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SECOND QUARTER 1997
GROUNDWATER MONITORING REPORT

El Monte Operable Unit
San Gabriel Valley
Los Angeles County, California

Maness Project No. 51298

MANESS
ENVIRONMENTAL SERVICES INC.

Your Environmental Construction & Transportation Partner

1101 East Spring Street, P.O. Box 7917
Long Beach, California 90807-0917
(310) 595-4555 • Fax (310) 492-6495

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SECOND QUARTER 1997
GROUNDWATER MONITORING REPORT

El Monte Operable Unit
San Gabriel Valley
Los Angeles County, California

Maness Project No. 51298

Prepared For:
Crown City Plating Company
4350 Temple City Boulevard, El Monte, California 91731

Prepared By:
Maness Corporation
1101 East Spring Street, Long Beach, California 90806

November 5, 1997

MANESS
ENVIRONMENTAL SERVICES, INC.

November 5, 1997

Maness Project No. 51298

Mr. Larry Donovan
Crown City Plating Co.
4350 Temple City Boulevard
El Monte, California 91731

RE: Report of Second Quarter 1997, Groundwater Monitoring at El Monte Operable Unit, San Gabriel Valley, Los Angeles County, California

Dear Mr. Donovan:

Enclosed please find Maness Corporation (Maness) second quarter 1997, groundwater monitoring report completed at the above referenced site.

In order to complete quarterly groundwater monitoring activities, Maness performed the following: (1) measured fluid levels, (2) purged and collected groundwater samples from two wells, (3) prepared a report summarizing field activities and laboratory analytical results.

If you have any questions or require additional information, please feel free to call me at (562) 595-4555.

Sincerely,
Maness Corporation

Gabriele Baader, REA
Project Manager

cc: Bella Dizon, U.S. Environmental Protection Agency
Art Heath, Regional Water Quality Control Board (Los Angeles Region)
Sharon Wallen, Camp Dresser & McKee, Inc.
Kathryn Quinn, CH2MHILL

1101 East Spring Street • Long Beach, CA 90806
P.O. Box 90939 • Long Beach, CA 90809-0939
Contractor's License No. 553633
(310) 595-4555 FAX: (310) 492-6495

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1.0 INTRODUCTION

This Second Quarter 1997, Groundwater Monitoring Report has been prepared by Maness Corporation (Maness) on behalf of the Crown City Plating Company (CCPC) for the CCPC site located at the El Monte Operable Unit, San Gabriel Valley, Los Angeles County, California (***Figure 1*** and ***Figure 2***).

1.1 PURPOSE AND SCOPE OF WORK

In order to complete groundwater monitoring activities, Maness performed the following: (1) measured fluid levels, (2) purged and collected groundwater samples from two wells, (3) prepared a report summarizing field activities and laboratory analytical results.

The objective of sampling monitoring wells MW2-3 and MW2-4 was to provide data to assess aquifer characteristics, groundwater flow direction and chemical quality of groundwater at the water table in the vicinity of the monitor wells.

1.2 BACKGROUND

The CCPC site is located in an industrial area in the western section of the City of El Monte, Los Angeles County, California. CCPC is located north of Valley Boulevard, south of Lower Azusa Road, east of Temple City Boulevard and west of Baldwin Avenue. The site occupies approximately 13 acres of land. Most of the site is owned by CCPC, the southernmost portion of the site is owned by Southern-Pacific Transportation Company (Southern-Pacific) and leased to CCPC. The site is located at the El Monte Operable Unit within the San Gabriel Valley Area 1 Superfund Site, as defined by EPA.

CCPC has operated a metal plating facility at the site since 1956. In 1977, CCPC leased a portion of the site from Southern-Pacific. Chemicals historically used at the site, as documented by EPA, included 1,1,1-Trichloroethane (1,1,1-TCA), toluene, wash thinner, cutting oil, sulfuric acid, nitric acid and sodium hydroxide.

VOCs have been detected at concentrations exceeding maximum contaminant levels (MCLs) in groundwater and in the San Gabriel Valley since 1979. In May 1984, the EPA assigned four areas of contamination located within the San Gabriel Valley to the National Priorities List. The CCPC is located within the El Monte Operable Unit, which is within an EPA Remedial Investigation Area where groundwater clean-up efforts are currently being focused

Based on the analytical results of previous groundwater and soil investigations of areas in the vicinity of the site, several potentially hazardous chemical compounds have been identified: trichloroethylene (TCE), perchloroethylene (PCE), 1,1-dichloroethylene (1,1-DCE) and 1,1,1-TCA.

In May 1990, the EPA issued a Notice of Potential Liability for the San Gabriel Valley Superfund sites to CCPC. In March 1995, the EPA submitted a Statement of Work to the Northwest El Monte Community Task Force as a basis for implementing an interim Remedial Investigation/Feasibility Study (RI/FS). This Statement of Work included specific locations for new monitor wells to be installed as part of the overall interim RI/FS. A Special Notice was issued to CCPC on October 7, 1994.

On May 31, 1995, EPA issued a Unilateral Order to CCPC to independently sponsor the development and testing of two shallow groundwater monitor wells included in the original Statement of Work submitted to the Northwest El Monte Community Task Force.

2.0 FIELD ACTIVITIES

2.1 GROUNDWATER WELL PURGING AND SAMPLING

On September 4, 1997, a Maness geologist collected groundwater samples from monitoring wells MW2-3 and MW2-4, respectively. Prior to purging and sampling, the depths to groundwater in the monitoring wells were measured using a Solinst electric sounding tape to determine the static water level, and hydraulic direction and gradient. This tape is specifically designed for use in sounding groundwater monitoring wells.

The Maness geologist purged the wells using a portable stainless steel Grundfos environmental electric submersible pump prior to the collection of the groundwater samples. During the purging of each well, the geologist periodically measured groundwater characteristics and recorded pH levels, temperature, conductivity, turbidity and pump rate readings (***Appendix A*** - Groundwater Sampling Logs). After the removal of three times the well casing volume of water, enough time was allowed for groundwater to recharge to at least 80% of the measured static water level prior to the collection of water samples.

As required by the EPA, Maness recovered groundwater samples with a non-dedicated portable stainless steel Grundfos electric submersible pump and dedicated teflon-lined sample tubing. Trip blanks were obtained from the laboratory. The groundwater samples were collected from the pump discharge tubing and transferred into 40 ml VOA vials. The vials were labeled, sealed with custody seals and immediately placed on ice in a cooler until submitted to a state-certified laboratory for analysis (VOC Analytical Laboratories, Inc. of Glendale, California). Refer to ***Appendix B*** for a copy of laboratory and quality assurance/quality control (QA/QC) reports and chain-of-custody records.

In accordance with EPA Quality Assurance/Quality Control requirements, Maness collected one duplicate groundwater sample from monitoring well MW2-3 in Rosemead, and one duplicate, one rinsate blank and one trip blank from monitoring well MW2-4 in El Monte.

Maness followed standard sampling procedures as outlined in the Field Sampling Plan by Hargis & Associates, Inc. dated November 6, 1995. The Grundfos pump was decontaminated prior to each use by submerging in a non-phosphate detergent and tap water solution, and rinsed by pumping approximately 10 pump volumes of tap water through the mechanism. The exterior of the pump was rinsed with distilled water. All liquids generated during purging activities were recovered into 55-gallon DOT approved drums. Crown City Plating personel removed and transported the drums to the CCPC facility for disposal in their general waste stream.

3.0 LABORATORY TESTING

3.1 METHOD OF ANALYSIS

Groundwater samples were collected, maintained, and prepared in accordance with Test Methods for Evaluating Solid Waste, (SW-846), Third Edition, Update #2, November 1990. These methods, as prescribed by the Environmental Protection Agency (EPA), provide test procedures which determine whether the sample is a hazardous waste.

VOC Analytical Laboratories, Inc. of Glendale, California, analyzed the groundwater samples for volatile organic compounds (VOCs) using EPA Method 8021A.

3.2 CLEAN-UP CRITERIA

Clean-up levels for volatile organics in groundwater are based on the California Drinking Water Standards (CDWS). They are as follows:

- Ethylbenzene = 700 parts per billion (ppb)
- Benzene = 1 ppb
- Toluene = 150 ppb
- Tetrachloroethene = 5 ppb
- Total Xylene Isomers = 1,750 ppb

1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, n-Propylbenzene, Naphthalene, Bromoform, Dibromochloromethane, and Chloroform are unregulated. However, monitoring is required based on the California Drinking Water Standards.

3.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS

Benzene (51 ppb at MW2-4 and 11 ppb at MW2-3) was the only VOC above MCLs stated in CDWS.

Figure 2 is a site map showing the groundwater monitoring well locations with a summary of the sample analytical results. *Table 1* summarizes the groundwater analytical results. The laboratory reports and chain-of-custody records for the groundwater sampling have been included in *Appendix B*.

TABLE 1

SUMMARY OF GROUNDWATER LABORATORY ANALYSIS
EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION
SAN GABRIEL VALLEY, LOS ANGELES, CALIFORNIA
SAMPLE DATE - 09/04/97

Analytes	EPA Method	MW2-3	MW2-4	MW2-R (Rinsate)	MCL
VOCs (ppb)					
1,2,4-Trimethylbenzene	8021A	12	23	20	Unregulated
1,3,5-Trimethylbenzene	8021A	2.4	5.1	3.6	Unregulated
Benzene	8021A	**11**	**51**	31	1
Bromoform	8021A	ND	ND	1.3	Unregulated
Chloroform	8021A	0.86	ND	ND	Unregulated
Dibromochloromethane	8021A	ND	ND	1.6	Unregulated
Ethylbenzene	8021A	9.2	22	18	700
n-Propylbenzene	8021A	ND	2.2	2.1	Unregulated
Naphthalene	8021A	6.1	12	9.7	Unregulated
Toluene	8021A	8.9	30	21	150
Tetrachloroethene	8021A	0.65	ND	ND	5
Total Xylenes	8021A	30	71	55	1,750

Notes:
ppb = parts per billion (µg/L)
MCL = primary and secondary maximum contaminant levels, California Drinking Water Standards (1994)
ND = not detected at or above laboratory detection limits
86 = above MCL
Remaining analytes ND

4.0 SITE GEOLOGY AND HYDROGEOLOGY

The subject site is located in the northeastern block portion of the Los Angeles Basin. The northeastern block is situated between the Whittier fault zone and the base of the San Gabriel Mountains and is separated from the northwestern block by the Raymond Hill fault. This block is a deep synclinal basin that contains mostly marine Cenozoic sedimentary rocks, but includes some thick Miocene volcanic rocks in the east. The basement lies as much as 12,000 feet below the surface in the central part of the San

Gabriel Valley, and in the eastern Puente Hills more than 22,000 feet of Cenozoic sedimentary rock covers the basement (from: *Geology of California, Robert M. Norris and Robert W. Webb, 1990*).

The subject site overlies alluvial sediments consisting of mainly moderate yellowish brown, medium- to coarse-grained sand to very dark grayish brown, fine-grained silty sand. The surrounding topography is consistently flat.

According to the Los Angeles County Department of Public Works (DPW) hydrologic records, the first recorded groundwater for the surrounding area as of April 30, 1996, is approximately 37.8 feet below land surface with a ground surface elevation of approximately 256.5 feet above mean sea level (MSL) (DPW Well 2942G, located at the intersection of Flair Drive and Strang Avenue, approximately ¼ mile southeast of monitor well MW2-3 and ¼ mile southwest of monitor well MW2-4).

Maness encountered groundwater in monitoring wells MW2-3 and MW2-4 at 34.70 and 38.34 feet below surface, respectively, during the sampling event in September, 1997. During the field investigation in March, 1997, Maness encountered groundwater in monitoring wells MW2-3 and MW2-4 at 34.30 and 37.40 feet below surface, respectively. In order to determine the exact depth to groundwater with respect to mean sea level, Gilbert Engineering of Cypress, California, surveyed the top of each well casing on February 21, 1997.

5.0 CONCLUSIONS

Maness has completed the Second Quarter 1997, groundwater monitoring activities in El Monte and Rosemead, Los Angeles County, California for Crown City Plating Company located at 4350 Temple City Boulevard in El Monte, California. Groundwater monitoring assessed the groundwater quality associated with the El Monte Operable Unit (OU) area in the San Gabriel Valley, Los Angeles County, California.

Maness purged and sampled two groundwater monitoring wells in the southernmost portion of the El Monte OU. Benzene (51 ppb at MW2-4 and 11 ppb at MW2-3) was the only VOC above MCL stated in CDWS.

Ethylbenzene, 1,2,4-Trimethylbenzene, Toluene, and Total Xylenes concentrations in MW2-3 and MW2-4 increased slightly, while Chloroform and Tetrachloroethene concentrations in MW2-3 decreased from the previous sampling event. Trichloroethene concentration in MW2-3 was not detected where the concentration was above the MCL in the previous sampling event. In addition, insignificant concentrations of 1,3,5-Trimethylbenzene, n-Propylbenzene, and Naphthalene concentrations were detected in MW2-3 and MW2-4.

6.0 LIMITATIONS

Maness Corporation (Maness) performs professional services using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings are based primarily upon analytical results provided by an independent laboratory. Interpretations of the subsurface conditions at the site, for the purpose of this investigation, are made from a limited number of available data points (example: groundwater samples) and subsurface conditions may be different in other locations. No warranty, expressed or implied, is made as to the professional recommendations in our reports.

Maness appreciates the opportunity to provide environmental management services for Crown City Plating Co. If you have any questions regarding the report or require additional information, please call us at (562) 595-4555.

Sincerely,

Maness Corporation

Jeff Engels
Geologist

Gary Runnells, RG, REA
Manager, Remediation Services

Gabriele Baader, REA
Project Manager

REGISTERED GEOLOGIST
GARY RUNNELLS
No. 5413
Exp 2-29-99
STATE OF CALIFORNIA

REGISTERED ENVIRONMENTAL ASSESSOR
GARY RUNNELLS
No. REA-02656
Expires: 6-30-98
STATE OF CALIFORNIA

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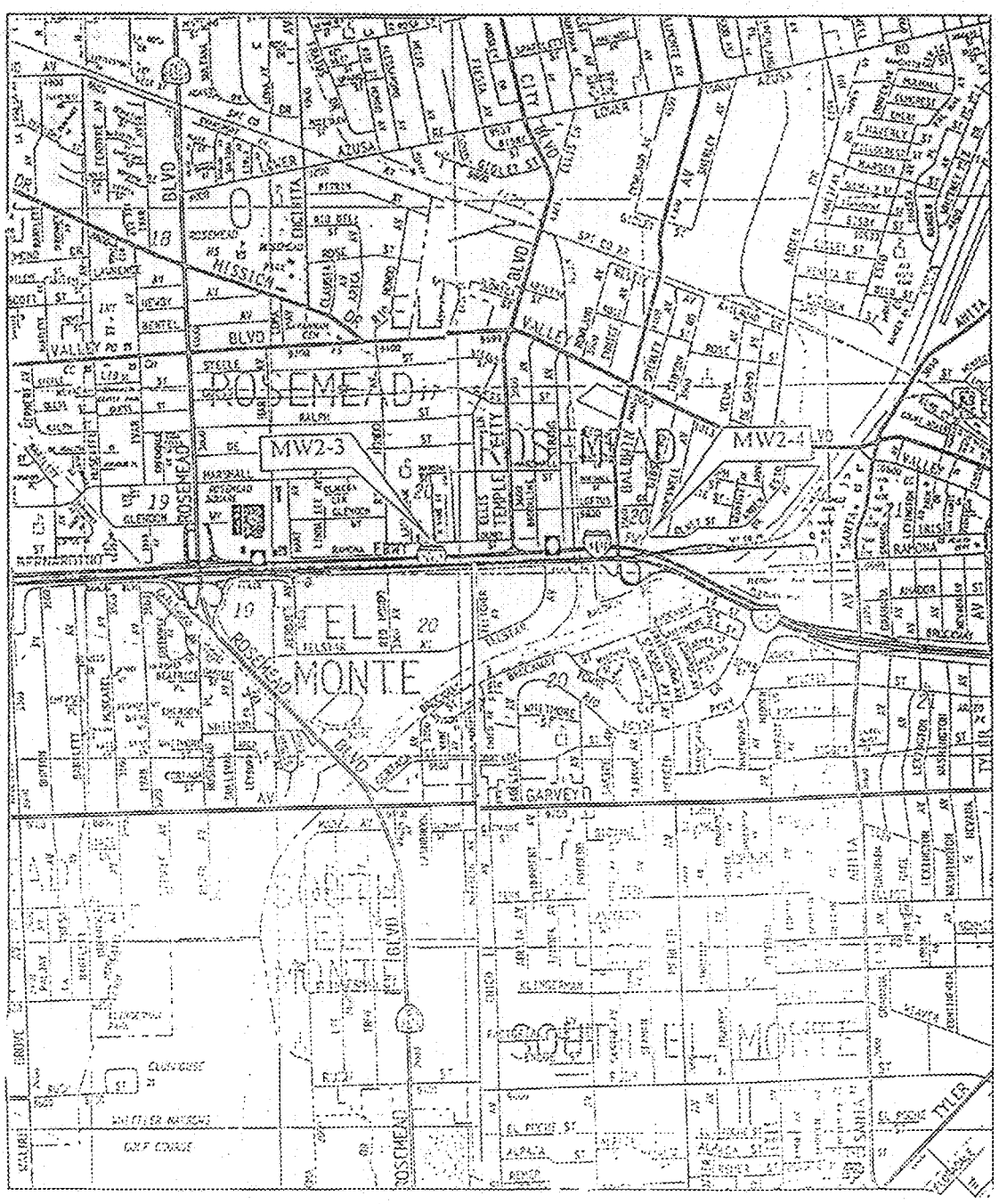
FIGURES



REFERENCE:

Thomas Bros. Maps
The Thomas Guide, 1997
Los Angeles County Counties
p. 596: J-7, 597: A-7

FIGURE 1
VICINITY MAP

El Monte Operable Unit
San Gabriel Valley
Los Angeles County, California

MANESS
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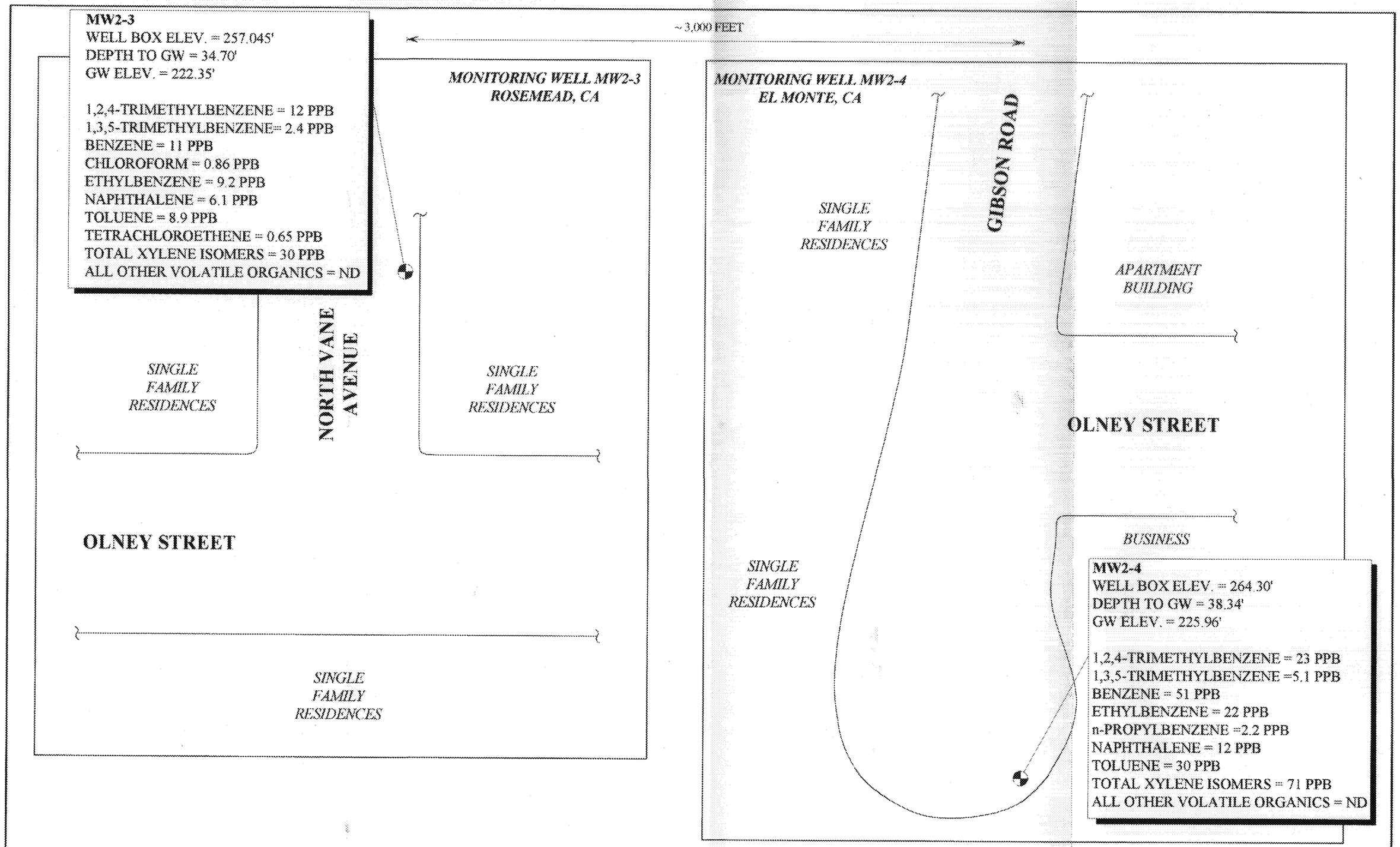
A DIVISION OF
MANESS INDUSTRIES



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PROJECT NO.: 51298
DATE: 09/30/97

0 30 60
APPROXIMATE SCALE IN FEET

DRAWN BY: JEFF ENGELS

CHECKED BY: RONALD SANTOS

APPROVED BY: GARY RUNNELLS

FIGURE 2

SITE MAP WITH GROUNDWATER MONITOR WELL LOCATIONS
EL MONTE OPERABLE UNIT, SAN GABRIEL VALLEY
LOS ANGELES COUNTY, CALIFORNIA

MANESS CORPORATION
A DIVISION OF MANESS INDUSTRIES

APPENDIX A

GROUNDWATER SAMPLING LOGS

WELL No.	SITE NAME:	DATE:	pH/Temp/Conductivity Meter:	Turbidimeter:
MW2-3	CROWN CITY PLATING COMPANY ADDRESS: North Vane Avenue & Olney Street, Rosemead, CA	9/4/97	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter

GROUNDWATER SAMPLING LOG

Time	Volume Bailed (gallons)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Pump Rate (gpm)
14:10	-	-	-	-	-	-
14:30	<1	7.66	1.25	27.5	111	0.2
14:42	3	7.31	1.24	28.2	170	0.9
14:48	9	7.26	1.24	27.3	197	0.9
14:54	15	7.10	1.24	26.7	113	0.8
14:59	18	7.03	1.24	26.3	112	0.8
15:08	22	7.02	1.24	25.9	135	0.8
15:15	27	7.04	1.26	25.4	108	0.8
15:23	33	7.10	1.23	25.1	117	0.8
15:32	35	7.16	1.27	24.7	110	0.7
15:38	39	7.18	1.27	24.9	113	0.7

Remarks: Purged water at 13 gallons very cloudy, at 39 gallons clear.

Depth to Bottom of Well: (feet) 54.15'

Relative Recharge Rate (circle one) slow moderate fast very fast

SOLUTION STANDARDS

pH

BRAND NAME: CALITECH Auto-Cal
pH: 4.0

BRAND NAME:
pH:

BRAND NAME:
pH:

CONDUCTIVITY

BRAND NAME: CALITECH
SOLUTION: Auto-Calibration Potassium Hydrogen Phthalate
CONCENTRATION: 4.49 mS/cm

INSTRUMENT CALIBRATION RECORD

	pH	RECORDING:	CONDUCTIVITY (MOHS) START UP:	RECORDING:
START UP:	4			
	7			
	10			
END:	4		END:	RECORDING:
	7			
	10			

AUTO - CALIBRATION

Well Box Elevation (feet above mean sea level)	Depth to Groundwater (feet)	Groundwater Elevation (feet above mean sea level)	Sampler Name:
257.045'	34.70'	222.35'	Jeff Engels Signature:

MANESS CORPORATION
A DIVISION OF MANESS INDUSTRIES
1101 EAST SPRING STREET, P.O.BOX 90979, LONG BEACH, CA. 90809
CONTRACTOR LICENSE NO. 553633, (310) 595-4555 FAX (310) 492-8495

WELL No.	SITE NAME:	DATE:	pH/Temp/Conductivity Meter:	Turbidimeter:
MW2-4	CROWN CITY PLATING COMPANY ADDRESS: Gibson Road & Olney Street, El Monte, CA	9/4/97	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter	Horiba U-10 Digital pH/Cond/Temp/Turb-Meter

GROUNDWATER SAMPLING LOG

Time	Volume Bailed (gallons)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Pump Rate (gpm)
09:04	-	-	-	-	-	-
09:20	<1	6.77	1.31	25.4	105	0.6
09:29	5	7.24	1.29	23.3	174	0.6
09:38	10	7.27	1.25	23.1	115	0.5
09:55	18	7.33	1.29	22.9	115	0.5
10:08	-	-	-	-	-	-
10:20	27	7.36	1.27	25.4	78	0.3
11:52	33	7.61	1.43	25.9	157	0.2
11:55	33.5	7.44	0.75	26.4	114	0.2
12:07	34	7.44	1.23	26.7	117	0.2
12:11	35	7.44	1.20	27.0	114	0.2
12:19	36	7.42	1.25	27.3	117	0.2

Remarks: Pump stopped at 10:08. Purged water cloudy at 5 gallons. Purged water at 36 gallons clear.

Depth to Bottom of Well: (feet) 55.25'

Relative Recharge Rate (circle one) slow moderate fast very fast

SOLUTION STANDARDS

pH	CONDUCTIVITY
BRAND NAME: CALITECH Auto-Cal pH: 4.0	BRAND NAME: CALITECH SOLUTION: Auto-Calibration Potassium Hydrogen Phthalate CONCENTRATION: 4.49 mS/cm
BRAND NAME: pH:	
BRAND NAME: pH:	

INSTRUMENT CALIBRATION RECORD

	pH	RECORDING:	CONDUCTIVITY (MOHS) START UP:	RECORDING:
START UP:	4			
	7			
	10			
END:	4		END:	RECORDING:
	7			
	10			

AUTO - CALIBRATION

Well Box Elevation (feet above mean sea level)	Depth to Groundwater (feet)	Groundwater Elevation (feet above mean sea level)
264.30'	38.34'	225.96'

Sampler Name: Jeff Engels

Signature:

MANESS CORPORATION
A DIVISION OF MANESS INDUSTRIES
1101 EAST SPRING STREET, P.O.BOX 90939, LONG BEACH, CA 90809
CONTRACTOR LICENSE NO 553633, (310) 595-4555 FAX (310) 492-8495

APPENDIX B

LABORATORY AND QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) REPORTS AND CHAIN-OF-CUSTODY RECORDS

Our Quality Control Is Your Quality Assurance

October 20,1997

Manees Environmental Services
1101 E. Spring Street
Long Beach, CA 90806
Attn: Ms. Gabriel Baader

Dear Ms. Baader ,

Enclosed is the analytical report for chemical testing for samples taken on 09/04/97. It includes the following:

1) Analytical Report of results

2) QC summary including LCS/LCSD, MS/MSD, duplicate samples, method blanks, and surrogates.

3) Cross reference sheet containing analyte, date analyzed, method, and batch number.

4) Case narrative explaining QC deficiencies and/or problems encountered in testing.

If you have any questions, please do not hesitate to call me at (818) 247-5737.

Very truly yours,

R. Yaghoubi

Roobik Yaghoubi
Senior Project Manager

Our Quality Control Is Your Quality Assurance

Case Narrative

All quality objectives were met including holding times, LCS/LCSD, MS/MSD, Duplicate samples, and Method Blanks as applicable with the following exceptions:

No analytical difficulties were encountered with any project samples.

ANALYTICAL REPORT

Our Quality Control Is Your Quality Assurance

LOG NO: G97-09-069

Received: 04 SEP 97

Mailed:

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
09-069-1	MW2-4	04 SEP 97
09-069-2	MW2-3	04 SEP 97

PARAMETER	09-069-1	09-069-2
Volatile Organics (8021A)		
Date Analyzed	09/17/97	09/17/97
Time Analyzed	14:10	18:22
Date Calibrated	06/04/97	06/04/97
Dilution Factor, Times	1	1
1,1,1,2-Tetrachloroethane, ug/L	<2	<2
1,1,1-Trichloroethane, ug/L	<0.5	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethene, ug/L	<0.5	<0.5
1,1-Dichloropropene, ug/L	<2	<2
1,2,3-Trichlorobenzene, ug/L	<2	<2
1,2,3-Trichloropropane, ug/L	<1	<1
1,2,4-Trichlorobenzene, ug/L	<2	<2
1,2,4-Trimethylbenzene, ug/L	23	12
1,2-Dibromo-3-chloropropane, ug/L	<2	<2
1,2-Dibromoethane, ug/L	<2	<2
1,2-Dichloroethane, ug/L	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5
1,3,5-Trimethylbenzene, ug/L	5.1	2.4
1,3-Dichlorobenzene, ug/L	<0.5	<0.5
1,3-Dichloropropane, ug/L	<2	<2
1,4-Dichlorobenzene, ug/L	<0.5	<0.5
2,2-Dichloropropane, ug/L	<2	<2
2-Chloroethylvinylether, ug/L	<0.5	<0.5

LOG NO: G97-09-069

Received: 04 SEP 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
09-069-1	MW2-4	04 SEP 97
09-069-2	MW2-3	04 SEP 97

PARAMETER	09-069-1	09-069-2
2-Chlorotoluene, ug/L	<2	<2
4-Chlorotoluene, ug/L	<2	<2
Bromobenzene, ug/L	<2	<2
Bromochloromethane, ug/L		
Bromodichloromethane, ug/L	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5
Benzene, ug/L	51	11
Bromoform, ug/L	<0.5	<0.5
Chlorobenzene, ug/L	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5
Chloroform, ug/L	<0.5	0.86
Chloromethane, ug/L	<0.5	<0.5
Dibromochloromethane, ug/L	<0.5	<0.5
Dibromomethane, ug/L	<2	<2
Dichlorodifluoromethane, ug/L	<0.5	<0.5
Ethylbenzene, ug/L	22	9.2
Freon 113, ug/L	<0.5	<0.5
Hexachlorobutadiene, ug/L	<2	<2
Isopropylbenzene, ug/L	<2	<2
Methylene chloride, ug/L	<2	<2
N-Butylbenzene, ug/L	<2	<2
N-Propylbenzene, ug/L	2.2	<2
Naphthalene, ug/L	12	6.1
Styrene, ug/L	<2	<2
Trichloroethene, ug/L	<0.5	<0.5

LOG NO: G97-09-069

Received: 04 SEP 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
09-069-1	MW2-4	04 SEP 97
09-069-2	MW2-3	04 SEP 97

PARAMETER	09-069-1	09-069-2
Trichlorofluoromethane, ug/L	<0.5	<0.5
Toluene, ug/L	30	8.9
Tetrachloroethene, ug/L	<0.5	0.65
Vinyl chloride, ug/L	<0.5	<0.5
Total Xylene Isomers, ug/L	71	30
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5
m- and p-Xylene Isomers, ug/L	51	22
o-Xylene, ug/L	20	7.6
p-Isopropyl toluene, ug/L	<2	<2
sec-Butylbenzene, ug/L	<2	<2
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5
tert-Butylbenzene, ug/L	<2	<2
Surrogates **		
Bromochloromethane Reported, ug/L	61.2	59.5
Bromochloromethane Theoretical, ug/L	50.0	50.0
a,a,a-Trifluorotoluene Rep., ug/L	46.6	46.8
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0

LOG NO: G97-09-069

Received: 04 SEP 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
09-069-3	MW2-R	04 SEP 97
09-069-4	MW2-T	04 SEP 97

PARAMETER	09-069-3	09-069-4
Volatile Organics (8021A)		
Date Analyzed	09/17/97	09/17/97
Time Analyzed	19:45	21:09
Date Calibrated	06/04/97	06/04/97
Dilution Factor, Times	1	1
1,1,1,2-Tetrachloroethane, ug/L	<2	<2
1,1,1-Trichloroethane, ug/L	<0.5	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethene, ug/L	<0.5	<0.5
1,1-Dichloropropene, ug/L	<2	<2
1,2,3-Trichlorobenzene, ug/L	<2	<2
1,2,3-Trichloropropane, ug/L	<1	<1
1,2,4-Trichlorobenzene, ug/L	<2	<2
1,2,4-Trimethylbenzene, ug/L	20	<2
1,2-Dibromo-3-chloropropane, ug/L	<2	<2
1,2-Dibromoethane, ug/L	<2	<2
1,2-Dichloroethane, ug/L	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5
1,3,5-Trimethylbenzene, ug/L	3.6	<2
1,3-Dichlorobenzene, ug/L	<0.5	<0.5
1,3-Dichloropropane, ug/L	<2	<2
1,4-Dichlorobenzene, ug/L	<0.5	<0.5
2,2-Dichloropropane, ug/L	<2	<2

LOG NO: G97-09-069

Received: 04 SEP 97

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Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
09-069-3	MW2-R	04 SEP 97
09-069-4	MW2-T	04 SEP 97

PARAMETER	09-069-3	09-069-4
2-Chloroethylvinylether, ug/L	<0.5	<0.5
2-Chlorotoluene, ug/L	<2	<2
4-Chlorotoluene, ug/L	<2	<2
Bromobenzene, ug/L	<2	<2
Bromochloromethane, ug/L		
Bromodichloromethane, ug/L	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5
Benzene, ug/L	31	<0.5
Bromoform, ug/L	1.3	<0.5
Chlorobenzene, ug/L	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5
Chloroform, ug/L	<0.5	<0.5
Chloromethane, ug/L	<0.5	<0.5
Dibromochloromethane, ug/L	1.6	<0.5
Dibromomethane, ug/L	<2	<2
Dichlorodifluoromethane, ug/L	<0.5	<0.5
Ethylbenzene, ug/L	18	<0.5
Freon 113, ug/L	<0.5	<0.5
Hexachlorobutadiene, ug/L	<2	<2
Isopropylbenzene, ug/L	<2	<2
Methylene chloride, ug/L	<2	<2
N-Butylbenzene, ug/L	<2	<2
N-Propylbenzene, ug/L	2.1	<2
Naphthalene, ug/L	9.7	<2
Styrene, ug/L	<2	<2

LOG NO: G97-09-069

Received: 04 SEP 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
09-069-3	MW2-R	04 SEP 97
09-069-4	MW2-T	04 SEP 97

PARAMETER	09-069-3	09-069-4
Trichloroethene, ug/L	<0.5	<0.5
Trichlorofluoromethane, ug/L	<0.5	<0.5
Toluene, ug/L	21	<0.5
Tetrachloroethene, ug/L	<0.5	<0.5
Vinyl chloride, ug/L	<0.5	<0.5
Total Xylene Isomers, ug/L	55	<1
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5
m- and p-Xylene Isomers, ug/L	40	<1
o-Xylene, ug/L	15	<0.5
p-Isopropyl toluene, ug/L	<2	<2
sec-Butylbenzene, ug/L	<2	<2
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5
tert-Butylbenzene, ug/L	<2	<2
Surrogates **		
Bromochloromethane Reported, ug/L	55.0	59.0
Bromochloromethane Theoretical, ug/L	50.0	50.0
a,a,a-Trifluorotoluene Rep., ug/L	48.6	47.1
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0

LOG NO: G97-09-069

Received: 04 SEP 97

Ms. Gabriele Baader
Maness Environmental Services
1101 E. Spring St.
Long Beach, CA 90806

Purchase Order: 51298

Project: CROWN.CITY.PLATING

REPORT OF ANALYTICAL RESULTS

R. Toghabi for

Greta Galoustian, Laboratory Director

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

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: VOC ANALYTICAL : GLEN LAB : 07:43:35 21 OCT 1997 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9709069*1	MW2-4	VAH.8021	09.17.97	8021A	536-28	972061	8171
9709069*2	MW2-3	VAH.8021	09.17.97	8021A	536-28	972061	8171
9709069*3	MW2-R	VAH.8021	09.17.97	8021A	536-28	972061	8171
9709069*4	MW2-T	VAH.8021	09.17.97	8021A	536-28	972061	8171

***

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

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

VOC ANALYTICAL, GLENDALE
QC REPORT FOR 9709069
DATE PRINTED: 21 OCT 1997

AQUEOUS SAMPLES		METHOD BLANK			LAB CONTROL									MATRIX QC									
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD	
	UNITS	RESULT	MDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	
Batch: VAN*972061 Method: 8021A - 8010/8020 in series, GC, ELCD;PID																							
1,1,1,2-Tetrachloroethane	ug/L	0	2	-	108	-	-	-	54	161	-	-	-	-	-	-	-	-	-	-	-	-	
1,1,1-Trichloroethane	ug/L	0	0.5	-	105	-	-	-	61	138	-	-	-	-	-	-	-	-	-	-	-	-	
1,1,2,2-Tetrachloroethane	ug/L	0	0.5	-	116	-	-	-	42	141	-	-	-	-	-	-	-	-	-	-	-	-	
1,1,2-Trichloroethane	ug/L	0	0.5	-	120	-	-	-	57	133	-	-	-	-	-	-	-	-	-	-	-	-	
1,1-Dichloroethane	ug/L	0	0.5	-	102	-	-	-	65	130	-	-	-	-	-	-	-	-	-	-	-	-	
1,1-Dichloroethene	ug/L	0	0.5	-	95	-	-	-	54	138	-	-	-	104	-	97	-	50	147	7	27	-	
1,1-Dichloropropene	ug/L	0	2	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,2,3-Trichlorobenzene	ug/L	0.60	2	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,2,3-Trichloropropane	ug/L	0	1	-	121	-	-	-	51	157	-	-	-	-	-	-	-	-	-	-	-	-	
1,2,4-Trichlorobenzene	ug/L	0	2	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,2,4-Trimethylbenzene	ug/L	0.11	2	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dibromo-3-chloropropane	ug/L	0	2	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dibromoethane	ug/L	0	2	-	117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichloroethane	ug/L	0	0.5	-	115	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichlorobenzene	ug/L	0	0.5	-	101	-	-	-	64	128	-	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichloropropane	ug/L	0	0.5	-	108	-	-	-	53	147	-	-	-	-	-	-	-	-	-	-	-	-	
1,3,5-Trimethylbenzene	ug/L	0	2	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,3-Dichlorobenzene	ug/L	0	0.5	-	103	-	-	-	63	130	-	-	-	-	-	-	-	-	-	-	-	-	
1,3-Dichloropropane	ug/L	0	2	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1,4-Dichlorobenzene	ug/L	0	0.5	-	104	-	-	-	69	133	-	-	-	-	-	-	-	-	-	-	-	-	
2,2-Dichloropropane	ug/L	0	2	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2-Chloroethylvinylether	ug/L	0	0.5	-	124	-	-	-	52	154	-	-	-	-	-	-	-	-	-	-	-	-	
2-Chlorotoluene	ug/L	0	2	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4-Chlorotoluene	ug/L	0	2	-	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromobenzene	ug/L	0.077	2	-	103	-	-	-	75	135	-	-	-	-	-	-	-	-	-	-	-	-	
Bromochloromethane	ug/L	0	2	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	ug/L	0	0.5	-	99	-	-	-	70	130	-	-	-	-	-	-	-	-	-	-	-	-	
Bromomethane	ug/L	0	0.5	-	79	-	-	-	39	133	-	-	-	-	-	-	-	-	-	-	-	-	
Benzene	ug/L	0	0.5	-	98	-	-	-	80	126	-	-	-	104	-	102	-	67	141	1	20	-	
Bromoform	ug/L	0	0.5	-	109	-	-	-	53	133	-	-	-	-	-	-	-	-	-	-	-	-	
Chlorobenzene	ug/L	0	0.5	-	103	-	-	-	61	135	-	-	-	103	-	103	-	61	139	0	19	-	
Carbon Tetrachloride	ug/L	0	0.5	-	107	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	-	
Chloroethane	ug/L	0	0.5	-	100	-	-	-	46	137	-	-	-	-	-	-	-	-	-	-	-	-	
Chloroform	ug/L	0	0.5	-	105	-	-	-	65	133	-	-	-	-	-	-	-	-	-	-	-	-	
Chloromethane	ug/L	0	0.5	-	75	-	-	-	1	160	-	-	-	-	-	-	-	-	-	-	-	-	
Dibromochloromethane	ug/L	0	0.5	-	112	-	-	-	65	127	-	-	-	-	-	-	-	-	-	-	-	-	
Dibromomethane	ug/L	0	2	-	114	-	-	-	56	164	-	-	-	-	-	-	-	-	-	-	-	-	

AQUEOUS SAMPLES

		METHOD BLANK			LAB CONTROL									MATRIX QC									
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	
Batch: VAH*972061 Method: 8021A - 8010/8020 in series, GC, ELCD;PID, con't																							
Dichlorodifluoromethane	ug/L	0	0.5	-	33	-	-	-	1	157	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylbenzene	ug/L	0	0.5	-	103	-	-	-	81	122	-	-	-	-	-	-	-	-	-	-	-	-	
Freon 113	ug/L	0	0.5	-	101	-	-	-	37	152	-	-	-	-	-	-	-	-	-	-	-	-	
Hexachlorobutadiene	ug/L	0	2	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Isopropylbenzene	ug/L	0	2	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Methylene chloride	ug/L	0	2	-	97	-	-	-	57	137	-	-	-	-	-	-	-	-	-	-	-	-	
N-Butylbenzene	ug/L	0	2	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N-Propylbenzene	ug/L	0	2	-	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Naphthalene	ug/L	0.41	2	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Styrene	ug/L	0	2	-	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethene	ug/L	0	0.5	-	99	-	-	-	63	141	-	-	-	103	-	99	-	52	162	4	43	-	
Trichlorofluoromethane	ug/L	0	0.5	-	95	-	-	-	42	154	-	-	-	-	-	-	-	-	-	-	-	-	
Toluene	ug/L	0.15	0.5	-	103	-	-	-	81	125	-	-	-	103	-	104	-	74	133	1	21	-	
Tetrachloroethene	ug/L	0	0.5	-	112	-	-	-	64	139	-	-	-	-	-	-	-	-	-	-	-	-	
Vinyl chloride	ug/L	0	0.5	-	87	-	-	-	40	144	-	-	-	-	-	-	-	-	-	-	-	-	
Total Xylene Isomers	ug/L	0.12	1	-	104	-	-	-	84	118	-	-	-	-	-	-	-	-	-	-	-	-	
cis-1,2-Dichloroethene	ug/L	0	0.5	-	103	-	-	-	63	129	-	-	-	-	-	-	-	-	-	-	-	-	
cis-1,3-Dichloropropene	ug/L	0	0.5	-	112	-	-	-	65	132	-	-	-	-	-	-	-	-	-	-	-	-	
m- and p-Xylene Isomers	ug/L	0.12	1	-	105	-	-	-	84	118	-	-	-	-	-	-	-	-	-	-	-	-	
o-Xylene	ug/L	0	0.5	-	102	-	-	-	84	118	-	-	-	-	-	-	-	-	-	-	-	-	
p-Isopropyl toluene	ug/L	0	2	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
sec-Butylbenzene	ug/L	0	2	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
trans-1,2-Dichloroethene	ug/L	0	0.5	-	104	-	-	-	59	139	-	-	-	-	-	-	-	-	-	-	-	-	
trans-1,3-Dichloropropene	ug/L	0	0.5	-	116	-	-	-	60	130	-	-	-	-	-	-	-	-	-	-	-	-	
tert-Butylbenzene	ug/L	0	2	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
[Bromochloromethane]	Percent	106	-	-	95	-	-	-	-	-	-	-	-	100	-	98	-	-	-	-	-	-	
[a,a,a-Trifluorotoluene]	Percent	100	-	-	96	-	-	-	77	130	-	-	-	95	-	95	-	77	130	-	-	-	

VOC ANALYTICAL, GLENDALE
SUPPLEMENTAL QC REPORT FOR 9709069
DATE PRINTED: 21 OCT 1997

AQUEOUS SAMPLES

Batch: VAW*972061 Method: 8021A - 8010/8020 in series, GC, ELCD;PID

		87091464*1	C7092914*1	.....	N/A		9709069*1	.....	.....	.....	.....
	UNITS	MB	LC	LT	LC	LT	R1	R2	S1	S2	T
Date Analyzed	Date	09/17/97	09/17/97	09/17/97	-	-	09/17/97	-	09/17/97	09/17/97	09/17/97
Time Analyzed	Hours	12:44	09:54	09:54	-	-	14:10	-	15:34	16:58	-
Date Calibrated	Date	06/04/97	06/04/97	06/04/97	-	-	06/04/97	-	06/04/97	06/04/97	06/04/97
Dilution Factor	Times	1	1	1	-	-	1	-	1	1	1
1,1,1,2-Tetrachloroethane	ug/L	0	53.8	50.0	-	-	0	-	-	-	-
1,1,1-Trichloroethane	ug/L	0	52.4	50.0	-	-	0	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	0	50.0	50.0	-	-	0	-	-	-	-
1,1,2-Trichloroethane	ug/L	0	60.0	50.0	-	-	0	-	-	-	-
1,1-Dichloroethane	ug/L	0	50.9	50.0	-	-	0	-	-	-	-
1,1-Dichloroethene	ug/L	0	47.3	50.0	-	-	0	-	51.9	48.6	50.0
1,1-Dichloropropene	ug/L	0	51.1	50.0	-	-	0	-	-	-	-
1,2,3-Trichlorobenzene	ug/L	0.60	49.5	50.0	-	-	0	-	-	-	-
1,2,3-Trichloropropane	ug/L	0	60.7	50.0	-	-	0	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	0	50.4	50.0	-	-	0	-	-	-	-
1,2,4-Trimethylbenzene	ug/L	0.11	50.5	50.0	-	-	23	-	-	-	-
1,2-Dibromo-3-chloropropane	ug/L	0	50.8	50.0	-	-	0	-	-	-	-
1,2-Dibromoethane	ug/L	0	58.7	50.0	-	-	0	-	-	-	-
1,2-Dichloroethane	ug/L	0	57.3	50.0	-	-	0	-	-	-	-
1,2-Dichlorobenzene	ug/L	0	50.7	50.0	-	-	0	-	-	-	-
1,2-Dichloropropane	ug/L	0	53.9	50.0	-	-	0	-	-	-	-
1,3,5-Trimethylbenzene	ug/L	0	50.8	50.0	-	-	5.1	-	-	-	-
1,3-Dichlorobenzene	ug/L	0	51.3	50.0	-	-	0	-	-	-	-
1,3-Dichloropropane	ug/L	0	53.9	50.0	-	-	0	-	-	-	-
1,4-Dichlorobenzene	ug/L	0	51.8	50.0	-	-	0	-	-	-	-
2,2-Dichloropropane	ug/L	0	31.0	50.0	-	-	0	-	-	-	-
2-Chloroethylvinylether	ug/L	0	61.9	50.0	-	-	0	-	-	-	-
2-Chlorotoluene	ug/L	0	51.1	50.0	-	-	0	-	-	-	-
4-Chlorotoluene	ug/L	0	61.7	50.0	-	-	0	-	-	-	-
Bromobenzene	ug/L	0.077	51.7	50.0	-	-	0	-	-	-	-
Bromochloromethane	ug/L	0	94.5	100	-	-		-	-	-	-
Bromodichloromethane	ug/L	0	49.6	50.0	-	-	0	-	-	-	-
Bromomethane	ug/L	0	39.6	50.0	-	-	0	-	-	-	-
Benzene	ug/L	0	46.9	50.0	-	-	51	-	103	102	101
Bromoform	ug/L	0	54.6	50.0	-	-	0	-	-	-	-
Chlorobenzene	ug/L	0	51.4	50.0	-	-	0	-	51.3	51.4	50.0
Carbon Tetrachloride	ug/L	0	53.5	50.0	-	-	0	-	-	-	-
Chloroethane	ug/L	0	49.8	50.0	-	-	0	-	-	-	-

VOC ANALYTICAL, GLENDALE
SUPPLEMENTAL QC REPORT FOR 9709069
DATE PRINTED: 21 OCT 1997

AQUEOUS SAMPLES

Batch: VAW*972061 Method: 8021A - 8010/8020 in series, GC, ELCD;PID, con't

		B7091464*1	C7092914*1		N/A		9709069*1		.....	.....	.....
	UNITS	MB	LC	LT	LC	LT	R1	R2	S1	S2	T
Chloroform	ug/L	0	52.4	50.0	-	-	0	-	-	-	-
Chloromethane	ug/L	0	37.5	50.0	-	-	0	-	-	-	-
Dibromochloromethane	ug/L	0	55.9	50.0	-	-	0	-	-	-	-
Dibromomethane	ug/L	0	56.8	50.0	-	-	0	-	-	-	-
Dichlorodifluoromethane	ug/L	0	16.7	50.0	-	-	0	-	-	-	-
Ethylbenzene	ug/L	0	51.7	50.0	-	-	22	-	-	-	-
Freon 113	ug/L	0	50.4	50.0	-	-	0	-	-	-	-
Hexachlorobutadiene	ug/L	0	50.1	50.0	-	-	0	-	-	-	-
Isopropylbenzene	ug/L	0	50.6	50.0	-	-	1.1	-	-	-	-
Methylene chloride	ug/L	0	48.3	50.0	-	-	0	-	-	-	-
N-Butylbenzene	ug/L	0	51.1	50.0	-	-	0	-	-	-	-
N-Propylbenzene	ug/L	0	47.9	50.0	-	-	2.2	-	-	-	-
Naphthalene	ug/L	0.41	52.3	50.0	-	-	12	-	-	-	-
Styrene	ug/L	0	52.4	50.0	-	-	0	-	-	-	-
Trichloroethene	ug/L	0	49.4	50.0	-	-	0	-	51.6	49.6	50.0
Trichlorofluoromethane	ug/L	0	47.6	50.0	-	-	0	-	-	-	-
Toluene	ug/L	0.15	51.3	50.0	-	-	30	-	81.4	82.0	80.0
Tetrachloroethene	ug/L	0	55.8	50.0	-	-	0	-	-	-	-
Vinyl chloride	ug/L	0	43.4	50.0	-	-	0	-	-	-	-
Total Xylene Isomers	ug/L	0.12	156	150	-	-	71	-	-	-	-
cis-1,2-Dichloroethene	ug/L	0	51.3	50.0	-	-	0	-	-	-	-
cis-1,3-Dichloropropene	ug/L	0	55.9	50.0	-	-	0	-	-	-	-
m- and p-Xylene Isomers	ug/L	0.12	105	100	-	-	51	-	-	-	-
o-Xylene	ug/L	0	51.2	50.0	-	-	20	-	-	-	-
p-Isopropyl toluene	ug/L	0	50.4	50.0	-	-	0.16	-	-	-	-
sec-Butylbenzene	ug/L	0	50.1	50.0	-	-	0.12	-	-	-	-
trans-1,2-Dichloroethene	ug/L	0	51.9	50.0	-	-	0	-	-	-	-
trans-1,3-Dichloropropene	ug/L	0	58.0	50.0	-	-	0	-	-	-	-
tert-Butylbenzene	ug/L	0	50.3	50.0	-	-	0	-	-	-	-
Bromochloromethane Reported	ug/L	53.2	94.5	100	-	-	61.2	-	100	98.4	100
Bromochloromethane Theoretical	ug/L	50.0	100	100	-	-	50.0	-	100	100	100
a,a,a-Trifluorotoluene Rep.	ug/L	50.0	48.0	50.0	-	-	46.6	-	47.4	47.7	50.0
a,a,a-Trifluorotoluene Th.	ug/L	50.0	50.0	50.0	-	-	50.0	-	50.0	50.0	50.0

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 07:47:35 21 OCT 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9709069*1*R1							
8021A	Bromochloromethane	972061	09/17/97	61.2	50.0	122	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	46.6	50.0	93	
9709069*1*S1							
8021A	Bromochloromethane	972061	09/17/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	47.4	50.0	95	
9709069*1*S2							
8021A	Bromochloromethane	972061	09/17/97	98.4	100	98	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	47.7	50.0	95	
9709069*1*T							
8021A	Bromochloromethane	972061	09/17/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	50.0	50.0	100	
37091464*1*MB							
3021A	Bromochloromethane	972061	09/17/97	53.2	50.0	106	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	50.0	50.0	100	
:7092914*1*LC							
3021A	Bromochloromethane	972061	09/17/97	94.5	100	95	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	48.0	50.0	96	
7092914*1*LT							
021A	Bromochloromethane	972061	09/17/97	100	100	100	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	50.0	50.0	100	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 07:47:33 21 OCT 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9709069*1							
8021A	Bromochloromethane	972061	09/17/97	61.2	50.0	122	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	46.6	50.0	93	
9709069*2							
8021A	Bromochloromethane	972061	09/17/97	59.5	50.0	119	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	46.8	50.0	94	
9709069*3							
8021A	Bromochloromethane	972061	09/17/97	55.0	50.0	110	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	48.6	50.0	97	
9709069*4							
8021A	Bromochloromethane	972061	09/17/97	59.0	50.0	118	
	a,a,a-Trifluorotoluene	Re972061	09/17/97	47.1	50.0	94	

VOC Analytical Laboratories

☐ 1212 E. KATELLA AVE. ANAHEIM, CA 92805
☐ 1085 SHARY CIRCLE CONCORD, CA 94518
☐ 801 WESTERN AVE. GLENDALE, CA 91201
☐ 4411 S. BROADWAY Ste. D-1 PHOENIX, AZ 85040

V.O.C. Log # G4709061

Quote # _____

Chain of Custody Record

Company Name: MANESS CORP.
Address: 1101 E. SPRING ST.
City: LONG BEACH State: CA Zip: 90806
Attn: GABRIELE BANDER Fax #: (562) 492-6495
Project Name / Number: CROWN CITY PLATING PO#: 51298
Sampler Name / Signature: Jeff Engl Phone #: (562) 595-4555

LAB ANALYSIS

#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code	# of Cont	Parameters: EPA 8021 VOCs	Field Filtered (Y/N)	Integrity OK (Y/N)	REMARKS
1	MW2-4	9/4/97	1229	GW	4	X			4 VOAS, HOLD 2
2	MW2-3	↓	1540	GW	4	X			4 VOAS, HOLD 2
3	MW2-R	↓	1315		2	X			RINSATE BLANK
4	MW2-T	↓	1600		2	X			TRIP BLANK
5									
6									
7									
8									
9									
10									

Matrix Codes *
SD Solid Waste; GW Ground Water; EFF Effluent; AFW Analyte Free H_2O; WW Waste Water; DW Drinking Water; SU Surface Water; OL Oil; SL Sludge; SO Soil Sediment; AQ Aqueous; NA Nonaqueous; PE Petroleum; O Other _____ (Please Specify)

Pres Codes
A- None; B- HNO_3; C- H_2SO_4; D- NaOH; E- HCl; F- MeOH; I- Ice; O- Other

Short Hold Y____ N____ | Ice Y____ N____ | Rem

QA/QC Report Level: None____ 1____ 2____ 3____ Other____ | COC OK Y N | Initials

T.A.T. Request | RUSH | Custody Seals Y N | Temp Control ____°C | Local Job Y N

Relinquished by	Date	Time	Received by	Date	Time
Jeff Engl	9/4/97	1610	Ramik ARIA	9-4-97	5.10
Ramik ARIA	9-4-97	5.35	Sharon Malone	9/4/97	1735

C.O.C. # 1003664