 gpm

ACTUAL PURGE VOLUME

gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond (µmhos/cm)	TURB	T ☒ °C ☐ °F	D.O. Other	W.L.
INITIAL	7.37	1.78	15.0	21.8	2.01	23.70
5	7.20	1.79	10.0	21.5	0.42	23.87
10	7.19	1.79	9.0	21.4	0.41	23.82
15	7.21	1.79	6.0	21.6	0.57	23.82
20	7.21	1.79	5.0	21.5	0.58	23.87

Minutes Since Pumping Began	pH	Cond (µmhos/cm)	TURB	T ☒ °C ☐ °F	D.O. Other	W.L.
24	7.20	1.79	4.0	21.3	0.43	23.82
27	7.19	1.79	3.0	21.5	0.33	23.82
Meter Nos.						

Observations During Purging (Well Condition, Turbidity, Color, Odor):

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Other

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISPOSIBLE
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series:

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-6	4 X 40 ml	8010	HCL	DEL MAR	@ 1105

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

0746

APPENDIX B

APPENDIX B

SUPPORTING LABORATORY DOCUMENTATION

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received: Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-6	Extracted: Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03561	Analyzed: Apr 1, 1997
		Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	**0.50**	**2.7**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**10**
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	***41**
1,1,1-Trichloroethane	**0.50**	**5.6**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**9.5**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

*Result above calibration range. Please see secondary analysis for quantitative result.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	115%

UTM 006154

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received:	Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-6	Extracted:	Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03561	Analyzed:	Apr 1, 1997
		Reported:	Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	**1.3**	**2.2**
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**7.6**
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	2.5	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	**1.3**	**54**
1,1,1-Trichloroethane	**1.3**	**4.5**
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**9.6**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	1.3	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	111%

UTM 006155

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received:	Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-5	Extracted:	Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03562	Analyzed:	Apr 1, 1997
		Reported:	Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	**0.50**	**20**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	***53**
cis-1,2-Dichloroethene	**0.50**	**0.89**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	***40**
1,1,1-Trichloroethane	**0.50**	**13**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**9.6**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

*Result above calibration range. Please see secondary analysis for quantitative result.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	112%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite I, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received:	Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-5	Extracted:	Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03562	Analyzed:	Apr 1, 1997
		Reported:	Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	**1.3**	**19**
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**47**
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	2.5	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	**1.3**	**55**
1,1,1-Trichloroethane	**1.3**	**11**
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**9.1**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	1.3	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	106%

UTM 006157

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received:	Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-2	Extracted:	Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03563	Analyzed:	Apr 1, 1997
		Reported:	Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	**0.50**	**5.5**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**2.0**
cis-1,2-Dichloroethene	**0.50**	**3.9**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**36**
1,1,1-Trichloroethane	**0.50**	**1.2**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**7.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	112%

UTM 006158

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received: Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-3	Extracted: Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03564	Analyzed: Apr 1, 1997
		Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	**0.50**	**0.78**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	**0.50**	**0.66**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**5.8**
cis-1,2-Dichloroethene	**0.50**	**7.0**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	***49**
1,1,1-Trichloroethane	**0.50**	**7.3**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**21**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

*Result above calibration range. Please see secondary analysis for quantitative result.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	109%

UTM 006159

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received: Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-3	Extracted: Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03564	Analyzed: Apr 1, 1997
		Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**4.8**
cis-1,2-Dichloroethene	**1.3**	**6.2**
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	2.5	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	**1.3**	**82**
1,1,1-Trichloroethane	**1.3**	**6.1**
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**20**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	1.3	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	105%

UTM 006160

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates 30 Corporate Park, Ste. 400 Irvine, CA 92606 Attention: Kevin Trout	Client Project ID: 30987-3 UTM Sample Descript: Water, MW-7 Lab Number: GC03565	Sampled: Mar 25, 1997 Received: Mar 25, 1997 Extracted: Apr 1, 1997 Analyzed: Apr 1, 1997 Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	**0.50**	**0.74**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	**0.50**	**0.66**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**5.7**
cis-1,2-Dichloroethene	**0.50**	**6.9**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	***47**
1,1,1-Trichloroethane	**0.50**	**6.9**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**20**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

*Result above calibration range. Please see secondary analysis for quantitative result.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	108%

UTM 006161

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Mar 25, 1997
30 Corporate Park, Ste. 400	UTM	Received: Mar 25, 1997
Irvine, CA 92606	Sample Descript: Water, MW-7	Extracted: Apr 1, 1997
Attention: Kevin Trout	Lab Number: GC03565	Analyzed: Apr 1, 1997
		Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**4.9**
cis-1,2-Dichloroethene	**1.3**	**6.5**
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	2.5	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	**1.3**	**85**
1,1,1-Trichloroethane	**1.3**	**6.2**
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**21**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	1.3	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	106%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

UTM 006162

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Ste. 400
Irvine, CA 92606
Attention: Kevin Trout

Client Project ID: 30987-3
UTM
Sample Descript: Water, MW-4
Lab Number: GC03566

Sampled: Mar 25, 1997
Received: Mar 25, 1997
Extracted: Apr 1, 1997
Analyzed: Apr 1, 1997
Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**22**
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	***50**
1,1,1-Trichloroethane	**0.50**	**0.87**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**7.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

*Result above calibration range. Please see secondary analysis for quantitative result.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	120%

UTM 006163

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Ste. 400
Irvine, CA 92606
Attention: Kevin Trout

Client Project ID: 30987-3
UTM
Sample Descript: Water, MW-4
Lab Number: GC03566

Sampled: Mar 25, 1997
Received: Mar 25, 1997
Extracted: Apr 2, 1997
Analyzed: Apr 2, 1997
Revised: Apr 18, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**27**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**200**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**7.2**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	2.5	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	104%

UTM 006164

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates 30 Corporate Park, Ste. 400 Irvine, CA 92606 Attention: Kevin Trout	Client Project ID: 30987-3 UTM Sample Descript: Water, MW-8 Lab Number: GC03567	Sampled: Mar 25, 1997 Received: Mar 25, 1997 Extracted: Apr 1, 1997 Analyzed: Apr 1, 1997 Reported: Apr 3, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	100%

UTM 006165

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Ste. 400
Irvine, CA 92606
Attention: Kevin Trout

Client Project ID: 30987-3
UTM
Sample Descript: Water
First Sample #: GC03566

Sampled: Mar 25, 1997
Received: Mar 25, 1997
Extracted: Mar 26, 1997
Analyzed: Mar 26, 1997
Reported: Apr 3, 1997

TURBIDITY (EPA 180.1)

Laboratory Number	Sample Description	Reporting Limit NTU	Sample Result NTU
GC03566	MW-4	1.0	1.1

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

UTM 006166

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Ste. 400
Irvine, CA 92606
Attention: Kevin Trout

Method Blank

Extracted: Apr 1, 1997
Analyzed: Apr 1, 1997
Reported: Apr 3, 1997
Matrix: Water

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	106%

UTM 006167

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Ste. 400
Irvine, CA 92606
Attention: Kevin Trout

Method Blank

Extracted: Apr 2, 1997
Analyzed: Apr 2, 1997
Reported: Apr 3, 1997
Matrix: Water

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	1.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene	91%

UTM 006168

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 8010/8020

Matrix: Water

Date: 04/01/97

Sample #: GC03567

Batch #: GD01VO1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	10	9.0	9.2	90	92	2.4	91	≤30	39 - 150
Chloroform	0	10	9.0	10	90	101	11	95	≤30	49 - 133
1,1-Dichloroethane	0	10	9.1	9.7	91	97	6.4	94	≤30	47 - 132
1,2-Dichloroethane	0	10	9.1	10	91	101	11	96	≤30	51 - 147
1,1-Dichloroethene	0	10	8.9	9.2	89	92	3.5	90	≤30	28 - 167
Tetrachloroethene	0.085	10	10	10	100	102	2.8	101	≤30	26 - 162
Toluene	0	10	8.8	9.1	88	91	3.4	90	≤30	46 - 148
Trichloroethene	0	10	9.3	9.9	93	99	6.2	96	≤30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 8010/8020

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA METHOD: **8010/8020**
Matrix: Water

Date: 4/2/97

Sample #: GC04152

Batch #: GD02101W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppb	ppb	ppb	ppb	%	%	%	%
Benzene	0	10	10	10	105%	104%	1.0%	104%
Chloroform	0	10	10	11	103%	111%	7.0%	107%
1,1-Dichloroethane	0	10	10	11	100%	111%	10%	105%
1,2-Dichloroethane	0	10	11	11	105%	112%	6.3%	109%
1,1-Dichloroethene	0	10	12	12	121%	125%	2.9%	123%
Tetrachloroethene	0.26	10	11	10	104%	101%	2.8%	103%
Toluene	0.31	10	9.3	9.2	93%	92%	1.4%	92%
Trichloroethene	0	10	10	10	101%	104%	3.6%	102%

Definition of Terms:

R1..... Result of Sample Analysis

Sp..... Spike Concentration Added to Sample

MS..... Matrix Spike Result

MSD..... Matrix Spike Duplicate Result

PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92714
(714) 260-1800

CHAIN OF CUSTODY FORM

Lab: DEL MAR

Samplers: BRYAN HAWES
Nadine ACQUISTO

Job Number: 30987 - 3

Name/Location: UTM

Project Manager: KEVIN TROUT

Recorder: Nadine Acquisto (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	Turbidity
23	X							4				970325			0950	MW-6	X						X NA
															1055	MW-5	X						
															1210	MW-2	X						
															1400	MW-3	X						
															1407	MW-7	X						
					1										1545	MW-4	X						X
															1608	MW-8	X						
																TB NA	X NA						

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Analysis needs to be completed following RWQCB WIP gudlines and detection limits of 0.5 ppb and 1.0 ppb must be met for all compounds.
						Normal T.A.T

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Nadine Acquisto		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
	[illegible]	3-25-97 5:[illegible]

METHOD OF SHIPMENT: INTACT / COOL

6533

Laboratory Copy Project Office Copy Field or Office Copy

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CRWQCB - L.A. REGION
WELL INVESTIGATION PROGRAM
QA/QC REPORT

PREPARED FOR HARDING LAWSON ASSOCIATES
PROJECT: 30987-3 UTM
SAMPLED: 3/25/97

ATTENTION: KEVIN TROUT

Celebrating 10 years of service 1987-1997

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92714
(714) 260-1800

CHAIN OF CUSTODY FORM

Lab: DEL MAR

Samplers: BRYAN HAWES
Nadine Acquisto

Job Number: 30987-3

Name/Location: UTM

Project Manager: KEVIN TROUT

Recorder: Nadine Acquisto (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	Turbidity
23	X							4				970325			0950	MW-6	X						X NA
															1055	MW-5	X						
															1210	MW-2	X						
															1400	MW-3	X						
															1407	MW-7	X						
					1										1545	MW-4	X						X
															1608	MW-8	X						
																TB NA	X	NA					

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Analysis needs to be completed following RWQCB WIP gudlines and detection limits of 0.5 ppb and 1.0 ppb must be met for all compounds.
						Normal T.A.T

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Nadine Acquisto		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
	[illegible]	3-25-97 5:35

METHOD OF SHIPMENT: INTACT / COOL

6533

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Del Mar Analytical

Address: 2852 Alton Avenue
Irvine, CA 92606

Telephone/FAX: (714) 261-1022 / (714) 261-1228

ELAP Certification No.: 1197 Expiration Date: May 31, 1998

Authorized Signature:
Name, Title (print) Debbie Ranck, Quality Assurance Officer

Signature, Date: Debbie Ranck 4/22/97

Client Name: Harding Lawson Associates

Project No.: 30987-3 UTM

Date(s) Sampled: 3/25/97 To

Date(s) Received: 3/25/97 To

Date(s) Reported: 4/3/97 To

Chain of Custody received: Yes X No

Comments: The methylene chloride reported in the samples is most likely due to laboratory contamination.

(RWQCB LabForm; Ver 12/94)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
EPA 8010	7	0

Sample Condition: Acceptable

Inorganic Analyses	# of Samples	# of Samples Subcontracted
Turbidity	1	0

Sample Condition: Acceptable

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

(RWQCB LabForm; Ver 12/94)

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	4/1/97	4/1/97	4/1/97	4/1/97
		DATE EXTRACTED	4/1/97	4/1/97	4/1/97	4/1/97
		LAB SAMPLE ID	Method Blank	GC03561	GC03561	GC03562
		CLIENT SAMPLE ID	n/a	MW-6	MW-6	MW-5
		EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
		EXTRACTION METHOD	5030	5030	5030	5030
		DILUTION FACTOR	1	1	2.5	1
COMPOUND		**CRDL**				
Bromodichloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		0.50	< 0.50	**2.7**	**2.2**	**20**
1,2-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		0.50	< 0.50	**10**	**7.6**	**53**
cis-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	**0.89**
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride		1.0	< 1.0	**3.0**	**5.4**	**2.8**
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		0.50	< 0.50	**41**	**54**	**40**
1,1,1-Trichloroethane		0.50	< 0.50	**5.6**	**4.5**	**13**
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		0.50	< 0.50	**9.5**	**9.6**	**9.6**
Trichlorofluoromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
1-Chloro-3-fluorobenzene	10	80-120	106	115	111	112

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	4/1/97	4/1/97	4/1/97	4/1/97
		DATE EXTRACTED	4/1/97	4/1/97	4/1/97	4/1/97
		LAB SAMPLE ID	GC03562	GC03563	GC03564	GC03564
		CLIENT SAMPLE ID	MW-5	MW-2	MW-3	MW-3
		EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
		EXTRACTION METHOD	5030	5030	5030	5030
		DILUTION FACTOR	2.5	1	1	2.5
COMPOUND		**CRDL**				
Bromodichloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		0.50	< 0.50	< 0.50	**0.78**	< 0.50
Chloromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		0.50	**19**	**5.5**	**0.66**	< 0.50
1,2-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		0.50	**47**	**2.0**	**5.8**	**4.8**
cis-1,2-Dichloroethene		0.50	< 0.50	**3.9**	**7.0**	**6.2**
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride		1.0	**4.8**	**1.9**	**2.1**	**5.1**
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		0.50	**55**	**36**	**49**	**82**
1,1,1-Trichloroethane		0.50	**11**	**1.2**	**7.3**	**6.1**
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		0.50	**9.1**	**7.3**	**21**	**20**
Trichlorofluoromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
1-Chloro-3-fluorobenzene	10	80-120	106	112	109	105

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	4/1/97	4/1/97	4/1/97	4/1/97
		DATE EXTRACTED	4/1/97	4/1/97	4/1/97	4/1/97
		LAB SAMPLE ID	GC03565	GC03565	GC03566	GC03567
		CLIENT SAMPLE ID	MW-7	MW-7	MW-4	MW-8
		EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
		EXTRACTION METHOD	5030	5030	5030	5030
		DILUTION FACTOR	1	2.5	1	1
COMPOUND		CRDL				
Bromodichloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		0.50	**0.74**	< 0.50	< 0.50	< 0.50
Chloromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		0.50	**0.66**	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		0.50	**5.7**	**4.9**	**22**	< 0.50
cis-1,2-Dichloroethene		0.50	**6.9**	**6.5**	< 0.50	< 0.50
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride		1.0	**1.9**	**5.9**	**2.4**	**1.9**
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		0.50	**47**	**85**	**50**	< 0.50
1,1,1-Trichloroethane		0.50	**6.9**	**6.2**	**0.87**	< 0.50
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		0.50	**20**	**21**	**7.0**	< 0.50
Trichlorofluoromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
SURROGATE	SPIKE CONC	ACCEPT LIMITS %	% RECOVERY	% RECOVERY	% RECOVERY	% RECOVERY
1-Chloro-3-fluorobenzene	10	80-120	108	106	120	100

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	4/2/97	4/2/97		
		DATE EXTRACTED	4/2/97	4/2/97		
		LAB SAMPLE ID	Method Blank	GC03566		
		CLIENT SAMPLE ID	n/a	MW-4		
		EXTRACTION SOLVENT	n/a	n/a		
		EXTRACTION METHOD	5030	5030		
		DILUTION FACTOR	1	5		
COMPOUND		CRDL				
Bromodichloromethane		0.50	< 0.50	< 0.50		
Bromoform		0.50	< 0.50	< 0.50		
Bromomethane		1.0	< 1.0	< 1.0		
Carbon tetrachloride		0.50	< 0.50	< 0.50		
Chlorobenzene		1.0	< 1.0	< 1.0		
Chloroethane		1.0	< 1.0	< 1.0		
2-Chloroethylvinyl ether		1.0	< 1.0	< 1.0		
Chloroform		0.50	< 0.50	< 0.50		
Chloromethane		1.0	< 1.0	< 1.0		
Dibromochloromethane		0.50	< 0.50	< 0.50		
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0		
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0		
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0		
1,1-Dichloroethane		0.50	< 0.50	< 0.50		
1,2-Dichloroethane		0.50	< 0.50	< 0.50		
1,1-Dichloroethene		0.50	< 0.50	**27**		
cis-1,2-Dichloroethene		0.50	< 0.50	< 0.50		
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50		
1,2-Dichloropropane		0.50	< 0.50	< 0.50		
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50		
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50		
Methylene chloride		1.0	< 1.0	< 1.0		
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50		
Tetrachloroethene		0.50	< 0.50	**200**		
1,1,1-Trichloroethane		0.50	< 0.50	< 0.50		
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50		
Trichloroethene		0.50	< 0.50	**7.2**		
Trichlorofluoromethane		0.50	< 0.50	< 0.50		
Vinyl chloride		0.50	< 0.50	< 0.50		
SURROGATE	SPIKE CONC	ACCEPT LIMITS %	% RECOVERY	% RECOVERY	% RECOVERY	% RECOVERY
1-Chloro-3-fluorobenzene	10	80-120	91	104		

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

QA/QC REPORT

II. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATE (MSD)

Date Performed: 4/1/97
Batch Number: GD01231W
Lab Sample I.D.: GC03567
Analytical Method: EPA 8010
Reporting Unit: µg/L

Analyte	Sample Result	Spike Conc	MS	% MS	Spike Conc (Dup)	MSD	%MSD	RPD	MS/MSD Limit	RPD Limit
Chloroform	0	10	9.0	90%	10	10	100%	10.5%	80-120	≤ 20
1,1-Dichloroethane	0	10	9.1	91%	10	9.7	97%	6.4%	80-120	≤ 20
1,2-Dichloroethane	0	10	9.1	91%	10	10	100%	9.4%	80-120	≤ 20
1,1-Dichloroethene	0	10	8.9	89%	10	9.2	92%	3.3%	80-120	≤ 20
Tetrachloroethene	0	10	10	100%	10	10	100%	0.0%	80-120	≤ 20
Trichloroethene	0	10	9.3	93%	10	9.9	99%	6.2%	80-120	≤ 20

III. LABORATORY QUALITY CONTROL CHECK SAMPLE (LCS)

Date Performed: 4/1/97
Supply Source: AccuStandard
Lot Number: 085-307
Date of Source: 1/2/97
Analytical Method: EPA 8010
Reporting Unit: µg/L
Lab LCS I.D.: LCS

Analyte	Spike Concentration	Result	% Recovery	Acceptance % Recovery Limit
Chloroform	10	9.8	98%	80-120
1,1-Dichloroethane	10	9.0	90%	80-120
1,2-Dichloroethane	10	9.1	91%	80-120
1,1-Dichloroethene	10	9.2	92%	80-120
Tetrachloroethene	10	10	100%	80-120
Trichloroethene	10	9.9	99%	80-120

PROJECT NO: 30987-3

(RWQCB LabForm 10A; Ver12/94)

QA/QC REPORT

II. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATE (MSD)

Date Performed: 4/2/97

Batch Number: GD02101W

Lab Sample I.D.: GC04152

Analytical Method: EPA 8010

Reporting Unit: µg/L

Analyte	Sample Result	Spike Conc	MS	% MS	Spike Conc (Dup)	MSD	%MSD	RPD	MS/MSD Limit	RPD Limit
Chloroform	0	10	10	100%	10	11	110%	9.5%	80-120	≤ 20
1,1-Dichloroethane	0	10	10	100%	10	11	110%	9.5%	80-120	≤ 20
1,2-Dichloroethane	0	10	11	110%	10	11	110%	0.0%	80-120	≤ 20
1,1-Dichloroethene	0	10	12	120%	10	12	120%	0.0%	80-120	≤ 20
Tetrachloroethene	0	10	11	110%	10	10	100%	9.5%	80-120	≤ 20
Trichloroethene	0	10	10	100%	10	10	100%	0.0%	80-120	≤ 20

III. LABORATORY QUALITY CONTROL CHECK SAMPLE (LCS)

Date Performed: 4/2/97

Supply Source: AccuStandard

Lot Number: 085-307

Date of Source: 1/2/97

Analytical Method: EPA 8010

Reporting Unit: µg/L

Lab LCS I.D.: LCS

Analyte	Spike Concentration	Result	% Recovery	Acceptance % Recovery Limit
Chloroform	10	9.6	96%	80-120
1,1-Dichloroethane	10	8.7	87%	80-120
1,2-Dichloroethane	10	9.2	92%	80-120
1,1-Dichloroethene	10	11	110%	80-120
Tetrachloroethene	10	10	100%	80-120
Trichloroethene	10	9.4	94%	80-120

Calibration data for Sequence file: **h:\data\gc23a\p01.seq**

Initial Calibration Date:	03/28/97	PID Sample File:	h:\data\gc23a\pw9703.smp	Supply Source:	Ultra Scientific
Created by:	SS/NA	ELCD Sample File:	h:\data\gc23a\ew9703.smp	Lot Number:	J-1141
Midpoint Acquire Date:	4/1/97	PID MP File:	h:\data\gc23a\p01i001.rst	Standard Prep. Date:	03/25/97
Date Printed:	04/17/97	ELCD MP File:	h:\data\gc23a\p01j001.rst		

INITIAL CALIBRATION — DAILY MIDPOINT CALIBRATION

BROMOBN (RT = 26.89 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	24360	0.471
2	10	62408	0.530
3	50	305149	0.520
4	100	550787	0.483
5	150	749817	0.447
6	200	1349875	0.554

(Ave. RF = 0.501)
%RSD = 8.03

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.508	10.0	10.2	1.5	272737	≤ 15%

BROMODICHLOROMETHAN (RT = 20.01 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	93315	1.805
2	10	184811	1.569
3	50	873347	1.489
4	100	1598775	1.402
5	150	2377038	1.418
6	200	3802775	1.560

(Ave. RF = 1.540)
%RSD = 9.54

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.619	10.0	10.5	5.1	868641	≤ 15%

BROMOFORM (RT = 25.84 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	36078	0.698
2	10	84433	0.717
3	50	417362	0.711
4	100	777853	0.682
5	150	1013711	0.605
6	200	1787248	0.733

(Ave. RF = 0.691)
%RSD = 6.62

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.647	10.0	9.4	6.4	346957	≤ 15%

BROMOMETHANE (RT = 4.82 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	20880	0.404
2	10	56305	0.478
3	50	328576	0.560
4	100	680528	0.597
5	150	992294	0.592
6	200	1713986	0.703

(Ave. RF = 0.556)
%RSD = 18.67

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.511	10.0	9.2	8.0	274318	≤ 15%

CARBON TETRACHLORIDE (RT = 17.23 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	136614	2.643
2	10	283211	2.405
3	50	1234680	2.105
4	100	2336357	2.049
5	150	3431795	2.047
6	200	5442124	2.232

(Ave. RF = 2.247)
%RSD = 10.55

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.316	10.0	10.3	3.1	1242508	≤ 15%

CHLOROETHANE (RT = 6.12 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	45571	0.882
2	10	114018	0.968
3	50	653959	1.115
4	100	1341825	1.177
5	150	1835845	1.095
6	200	3391897	1.391

(Ave. RF = 1.105)
%RSD = 15.99

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.127	10.0	10.2	2.0	604454	≤ 15%

CHLOROFORM (RT = 13.38 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	145514	2.815
2	10	296431	2.517
3	50	1299076	2.215
4	100	2295076	2.013
5	150	3475976	2.073
6	200	5512569	2.261

(Ave. RF = 2.316)
%RSD = 13.00

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.396	10.0	10.3	3.5	1285554	≤ 15%

CHLOROMETHANE ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	75056	1.452
2	10	158549	1.346
3	50	733999	1.251
4	100	1396676	1.225
5	150	1966653	1.173
6	200	3204344	1.314

(Ave. RF = 1.294)
%RSD = 7.68

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.967	10.0	7.5	25	518580	≤ 15%

DIBROMOCHLOROMETHAN (RT = 23.74 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	58653	1.135
2	10	135074	1.147
3	50	601235	1.025
4	100	1120919	0.983
5	150	1527890	0.911
6	200	2560977	1.050

(Ave. RF = 1.042)
%RSD = 8.64

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.007	10.0	9.7	3.4	540201	≤ 15%

BR2CH2 (RT = 19.52 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	38654	0.748
2	10	86798	0.737
3	50	446875	0.762
4	100	903050	0.792
5	150	1313116	0.783
6	200	2125604	0.872

(Ave. RF = 0.782)
%RSD = 6.21

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.728	10.0	9.3	6.9	390793	≤ 15%

MECL2 (RT = 7.65 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
2	10	321728	2.732
3	50	1212986	2.068
4	100	2056064	1.803
5	150	2984854	1.780
6	200	5278350	2.165

(Ave. RF = 2.110)
%RSD = 18.27

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.232	10.0	10.6	5.8	1197199	≤ 15%

1,1-DCA (RT = 10.31 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	102152	1.976
2	10	233556	1.983
3	50	1023014	1.744
4	100	1846160	1.619
5	150	2736252	1.632
6	200	4492990	1.843

(Ave. RF = 1.800)
%RSD = 8.97

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.851	10.0	10.3	2.9	993085	≤ 15%

1,2-DCA (RT = 15.76 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	101332	1.960
2	10	202429	1.719
3	50	895951	1.527
4	100	1680128	1.474
5	150	2488291	1.484
6	200	3963181	1.626

(Ave. RF = 1.632)
%RSD = 11.41

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.606	10.0	9.8	1.6	861325	≤ 15%

1,1-DCE (RT = 7.25 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	89797	1.737
2	10	198742	1.687
3	50	933912	1.592
4	100	1680489	1.474
5	150	2438696	1.455

(Ave. RF = 1.600)
%RSD = 7.22

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.558	10.0	9.7	2.6	835828	≤ 15%

6	200	4038413	1.656

T-1,2-DCE (RT = 9.50 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	110377	2.135
2	10	248414	2.109
3	50	1088983	1.856
4	100	1962444	1.721
5	150	2907485	1.734
6	200	4732381	1.941

(Ave. RF = 1.916)
%RSD = 9.35

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.765	10.0	9.2	7.9	946975	≤ 15%

1,2-DCP (RT = 19.71 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	96306	1.863
2	10	195928	1.664
3	50	914036	1.558
4	100	1707994	1.498
5	150	2395287	1.429
6	200	3740287	1.534

(Ave. RF = 1.591)
%RSD = 9.68

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.590	10.0	10.0	0.072	852861	≤ 15%

C-1,3-DCP (RT = 21.89 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	82124	1.589
2	10	179026	1.520
3	50	815552	1.390
4	100	1477297	1.296
5	150	2049054	1.222
6	200	3317573	1.361

(Ave. RF = 1.396)
%RSD = 9.82

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.373	10.0	9.8	1.7	736364	≤ 15%

T-1,3-DCP (RT = 22.70 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	72515	1.403
2	10	162903	1.383
3	50	735182	1.253
4	100	1307410	1.147
5	150	1823604	1.088
6	200	2975678	1.221

(Ave. RF = 1.249)
%RSD = 10.06

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.187	10.0	9.5	5.0	636771	≤ 15%

1,1,1,2-TCA (RT = 25.13 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	124583	2.410
2	10	266009	2.259
3	50	1118405	1.907
4	100	1902612	1.669
5	150	2612411	1.558

(Ave. RF = 1.960)
%RSD = 18.76

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.876	10.0	9.6	4.3	1006328	≤ 15%

1,1,2,2-TCA (RT = 26.23 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	75153	1.454
2	10	156888	1.332
3	50	663903	1.132
4	100	1119107	0.982
5	150	1574973	0.939
6	200	2594584	1.064

(Ave. RF = 1.150)
%RSD = 17.64

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.034	10.0	9.0	10	554517	≤ 15%

TETRACHLOROETHENE (RT = 24.37 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	117777	2.278
2	10	269015	2.284
3	50	1101707	1.878
4	100	1921840	1.686
5	150	2672525	1.594
6	200	3660305	1.501

(Ave. RF = 1.870)
%RSD = 18.28

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.037	10.0	10.9	8.9	1092920	≤ 15%

1,1,1-TCA (RT = 16.04 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	124916	2.416
2	10	258397	2.194
3	50	1140719	1.945
4	100	2155811	1.891
5	150	3155944	1.882
6	200	5050050	2.071

(Ave. RF = 2.067)
%RSD = 10.11

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.128	10.0	10.3	3.0	1141774	≤ 15%

1,1,2-TCA (RT = 22.93 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	102322	1.979
2	10	205978	1.749
3	50	909834	1.551
4	100	1618123	1.419
5	150	2272968	1.356
6	200	3517743	1.443

(Ave. RF = 1.583)
%RSD = 15.05

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.531	10.0	9.7	3.3	821215	≤ 15%

TCE (RT = 19.88 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	127896	2.474
2	10	275398	2.338
3	50	1150762	1.962
4	100	2139635	1.877
5	150	2989202	1.783
6	200	4692391	1.925

(Ave. RF = 2.060)
%RSD = 13.51

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.159	10.0	10.5	4.8	1158442	≤ 15%

1,2,3-TCP (RT = 26.39 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	59497	1.151
2	10	120918	1.027
3	50	520652	0.888
4	100	879197	0.771
5	150	1300182	0.775
6	200	2172303	0.891

(Ave. RF = 0.917)
%RSD = 16.14

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.863	10.0	9.4	5.9	463086	≤ 15%

TRICHLOROFLUOROMETH (RT = 5.07 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	60044	1.161
2	10	130549	1.108
3	50	637019	1.086
4	100	1241813	1.089
5	150	1800930	1.074
6	200	2936397	1.204

(Ave. RF = 1.121)
%RSD = 4.59

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.011	10.0	9.0	9.7	542620	≤ 15%

VINYL CHLORIDE (RT = 4.21 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	51552	0.997
2	10	121728	1.034
3	50	598121	1.020
4	100	1187840	1.042
5	150	1733189	1.034
6	200	2859916	1.173

(Ave. RF = 1.050)
%RSD = 5.94

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.864	10.0	8.2	18	463378	≤ 15%

BENZENE (RT = 17.44 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	30255	1.869
2	10	62808	1.760
3	50	281338	1.614
4	100	554106	1.642
5	150	825915	1.575
6	200	1357077	1.890

(Ave. RF = 1.725)
%RSD = 7.82

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.518	10.0	8.8	12	257847	≤ 15%

CHLOROBNZN (RT = 25.22 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	47804	0.925
2	10	100908	0.857
3	50	458727	0.782
4	100	798345	0.700

(Ave. RF = 0.793)
%RSD = 11.03

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.848	10.0	10.7	7.0	455173	≤ 15%

5	150	1178791	0.703
6	200	1926512	0.790

1,2-DCB (RT = 28.44 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	62326	1.206
2	10	145546	1.236
3	50	628006	1.071
4	100	1065272	0.934
5	150	1517449	0.905
6	200	2455712	1.007

(Ave. RF = 1.060)
%RSD = 12.99

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.103	10.0	10.4	4.0	591547	≤ 15%

1,3-DCB (RT = 28.00 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	58491	1.131
2	10	152776	1.297
3	50	661843	1.128
4	100	1049193	0.920
5	150	1625458	0.969
6	200	2415574	0.991

(Ave. RF = 1.073)
%RSD = 13.02

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.079	10.0	10.1	0.60	579010	≤ 15%

1,4-DCB (RT = 28.07 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	64265	1.243
2	10	144602	1.228
3	50	594035	1.013
4	100	1103969	0.968
5	150	1432049	0.854
6	200	2479926	1.017

(Ave. RF = 1.054)
%RSD = 14.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.179	10.0	11.2	12	632451	≤ 15%

ETHYLBENZENE (RT = 25.51 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	23653	1.461
2	10	50980	1.429
3	50	232878	1.336
4	100	453812	1.345
5	150	673726	1.285
6	200	1099599	1.532

(Ave. RF = 1.398)
%RSD = 6.58

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.264	10.0	9.0	9.6	214692	≤ 15%

TOLUENE (RT = 23.19 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	32341	1.998
2	10	62731	1.758
3	50	265308	1.522
4	100	515265	1.527
5	150	760981	1.451
6	200	1234645	1.720

(Ave. RF = 1.663)
%RSD = 12.26

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.455	10.0	8.8	12	247296	≤ 15%

M,P-XYLENES (RT = 25.76 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	10	53139	1.642
2	20	117998	1.654
3	100	539546	1.548
4	200	1039539	1.540
5	300	1538341	1.467
6	400	2505066	1.745

(Ave. RF = 1.599)
%RSD = 6.23

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.483	20.0	18.6	7.2	504088	≤ 15%

O-XYLENE (RT = 26.22 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	22986	1.420
2	10	51813	1.452
3	50	235059	1.349
4	100	449558	1.332
5	150	667711	1.273
6	200	1069197	1.489

(Ave. RF = 1.386)
%RSD = 5.88

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.261	10.0	9.1	9.0	214263	≤ 15%

N-BUTYLBENZENE (RT = 28.55 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	17576	1.086
2	10	45104	1.264
3	50	203311	1.167
4	100	380812	1.128
5	150	561045	1.070
6	200	943910	1.315

(Ave. RF = 1.172)
%RSD = 8.42

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.125	10.0	9.6	4.0	191163	≤ 15%

SEC-BUTYLBENZENE (RT = 27.94 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	16955	1.048
2	10	41119	1.153
3	50	189177	1.085
4	100	374614	1.110
5	150	543617	1.037
6	200	937983	1.307

(Ave. RF = 1.123)
%RSD = 8.84

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.090	10.0	9.7	3.0	185202	≤ 15%

T-BUTYLBENZENE (RT = 27.72 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	18223	1.126
2	10	39759	1.114
3	50	179533	1.030
4	100	347186	1.029
5	150	513169	0.979
6	200	834126	1.162

(Ave. RF = 1.073)
%RSD = 6.60

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.989	10.0	9.2	7.8	168087	≤ 15%

2-CVE (RT = 21.43 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	24935	0.482
2	10	59224	0.503
3	50	307410	0.524
4	100	577364	0.506
5	150	817703	0.488
6	200	1166364	0.478

(Ave. RF = 0.497)
%RSD = 3.49

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.524	10.0	10.6	5.5	281352	≤ 15%

2-CHLOROTOLUENE (RT = 27.21 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	37204	0.720
2	10	89155	0.757
3	50	393910	0.672
4	100	698543	0.613
5	150	976348	0.582
6	200	1668051	0.684

(Ave. RF = 0.671)
%RSD = 9.70

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.709	10.0	10.6	5.6	380135	≤ 15%

4-CHLOROTOLUENE (RT = 27.29 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	37552	0.726
2	10	95459	0.811
3	50	404375	0.689
4	100	690919	0.606
5	150	995345	0.594
6	200	1648343	0.676

(Ave. RF = 0.684)
%RSD = 11.73

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.736	10.0	10.8	7.7	395000	≤ 15%

DICHLORODIFLUOROMETH (RT = 3.73 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	16438	0.318
2	10	47826	0.406
3	50	285385	0.487
4	100	569305	0.499
5	150	851236	0.508

(Ave. RF = 0.444)
%RSD = 18.26

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.328	10.0	7.4	26	175826	≤ 15%

CIS-1,2-DCE (RT = 12.53 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	95002	1.838
2	10	207567	1.762
3	50	936846	1.597
4	100	1689047	1.481
5	150	2544388	1.518

(Ave. RF = 1.650)
%RSD = 8.56

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.890	10.0	11.4	14	1013700	≤ 15%

6	200	4158365	1.706

1,3-DCP (RT = 23.39 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	92857	1.796
2	10	184262	1.565
3	50	755015	1.287
4	100	1327133	1.164
5	150	1844782	1.100
6	200	2960796	1.214

(Ave. RF = 1.354)
%RSD = 19.93

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.295	10.0	9.6	4.4	694636	≤ 15%

2,2-DCP (RT = 13.61 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	72335	1.399
2	10	185814	1.578
3	50	825569	1.407
4	100	1417513	1.243
5	150	2139106	1.276
6	200	3628780	1.488

(Ave. RF = 1.399)
%RSD = 9.01

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.429	10.0	10.2	2.2	766456	≤ 15%

1,1-DICHLOROPROPENE (RT = 16.76 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	89052	1.723
2	10	190230	1.615
3	50	845374	1.441
4	100	1610753	1.413
5	150	2355729	1.405
6	200	3785185	1.553

(Ave. RF = 1.525)
%RSD = 8.40

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.529	10.0	10.0	0.25	820086	≤ 15%

EDB (RT = 24.09 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	35155	0.680
2	10	84778	0.720
3	50	380522	0.649
4	100	724802	0.636
5	150	989167	0.590
6	200	1721634	0.706

(Ave. RF = 0.663)
%RSD = 7.28

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.625	10.0	9.4	5.7	335459	≤ 15%

HEXACHLOROBUTADIENE (RT = 31.06 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	86603	1.675
2	10	239833	2.036
3	50	1007891	1.718
4	100	1683955	1.477
5	150	2390330	1.426
6	200	3752456	1.539

(Ave. RF = 1.645)
%RSD = 13.51

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.824	10.0	11.1	11	978722	≤ 15%

ISOPROPYLBENZENE (RT = 26.64 Minutes)

PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	19451	1.202
2	10	42259	1.184
3	50	194960	1.119
4	100	379096	1.123
5	150	562279	1.072
6	200	920665	1.283

(Ave. RF = 1.164)
%RSD = 6.43

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.967	10.0	8.3	17	164365	≤ 15%

P-ISOPROPYLTOLUENE (RT = 28.13 Minutes)

PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	18811	1.162
2	10	40480	1.135
3	50	183832	1.055
4	100	343924	1.019
5	150	513028	0.978
6	200	805564	1.122

(Ave. RF = 1.079)
%RSD = 6.71

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.007	10.0	9.3	6.6	171115	≤ 15%

NAPHTHALENE (RT = 30.97 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	19609	1.211
2	10	40167	1.126
3	50	187583	1.076
4	100	349195	1.035
5	150	513847	0.980
6	200	840924	1.171

(Ave. RF = 1.100)
%RSD = 7.87

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.950	10.0	8.6	14	161386	≤ 15%

N-PROPYLBENZENE (RT = 27.12 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	20312	1.255
2	10	48659	1.364
3	50	220509	1.265
4	100	430552	1.276
5	150	631519	1.204
6	200	1064893	1.483

(Ave. RF = 1.308)
%RSD = 7.67

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.285	10.0	9.8	1.8	218265	≤ 15%

STYRENE (RT = 26.14 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	31191	1.927
2	10	63513	1.780
3	50	293622	1.685
4	100	570847	1.691
5	150	842389	1.607
6	200	1387140	1.932

(Ave. RF = 1.770)
%RSD = 7.63

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.590	10.0	9.0	10	270211	≤ 15%

1,2,3-TCB (RT = 31.27 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	59813	1.157
2	10	157463	1.337
3	50	680470	1.160
4	100	1121778	0.984
5	150	1559555	0.930
6	200	2509333	1.029

(Ave. RF = 1.100)
%RSD = 13.51

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.114	10.0	10.1	1.3	597687	≤ 15%

1,2,4-TCB (RT = 30.62 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	54595	1.056
2	10	159294	1.353
3	50	702164	1.197
4	100	1145168	1.004
5	150	1631442	0.973
6	200	2676565	1.098

(Ave. RF = 1.113)
%RSD = 12.65

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.197	10.0	10.7	7.5	641998	≤ 15%

1,2,4-TRIMETHYLBENZE (RT = 27.83 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	22930	1.417
2	10	53277	1.493
3	50	242785	1.393
4	100	458880	1.360
5	150	676329	1.290
6	200	1110914	1.548

(Ave. RF = 1.417)
%RSD = 6.54

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.316	10.0	9.3	7.1	223626	≤ 15%

1,3,5-TRIMETHYLBENZE (RT = 27.44 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	29021	1.793
2	10	69392	1.945
3	50	319180	1.831
4	100	610769	1.810
5	150	903969	1.724
6	200	1491018	2.077

(Ave. RF = 1.863)
%RSD = 6.81

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.758	10.0	9.4	5.6	298778	≤ 15%

1,2-DIBROMO-3-CHLOR (RT = 29.01 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	13834	0.268
2	10	32104	0.273
3	50	167697	0.286
4	100	309948	0.272

(Ave. RF = 0.279)
%RSD = 7.25

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.225	10.0	8.1	19	120926	≤ 15%

5	150	433662	0.259
6	200	770132	0.316

UTM 006190

Calibration data for Sequence file: **h:\data\gc10\p02.seq**

Initial Calibration Date:	03/05/97	PID Sample File:	h:\data\gc10\pw9703.smp	Supply Source:	Ultra Scientific
Created by:	SS/NA	ELCD Sample File:	h:\data\gc10\ew9703.smp	Lot Number:	J-1141
Midpoint Acquire Date:	4/2/97	PID MP File:	h:\data\gc10\p02a001.rst	Standard Prep. Date:	03/04/97
Date Printed:	04/17/97	ELCD MP File:	h:\data\gc10\p02b001.rst		

INITIAL CALIBRATION — DAILY MIDPOINT CALIBRATION

BROMODICHLOROMETHAN (RT = 21.84 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	64950	1.469
2	10	115813	1.423
3	50	541814	1.276
4	100	1038263	1.278
5	150	1576790	1.272
6	300	2927617	1.302

(Ave. RF = 1.337)
%RSD = 6.48

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.725	10.0	12.9	29	861997	≤ 15%

BROMOFORM (RT = 26.60 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	23439	0.530
2	10	43821	0.538
3	50	224642	0.529
4	100	458819	0.565
5	150	646171	0.521
6	300	1212823	0.539

(Ave. RF = 0.537)
%RSD = 2.80

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.584	10.0	10.9	8.8	291910	≤ 15%

BROMOMETHANE (RT = 5.09 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	14199	0.321
2	10	35024	0.430
3	50	199134	0.469
4	100	376076	0.463
5	150	523614	0.422
6	300	1025346	0.456

(Ave. RF = 0.427)
%RSD = 12.88

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.471	10.0	11.0	10	235472	≤ 15%

CHLOROETHANE (RT = 5.36 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	31504	0.713
2	10	62326	0.766
3	50	348668	0.821
4	100	697604	0.859
5	150	946541	0.763
6	300	1915218	0.852

(Ave. RF = 0.796)
%RSD = 7.24

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.771	10.0	9.7	3.1	385132	≤ 15%

CHLOROFORM (RT = 16.11 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	98704	2.233
2	10	175907	2.162
3	50	836702	1.971
4	100	1625730	2.001
5	150	2436416	1.965
6	300	4240579	1.886

(Ave. RF = 2.036)
%RSD = 6.50

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.448	10.0	12.0	20	1223392	≤ 15%

CHLOROMETHANE

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	30172	0.682
2	10	61681	0.758
3	50	297003	0.699
4	100	574745	0.707
5	150	831199	0.670
6	300	1621468	0.721

(Ave. RF = 0.706)
%RSD = 4.38

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.775	10.0	11.0	9.7	387171	≤ 15%

DIBROMOCHLOROMETHAN (RT = 24.67 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	41766	0.945
2	10	75904	0.933
3	50	370602	0.873
4	100	719176	0.885
5	150	981273	0.791
6	300	1888366	0.840

(Ave. RF = 0.878)
%RSD = 6.54

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.900	10.0	10.3	2.6	449925	≤ 15%

CH2BR2 (RT = 21.41 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	28927	0.654
2	10	53981	0.663
3	50	268771	0.633
4	100	567272	0.698
5	150	846145	0.682
6	300	1623979	0.722

(Ave. RF = 0.676)
%RSD = 4.75

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.000	10.0	0.0	100	0	≤ 15%

MECL2 (RT = 9.19 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	121255	2.743
2	10	212475	2.611
3	50	709670	1.671
4	100	1478558	1.820
5	150	2092214	1.688
6	300	3821682	1.700

(Ave. RF = 2.039)
%RSD = 24.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.189	10.0	10.7	7.4	1093927	≤ 15%

1,1-DCA (RT = 12.11 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	70355	1.591
2	10	130999	1.610
3	50	648782	1.528
4	100	1331920	1.639
5	150	1936183	1.562
6	300	3506338	1.559

(Ave. RF = 1.582)
%RSD = 2.53

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.874	10.0	11.9	19	936561	≤ 15%

1,2-DCA (RT = 18.19 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	63668	1.440
2	10	122198	1.502
3	50	608588	1.433
4	100	1199884	1.477
5	150	1803295	1.454
6	300	3188297	1.418

(Ave. RF = 1.454)
%RSD = 2.11

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.768	10.0	12.2	22	883613	≤ 15%

1,1-DCE (RT = 7.62 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	63322	1.432
2	10	121672	1.495
3	50	611213	1.440
4	100	1325666	1.632
5	150	1847684	1.490
6	300	3222344	1.433

(Ave. RF = 1.487)
%RSD = 5.13

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.532	10.0	3.6	64	266071	≤ 15%

T-1,2-DCE (RT = 10.29 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	67226	1.521
2	10	123553	1.518
3	50	619017	1.458
4	100	1266802	1.559
5	150	1822565	1.470
6	300	3290337	1.463

(Ave. RF = 1.498)
%RSD = 2.71

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.809	10.0	12.1	21	904081	≤ 15%

1,2-DCP (RT = 21.11 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	67544	1.528
2	10	123839	1.522
3	50	586335	1.381
4	100	1115663	1.373

(Ave. RF = 1.396)
%RSD = 7.74

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.718	10.0	12.3	23	858181	≤ 15%

5	150	1594011	1.286
6	300	2890484	1.286

C1,3-DCP (RT = 22.77 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	60906	1.378
2	10	107780	1.324
3	50	534382	1.259
4	100	1015375	1.250
5	150	1401832	1.131
6	300	2639419	1.174

(Ave. RF = 1.252)
%RSD = 7.31

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.505	10.0	12.0	20	751754	≤ 15%

T-1,3-DCP (RT = 23.82 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	49251	1.114
2	10	89122	1.095
3	50	427062	1.006
4	100	850228	1.046
5	150	1182326	0.954
6	300	2149526	0.956

(Ave. RF = 1.029)
%RSD = 6.66

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.009	10.0	9.8	1.9	504294	≤ 15%

1,1,1,2-TCA (RT = 25.65 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	85665	1.938
2	10	148660	1.827
3	50	681803	1.606
4	100	1242601	1.529
5	150	1704724	1.375
6	300	3041580	1.353

(Ave. RF = 1.605)
%RSD = 14.80

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.612	10.0	10.0	0.48	805604	≤ 15%

1,1,2,2-TCA (RT = 27.17 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	64326	1.455
2	10	92842	1.141
3	50	427210	1.006
4	100	794691	0.978
5	150	1179099	0.951
6	300	2042223	0.908

(Ave. RF = 1.073)
%RSD = 18.91

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.936	10.0	8.7	13	467754	≤ 15%

1,1,1-TCA (RT = 16.68 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	85281	1.929
2	10	156357	1.921
3	50	752232	1.772
4	100	1449743	1.784
5	150	2169817	1.750
6	300	3818916	1.698

(Ave. RF = 1.809)
%RSD = 5.23

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.168	10.0	12.0	20	1083516	≤ 15%

1,1,2-TCA (RT = 24.13 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	84740	1.917
2	10	134516	1.653
3	50	569310	1.341
4	100	1062876	1.308
5	150	1420173	1.145

(Ave. RF = 1.473)
%RSD = 20.96

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.464	10.0	9.9	0.62	731365	≤ 15%

TCE (RT = 20.56 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	85633	1.937
2	10	154365	1.897
3	50	750583	1.768
4	100	1397503	1.720
5	150	2035446	1.642
6	300	3648592	1.623

(Ave. RF = 1.764)
%RSD = 7.37

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.158	10.0	12.2	22	1078437	≤ 15%

TRICHLOROFLUOROMETH (RT = 6.07 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	43799	0.991
2	10	95121	1.169
3	50	520960	1.227
4	100	1029668	1.267
5	150	1444067	1.165
6	300	2761100	1.228

(Ave. RF = 1.174)
%RSD = 8.35

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.819	10.0	7.0	30	409338	≤ 15%

VINYL CHLORIDE (RT = 4.30 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	31033	0.702
2	10	65361	0.803
3	50	328339	0.773
4	100	653728	0.805
5	150	913715	0.737
6	300	1826148	0.812

(Ave. RF = 0.772)
%RSD = 5.73

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.737	10.0	9.5	4.5	368323	≤ 15%

BENZENE (RT = 18.47 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	75870	1.607
2	10	156250	1.564
3	50	754355	1.508
4	100	1491754	1.497
5	150	2078877	1.427
6	300	4274918	1.428

(Ave. RF = 1.505)
%RSD = 4.79

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.000	10.0	0.0	100	0	≤ 15%

CHLOROBNZN (RT = 25.52 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	30581	0.692
2	10	52854	0.649
3	50	261278	0.615
4	100	495044	0.609
5	150	687100	0.554
6	300	1274773	0.567

(Ave. RF = 0.614)
%RSD = 8.33

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.599	10.0	9.7	2.6	299190	≤ 15%

1,2-DCB (RT = 28.71 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	44180	0.999
2	10	77653	0.954
3	50	366378	0.863
4	100	687169	0.846
5	150	968464	0.781
6	300	1759133	0.782

(Ave. RF = 0.871)
%RSD = 10.27

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.829	10.0	9.5	4.8	414110	≤ 15%

1,3-DCB (RT = 28.24 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	45457	1.028
2	10	76665	0.942
3	50	365141	0.860
4	100	680112	0.837
5	150	959022	0.774
6	300	1726044	0.768

(Ave. RF = 0.868)
%RSD = 11.65

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.816	10.0	9.4	6.0	407925	≤ 15%

1,4-DCB (RT = 28.34 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	44889	1.015
2	10	79064	0.972
3	50	383034	0.902
4	100	719428	0.885
5	150	1017660	0.821
6	300	1871858	0.832

(Ave. RF = 0.905)
%RSD = 8.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.806	10.0	8.9	11	402659	≤ 15%

ETHYLBENZENE (RT = 25.72 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	16168	0.342
2	10	33409	0.334
3	50	164137	0.328
4	100	325441	0.327

(Ave. RF = 0.326)
%RSD = 3.56

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.363	10.0	11.1	11	169909	≤ 15%

5	150	452889	0.311
6	300	946010	0.316

TOLUENE (RT = 24.33 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	14843	0.314
2	10	31131	0.312
3	50	151157	0.302
4	100	292400	0.293
5	150	404990	0.278
6	300	844065	0.282

(Ave. RF = 0.297)
%RSD = 5.09

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.309	10.0	10.4	4.0	144362	≤ 15%

M,P-XYLENES (RT = 25.87 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	10	37511	0.397
2	20	77386	0.387
3	100	376172	0.376
4	200	742461	0.373
5	300	1033738	0.355
6	600	2143201	0.358

(Ave. RF = 0.374)
%RSD = 4.39

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.417	20.0	22.3	12	390381	≤ 15%

T-BUTYLBENZENE (RT = 27.87 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	14857	0.315
2	10	23914	0.239
3	50	115375	0.231
4	100	222504	0.223
5	150	335350	0.230
6	300	645793	0.216

(Ave. RF = 0.242)
%RSD = 14.99

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.351	10.0	14.5	45	164197	≤ 15%

2-CVE (RT = 22.54 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	15611	0.353
2	10	31379	0.386
3	50	174767	0.412
4	100	360075	0.443
5	150	505550	0.408
6	300	977427	0.435

(Ave. RF = 0.406)
%RSD = 8.13

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.408	10.0	10.1	0.61	204096	≤ 15%

2-CHLOROTOLUENE (RT = 27.40 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	29091	0.658
2	10	49899	0.613
3	50	246039	0.579
4	100	466470	0.574
5	150	640124	0.516
6	300	1235384	0.549

(Ave. RF = 0.582)
%RSD = 8.49

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.584	10.0	10.0	0.45	291975	≤ 15%

4-CHLOROTOLUENE (RT = 27.52 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	27494	0.622
2	10	47110	0.579
3	50	235096	0.554
4	100	450733	0.555
5	150	649089	0.524
6	300	1212620	0.539

(Ave. RF = 0.562)
%RSD = 6.16

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.542	10.0	9.6	3.6	270842	≤ 15%

DICHLORODIFLUOROMETH (RT = 3.70 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	15915	0.360
2	10	32415	0.398
3	50	205329	0.484
4	100	427965	0.527
5	150	627898	0.506
6	300	1241507	0.552

(Ave. RF = 0.471)
%RSD = 16.08

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.555	10.0	11.8	18	277314	≤ 15%

CIS-1,2-DCE (RT = 14.82 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	34093	0.722
2	10	70625	0.707
3	50	351088	0.702
4	100	701168	0.704
5	150	982202	0.674
6	300	2037105	0.680

(Ave. RF = 0.698)
%RSD = 2.55

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.767	10.0	11.0	9.9	358856	≤ 15%

EDB (RT = 24.82 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	23944	0.542
2	10	46654	0.573
3	50	244792	0.577
4	100	499562	0.615
5	150	687290	0.554
6	300	1328388	0.591

(Ave. RF = 0.575)
%RSD = 4.52

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.618	10.0	10.8	7.5	308984	≤ 15%

HEXACHLOROBUTADIENE (RT = 31.15 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	83845	1.897
2	10	136583	1.678
3	50	585086	1.378
4	100	1098669	1.352
5	150	1576129	1.271
6	300	2705837	1.203

(Ave. RF = 1.463)
%RSD = 18.29

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.387	10.0	9.5	5.2	692805	≤ 15%

ISOPROPYLBENZENE (RT = 26.82 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	12491	0.265
2	10	25521	0.255
3	50	121287	0.242
4	100	239124	0.240
5	150	333566	0.229
6	300	688629	0.230

(Ave. RF = 0.244)
%RSD = 5.79

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.272	10.0	11.2	12	126989	≤ 15%

P-ISOPROPYLTOLUENE (RT = 28.36 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	16895	0.358
2	10	33358	0.334
3	50	167757	0.335
4	100	329804	0.331
5	150	473201	0.325
6	300	963701	0.322

(Ave. RF = 0.334)
%RSD = 3.81

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.335	10.0	10.0	0.15	156460	≤ 15%

NAPHTHALENE (RT = 31.39 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	8878	0.188
2	10	19957	0.200
3	50	97680	0.195
4	100	195892	0.197
5	150	280432	0.192
6	300	500639	0.167

(Ave. RF = 0.190)
%RSD = 6.21

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.203	10.0	10.7	7.0	94984	≤ 15%

N-PROPYLBENZENE (RT = 27.30 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	16019	0.339
2	10	32932	0.330
3	50	155904	0.312
4	100	304788	0.306
5	150	429363	0.295
6	300	871473	0.291

(Ave. RF = 0.312)
%RSD = 6.13

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.324	10.0	10.4	3.9	151576	≤ 15%

1,2,3-TCB (RT = 31.72 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	41620	0.941
2	10	72469	0.890
3	50	328036	0.773
4	100	632895	0.779

(Ave. RF = 0.826)
%RSD = 10.28

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.716	10.0	8.7	13	357748	≤ 15%

5	150	925563	0.747

1,2,4-TCB (RT = 30.91 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	42732	0.967
2	10	76496	0.940
3	50	365251	0.860
4	100	713322	0.878
5	150	1046878	0.844
6	300	1792437	0.797

(Ave. RF = 0.881)
%RSD = 7.11

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.752	10.0	8.5	15	375566	≤ 15%

1,2,4-TRIMETHYLBENZE (RT = 27.92 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	17977	0.381
2	10	41614	0.417
3	50	186318	0.372
4	100	373478	0.375
5	150	495818	0.340
6	300	1034775	0.346

(Ave. RF = 0.372)
%RSD = 7.39

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.308	10.0	8.3	17	143822	≤ 15%

Calibration data for Sequence file: h:\data\gc10a\p02.seq

Initial Calibration Date:	03/05/97	PID Sample File:	h:\data\gc10a\pw9703a.smp	Supply Source:	UltraScientific
Created by:	SS/NA	ELCD Sample File:	h:\data\gc10a\ew9703a.smp	Lot Number:	J-1141
Midpoint Acquire Date:	4/2/97	PID MP File:	h:\data\gc10a\p02c001.rst	Standard Prep. Date:	03/04/97
Date Printed:	04/17/97	ELCD MP File:	h:\data\gc10a\p02d001.rst		

INITIAL CALIBRATION — DAILY MIDPOINT CALIBRATION

BROMOBN (RT = 27.11 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	5440	0.228
2	10	17172	0.319
3	50	128724	0.424
4	100	281440	0.460
5	150	371586	0.445

(Ave. RF = 0.375)
%RSD = 26.40

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.349	10.0	9.3	6.9	67718	≤ 15%

BROMODICHLOROMETHAN (RT = 20.47 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	31492	1.321
2	10	83329	1.548
3	50	476384	1.568
4	100	896347	1.466
5	150	1338048	1.603
6	300	2654266	1.884

(Ave. RF = 1.565)
%RSD = 11.88

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.758	10.0	11.2	12	340648	≤ 15%

BROMOFORM (RT = 26.05 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	8123	0.341
2	10	21688	0.403
3	50	166304	0.547
4	100	350504	0.573
5	150	480264	0.575

(Ave. RF = 0.488)
%RSD = 22.30

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.515	10.0	10.6	5.5	99767	≤ 15%

BROMOMETHANE (RT = 5.00 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	5008	0.210
2	10	16758	0.311
3	50	115682	0.381
4	100	243046	0.398
5	150	325784	0.390

(Ave. RF = 0.338)
%RSD = 23.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.482	10.0	14.2	42	93323	≤ 15%

CARBON TETRACHLORIDE (RT = 17.79 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	48422	2.032
2	10	111027	2.062
3	50	569375	1.874
4	100	1089887	1.783
5	150	1632068	1.956
6	300	3125637	2.219

(Ave. RF = 1.988)
%RSD = 7.70

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.070	10.0	10.4	4.2	401230	≤ 15%

CHLOROETHANE (RT = 5.27 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	16043	0.673
2	10	35932	0.667
3	50	206376	0.679
4	100	418419	0.684
5	150	597404	0.716
6	300	1241788	0.882

(Ave. RF = 0.717)
%RSD = 11.49

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.880	10.0	12.3	23	170607	≤ 15%

CHLOROFORM (RT = 14.03 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	52752	2.213
2	10	121903	2.265
3	50	584562	1.924
4	100	1173043	1.919
5	150	1653554	1.981

(Ave. RF = 2.088)
%RSD = 7.81

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.968	10.0	9.4	5.8	381316	≤ 15%

6	300	3136009	2.226

CHLOROMETHANE — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	17069	0.716
2	10	39688	0.737
3	50	218800	0.720
4	100	430333	0.704
5	150	602196	0.722
6	300	1260692	0.895

(Ave. RF = 0.749)
%RSD = 9.65

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.798	10.0	10.7	6.6	154665	≤ 15%

DIBROMOCHLOROMETHAN (RT = 23.94 Minutes) — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	17912	0.752
2	10	48100	0.894
3	50	293440	0.966
4	100	516488	0.845
5	150	685699	0.822
6	300	1432613	1.017

(Ave. RF = 0.882)
%RSD = 11.04

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.078	10.0	12.2	22	208943	≤ 15%

BR2CH2 (RT = 20.07 Minutes) — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	3224	0.135
2	10	15049	0.280
3	50	125992	0.415
4	100	268006	0.438
5	150	361593	0.433

(Ave. RF = 0.340)
%RSD = 38.75

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.611	10.0	17.9	79	118324	≤ 15%

MECL2 (RT = 7.97 Minutes) — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	57258	2.402
2	10	127827	2.375
3	50	447509	1.473
4	100	927084	1.516
5	150	1271867	1.524
6	300	2535529	1.800

(Ave. RF = 1.848)
%RSD = 23.49

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.865	10.0	10.1	0.91	361459	≤ 15%

1,1-DCA (RT = 10.84 Minutes) — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	33579	1.409
2	10	81350	1.511
3	50	401104	1.320
4	100	912043	1.492
5	150	1281885	1.536
6	300	2332044	1.655

(Ave. RF = 1.487)
%RSD = 7.69

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.503	10.0	10.1	1.1	291295	≤ 15%

1,2-DCA (RT = 16.31 Minutes) — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	27116	1.138
2	10	65837	1.223
3	50	345674	1.138
4	100	622768	1.019
5	150	1031322	1.236
6	300	1957731	1.390

(Ave. RF = 1.190)
%RSD = 10.49

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.868	10.0	7.3	27	168121	≤ 15%

1,1-DCE (RT = 7.61 Minutes) — ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	23074	0.968
2	10	54157	1.006
3	50	288356	0.949
4	100	585563	0.958
5	150	835863	1.002
6	300	1677017	1.190

(Ave. RF = 1.012)
%RSD = 8.93

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.320	10.0	13.0	30	255710	≤ 15%

T-1,2-DCE (RT = 10.00 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	30492	1.279
2	10	74967	1.393
3	50	379793	1.250
4	100	872710	1.427
5	150	1228997	1.473
6	300	2220677	1.576

(Ave. RF = 1.400)
%RSD = 8.71

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.421	10.0	10.2	1.6	275473	≤ 15%

1,2-DCP (RT = 20.19 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	37358	1.567
2	10	84633	1.572
3	50	421846	1.388
4	100	827624	1.354
5	150	1165520	1.397
6	300	2277714	1.617

(Ave. RF = 1.483)
%RSD = 7.76

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.924	10.0	6.2	38	179089	≤ 15%

C-1,3-DCP (RT = 22.12 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	22923	0.962
2	10	56155	1.043
3	50	333525	1.098
4	100	675055	1.104
5	150	871701	1.045
6	300	1980353	1.406

(Ave. RF = 1.110)
%RSD = 13.87

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.885	10.0	8.0	20	171480	≤ 15%

T-1,3-DCP (RT = 23.01 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	14734	0.618
2	10	36787	0.683
3	50	228464	0.752
4	100	462021	0.756
5	150	598508	0.717
6	300	1285929	0.913

(Ave. RF = 0.740)
%RSD = 13.36

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.206	10.0	2.8	72	39890	≤ 15%

1,1,1,2-TCA (RT = 25.39 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	49548	2.079
2	10	95992	1.783
3	50	502236	1.653
4	100	923682	1.511
5	150	1231649	1.476
6	300	2427310	1.723

(Ave. RF = 1.704)
%RSD = 12.83

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.753	10.0	10.3	2.9	339765	≤ 15%

1,1,2,2-TCA (RT = 26.43 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	24895	1.045
2	10	49898	0.927
3	50	271598	0.894
4	100	531516	0.869
5	150	726535	0.871
6	300	1375047	0.976

(Ave. RF = 0.930)
%RSD = 7.41

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.899	10.0	9.7	3.4	174232	≤ 15%

TETRACHLOROETHENE (RT = 24.56 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	51351	2.155
2	10	113499	2.108
3	50	544309	1.792
4	100	994904	1.627
5	150	1303545	1.562
6	300	2555210	1.814

(Ave. RF = 1.843)
%RSD = 13.21

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.103	10.0	11.4	14	407496	≤ 15%

1,1,1-TCA (RT = 16.58 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	46290	1.942
2	10	106737	1.983
3	50	549850	1.810
4	100	986628	1.614

(Ave. RF = 1.910)
%RSD = 9.95

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.066	10.0	10.8	8.2	400419	≤ 15%

5	150	1606742	1.925
6	300	3079322	2.186

1,1,2-TCA (RT = 23.15 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	37839	1.588
2	10	88757	1.649
3	50	450086	1.481
4	100	842917	1.379
5	150	1081409	1.296
6	300	2074405	1.473

(Ave. RF = 1.477)
%RSD = 8.79

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.590	10.0	10.8	7.6	308088	≤ 15%

TCE (RT = 20.35 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	46653	1.957
2	10	103710	1.927
3	50	482002	1.586
4	100	1010862	1.653
5	150	1375113	1.648
6	300	2479318	1.760

(Ave. RF = 1.755)
%RSD = 8.85

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.722	10.0	9.8	1.9	333641	≤ 15%

1,2,3-TCP (RT = 26.59 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	18271	0.767
2	10	38200	0.710
3	50	224734	0.740
4	100	446587	0.730
5	150	613926	0.736
6	300	1205859	0.856

(Ave. RF = 0.756)
%RSD = 6.90

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.796	10.0	10.5	5.2	154259	≤ 15%

TRICHLOROFLUOROMETH (RT = 6.39 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	17965	0.754
2	10	45469	0.845
3	50	274120	0.902
4	100	552501	0.904
5	150	787482	0.944
6	300	1682516	1.194

(Ave. RF = 0.924)
%RSD = 16.03

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.792	10.0	8.6	14	153533	≤ 15%

VINYL CHLORIDE (RT = 4.25 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	14103	0.592
2	10	31995	0.594
3	50	187312	0.617
4	100	361970	0.592
5	150	504101	0.604
6	300	1076835	0.764

(Ave. RF = 0.627)
%RSD = 10.83

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.708	10.0	11.3	13	137163	≤ 15%

BENZENE (RT = 17.99 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	30569	1.647
2	10	61011	1.556
3	50	299463	1.503
4	100	613119	1.582
5	150	861717	1.487
6	300	1827060	1.543

(Ave. RF = 1.553)
%RSD = 3.72

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.709	10.0	11.0	10	275307	≤ 15%

CHLOROBNZN (RT = 25.48 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	17703	0.743
2	10	37155	0.690
3	50	223783	0.737
4	100	434875	0.711
5	150	615940	0.738
6	300	1182571	0.839

(Ave. RF = 0.743)
%RSD = 6.91

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.765	10.0	10.3	3.0	148282	≤ 15%

1,2-DCB (RT = 28.65 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	25110	1.054
2	10	53069	0.986
3	50	282058	0.928
4	100	539631	0.883
5	150	803720	0.963
6	300	1513891	1.075

(Ave. RF = 0.981)
%RSD = 7.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.954	10.0	9.7	2.8	184847	≤ 15%

1,3-DCB (RT = 28.17 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	21345	0.896
2	10	49133	0.913
3	50	264211	0.870
4	100	498728	0.816
5	150	714728	0.856
6	300	1290985	0.916

(Ave. RF = 0.878)
%RSD = 4.39

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.692	10.0	7.9	21	134155	≤ 15%

1,4-DCB (RT = 28.25 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	29003	1.217
2	10	57613	1.070
3	50	309065	1.017
4	100	603384	0.987
5	150	867104	1.039
6	300	1691707	1.201

(Ave. RF = 1.089)
%RSD = 8.94

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.135	10.0	10.4	4.3	220000	≤ 15%

ETHYLBENZENE (RT = 25.75 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	24539	1.322
2	10	50188	1.280
3	50	254512	1.277
4	100	511091	1.318
5	150	716648	1.236
6	300	1465260	1.237

(Ave. RF = 1.279)
%RSD = 2.92

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.395	10.0	10.9	9.1	224649	≤ 15%

TOLUENE (RT = 23.45 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	40158	2.164
2	10	68380	1.744
3	50	296715	1.489
4	100	586478	1.513
5	150	827106	1.427
6	300	1724887	1.456

(Ave. RF = 1.632)
%RSD = 17.39

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.645	10.0	10.1	0.76	264889	≤ 15%

M,P-XYLENES (RT = 25.99 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	10	59171	1.594
2	20	120860	1.541
3	100	614714	1.543
4	200	1222756	1.577
5	300	1707896	1.473
6	600	3252365	1.373

(Ave. RF = 1.517)
%RSD = 5.39

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.694	20.0	22.3	12	545678	≤ 15%

O-XYLENE (RT = 26.40 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	27434	1.478
2	10	58593	1.494
3	50	280256	1.406
4	100	591658	1.526
5	150	836490	1.443
6	300	1647632	1.391

(Ave. RF = 1.457)
%RSD = 3.59

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.847	10.0	12.7	27	297472	≤ 15%

N-BUTYLBENZENE (RT = 28.76 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	24158	1.302
2	10	47665	1.215
3	50	229473	1.152
4	100	470989	1.215

(Ave. RF = 1.203)
%RSD = 4.61

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.242	10.0	10.3	3.2	199994	≤ 15%

5	150	680692	1.174
6	300	1372932	1.159

SEC-BUTYLBENZENE (RT = 28.13 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	21727	1.171
2	10	42580	1.086
3	50	210576	1.057
4	100	403860	1.042
5	150	588963	1.016
6	300	1312734	1.108

(Ave. RF = 1.080)
%RSD = 5.10

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.183	10.0	11.0	9.6	190574	≤ 15%

T-BUTYLBENZENE (RT = 27.91 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	18388	0.991
2	10	39953	1.019
3	50	198911	0.998
4	100	393865	1.016
5	150	555300	0.958
6	300	1127045	0.952

(Ave. RF = 0.989)
%RSD = 2.88

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.167	10.0	11.8	18	187958	≤ 15%

2-CVE (RT = 21.81 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	3997	0.168
2	10	12394	0.230
3	50	93362	0.307
4	100	204006	0.334
5	150	265278	0.318

(Ave. RF = 0.271)
%RSD = 25.91

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.112	10.0	4.1	59	21702	≤ 15%

2-CHLOROTOLUENE (RT = 27.42 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	14948	0.627
2	10	31125	0.578
3	50	172988	0.569
4	100	334697	0.547
5	150	458379	0.549
6	300	851251	0.604

(Ave. RF = 0.579)
%RSD = 5.42

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.516	10.0	8.9	11	100037	≤ 15%

4-CHLOROTOLUENE (RT = 27.51 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	14535	0.610
2	10	31346	0.582
3	50	185467	0.610
4	100	373137	0.610
5	150	500547	0.600
6	300	976447	0.693

(Ave. RF = 0.618)
%RSD = 6.25

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.512	10.0	8.3	17	99315	≤ 15%

DICHLORODIFLUOROMETH (RT = 3.76 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	5669	0.238
2	10	17131	0.318
3	50	105304	0.347
4	100	212586	0.348
5	150	301648	0.361

(Ave. RF = 0.322)
%RSD = 15.45

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.374	10.0	11.6	16	72462	≤ 15%

CIS-1,2-DCE (RT = 13.16 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	30398	1.275
2	10	74478	1.384
3	50	430917	1.418
4	100	909196	1.487
5	150	1281437	1.536
6	300	2481072	1.761

(Ave. RF = 1.477)
%RSD = 11.21

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.426	10.0	9.7	3.4	276443	≤ 15%

1,3-DCP (RT = 23.58 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	31816	1.335
2	10	74045	1.376
3	50	360219	1.186
4	100	617265	1.010
5	150	793560	0.951
6	300	1530059	1.086

(Ave. RF = 1.157)
%RSD = 14.94

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.271	10.0	11.0	9.9	246362	≤ 15%

2,2-DCP (RT = 14.24 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	31244	1.311
2	10	72804	1.352
3	50	395089	1.300
4	100	840585	1.375
5	150	1167578	1.399
6	300	2183999	1.550

(Ave. RF = 1.381)
%RSD = 6.58

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.485	10.0	10.7	7.5	287724	≤ 15%

1,1-DICHLOROPROPENE (RT = 17.34 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	28499	1.196
2	10	68146	1.266
3	50	361635	1.190
4	100	680656	1.113
5	150	1062068	1.273
6	300	2043400	1.451

(Ave. RF = 1.248)
%RSD = 9.22

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.219	10.0	9.8	2.3	236307	≤ 15%

EDB (RT = 24.30 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	6754	0.283
2	10	24275	0.451
3	50	160820	0.529
4	100	312612	0.511
5	150	417138	0.500

(Ave. RF = 0.455)
%RSD = 22.03

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.394	10.0	8.7	13	76284	≤ 15%

HEXACHLOROBUTADIENE (RT = 31.32 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	49821	2.090
2	10	96836	1.799
3	50	407189	1.340
4	100	834270	1.365
5	150	1196605	1.434
6	300	2018290	1.433

(Ave. RF = 1.577)
%RSD = 19.14

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.483	10.0	9.4	6.0	287351	≤ 15%

ISOPROPYLBENZENE (RT = 26.83 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	20747	1.118
2	10	45591	1.163
3	50	197456	0.991
4	100	390207	1.007
5	150	545693	0.941
6	300	1114345	0.941

(Ave. RF = 1.027)
%RSD = 9.04

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.123	10.0	10.9	9.4	180934	≤ 15%

P-ISOPROPYLTOLUENE (RT = 28.29 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	20258	1.092
2	10	46073	1.175
3	50	228668	1.148
4	100	458137	1.182
5	150	642728	1.109
6	300	1369744	1.157

(Ave. RF = 1.144)
%RSD = 3.16

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.010	10.0	8.8	12	162610	≤ 15%

NAPHTHALENE (RT = 31.20 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	15825	0.853
2	10	31084	0.793
3	50	152748	0.767
4	100	308484	0.796
5	150	479172	0.827

(Ave. RF = 0.785)
%RSD = 7.68

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.718	10.0	9.1	8.5	115728	≤ 15%

6	300	803361	0.678

N-PROPYLBENZENE (RT = 27.29 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	23875	1.286
2	10	49843	1.271
3	50	238242	1.196
4	100	491287	1.267
5	150	700680	1.209
6	300	1368378	1.155

(Ave. RF = 1.231)
%RSD = 4.21

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.412	10.0	11.5	15	227464	≤ 15%

STYRENE (RT = 26.33 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	29767	1.604
2	10	59001	1.505
3	50	297554	1.493
4	100	597710	1.542
5	150	847332	1.462
6	300	1790584	1.512

(Ave. RF = 1.520)
%RSD = 3.21

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.235	10.0	8.1	19	198965	≤ 15%

1,2,3-TCB (RT = 31.55 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	23530	0.987
2	10	51189	0.951
3	50	234044	0.770
4	100	504172	0.825
5	150	745706	0.894
6	300	1155600	0.820

(Ave. RF = 0.875)
%RSD = 9.59

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.756	10.0	8.6	14	146463	≤ 15%

1,2,4-TCB (RT = 30.89 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	23519	0.987
2	10	50801	0.944
3	50	244803	0.806
4	100	530765	0.868
5	150	780591	0.935
6	300	1302389	0.925

(Ave. RF = 0.911)
%RSD = 7.03

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.788	10.0	8.7	13	152745	≤ 15%

1,2,4-TRIMETHYLBENZE (RT = 27.99 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	24447	1.317
2	10	54977	1.402
3	50	266418	1.337
4	100	577110	1.489
5	150	746320	1.288
6	300	1523584	1.286

(Ave. RF = 1.353)
%RSD = 5.82

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.396	10.0	10.3	3.2	224892	≤ 15%

1,3,5-TRIMETHYLBENZE (RT = 27.64 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	35117	1.892
2	10	78424	2.000
3	50	381353	1.914
4	100	753774	1.945
5	150	1061055	1.831
6	300	2168547	1.831

(Ave. RF = 1.902)
%RSD = 3.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.281	10.0	12.0	20	367344	≤ 15%

1,2-DIBROMO-3-CHLOR (RT = 29.18 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	2345	0.098
2	10	6827	0.127
3	50	54156	0.178
4	100	123654	0.202
5	150	186604	0.224

(Ave. RF = 0.166)
%RSD = 31.46

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.162	10.0	9.8	2.2	31427	≤ 15%

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received:	Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-2	Extracted:	Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00269	Analyzed:	Oct 6, 1997
		Reported:	Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
Dichlorodifluoromethane	1.0	N.D.
1,1-Dichloroethane	**0.50**	**1.9**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**1.0**
cis-1,2-Dichloroethene	**0.50**	**3.4**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,1,2-Tetrachloroethane	0.50	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**45**
1,1,1-Trichloroethane	**0.50**	**1.0**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.3**
Trichlorofluoromethane	1.0	N.D.
Vinyl Chloride	1.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	106%

Celebrating 10 years of service 1987-1997

UTM 006206

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92606
Attention: Kevin Trout

Client Project ID: 30987-3
UTM/Industry
Sample Descript: Water, MW-6
Lab Number: GJ00270

Sampled: Sep 30, 1997
Received: Oct 1, 1997
Extracted: Oct 6, 1997
Analyzed: Oct 6, 1997
Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
Dichlorodifluoromethane	1.0	N.D.
1,1-Dichloroethane	**0.50**	**1.2**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**6.5**
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,1,2-Tetrachloroethane	0.50	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**45**
1,1,1-Trichloroethane	**0.50**	**2.6**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.2**
Trichlorofluoromethane	1.0	N.D.
Vinyl Chloride	1.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	107%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92606
Attention: Kevin Trout

Client Project ID: 30987-3
UTM/Industry
Sample Descript: Water, MW-3
Lab Number: GJ00271

Sampled: Sep 30, 1997
Received: Oct 1, 1997
Extracted: Oct 6, 1997
Analyzed: Oct 6, 1997
Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	**1.0**	**8.2**
cis-1,2-Dichloroethene	**1.0**	**8.1**
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,1,2-Tetrachloroethane	1.0	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	**1.0**	**120***
1,1,1-Trichloroethane	**1.0**	**7.1**
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**31**
Trichlorofluoromethane	**2.0**	**3.5**
Vinyl Chloride	2.0	N.D.

*Result is above calibration limit and not reproducible.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	110%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received:	Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-3	Extracted:	Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00271	Analyzed:	Oct 6, 1997
		Reported:	Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**6.9**
cis-1,2-Dichloroethene	**2.5**	**6.2**
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,1,2-Tetrachloroethane	2.5	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**140**
1,1,1-Trichloroethane	**2.5**	**6.2**
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**26**
Trichlorofluoromethane	5.0	N.D.
Vinyl Chloride	5.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	105%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received:	Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-5	Extracted:	Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00272	Analyzed:	Oct 6, 1997
		Reported:	Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
Dichlorodifluoromethane	1.0	N.D.
1,1-Dichloroethane	**0.50**	**9.1**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**16**
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,1,2-Tetrachloroethane	0.50	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**30**
1,1,1-Trichloroethane	**0.50**	**3.8**
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**3.7**
Trichlorofluoromethane	1.0	N.D.
Vinyl Chloride	1.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	101%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received: Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-4	Extracted: Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00273	Analyzed: Oct 6, 1997
		Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	**1.0**	**11**
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,1,2-Tetrachloroethane	1.0	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	**1.0**	**98***
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**3.3**
Trichlorofluoromethane	2.0	N.D.
Vinyl Chloride	2.0	N.D.

*Result is above calibration limit and not reproducible.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	107%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received: Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-4	Extracted: Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00273	Analyzed: Oct 6, 1997
		Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**11**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,1,2-Tetrachloroethane	2.5	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**130**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**3.0**
Trichlorofluoromethane	5.0	N.D.
Vinyl Chloride	5.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	104%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled: Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received: Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-7	Extracted: Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00274	Analyzed: Oct 6, 1997
		Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	**1.0**	**9.6**
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,1,2-Tetrachloroethane	1.0	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	**1.0**	**100***
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**3.1**
Trichlorofluoromethane	2.0	N.D.
Vinyl Chloride	2.0	N.D.

*Result is above calibration level and not reproducible.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	94%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92606
Attention: Kevin Trout

Client Project ID: 30987-3
UTM/Industry
Sample Descript: Water, MW-7
Lab Number: GJ00274

Sampled: Sep 30, 1997
Received: Oct 1, 1997
Extracted: Oct 6, 1997
Analyzed: Oct 6, 1997
Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**11**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,1,2-Tetrachloroethane	2.5	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**140**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**2.8**
Trichlorofluoromethane	5.0	N.D.
Vinyl Chloride	5.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL (ELAP #1197)

Celebrating 10 years of service 1987-1997

Rick BiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates	Client Project ID: 30987-3	Sampled:	Sep 30, 1997
30 Corporate Park, Suite 400	UTM/Industry	Received:	Oct 1, 1997
Irvine, CA 92606	Sample Descript: Water, MW-8	Extracted:	Oct 6, 1997
Attention: Kevin Trout	Lab Number: GJ00275	Analyzed:	Oct 6, 1997
		Reported:	Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
Dichlorodifluoromethane	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,1,2-Tetrachloroethane	0.50	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl Chloride	1.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	94%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92606
Attention: Kevin Trout

Method Blank

Extracted: Oct 6, 1997
Analyzed: Oct 6, 1997
Reported: Oct 7, 1997

HALOGENATED VOLATILE ORGANICS by GC (EPA 5030/8010)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
Dichlorodifluoromethane	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,1,2-Tetrachloroethane	0.50	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl Chloride	1.0	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL (ELAP #1197)

Rick DiMaio
Project Manager

Surrogate Standard Recovery:	
1-Chloro-3-fluorobenzene (80-120).	95%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 8010/8020

Matrix: Water

Date: 10/06/97

Sample #: GJ00717

Batch #: GJ06101W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	10	9.2	9.1	92	91	0.97	91	≤30	39 - 150
Chloroform	0	10	9.8	10	98	102	4.2	100	≤30	49 - 133
1,1-Dichloroethane	0	10	10	9.8	103	98	5.1	100	≤30	47 - 132
1,2-Dichloroethane	0	10	10	10	105	103	1.2	104	≤30	51 - 147
1,1-Dichloroethene	0	10	10	11	104	105	1.5	104	≤30	28 - 167
Tetrachloroethene	0.039	10	9.9	10	99	102	3.2	101	≤30	26 - 162
Toluene	0.0090	10	10	10	101	100	0.27	100	≤30	46 - 148
Trichloroethene	0	10	9.6	9.5	96	95	1.8	95	≤30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 8010/8020

Del Mar Analytical

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92714
(714) 260-1800

CHAIN OF CUSTODY FORM

Lab: DEL MAR

Samplers: BRYAN J. HAWES

Job Number: 30987-3

Name/Location: UTM / INDUSTRY

Project Manager: KEVIN TROUT

Recorder: (Signature Required)

SOURCE CODE	MATRIX: Water	MATRIX: Sediment	MATRIX: Soil	MATRIX: Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCL	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH
3	X							X				9	7	0	9	MW-2	X					
															1105	MW-6						
															1235	MW-3						
															1415	MW-5						
															1330	MW-4						
															1550	MW-7						
															1615	MW-8						

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						NORMAL TAT
						Need WIP report
						ANALYSIS MUST BE COMPLETED FOLLOWING RWQCB WIP GUIDELINES, & THE DETECTION LIMITS OF 0.5 TO 1.0 ppb MUST BE MET FOR ALL COMPOUNDS
						- report multiple dilutions

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
10:35 10-1-97		10/1/97 1035
RELINQUISHED BY: (Signature) 10/1/97 1110	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME 10-1-97 11:10
METHOD OF SHIPMENT INTACT / COOL CONTICN		

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

6533

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

CRWQCB - L.A. REGION
WELL INVESTIGATION PROGRAM
QA/QC REPORT

PREPARED FOR HARDING LAWSON ASSOCIATES
PROJECT: 30987-3 UTM/INDUSTRY
SAMPLED: 9/30/97

ATTENTION: KEVIN TROUT

Harding Lawson Associates
30 Corporate Park, Suite 400
Irvine, CA 92714
(714) 260-1800

CHAIN OF CUSTODY FORM

Lab: DEL MAR

Samplers: BRYAN J. HAWES

Job Number: 30987-3

Name/Location: UTM / INDUSTRY

Project Manager: KEVIN TROUT

Recorder: (Signature Required)

SOURCE CODE	MATRIX: Water	MATRIX: Sediment	MATRIX: Soil	MATRIX: Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCL	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH
23	X							X				9	7	0	9	MW-2	X					
															1105	MW-6						
															1235	MW-3						
															1415	MW-5						
															1330	MW-4						
															1550	MW-7						
															1615	MW-8						

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						NORMAL TAT
						Need WIP report
						ANALYSIS MUST BE COMPLETED FOLLOWING
						RWQCB WIP GUIDELINES, & THE DETECTION
						LIMITS OF 0.5 TO 1.0 ppb
						MUST BE MET FOR
						ALL COMPOUNDS
						- report multiple dilution

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) 10:35 10-1-97	RECEIVED BY: (Signature)	DATE/TIME 10/1/97 1035
RELINQUISHED BY: (Signature) 10/1/97 1110	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME 10/1/97 11:10
METHOD OF SHIPMENT INTACT / COOL CONDITION		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Del Mar Analytical

Address: 2852 Alton Avenue
Irvine, CA 92606

Telephone/FAX: (714) 261-1022 / (714) 261-1228

ELAP Certification No.: 1197 Expiration Date: May 31, 1998

Authorized Signature:
Name, Title (print) Scott C. Hoatson, Quality Assurance Officer

Signature, Date: 11/10/97

Client Name: Harding Lawson Associates

Project No.: 30987-3 UTM/Industry

Date(s) Sampled: 9/30/97 To

Date(s) Received: 10/1/97 To

Date(s) Reported: 10/7/97 To

Chain of Custody received: Yes X No

Comments:

(RWQCB LabForm; Ver 12/94)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
EPA 8010	7	0

Sample Condition: Acceptable

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

(RWQCB LabForm; Ver 12/94)

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	10/6/97	10/6/97	10/6/97	10/6/97
		DATE EXTRACTED	10/6/97	10/6/97	10/6/97	10/6/97
		LAB SAMPLE ID	Method Blank	GJ00269	GJ00270	GJ00271
		CLIENT SAMPLE ID	n/a	MW-2	MW-6	MW-3
		EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
		EXTRACTION METHOD	5030	5030	5030	5030
		DILUTION FACTOR	1	1	1	2
COMPOUND		**CRDL**				
Bromodichloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorodifluoromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		0.50	< 0.50	**1.9**	**1.2**	< 0.50
1,2-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		0.50	< 0.50	**1.0**	**6.5**	**8.2**
cis-1,2-Dichloroethene		0.50	< 0.50	**3.4**	< 0.50	**8.1**
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride		10	< 10	< 10	< 10	< 10
1,1,1,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		0.50	< 0.50	**45**	**45**	**120**
1,1,1-Trichloroethane		0.50	< 0.50	**1.0**	**2.6**	**7.1**
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		0.50	< 0.50	**6.3**	**6.2**	**31**
Trichlorofluoromethane		1.0	< 1.0	< 1.0	< 1.0	**3.5**
Vinyl Chloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
1-Chloro-3-fluorobenzene	10	80-120	95	106	107	110

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	10/6/97	10/6/97	10/6/97	10/6/97
		DATE EXTRACTED	10/6/97	10/6/97	10/6/97	10/6/97
		LAB SAMPLE ID	GJ00271	GJ00272	GJ00273	GJ00273
		CLIENT SAMPLE ID	MW-3	MW-5	MW-4	MW-4
		EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
		EXTRACTION METHOD	5030	5030	5030	5030
		DILUTION FACTOR	5	1	2	5
COMPOUND		**CRDL**				
Bromodichloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorodifluoromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		0.50	< 0.50	**9.1**	< 0.50	< 0.50
1,2-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		0.50	**6.9**	**16**	**11**	**11**
cis-1,2-Dichloroethene		0.50	**6.2**	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride		10	< 10	< 10	< 10	< 10
1,1,1,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		0.50	**140**	**30**	**98**	**130**
1,1,1-Trichloroethane		0.50	**6.2**	**3.8**	< 0.50	< 0.50
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		0.50	**26**	**3.7**	**3.3**	**3.0**
Trichlorofluoromethane		1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride		0.50	< 0.50	< 0.50	< 0.50	< 0.50
SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
1-Chloro-3-fluorobenzene	10	80-120	105	101	107	104

PROJECT NO: 30987-3 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8010 **REPORTING UNIT:** µg/L

		DATE ANALYZED	10/6/97	10/6/97	10/6/97	
		DATE EXTRACTED	10/6/97	10/6/97	10/6/97	
		LAB SAMPLE ID	GJ00274	GJ00274	GJ00275	
		CLIENT SAMPLE ID	MW-7	MW-7	MW-8	
		EXTRACTION SOLVENT	n/a	n/a	n/a	
		EXTRACTION METHOD	5030	5030	5030	
		DILUTION FACTOR	2	5	1	
COMPOUND		**CRDL**				
Bromodichloromethane		0.50	< 0.50	< 0.50	< 0.50	
Bromoform		0.50	< 0.50	< 0.50	< 0.50	
Bromomethane		1.0	< 1.0	< 1.0	< 1.0	
Carbon tetrachloride		0.50	< 0.50	< 0.50	< 0.50	
Chlorobenzene		1.0	< 1.0	< 1.0	< 1.0	
Chloroethane		1.0	< 1.0	< 1.0	< 1.0	
Chloroform		0.50	< 0.50	< 0.50	< 0.50	
Chloromethane		1.0	< 1.0	< 1.0	< 1.0	
Dibromochloromethane		0.50	< 0.50	< 0.50	< 0.50	
Dichlorodifluoromethane		1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	
1,3-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	
1,4-Dichlorobenzene		1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	
1,2-Dichloroethane		0.50	< 0.50	< 0.50	< 0.50	
1,1-Dichloroethene		0.50	**9.6**	**11**	< 0.50	
cis-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	
trans-1,2-Dichloroethene		0.50	< 0.50	< 0.50	< 0.50	
1,2-Dichloropropane		0.50	< 0.50	< 0.50	< 0.50	
cis-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	
trans-1,3-Dichloropropene		0.50	< 0.50	< 0.50	< 0.50	
Methylene chloride		10	< 10	< 10	< 10	
1,1,1,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	
1,1,2,2-Tetrachloroethane		0.50	< 0.50	< 0.50	< 0.50	
Tetrachloroethene		0.50	**100**	**140**	< 0.50	
1,1,1-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	
1,1,2-Trichloroethane		0.50	< 0.50	< 0.50	< 0.50	
Trichloroethene		0.50	**3.1**	**2.8**	< 0.50	
Trichlorofluoromethane		1.0	< 1.0	< 1.0	< 1.0	
Vinyl Chloride		0.50	< 0.50	< 0.50	< 0.50	
SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
1-Chloro-3-fluorobenzene	10	80-120	94	93	94	

Project Number: 30987-3

(RWQCB LabForm 10A; Ver12/94)

QA/QC REPORT

II. MATRIX SPIKE (MS) MATRIX SPIKE DUPLICATE (MSD)

Date Performed: 10/06/97
Batch Number: GJ06101W
Lab Sample I.D.: GJ00717

Analytical Method: EPA 8010
Reporting Unit: µg/L

Analyte	Sample Result	Spike Conc	MS	% MS	Spike Conc (Dup)	MSD	% MSD	RPD	MS/MSD % Limit	RPD Limit
Chloroform	0	10	9.8	98	10	10	102	4.2	80-120	≤ 20
1,1-Dichloroethane	0	10	10	103	10	9.8	98	5.1	80-120	≤ 20
1,2-Dichloroethane	0	10	10	105	10	10	103	1.2	80-120	≤ 20
1,1-Dichloroethene	0	10	10	104	10	11	105	1.5	80-120	≤ 20
Tetrachloroethene	0.039	10	9.9	99	10	10	102	3.2	80-120	≤ 20
Trichloroethene	0	10	9.6	96	10	9.5	95	1.8	80-120	≤ 20

III. LABORATORY QUALITY CONTROL CHECK SAMPLE (LCS)

Date Performed: 10/06/97
Supply Source: AccuStandard
Lot Number: 085-307
Date of Source: 1/2/97

Analytical Method: EPA 8010
Reporting Unit: µg/L
Lab LCS I.D.: LCS

Analyte	Spike Concentration	Result	% Recovery	Acceptance % Recovery Limit
Chloroform	10	10	100	80-120
1,1-Dichloroethane	10	9.7	97	80-120
1,2-Dichloroethane	10	10	100	80-120
1,1-Dichloroethene	10	8.9	89	80-120
Tetrachloroethene	10	9.9	99	80-120
Trichloroethene	10	9.5	95	80-120

Calibration data for Sequence file: **h:\data\gc10a\v06.seq**

Initial Calibration Date:	09/29/97	PID Sample File:	h:\data\gc10a\pw9709a.smp	Supply Source:	UltraScientific
Created by:		ELCD Sample File:	h:\data\gc10a\ew9709a.smp	Lot Number:	L-0895
Midpoint Acquire Date:	10/6/97	PID MP File:	h:\data\gc10a\v06c001.rst	Standard Prep. Date:	09/18/97
Date Printed:	11/07/97	ELCD MP File:	h:\data\gc10a\v06d001.rst		

INITIAL CALIBRATION — DAILY MIDPOINT CALIBRATION

BROMOBN (RT = 26.95 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	12537	0.351
3	50	196322	0.489
4	100	376064	0.437
5	150	576584	0.457
6	300	1221449	0.466

(Ave. RF = 0.440)
%RSD = 12.10

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.418	10.0	9.5	5.1	231276	≤ 15%

BROMODICHLOROMETHAN (RT = 20.13 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	59451	1.664
3	50	690990	1.722
4	100	1312115	1.526
5	150	1972094	1.562
6	300	3717133	1.419

(Ave. RF = 1.579)
%RSD = 7.53

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.521	10.0	9.6	3.7	841712	≤ 15%

BROMOFORM (RT = 25.89 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	21511	0.602
3	50	256488	0.639
4	100	549050	0.638
5	150	791276	0.627
6	300	1734702	0.662

(Ave. RF = 0.634)
%RSD = 3.45

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.591	10.0	9.3	6.8	327080	≤ 15%

BROMOMETHANE (RT = 4.70 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	21174	0.593
3	50	204115	0.509
4	100	490629	0.570
5	150	690850	0.547
6	300	1366914	0.522

(Ave. RF = 0.548)
%RSD = 6.27

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.496	10.0	9.1	9.5	274709	≤ 15%

CARBON TETRACHLORIDE (RT = 17.31 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	80190	2.245
3	50	879825	2.193
4	100	1696060	1.972
5	150	2548351	2.019
6	300	5152591	1.967

(Ave. RF = 2.079)
%RSD = 6.27

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.034	10.0	9.8	2.2	1125914	≤ 15%

CHLOROETHANE (RT = 4.96 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	27813	0.779
3	50	244568	0.610
4	100	575386	0.669
5	150	918798	0.728
6	300	1852937	0.707

(Ave. RF = 0.698)
%RSD = 9.09

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.668	10.0	9.6	4.3	369810	≤ 15%

CHLOROFORM (RT = 13.41 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	88546	2.479
3	50	822974	2.051
4	100	1920676	2.233
5	150	2645504	2.096
6	300	4863009	1.856

(Ave. RF = 2.143)
%RSD = 10.78

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.123	10.0	9.9	0.93	1175144	≤ 15%

CHLOROMETHANE

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	9196	0.257
3	50	109027	0.272
4	100	255480	0.297
5	150	455027	0.360
6	300	743757	0.284

(Ave. RF = 0.294)
%RSD = 13.56

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.272	10.0	9.2	7.6	150412	≤ 15%

DIBROMOCHLOROMETHAN (RT = 23.70 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	37376	1.046
3	50	422880	1.054
4	100	847793	0.986
5	150	1272070	1.008
6	300	2619476	1.000

(Ave. RF = 1.019)
%RSD = 2.93

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.964	10.0	9.5	5.4	533371	≤ 15%

BR2CH2 (RT = 19.65 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	19656	0.550
3	50	312067	0.778
4	100	630947	0.734
5	150	873210	0.692
6	300	1951659	0.745

(Ave. RF = 0.700)
%RSD = 12.73

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.656	10.0	9.4	6.2	363223	≤ 15%

MECL2 (RT = 7.58 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	152180	4.260
3	50	902811	2.250
4	100	1953745	2.272
5	150	2424084	1.920
6	300	4410742	1.684

(Ave. RF = 2.477)
%RSD = 41.42

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
2.104	10.0	8.5	15	1164424	≤ 15%

1,1-DCA (RT = 10.26 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	63574	1.780
3	50	655166	1.633
4	100	1572040	1.828
5	150	2090537	1.656
6	300	3820283	1.458

(Ave. RF = 1.671)
%RSD = 8.64

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.619	10.0	9.7	3.1	896035	≤ 15%

1,2-DCA (RT = 15.82 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	50769	1.421
3	50	577634	1.440
4	100	1169059	1.359
5	150	1834685	1.453
6	300	3410492	1.302

(Ave. RF = 1.395)
%RSD = 4.54

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.320	10.0	9.5	5.4	730508	≤ 15%

1,1-DCE (RT = 7.18 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	56012	1.568
3	50	552529	1.377
4	100	1325631	1.541
5	150	1631507	1.292
6	300	3232716	1.234

(Ave. RF = 1.403)
%RSD = 10.56

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.434	10.0	10.2	2.2	793685	≤ 15%

T-1,2-DCE (RT = 9.46 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	65627	1.837
3	50	638680	1.592
4	100	1566090	1.821
5	150	2105149	1.668
6	300	3858261	1.473

(Ave. RF = 1.678)
%RSD = 9.20

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.587	10.0	9.5	5.4	878316	≤ 15%

1,2-DCP (RT = 19.84 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	58246	1.630
3	50	630034	1.570
4	100	1250244	1.454
5	150	1751980	1.388
6	300	3367500	1.286

(Ave. RF = 1.466)
%RSD = 9.45

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.414	10.0	9.6	3.5	782520	≤ 15%

C-1,3-DCP (RT = 21.83 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	44954	1.258
3	50	527828	1.316
4	100	1068475	1.242
5	150	1582789	1.254
6	300	3139457	1.198

(Ave. RF = 1.254)
%RSD = 3.34

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.211	10.0	9.7	3.4	670134	≤ 15%

T-1,3-DCP (RT = 22.73 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	33752	0.945
3	50	413905	1.032
4	100	895908	1.042
5	150	1275680	1.011
6	300	2678558	1.023

(Ave. RF = 1.010)
%RSD = 3.80

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.945	10.0	9.4	6.5	522943	≤ 15%

1,1,1,2-TCA (RT = 25.20 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	78174	2.188
3	50	749538	1.868
4	100	1486394	1.728
5	150	2116118	1.676
6	300	3401741	1.299

(Ave. RF = 1.752)
%RSD = 18.40

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.705	10.0	9.7	2.7	943542	≤ 15%

1,1,2,2-TCA (RT = 26.29 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	45843	1.283
3	50	422495	1.053
4	100	801260	0.932
5	150	1157260	0.917
6	300	2294197	0.876

(Ave. RF = 1.012)
%RSD = 16.34

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.888	10.0	8.8	12	491561	≤ 15%

TETRACHLOROETHENE (RT = 24.37 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	78018	2.184
3	50	732179	1.825
4	100	1425531	1.658
5	150	2174333	1.722
6	300	3742824	1.429

(Ave. RF = 1.764)
%RSD = 15.67

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.692	10.0	9.6	4.1	936465	≤ 15%

1,1,1-TCA (RT = 16.10 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	69899	1.957
3	50	799597	1.993
4	100	1526355	1.775
5	150	2399195	1.901
6	300	4543134	1.734

(Ave. RF = 1.872)
%RSD = 6.03

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.843	10.0	9.8	1.5	1020121	≤ 15%

1,1,2-TCA (RT = 22.93 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	64691	1.811
3	50	630646	1.572
4	100	1239061	1.441
5	150	1798549	1.425
6	300	3505877	1.338

(Ave. RF = 1.517)
%RSD = 12.14

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.450	10.0	9.6	4.4	802583	≤ 15%

TCE (RT = 20.01 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	80631	2.257							
3	50	783602	1.953							
4	100	1584454	1.842	(Ave. RF = 1.896)						
5	150	2139468	1.695	%RSD = 11.89	1.797	10.0	9.5	5.2	994803	≤ 15%
6	300	4542509	1.734							

1,2,3-TCP (RT = 26.45 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	34512	0.966							
3	50	342971	0.855							
4	100	644474	0.749	(Ave. RF = 0.814)						
5	150	951410	0.754	%RSD = 11.85	0.701	10.0	8.6	14	388132	≤ 15%
6	300	1954972	0.746							

TRICHLOROFLUOROMETH (RT = 6.03 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	26938	0.754							
3	50	307254	0.766							
4	100	759303	0.883	(Ave. RF = 0.801)						
5	150	982266	0.778	%RSD = 6.59	0.706	10.0	8.8	12	390845	≤ 15%
6	300	2155719	0.823							

VINYL CHLORIDE (RT = 4.10 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	41101	1.151							
3	50	349596	0.871							
4	100	784514	0.912	(Ave. RF = 0.937)						
5	150	1213037	0.961	%RSD = 14.44	0.796	10.0	8.5	15	440349	≤ 15%
6	300	2065571	0.789							

BENZENE (RT = 17.45 Minutes) PID

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	14697	1.984							
3	50	124066	1.602							
4	100	242058	1.543	(Ave. RF = 1.695)						
5	150	390589	1.678	%RSD = 10.07	1.505	10.0	8.9	11	129758	≤ 15%
6	300	768841	1.666							

CHLOROBNZN (RT = 25.29 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	28896	0.809							
3	50	288003	0.718							
4	100	571044	0.664	(Ave. RF = 0.723)						
5	150	881071	0.698	%RSD = 7.42	0.715	10.0	9.9	1.1	396026	≤ 15%
6	300	1904829	0.727							

1,2-DCB (RT = 28.51 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	34215	0.958							
3	50	387831	0.967							
4	100	823191	0.957	(Ave. RF = 0.900)						
5	150	1027263	0.814	%RSD = 9.20	0.758	10.0	8.4	16	419383	≤ 15%
6	300	2110040	0.805							

1,3-DCB (RT = 28.03 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	30243	0.847							
3	50	367263	0.915							
4	100	740775	0.861	(Ave. RF = 0.837)						
5	150	967482	0.766	%RSD = 6.92	0.715	10.0	8.5	15	395679	≤ 15%
6	300	2087840	0.797							

1,4-DCB (RT = 28.15 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	34716	0.972
3	50	355147	0.885
4	100	859963	1.000
5	150	1075762	0.852
6	300	2061427	0.787

(Ave. RF = 0.899)
%RSD = 9.70

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.733	10.0	8.1	19	405602	≤ 15%

ETHYLBENZENE (RT = 25.58 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	11864	1.602
3	50	95712	1.236
4	100	184062	1.174
5	150	299880	1.288
6	300	583666	1.265

(Ave. RF = 1.313)
%RSD = 12.74

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.152	10.0	8.8	12	99339	≤ 15%

TOLUENE (RT = 23.25 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	13526	1.826
3	50	108242	1.398
4	100	210151	1.340
5	150	286430	1.230
6	300	626802	1.358

(Ave. RF = 1.431)
%RSD = 16.07

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.322	10.0	9.2	7.6	114016	≤ 15%

M,P-XYLENES (RT = 25.83 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	10	27552	1.860
3	100	221549	1.431
4	200	425109	1.355
5	300	687507	1.477
6	600	1341359	1.453

(Ave. RF = 1.515)
%RSD = 13.08

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.343	20.0	17.7	11	231563	≤ 15%

O-XYLENE (RT = 26.29 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	12966	1.751
3	50	96405	1.245
4	100	196206	1.251
5	150	313631	1.347
6	300	595142	1.289

(Ave. RF = 1.377)
%RSD = 15.47

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.207	10.0	8.8	12	104089	≤ 15%

N-BUTYLBENZENE (RT = 28.62 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	9291	1.255
3	50	75142	0.970
4	100	147920	0.943
5	150	247592	1.063
6	300	479972	1.040

(Ave. RF = 1.054)
%RSD = 11.59

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.860	10.0	8.2	18	74167	≤ 15%

SEC-BUTYLBENZENE (RT = 28.00 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	10467	1.413
3	50	75127	0.970
4	100	152007	0.969
5	150	261601	1.124
6	300	579425	1.255

(Ave. RF = 1.146)
%RSD = 16.67

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.067	10.0	9.3	6.9	92022	≤ 15%

T-BUTYLBENZENE (RT = 27.78 Minutes) PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	9806	1.324
3	50	74210	0.958
4	100	141661	0.903
5	150	232313	0.998
6	300	451243	0.978

(Ave. RF = 1.032)
%RSD = 16.17

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.906	10.0	8.8	12	78120	≤ 15%

2-CVE (RT = 21.50 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	5461	0.153
3	50	124032	0.309
4	100	265283	0.308
5	150	430755	0.341
6	300	905847	0.346

(Ave. RF = 0.291)
%RSD = 27.25

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.257	10.0	8.8	12	142464	≤ 15%

2-CHLOROTOLUENE (RT = 27.27 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	21029	0.589
3	50	245056	0.611
4	100	437340	0.509
5	150	651906	0.516
6	300	1395267	0.533

(Ave. RF = 0.551)
%RSD = 8.28

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.521	10.0	9.5	5.4	288594	≤ 15%

4-CHLOROTOLUENE (RT = 27.36 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	20284	0.568
3	50	226215	0.564
4	100	453364	0.527
5	150	664732	0.527
6	300	1343285	0.513

(Ave. RF = 0.540)
%RSD = 4.56

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.494	10.0	9.2	8.4	273629	≤ 15%

DICHLORODIFLUOROMETH (RT = 3.62 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	13062	0.366
3	50	141578	0.353
4	100	326498	0.380
5	150	555904	0.440
6	300	960069	0.366

(Ave. RF = 0.381)
%RSD = 9.06

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.343	10.0	9.0	10	189873	≤ 15%

CIS-1,2-DCE (RT = 12.54 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	57399	1.607
3	50	620189	1.546
4	100	1518446	1.766
5	150	2087337	1.653
6	300	3890584	1.485

(Ave. RF = 1.611)
%RSD = 6.64

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.610	10.0	10.0	0.10	890967	≤ 15%

1,3-DCP (RT = 23.36 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	53434	1.496
3	50	503628	1.255
4	100	978568	1.138
5	150	1432492	1.135
6	300	2810155	1.073

(Ave. RF = 1.219)
%RSD = 13.78

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.112	10.0	9.1	8.8	615737	≤ 15%

2,2-DCP (RT = 13.65 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	50456	1.412
3	50	530526	1.322
4	100	1252697	1.457
5	150	1662174	1.317
6	300	3287594	1.255

(Ave. RF = 1.353)
%RSD = 5.97

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.378	10.0	10.2	1.9	762846	≤ 15%

1,1-DICHLOROPROPENE (RT = 16.84 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	48213	1.350
3	50	565900	1.410
4	100	1079317	1.255
5	150	1695163	1.343
6	300	3380659	1.291

(Ave. RF = 1.330)
%RSD = 4.48

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.307	10.0	9.8	1.7	723454	≤ 15%

EDB (RT = 24.07 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	18883	0.529							
3	50	259614	0.647							
4	100	525645	0.611	(Ave. RF = 0.620)						
5	150	837434	0.663	%RSD = 8.81	0.566	10.0	9.1	8.7	313430	≤ 15%
6	300	1702189	0.650							

HEXACHLOROBUTADIENE (RT = 31.16 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	65671	1.838							
3	50	555198	1.384							
4	100	1113172	1.294	(Ave. RF = 1.395)						
5	150	1587476	1.258	%RSD = 18.37	1.214	10.0	8.7	13	671681	≤ 15%
6	300	3149461	1.202							

ISOPROPYLBENZENE (RT = 26.71 Minutes) PID

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	10414	1.406							
3	50	80048	1.034							
4	100	153241	0.977	(Ave. RF = 1.110)						
5	150	250481	1.076	%RSD = 15.27	0.983	10.0	8.9	11	84807	≤ 15%
6	300	488343	1.058							

P-ISOPROPYLTOLUENE (RT = 28.20 Minutes) PID

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	9480	1.280							
3	50	76969	0.994							
4	100	146278	0.933	(Ave. RF = 1.012)						
5	150	228514	0.982	%RSD = 15.52	0.831	10.0	8.2	18	71683	≤ 15%
6	300	402953	0.873							

NAPHTHALENE (RT = 31.07 Minutes) PID

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	5054	0.682							
3	50	48328	0.624							
4	100	109644	0.699	(Ave. RF = 0.717)						
5	150	171671	0.737	%RSD = 11.38	0.404	10.0	5.6	44	34846	≤ 15%
6	300	389433	0.844							

N-PROPYLBENZENE (RT = 27.19 Minutes) PID

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	10874	1.468							
3	50	85505	1.104							
4	100	166226	1.060	(Ave. RF = 1.194)						
5	150	280146	1.203	%RSD = 13.58	1.011	10.0	8.5	15	87212	≤ 15%
6	300	522698	1.133							

STYRENE (RT = 26.21 Minutes) PID

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	13296	1.795							
3	50	117032	1.511							
4	100	216700	1.382	(Ave. RF = 1.567)						
5	150	360934	1.550	%RSD = 9.61	1.324	10.0	8.5	15	114223	≤ 15%
6	300	735886	1.594							

1,2,3-TCB (RT = 31.38 Minutes) ELCD

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1	5.0	24249	0.679							
3	50	267069	0.666							
4	100	615933	0.716	(Ave. RF = 0.696)						
5	150	871278	0.690	%RSD = 3.72	0.454	10.0	6.5	35	251397	≤ 15%
6	300	1906699	0.728							

1,2,4-TCB (RT = 30.72 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	21547	0.603
3	50	269080	0.671
4	100	639134	0.743
5	150	913742	0.724
6	300	1982919	0.757

(Ave. RF = 0.700)
%RSD = 9.02

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.487	10.0	7.0	30	269678	≤ 15%

1,2,4-TRIMETHYLBENZE (RT = 27.90 Minutes)

PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	12410	1.676
3	50	98487	1.272
4	100	186373	1.188
5	150	302092	1.298
6	300	597554	1.295

(Ave. RF = 1.346)
%RSD = 14.10

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.179	10.0	8.8	12	101665	≤ 15%

1,3,5-TRIMETHYLBENZE (RT = 27.51 Minutes)

PID

Calibration Levels

Level	Amount	Area	Response
1	5.0	16080	2.171
3	50	125437	1.620
4	100	250206	1.595
5	150	390512	1.677
6	300	790728	1.713

(Ave. RF = 1.755)
%RSD = 13.50

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
1.546	10.0	8.8	12	133294	≤ 15%

1,2-DIBROMO-3-CHLOR (RT = 29.02 Minutes)

ELCD

Calibration Levels

Level	Amount	Area	Response
1	5.0	4932	0.138
3	50	93147	0.232
4	100	196227	0.228
5	150	266205	0.211
6	300	648584	0.248

(Ave. RF = 0.211)
%RSD = 20.35

Daily RF	Amount	Result	% diff	Area	% diff Accep. limits
0.167	10.0	7.9	21	92408	≤ 15%

DISTRIBUTION

Groundwater Monitoring - 1997
Utility Trailer Manufacturing Company
17300 East Chestnut Street
City of Industry, California

March 16, 1998

Copies 1-3:	Mr. Julio Lara California Regional Water Quality Control Board Los Angeles Region 101 Centre Plaza Drive Monterey Park, California 91754-2156
Copy 4:	Mr. Robert Griffis Utility Trailer Manufacturing Company 17295 East Railroad Street P.O. Box 1299 City of Industry, California 91749
Copy 5:	Project File
Copy 6:	HLA Library

Quality Control Reviewer:

Ed Stewart

Ed Stewart
Associate Geologist

TSC/KJT/sg N:\UTILITY97GWRPT.DOC

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-D89424
A/N 298988
Page 1

This initial permit shall be renewed by ANNUALLY unless the equipment is moved, or changes ownership. If the billing for annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner Or Operator: UTILITY TRAILER MFG CO
17295 E RAILROAD ST.
P.O. BOX 1299
INDUSTRY, CA 91749

ID 005125

11-05-97 ELDS f

NOV 0 1997

Equipment located at: 17300 CHESTNUT ST., INDUSTRY, CA 91749

Equipment Description:

UNDERGROUND VAPOR EXTRACTION AND TREATMENT SYSTEM CONSISTING OF:

1. EXTRACTION WELL(S) AND DUCT(S).
2. AIR/WATER SEPARATOR(S).
3. EXTRACTION BLOWER, INDUCED DRAFT TYPE, SUTORBILT, LEGEND, MODEL 4M, 10 HP, 300 CFM MAXIMUM OPERATING FLOW RATE.
4. TWO CARBON ADSORBERS, CANISTER-TYPE, IN SERIES, EACH WITH AT LEAST 1,000 POUNDS OF ACTIVATED CARBON.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. UPON COMPLETION, ANY VAPOR EXTRACTION WELL(S) AND DUCT((S)) SHALL BE CAPPED TO PREVENT VAPORS FROM VENTING TO THE ATMOSPHERE. VAPORS SHALL NOT BE EXTRACTED FROM THE SOIL, UNLESS VENTED TO THE VAPOR CONTROL SYSTEM.
4. THIS EQUIPMENT MAY BE USED TO EXTRACT AND TREAT THE VAPORS FROM CHLORINATED PETROLEUM HYDROCARBON CONTAMINATED SOIL.

ORIGINAL

CONTINUATION OF PERMIT TO CONSTRUCT/OPERATE

5. A FLOW INDICATOR SHALL BE MAINTAINED AT THE INLET OF THE VAPOR RECOVERY SYSTEM TO MEASURE THE TOTAL FLOW RATE IN CUBIC FEET PER MINUTE. IN CASE A PRESSURE SENSOR DEVICE IS USED IN PLACE OF THE FLOW INDICATOR, A CONVERSION CHART SHALL BE AVAILABLE TO INDICATE THE CORRESPONDING FLOW RATE, IN CFM, TO THE PRESSURE READING.

6. THE TOTAL FLOW RATE TO THE VAPOR RECOVERY SYSTEM SHALL NOT EXCEED 300 SCFM.

7. VOLATILE ORGANIC COMPOUND (VOC) CONCENTRATION SHALL BE MEASURED AT THE INLET AND OUTLET OF THE CATALYST BED AT LEAST ONCE EVERY 7 OPERATING DAYS BY USING A FLAME IONIZATION DETECTOR OR A DISTRICT APPROVED ORGANIC VAPOR ANALYZER (OVA) CALIBRATED IN PARTS PER MILLION BY VOLUME (PPMV) OF HEXANE. IF OTHER CALIBRATING AGENT WAS USED, IT SHALL BE CORRELATED TO AND EXPRESSED AS HEXANE.

8. THE VOC CONCENTRATION MEASURED AT EITHER THE OUTLET OF THE PRIMARY ADSORBER OR AT THE OUTLET OF THE SECONDARY ADSORBERS SHALL NOT EXCEED 15 PPMV AS HEXANE.

9. WHENEVER THE VOC CONCENTRATION AT THE OUTLET OF THE PRIMARY ADSORBER EXCEEDS THE LEVEL IN CONDITION NO. 8, THE ADSORBERS SHALL BE REPLACED AS FOLLOWS:

   A. PRIMARY ADSORBER REPLACED WITH EITHER FRESH ADSORBENT IN SECONDARY ADSORBER, AND

   B. SECONDARY ADSORBER REPLACED WITH FRESH ADSORBENT.

10. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITIONS NOS. 6, 8,9, AND 10. THE RECORDS SHALL BE KEPT FOR AT LEAST TWO YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

This Permit to Construct/Operate No. R-D89424 supersedes Permit to Construct/Operate No. D89424 issued on 3/27/95.

ORIGINAL

CONTINUATION OF PERMIT TO CONSTRUCT/OPERATE

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

Dorris M. Bailey

By Dorris M. Bailey/gl
10/29/97

South Coast
Air Quality Management District
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000

Date: 09/30/97 05:00 PM **Receipt Nbr:** C4917

Facility: 5125 UTILITY TRAILER MANUFACTURING COMPANY

Location Address: 17300 E. CHESTNUT

City: CITY OF INDUSTRY **State:** CA **Zip:** 91749 —

Check nbr.	Amount	Check Nbr.	Amount
138150	$104.80		$.00
	$.00		$.00
	$.00		$.00
	$.00		$.00
	$.00		$.00

Cash: $.00

Total: $104.80

Comments: CHANGE IN PERMIT CONDITION

Received By: AQMD Cashier

Cashier Signature:

Original Copy

APPLICATION FOR PERMIT TO CONSTRUCT AND PERMIT TO OPERATE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
P.O. BOX 4944
Diamond Bar, California 91765-0944

AQMD

FORM 400A

NC/NOV NUMBER	
INSPECTOR	SECTOR
ISSUE DATE	

COMPANY INFORMATION

LEGAL NAME OF APPLICANT: Utility Trailer Manufacturing Company

☒ IRS OR ☐ S.S. NUMBER: 3 3 0 2 6 4 0 5 5

PERMIT TO BE ISSUED TO: (SEE INSTRUCTIONS) Utility Trailer Manufacturing Company

BUSINESS MAILING ADDRESS: 17295 E. Railroad Street, P.O. Box 1299, City of Industry, CA 91749

TYPE OF ORGANIZATION
☒ CORPORATION ☐ LIMITED PARTNERSHIP ☐ GOVERNMENT ENTITY
☐ INDIVIDUAL ☐ GENERAL PARTNERSHIP ☐ OTHER

ARE YOU A SMALL BUSINESS? (SEE INSTRUCTIONS) ☐ YES ☒ NO

AVERAGE ANNUAL GROSS RECEIPTS:
NUMBER OF EMPLOYEES: 1,850

IS YOUR BUSINESS 51 PERCENT OR MORE WOMAN/MINORITY OWNED? (OPTIONAL) ☐ YES ☒ NO

ARE ALL FACILITIES UNDER SAME OWNERSHIP IN CALIFORNIA IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL AIR POLLUTION CONTROL RULES? ☒ YES ☐ NO

ARE YOU THE OWNER OF THE EQUIPMENT UNDER THIS APPLICATION? ☒ YES ☐ NO

IF NO, ENTER LEGAL NAME OF OWNER

☐ IRS OR ☐ S.S. NUMBER OF THE OWNER

FACILITY INFORMATION

EQUIPMENT ADDRESS/LOCATION
17300 E. Chestnut
NUMBER/STREET

City of Industry — CA 91749
CITY OR COMMUNITY — ZIP CODE

FACILITY NAME: Utility Trailer Manufacturing Co.

FACILITY ID NUMBER (SEE INSTRUCTIONS): 0 0 5 1 2 5

CONTACT PERSON AND TITLE: Tony Esnault, I.R. Manager

CONTACT TELEPHONE NUMBER: 818 965-1541

NUMBER OF EMPLOYEES AT THIS FACILITY: 174

TYPE OF BUSINESS AT THIS FACILITY: Semi-Truck Trailer Manufacturer

BUSINESS TYPE CODE (SEE INSTRUCTIONS): 3 7 1 5

IS THERE A SCHOOL WITHIN 1,000 FEET OF YOUR PROPERTY? ☐ YES ☒ NO

EQUIPMENT INFORMATION

EQUIPMENT DESCRIPTION (SEE INSTRUCTIONS)
Underground Vapor Extraction and Treatment System

APPLICATION FOR: (SEE INSTRUCTIONS)
☐ NEW CONSTRUCTION ☐ MODIFICATION ☐ CHANGE OF LOCATION
☐ EXISTING EQUIPMENT OPERATING WITHOUT PERMIT ☐ CHANGE OF PERMITTEE ☒ CHANGE OF PERMIT CONDITION
☐ EXISTING EQUIPMENT WITH EXPIRED PERMIT

ARE YOU SUBMITTING MULTIPLE APPLICATIONS FOR EQUIPMENT IDENTICAL TO THAT DESCRIBED ABOVE? ☐ YES ☒ NO

HAVE YOU BEEN ISSUED A NOTICE TO COMPLY (NC) OR A NOTICE OF VIOLATION (NOV) FOR THIS EQUIPMENT? ☐ YES ☒ NO
NC NUMBER: NOV NUMBER: NOTICE ISSUE DATE:

HOW MANY PERMANENT OR FULL TIME JOBS WERE CREATED BY THE ADDITION OF OR MODIFICATION TO THIS EQUIPMENT: N/A

IF THE EQUIPMENT HAS A PREVIOUS WRITTEN PERMIT, STATE NAME OF PERMITTEE: Utility Trailer Manufacturing Company

PREVIOUS PERMIT NUMBER: D89424

FOR NEW CONSTRUCTION OR MODIFICATION, ENTER ESTIMATED COST OF:
BASIC EQUIPMENT $ N/A

AIR POLLUTION CONTROL EQUIPMENT $ N/A

FOR NEW CONSTRUCTION OR MODIFICATION:
ENTER ESTIMATED START DATE: N/A

ESTIMATED COMPLETION DATE: N/A

FOR CHANGE OF PERMITTEE, LOCATION OR CONDITION, ENTER DATE OF OCCURRENCE: 3/30/97

FOR EXISTING EQUIPMENT IN OPERATION WITHOUT PRIOR PERMIT, ENTER INITIAL OPERATION DATE: N/A

FOR THIS PROJECT, HAS A CALIFORNIA ENVIRONMENTAL QUALITY ACT(CEQA) DOCUMENT BEEN REQUIRED BY ANOTHER GOVERNMENTAL AGENCY? ☐ YES ☒ NO

IF YES, ENTER NAME: AND SUBMIT A COPY IF APPROVED

DO YOU CLAIM CONFIDENTIALITY OF DATA? (SEE INSTRUCTIONS) ☒ YES ☐ NO

I HEREBY CERTIFY, UNDER PENALTY OF PERJURY, THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION ARE TRUE AND CORRECT

SIGNATURE

OFFICIAL TITLE OF SIGNER: Corporate Environmental Manager ~~I.R. Manager~~

TYPE OR PRINT NAME OF SIGNER: ~~Tony Esnault~~ Robert Griffis

TELEPHONE NUMBER: (818 965-1541

DATE: 9/30/97

SCAQMD USE ONLY

APPLICATION NUMBER	TYPE B C D	EQUIPMENT CATEGORY NUMBER	ASSIGNMENT UNIT ENGINEER	CLASS I III IV	ENF. SECT.

ENGR. A R DATE INITIAL	ENGR. A R DATE INITIAL	FEE SCHEDULE $	VALIDATION	CHECK OR MONEY ORDER NUMBER	AMOUNT

DISTRIBUTION: WHITE - ENGINEERING CANARY - COMPLIANCE PINK - APPLICANT

UTM 006240

South Coast
Air Quality Management District
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • http://www.aqmd.gov

RECEIVED
UTILITY TRAILER MFG. CO.
SEP 22 1997
ACTION

September 9, 1997

Utility Trailer Manufacturing Company
Attention: Robert Griffis, Environmental Manager
17300 East Chestnut St
Industry, CA 91749

Dear Mr. Griffis:

This letter supersedes a letter dated July 2, 1997 in regards to your request to change the conditions in Permit no. D89424. Upon further review and consideration, the South Coast Air Quality Management District's Fee Review Committee has approved your request. As the result, your permit will be reissued with the condition changes requested with the reissuance fee of $104.80.

Specifically, the additional toxic compound as indicated in the previous letter was found not to be present in the treatment stream. As such, the screening risk would have been below the permissible level, and the permit could be reissued.

If you have any further questions, please call Tran Vo, Sr. AQ Engineer at (909) 396-2579 or Suzanne Green, Data Technician at (909) 396-2725.

Sincerely,

Edwin L. Pupka
Senior Manager
Administrative & Legislative Review

EP:TV

cc: Rick Pearce, Finance & Budget Director
Gloria White-Brown, District Counsel
Larry Noelker, Fee Review Committee

case 1115a
090997

UTM 006241

929231 SOUTH COAST A.Q.M.D.

CHECK PAYMENT NBR. 138150 DATE 09/29/97

INVOICE	DESCRIPTION	DATE	P.O. NO.	GROSS AMT.	DISCOUNT	NET AMOUNT
'997		09/29/97		104.80	0.00	104.80
'ERMIT NO. D89424						
			TOTALS	104.80	0.00	104.80

UTILITY TRAILER MANUFACTURING CO.

UTILITY TRAILER MANUFACTURING CO.
P.O. BOX 1299 CITY OF INDUSTRY, CA 91749-1299

WELLS FARGO BANK 11-24
CITY OF INDUSTRY, CA 1210(8)

NO. 138150

Y DATE 09/29/97 138150

AMOUNT $ *******104.80

ONE HUNDRED FOUR AND 80/100---------- DOLLARS

TO THE ORDER OF
SOUTH COAST A.Q.M.D.
P.O. BOX 4943
DIAMOND BAR CA 91765-0943

Harold C. Bennett
AUTHORIZED SIGNATURE

⑈138150⑈ ⑆121000248⑆4159 405711⑈

WARNING: DO NOT CASH CHECK WITHOUT NOTING A WATERMARK FEATURE AND PENETRATING CHECK NUMBER ON THE BACK OF THIS CHECK.

APPLICATION FOR PERMIT TO CONSTRUCT AND PERMIT TO OPERATE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
P.O. BOX 4944
Diamond Bar, California 91765-0944

AQMD

FORM 400A

NC/NOV NUMBER
INSPECTOR SECTOR
ISSUE DATE

COMPANY INFORMATION

LEGAL NAME OF APPLICANT
Utility Trailer Manufacturing Company

☒ IRS OR ☐ S.S. NUMBER
3 3 0 2 6 4 0 5 5

PERMIT TO BE ISSUED TO: (SEE INSTRUCTIONS) Utility Trailer Manufacturing Company

BUSINESS MAILING ADDRESS
17295 E. Railroad Street, P.O. Box 1299, City of Industry, CA 91749

TYPE OF ORGANIZATION
☒ CORPORATION ☐ LIMITED PARTNERSHIP ☐ GOVERNMENT ENTITY
☐ INDIVIDUAL ☐ GENERAL PARTNERSHIP ☐ OTHER

ARE YOU A SMALL BUSINESS? (SEE INSTRUCTIONS) ☐ YES ☒ NO
AVERAGE ANNUAL GROSS RECEIPTS:
NUMBER OF EMPLOYEES: 1,850
IS YOUR BUSINESS 51 PERCENT OR MORE WOMAN/ MINORITY OWNED? (OPTIONAL) ☐ YES ☒ NO

ARE ALL FACILITIES UNDER SAME OWNERSHIP IN CALIFORNIA IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL AIR POLLUTION CONTROL RULES? ☒ YES ☐ NO

ARE YOU THE OWNER OF THE EQUIPMENT UNDER THIS APPLICATION? ☒ YES ☐ NO
IF NO, ENTER LEGAL NAME OF OWNER
☐ IRS OR ☐ S.S. NUMBER OF THE OWNER

FACILITY INFORMATION

EQUIPMENT ADDRESS/LOCATION
17300 E. Chestnut
NUMBER/STREET
City of Industry CA 91749
CITY OR COMMUNITY ZIP CODE

FACILITY NAME
Utility Trailer Manufacturing Co.
FACILITY ID NUMBER (SEE INSTRUCTIONS)
0 0 5 1 2 5

CONTACT PERSON AND TITLE
Tony Esnault, I.R. Manager
CONTACT TELEPHONE NUMBER
(818) 965-1541

NUMBER OF EMPLOYEES AT THIS FACILITY: 174

TYPE OF BUSINESS AT THIS FACILITY
Semi-Truck Trailer Manufacturer
BUSINESS TYPE CODE (SEE INSTRUCTIONS)
3 7 1 5

IS THERE A SCHOOL WITHIN 1,000 FEET OF YOUR PROPERTY? ☐ YES ☒ NO

IPMENT INFORMATION

EQUIPMENT DESCRIPTION (SEE INSTRUCTIONS)
Underground Vapor Extraction and Treatment System

APPLICATION FOR: (SEE INSTRUCTIONS)
☐ NEW CONSTRUCTION ☐ MODIFICATION ☐ CHANGE OF LOCATION
☐ EXISTING EQUIPMENT OPERATING WITHOUT PERMIT ☐ CHANGE OF PERMITTEE ☒ CHANGE OF PERMIT CONDITION
☐ EXISTING EQUIPMENT WITH EXPIRED PERMIT

ARE YOU SUBMITTING MULTIPLE APPLICATIONS FOR EQUIPMENT IDENTICAL TO THAT DESCRIBED ABOVE? ☐ YES ☒ NO

HAVE YOU BEEN ISSUED A NOTICE TO COMPLY (NC) OR A NOTICE OF VIOLATION (NOV) FOR THIS EQUIPMENT? ☐ YES ☒ NO
NC NUMBER: NOV NUMBER: NOTICE ISSUE DATE:

HOW MANY PERMANENT OR FULL TIME JOBS WERE CREATED BY THE ADDITION OF OR MODIFICATION TO THIS EQUIPMENT: N/A

IF THE EQUIPMENT HAS A PREVIOUS WRITTEN PERMIT, STATE NAME OF PERMITTEE: Utility Trailer Manufacturing Company
PREVIOUS PERMIT NUMBER: D89424

FOR NEW CONSTRUCTION OR MODIFICATION, ENTER ESTIMATED COST OF:
BASIC EQUIPMENT $ N/A
AIR POLLUTION CONTROL EQUIPMENT $ N/A

FOR NEW CONSTRUCTION OR MODIFICATION:
ENTER ESTIMATED START DATE: N/A
ESTIMATED COMPLETION DATE: N/A

FOR CHANGE OF PERMITTEE, LOCATION OR CONDITION, ENTER DATE OF OCCURRENCE: 3/30/97
FOR EXISTING EQUIPMENT IN OPERATION WITHOUT PRIOR PERMIT, ENTER INITIAL OPERATION DATE: N/A

FOR THIS PROJECT, HAS A CALIFORNIA ENVIRONMENTAL QUALITY ACT(CEQA) DOCUMENT BEEN REQUIRED BY ANOTHER GOVERNMENTAL AGENCY? ☐ YES ☒ NO
IF YES, ENTER NAME: AND SUBMIT A COPY IF APPROVED

DO YOU CLAIM CONFIDENTIALITY OF DATA? (SEE INSTRUCTIONS) ☒ YES ☐ NO

I HEREBY CERTIFY, UNDER PENALTY OF PERJURY, THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION ARE TRUE AND CORRECT

SIGNATURE

OFFICIAL TITLE OF SIGNER
Corporate Environmental Manager
~~I.R. Manager~~

TYPE OR PRINT NAME OF SIGNER
~~Tony Esnault~~ Robert Griffis

TELEPHONE NUMBER
(818 965-1541

DATE 9/30/97

APPLICATION NUMBER	TYPE B C D	EQUIPMENT CATEGORY NUMBER	ASSIGNMENT UNIT ENGINEER	CLASS I III IV	ENF. SECT.
		/			

SCAQMD USE ONLY

ENGR. A R DATE INITIAL	ENGR. A R DATE INITIAL	FEE SCHEDULE $	VALIDATION	CHECK OR MONEY ORDER NUMBER	AMOUNT

DISTRIBUTION: WHITE - ENGINEERING CANARY - COMPLIANCE PINK - APPLICANT

UTM 006243

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
D89424
A/N 298988
Page 1

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner or Operator: UTILITY TRAILER MFG CO
17300 CHESTNUT ST
INDUSTRY, CA 91749

ID 005125

Equipment Location: 17300 CHESTNUT ST, INDUSTRY, CA 91749

Equipment Description:

UNDERGROUND VAPOR EXTRACTION AND TREATMENT SYSTEM CONSISTING OF:

1. EXTRACTION WELL(S) AND DUCT(S).
2. AIR/WATER SEPARATOR(S)
3. EXTRACTION BLOWER, INDUCED DRAFT TYPE, SUTORBILT, LEGEND, MODEL 4M, 10 HP, 300 CFM MAXIMUM OPERATING FLOW RATE.
4. TWO CARBON ADSORBERS, [redacted], CANISTER-TYPE, IN SERIES, EACH WITH AT LEAST 1,000 POUNDS OF ACTIVATED CARBON.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. UPON COMPLETION, ANY VAPOR EXTRACTION WELL(S) AND DUCT(S) SHALL BE CAPPED TO PREVENT VAPORS FROM VENTING TO THE ATMOSPHERE. VAPORS SHALL NOT BE EXTRACTED FROM THE SOIL, UNLESS VENTED TO THE VAPOR CONTROL SYSTEM.
4. THIS EQUIPMENT MAY BE USED TO EXTRACT AND TREAT THE VAPORS FROM CHLORINATED PETROLEUM HYDROCARBON CONTAMINATED SOIL.

ORIGINAL

UTM 006244

PERMIT TO CONSTRUCT/OPERATE

CONTINUATION OF PERMIT TO CONSTRUCT/OPERATE

5. A FLOW INDICATOR SHALL BE MAINTAINED AT THE INLET OF THE VAPOR RECOVERY SYSTEM TO MEASURE THE TOTAL FLOW RATE IN CUBIC FEET PER MINUTE. IN CASE A PRESSURE SENSOR DEVICE IS USED IN PLACE OF THE FLOW INDICATOR, A CONVERSION CHART SHALL BE AVAILABLE TO INDICATE THE CORRESPONDING FLOW RATE, IN CFM, TO THE PRESSURE READING.

6. THE TOTAL FLOW RATE TO THE TO THE VAPOR RECOVERY SYSTEM SHALL NOT EXCEED 300 SCFM.

7. ~~THE MAXIMUM OPERATING TIME OF THIS EQUIPMENT AT THIS LOCATION SHALL NOT EXCEED 2 YEARS.~~

8. VOLATILE ORGANIC COMPOUND (VOC) CONCENTRATION SHALL BE MEASURED AT THE INLET AND OUTLET OF THE CATALYST BED AT LEAST ONCE EVERY 7 OPERATING DAYS BY USING A FLAME IONIZATION DETECTOR OR A DISTRICT APPROVED ORGANIC VAPOR ANALYZER (OVA) CALIBRATED IN PARTS PER MILLION BY VOLUME (PPMV) OF HEXANE. IF OTHER CALIBRATING AGENT WAS USED, IT SHALL BE CORRELATED TO AND EXPRESSED AS HEXANE.

9. THE VOC CONCENTRATION MEASURED AT EITHER THE OUTLET OF THE PRIMARY ADSORBER OR AT THE OUTLET OF THE SECONDARY ADSORBER SHALL NOT EXCEED 15 PPMV AS HEXANE.

10. WHENEVER THE VOC CONCENTRATION AT THE OUTLET OF THE PRIMARY ADSORBER EXCEEDS THE LEVEL IN CONDITION NO. 9, THE ADSORBERS SHALL BE REPLACED AS FOLLOWS:

    A. PRIMARY ADSORBER REPLACED WITH EITHER FRESH ADSORBENT IN SECONDARY ADSORBER, AND

    B. SECONDARY ADSORBER REPLACED WITH FRESH ADSORBENT.

11. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITIONS NO. 6, 8, 9, AND 10. THE RECORDS SHALL BE KEPT FOR AT LEAST TWO YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

12. ~~THIS PERMIT SHALL EXPIRE ON 03/30/1997.~~

PERMIT TO CONSTRUCT/OPERATE

CONTINUATION OF PERMIT TO CONSTRUCT/OPERATE

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

Dorris M. Bailey

By Dorris M. Bailey/sdb
3/27/1995

UTM 006246

ORIGINAL

RECEIVED
UTILITY TRAILER MFG. CO
JUL 10 1997
ACTION

South Coast
Air Quality Management District
AQMD
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 · http://www.aqmd.gov

July 2, 1997

Utility Trailer Manufacturing Company
Attention: Robert Griffis, Environmental Manager
17300 East Chestnut St.
Industry, CA 91749

Dear Mr. Griffis:

The South Coast Air Quality Management District's (AQMD) Fee Review Committee has received your request to change the expiration condition on permit #D89424, to avoid expiration of the permit.

Please be advised that while the Fee Review Committee is able to evaluate your request, they are unable to alter the Rules and Regulations of the AQMD.

After evaluation and discussion, staff revealed the screening risk was much higher than the permissible level. A compound that is a major contributor to the screening risk was not included in the calculations. A recalculation, now including the missing compound showed that the risk was substantial enough to require either public notice or a detailed modeling.

Had this compound been included in the original application, it is unlikely that we would have issued a permit with the conditions you received. As a result, we are unable to grant your request. You will need to apply for a change of permit condition, including a check in the amount of $1,006.70 to remove the expiration condition on your permit. The reasoning for the change is that equipment that emits carcinogenic contaminants require stricter emission limits than other contaminants and an evaluation is required.

You may contact Tran Vo, Sr. AQ Engineer at (909) 396-2579 or Suzanne Green, Data Technician at (909) 396-2725 for further information or forms to change your permit condition.

Sincerely,

Edwin L. Pupka
Senior Manager
Administrative & Legislative Review

EP:SG:rv

cc: Rick Pearce, Finance & Budget Director
Gloria White-Brown, District Counsel
Larry Noelker, Fee Review Coordinator

Case 1115

Clean Air Is Every Body's Business

South Coast
AIR QUALITY MANAGEMENT DISTRICT
HEADQUARTERS
21865 E. COPLEY DR., DIAMOND BAR, CA 91765-4182

Printed on Recycled Paper.

PRESORTED
FIRST CLASS

DIAMOND BAR CA
JUL-8'97
P.B. METER
6057455

U.S.POSTAGE
0.29 5

*07-09-97*LOS ANGELES CA 900

UTILITY TRAILER MFG CO
ATTN ROBERT GRIFFIS
17300 EAST CHESTNUT ST
INDUSTRY CA 91749

AUTO 91748 VELA I

UTM 006248

STATE WATER RESOURCES CONTROL BOARD
Spills, Leaks, Investigations and Cleanup Program Billing

STATEMENT OF RECEIPTS AND CHARGES
from October 1, 1996 Through December 31, 1996

Date: 03/19/97
STATEMENT # 18443-21

RECEIVED
MFG. CO.
MAR 24 1997
ACTION

Region: 4 Facility: 17300 E. CHESTNUT STREET

To: UTILITY TRAILER MANUFACTURING COMPANY
ATTN: MR. ROBERT GRIFFIS
17295 E. RAILROAD STREET
CTY OF INDUSTRY CA 91748

submitted to H.C. 3/24/97 for handwrite

Balance Due as of September 30, 1996 (For Accounting use only: 18443)	$0.00
Payments Received Through February 28, 1997	$0.00
Amount PAST DUE	$0.00
Labor Hours: 3.00 Current Billing Period Charges	$156.45
Total AMOUNT DUE or CREDIT BALANCE on Account	$ 156.45

230-40:
101 ~~[illegible]~~
ok to pay
Rg
3/24/97

Fold Here to return in Window Envelope

'AMOUNT DUE' is due and payable within 15 days to the STATE WATER RESOURCES CONTROL BOARD at the address below. Make checks payable to: STATE WATER RESOURCES CONTROL BOARD. Please enclose the COPY of this STATEMENT to ensure accurate crediting of your account.

If you have questions please contact Jennifer Taylor at 916-227-4431.

If you desire copies of supporting daily logs, please contact: WENDY LIU at (213) 266-7530.

******* ORIGINAL INVOICE *******

PLEASE RETURN COPY WITH PAYMENT TO:

STATE WATER RESOURCES CONTROL BOARD
DIV OF CWP S.L.I.C. PROGRAM
2014 T STREET
P.O. BOX 944212
SACRAMENTO, CA 94244-2120

UTM 006249

STATE WATER RESOURCES CONTROL BOARD
Spills, Leaks, Investigations and Cleanup Program Billing

STATEMENT OF RECEIPTS AND CHARGES
from October 1, 1996 Through December 31, 1996

Date: 03/19/97
STATEMENT # 18443-21

Region: 4 Facility: 17300 E. CHESTNUT STREET

To: UTILITY TRAILER MANUFACTURING
COMPANY
ATTN: MR. ROBERT GRIFFIS
17295 E. RAILROAD STREET
CTY OF INDUSTRY CA 91748

Balance Due as of September 30, 1996 (For Accounting use only: 18443)	$0.00
Payments Received Through February 28, 1997	$0.00
Amount PAST DUE	$0.00
Labor Hours: 3.00 Current Billing Period Charges	$156.45
Total AMOUNT DUE or CREDIT BALANCE on Account	$ 156.45

---------- Fold Here to return in Window Envelope ----------

'AMOUNT DUE' is due and payable within 15 days to the STATE WATER RESOURCES CONTROL BOARD at the address below. Make checks payable to: STATE WATER RESOURCES CONTROL BOARD. Please enclose the COPY of this STATEMENT to ensure accurate crediting of your account.

If you have questions please contact Jennifer Taylor at 916-227-4431.

If you desire copies of supporting daily logs, please contact: WENDY LIU at (213) 266-7530.

******* COPY OF ORIGINAL INVOICE *******

PLEASE RETURN COPY WITH PAYMENT TO:

STATE WATER RESOURCES CONTROL BOARD
DIV OF CWP S.L.I.C. PROGRAM
2014 T STREET
P.O. BOX 944212
SACRAMENTO, CA 94244-2120

STATE WATER RESOURCES CONTROL BOARD
Spills, Leaks, Investigations and Cleanup Program Billing

STATEMENT OF RECEIPTS AND CHARGES
from April 1, 1997 Through June 30, 1997

Date: 09/23/97
STATEMENT # 18443-23

Region: 4 Facility: 17300 E. CHESTNUT STREET

RECEIVED
UTILITY TRAILER MFG. CO
SEP 25 1997
ACTION

To: UTILITY TRAILER MANUFAC. CO.
ATTN: MR. ROBERT GRIFFIS

17295 E. RAILROAD STREET
INDUSTRY CA 91748

Balance Due as of June 2, 1997 (For Accounting use only: 18443)	$42.68
Payments Received Through September 15, 1997	$42.68
Amount PAST DUE	$0.00
Labor Hours: 0.00 Current Billing Period Charges	$-24.76
Total AMOUNT DUE or CREDIT BALANCE on Account	$ 24.76 (CR)

---------- Fold Here to return in Window Envelope ----------

'AMOUNT DUE' is due and payable within 15 days to the STATE WATER RESOURCES CONTROL BOARD at the address below. Make checks payable to: STATE WATER RESOURCES CONTROL BOARD. Please enclose the COPY of this STATEMENT to ensure accurate crediting of your account.

If you have questions please contact Jennifer Taylor at 916-227-4431.

If you desire copies of supporting daily logs, please contact: WENDY LIU at (213) 266-7530.

******* ORIGINAL INVOICE *******

PLEASE RETURN COPY WITH PAYMENT TO:

STATE WATER RESOURCES CONTROL BOARD
DIV OF CWP S.L.I.C. PROGRAM
2014 T STREET
P.O. BOX 944212
SACRAMENTO, CA 94244-2120

UTM 006251

STATE WATER RESOURCES CONTROL BOARD
Spills, Leaks, Investigations and Cleanup Program Billing

STATEMENT OF RECEIPTS AND CHARGES
from April 1, 1997 Through June 30, 1997

Date: 09/23/97
STATEMENT # 18443-23

Region: 4 Facility: 17300 E. CHESTNUT STREET

To: UTILITY TRAILER MANUFAC. CO.
ATTN: MR. ROBERT GRIFFIS

17295 E. RAILROAD STREET
INDUSTRY CA 91748

Balance Due as of June 2, 1997 (For Accounting use only: 18443)	$42.68
Payments Received Through September 15, 1997	$42.68
Amount PAST DUE	$0.00
Labor Hours: 0.00 Current Billing Period Charges	$-24.76
Total AMOUNT DUE or CREDIT BALANCE on Account	$ 24.76 (CR)

---------- Fold Here to return in Window Envelope ----------

'AMOUNT DUE' is due and payable within 15 days to the STATE WATER RESOURCES CONTROL BOARD at the address below. Make checks payable to: STATE WATER RESOURCES CONTROL BOARD. Please enclose the COPY of this STATEMENT to ensure accurate crediting of your account.

If you have questions please contact Jennifer Taylor at 916-227-4431.

If you desire copies of supporting daily logs, please contact: WENDY LIU at (213) 266-7530.

******* COPY OF ORIGINAL INVOICE *******

PLEASE RETURN COPY WITH PAYMENT TO:

STATE WATER RESOURCES CONTROL BOARD
DIV OF CWP S.L.I.C. PROGRAM
2014 T STREET
P.O. BOX 944212
SACRAMENTO, CA 94244-2120

Cal/EPA

State Water Resources Control Board

Division of Clean Water Programs

Mailing Address:
PO Box 944212
Sacramento, CA
94244-2120

2014 T Street,
Suite 130
Sacramento, CA
95814
(916) 227-4431
FAX (916) 227-4349

www.swrcb.ca.gov

Pete Wilson
Governor

September 23, 1997

SPECIAL NOTICE

Enclosed is the billing statement for the Spills, Leaks, Investigation and Cleanup Program from April 1, through June 30, 1997. June 30, 1997 was the end of the State fiscal year. As stated in the billing information provided with your initial contact letter from the Regional Water Quality Control Board, the end of fiscal year billing statements may have overhead adjustments. If there are no labor hours but an amount due, or if the amount due seems high compared to the hours worked, this is due to the overhead adjustments.

This will be the last statement that will be sent in this format. Beginning with the July 1, through September 30, 1997 statements, our new automated billing system will provide a more detailed invoice. The following additional information will be included:

- Billing charges will be broken down to a lower level, i.e., charges for labor, travel, equipment, contract, overhead.
- Name and classification of employee charging the labor hours
- Work activities performed by hours

We hope that by providing this additional information, it will better assist you in the processing of the invoice for payment.

We are still receiving some payments at our previous remittance address which delays posting to your account. Please check to make sure your payments are being sent to the address listed at the top of the statement.

Thank you in advance for your patience during the automation process.

Sincerely,

Jennifer Taylor

Jennifer Taylor
Program Analyst

Enclosure