



ESCONDIDO
WATER QUALITY
CONTROL BOARD

2003 MAR -7 P 12:40

**REMEDIATION PROGRESS
REPORT No. 1**

**PALOMAR PLATING COMPANY, INC.
722 WEST FOURTH AVENUE
ESCONDIDO, CALIFORNIA
(CAO No. 2000-22)**

Prepared for:

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March 5, 2003

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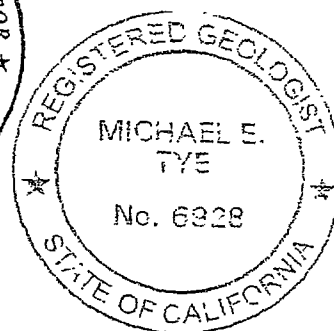
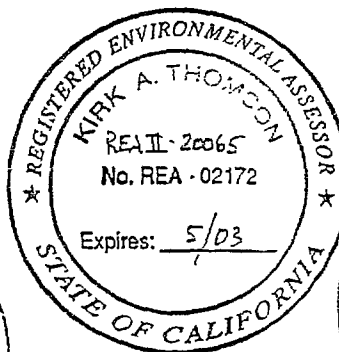
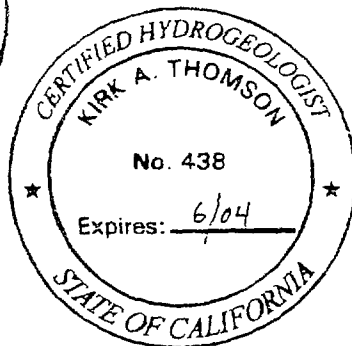
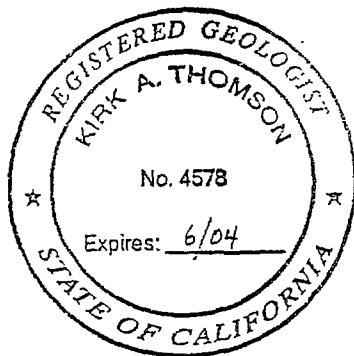
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LIMITATIONS AND WARRANTIES

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The information contained in this report was based on measurements performed in specific areas during a specific time period. EST's professional opinions and conclusions are based in part on interpretation of data from discrete sampling or measurement locations that may not represent actual conditions at unsampled or unmeasured locations.

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February 18, 2003

1.0 INTRODUCTION

Environmental Support Technologies, Inc. (EST) has prepared this report on behalf of Palomar Plating Company (PPC) for submittal to the San Diego Regional Water Quality Control Board (SDRWQCB). Previous site assessments at PPC have culminated in the recent installation and operation of a soil vapor extraction/treatment system and a groundwater extraction/treatment system. Soil and groundwater clean-up were prompted by requirements outlined in Cleanup and Abatement Order No. 2000-22 (SDRWQCB January 14, 2000). This report summarizes the installation and initial operation of the soil and groundwater remediation systems and the results of First Quarter 2003 groundwater monitoring.

2.0 SITE BACKGROUND/PROJECT SUMMARY

The approximate location of the PPC site is shown in **Figure 1**. A site map is provided in **Figure 2**. The property is owned by the Harding Family Trust and is leased to PPC. The surrounding area is comprised primarily of commercial and industrial facilities, with the exception of a residential property located adjacent to the southern portion of the property. The site is occupied by four main buildings that include offices, plating lines, and a warehouse. The majority of the site is covered by buildings or asphalt paving, with the exception of a dirt-surfaced storage yard at the northeastern portion of the site. Metal plating operations are performed inside Building 4. On January 28, 1975, a fire severely damaged Building 4, which housed a vapor degreaser and a clarifier. Equipment that was destroyed or damaged was removed and Building 4 was rebuilt directly over the existing foundation beginning in February 1975. The results of previous site assessments were provided in the following documentation:

- Environmental Support Technologies, Inc., March 1, 1996. *Soil Gas Survey Report – Palomar Plating Company, Inc.*
- Terranext, September 4, 1997. *Report for Limited Site/Groundwater and Clarifier Assessment - Palomar Plating Company, Inc.*
- Park Environmental, October 16, 1998. *Soil and Groundwater Assessment – Palomar Plating Company, Inc.*
- Park Environmental, November 23, 1999. *Additional Site Assessment Report – Palomar Plating Company, Inc.*
- Environmental Support Technologies, Inc., April 28, 2000. *Corrective Action Plan – Palomar Plating Company, Inc.*

- Environmental Support Technologies, Inc., October 31, 2000. *Groundwater Assessment Report and Corrective Action Plan Addendum – Palomar Plating Company, Inc.*
- Environmental Support Technologies, Inc., December 19, 2000. *Work Plan for Further Soil Assessment – Building 4 – Palomar Plating Company, Inc.*
- Environmental Support Technologies, Inc., June 13, 2001. *Soil Assessment Report – Building 4 – Palomar Plating Company, Inc.*
- Environmental Support Technologies, Inc., March 5, 2002. *Baseline Groundwater Monitoring Report – Palomar Plating Company, Inc.*

The investigations have identified soil underlying Building 4 to be impacted by halogenated volatile organic compounds (HVOCs) and metals, including cadmium (Cd), chromium (Cr), Nickel (Ni), lead (Pb), and zinc (Zn). Soil in the former underground gasoline storage tank (UST) area has been impacted by relatively low concentrations of petroleum hydrocarbons. Due to their proximity to each other, these areas are referred to collectively as the area of concern (AOC). The investigations have culminated in the installation of :

- 13 groundwater monitoring wells;
- 14 groundwater extraction wells;
- 2 vapor extraction wells;
- A soil vapor extraction/treatment (SVE) system;
- A groundwater extraction/treatment (GWX) system.

Groundwater monitoring is performed on a quarterly schedule at PPC. The installation and initial operation of the SVE and GWX systems are summarized in the following sections.

3.0 INSTALLATION OF SVE AND GWX SYSTEMS

Major components of the soil and groundwater remediation systems are described below.

3.1 GROUNDWATER RECOVERY AND SOIL VAPOR EXTRACTION WELLS

During August 2001, EST installed 14 groundwater wells (R1 to R14) to be available for groundwater extraction at apparent hydraulic down-gradient locations relative to the AOC. Six of the wells have pumps installed (R6, R8, R9, R11, R12, R13) and are currently used for groundwater extraction. Recovery well construction detail is provided in **Appendix A**. Two soil vapor extraction wells (VE1 and VE2) were installed inside Building 4. Soil vapor extraction well construction detail is provided in **Appendix B**.

TABLE 5, Continued

SUMMARY OF LABORATORY ANALYSES RESULTS FOR
HALOGENATED VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER SAMPLES

02/11/03

VOCs in GW (January 2003)

Well Identification	Sampling Date	Detected Halogenated VOC Analytes (ug/L)							
		1,1-DCE	1,1-DCA	1,2-DCA	CFM	MC	1,1,1-TCA	TCE	PCE
MW-5-P	08/25/99	ND<1	ND<1	ND<1	2.1	ND<1	ND<1	ND<1	ND<1
	01/10/00	ND<1	ND<1	ND<1	2.6	ND<1	1.5	ND<1	ND<1
	10/04/00	2.8	ND<0.5	ND<0.5	3.1	ND<0.5	2.2	ND<0.5	ND<0.5
MW-6-P	08/25/99	ND<1	ND<1	ND<1	2.9	ND<1	ND<1	ND<1	1.3
	01/10/00	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
	10/04/00	2.9	ND<0.5	ND<0.5	0.85	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-7-P	08/25/99	6.3	ND<1	ND<1	ND<1	ND<1	5.2	ND<1	12
	01/10/00	3.7	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	9.2

power was routed to the VEU motor and dual carbon adsorption vessels were installed in an in-line configuration. The VEU was plumbed to the vapor manifold system and a discharge stack was constructed per APCD permit requirements. Provisions for collection of influent, midway, and effluent vapor samples were added to the SVE piping. Details of the VEU and vapor treatment system are shown in **Figure 5**.

3.5 INSTALLATION OF GROUNDWATER RECOVERY PUMPS AND WATER TREATMENT SYSTEM

Pneumatic submersible groundwater recovery pumps were installed near the bottom of six

TABLE 5, Continued

SUMMARY OF LABORATORY ANALYSES RESULTS FOR
HAOIGENATED VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER SAMPLES

02/11/03

VOCs in GW (January 2003)

Well Identification	Sampling Date	Detected Halogenated VOC Analytes (ug/L)							
		1,1-DCE	1,1-DCA	1,2-DCA	CFM	MC	1,1,1-TCA	TCE	PCE
MW-13-P	10/04/00	720	130	41	66	ND<0.5	510	150	450
	02/21/02	790	92	ND<25	ND<25	ND<25	400	68	650
	01/30/03	240	29	ND<10	ND<10	ND<10	64	250	150
R3	02/20/02	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19
R4	01/30/03	1.9	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	7.2
R6	02/21/02	160	ND<5	ND<5	ND<5	ND<5	27	ND<5	ND<5
R7	01/30/03	31	ND<1	ND<1	ND<1	ND<1	3.8	ND<1	ND<1
R10 (MWX=DUP)	02/20/02	2,900	ND<50	ND<50	ND<50	ND<50	1,800	420	970
	01/30/03	75	2.1	ND<1	1.9	ND<1	15	112	22
	01/30/03	75	2.3	ND<1	1.9	ND<1	17	110	23
R14	02/20/02	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	85	5.8

VOC = volatile organic compound
 (ug/L) = micrograms (of analyte) per liter (of groundwater)
 ND = not detected above stated laboratory method detection limit
 1,1-DCE = 1,1-dichloroethene
 1,1-DCA = 1,1-dichloroethane
 1,2-DCA = 1,2-dichloroethane

CFM = chloroform
 MC = methylene chloride
 1,1,1-TCA = 1,1,1-trichloroethane
 TCE = trichloroethene
 PCE = tetrachloroethene
 DUP = duplicate sample

722 WEST FOURTH AVENUE, ESCONDIDO, CALIFORNIA

GAS and BTEX in GW (January 2003)

Well Number	Sampling Date	Detected Petroleum Hydrocarbons (ug/L)											EPA Method 8015 TPH(g) (ug/L)
		BENZ	IPB	TBA	DIPE	TOL	EBENZ	XYLS	MTBE	1,2 4-TMB	1,3 5 TMB	Napthalene	
MW-1-P	09/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	12/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	06/18/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	08/25/99	ND<1	NR	NR	NR	1 4	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	ND<50
	10/04/00	ND<0 5	NR	NR	NR	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	NR	ND<50
	01/29/01	ND<0 5	NR	NR	NR	ND<0 5	ND<0 5	ND<0 5	NA	NA	NA	NR	ND<50
	04/11/01	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NR	ND<50
	10/11/01	ND<0 5	NR	NR	NR	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	NR	ND<50
	01/30/03	ND<20	ND<20	ND<20D	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	NA
MW-2-P	09/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	12/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	06/18/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	ND<50
	10/04/00	ND<0 5	NR	NR	NR	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	NR	ND<50
	02/20/02	ND<5	NR	NR	NR	7 3	ND<5	ND<10	NA	NA	NA	NR	NA
MW-3-P	09/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	12/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	06/18/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	80
	10/04/00	11	NR	NR	NR	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	ND<0 5	NR	ND<50
	01/29/01	ND<0 5	NR	NR	NR	ND<0 5	ND<0 5	ND<0 5	NA	NA	NA	NR	ND<50
	04/11/01	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NR	ND<50
	10/11/01	85	NR	NR	NR	27	ND<0 5	31	ND<0 5	ND<0 5	ND<0 5	NR	540
	02/21/02	ND<25	NR	NR	NR	42	ND<25	ND<25	NA	NA	NA	NR	280
MW-4-P	09/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	12/01/98	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	06/18/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	ND<50
	10/04/00	Well Lost/Covered											
	01/27/03	Well located and exposed gaged only											

TABLE 6, Continued

GAS and BTEX in GW (January 2003)

02/11/03

Well Number	Sampling Date	Detected Petroleum Hydrocarbons (ug/L)											EPA Method 8015 TPH(g) (ug/L)
		BENZ	IPB	TBA	DIPE	TOL	EBENZ	XYLS	MTBE	1,2,4-TMB	1,3,5-TMB	Napthalene	
MW-5-P	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	ND<50
	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
MW-6-P	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	1.2	ND<1	ND<1	NR	ND<50
	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
MW-7-P	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	1.4	ND<1	ND<1	ND<1	ND<1	ND<1	NR	ND<50
	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
MW-8-P	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	8.6	ND<1	ND<1	78	ND<1	ND<1	NR	ND<50
	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
	01/29/01	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NR	ND<50
	04/11/01	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NR	ND<50
	10/11/01	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
	02/21/02	ND<0.5	NR	NR	NR	0.8	ND<0.5	ND<0.5	NA	NA	NA	NR	130
	01/30/03	ND<1	ND<1	180	34	ND<1	ND<1	ND<1	280	ND<1	ND<1	ND<1	230
MW-9-P	08/25/99	ND<1	NR	NR	NR	ND<1	ND<1	50	ND<1	ND<1	ND<1	NR	NA
	01/10/00	ND<1	NR	NR	NR	ND<1	ND<1	ND<1	110	ND<1	ND<1	NR	100
	10/04/00	29	NR	NR	NR	ND<0.5	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5	NR	600
	02/20/02	ND<5	NR	NR	NR	ND<5	ND<5	ND<10	NA	NA	NA	NR	800
	01/30/03	14	2.4	ND<20	ND<2	ND<2	ND<2	42.1	ND<2	37	3	17	770
MW-10-P	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
	01/29/01	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NR	ND<50
	04/11/01	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NR	ND<50
	10/11/01	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
	01/30/03	ND<10	ND<10	ND<100	ND<10	12	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	NA
MW-11-P	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
	02/20/02	ND<5	NR	NR	NR	ND<5	ND<5	ND<10	NA	NA	NA	NR	250
MW-12-P	10/04/00	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
	01/29/01	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NR	ND<50
	04/11/01	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NR	ND<50
	10/11/01	ND<0.5	NR	NR	NR	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR	ND<50
MW-13-P	10/04/00	320	NR	NR	NR	15	22	2.2	ND<0.5	ND<0.5	ND<0.5	NR	1400
	02/21/02	ND<50	NR	NR	NR	47	ND<25	56	NA	NA	NA	NR	1600
	01/30/03	45	13	ND<100	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	1,300
R3	02/20/02	ND<0.5	NR	NR	NR	0.5	ND<0.5	ND<1	NA	NA	NA	NR	NA
R4	01/30/03	ND<1	ND<1	ND<10	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
R6	02/21/02	ND<5	NR	NR	NR	8.7	ND<5	ND<10	NA	NA	NA	NR	100
R7	01/30/03	ND<1	ND<1	ND<10	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<50
R10	02/20/02	ND<50	NR	NR	NR	ND<50	ND<50	ND<100	NA	NA	NA	NR	1,100
	01/30/03	ND<1	ND<1	ND<10	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	220
(MWX=DUP)	01/30/03	ND<1	ND<1	ND<10	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	220
R14	02/20/02	ND<5	NR	NR	NR	ND<5	ND<5	ND<10	NA	NA	NA	NR	100

DIPE = diisopropyl ether

BENZ = benzene

TOL = toluene

EBENZ = ethylbenzene

XYLS = total (meta+para+ortho-isomers) xylene

MTBE = methyl tert butyl ether

IPB = isopropylbenzene

TBA = tert-butanol

NR = not reported

(ug/L) = micrograms (of analyte) per liter (of groundwater)

ND = not detected above reportable limit of quantitation

NA = not analyzed

1,2,4-TMB = 1,2,4-trimethylbenzene

1,3,5-TMB = 1,3,5-trimethylbenzene

TPH(g) = total petroleum hydrocarbons (as gasoline)

TABLE 7
SUMMARY OF LABORATORY ANALYSES RESULTS FOR
SELECTED TITLE 22 METALS AND HEXAVALENT CHROMIUM IN GROUNDWATER SAMPLES

PALOMAR PLATING COMPANY
722 WEST FOURTH AVENUE, ESCONDIDO, CALIFORNIA

02/11/03

1801 Metals in Groundwater February 2003

Well Number	Sample Date	Detected Title 22 Metals (mg/L)										
		Arsenic	Barium	Cadmium	Chromium	Cr ⁶⁺	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
MW-1-P	09/01/98	ND<0 010	0 06	ND<0 001	ND<0 010	-----	ND<0 010	ND<0 010	ND<0 005	0 04	0 02	0 05
	12/01/98	0 007	0 031	0 008	0 076	-----	ND<0 010	ND<0 010	ND<0 005	0 063	0 021	0 113
	06/18/99	ND<0 010	0 45	0 05	0 07	-----	0 045	0 14	0 21	0 27	0 096	0 56
	08/25/99	0 026	0 023	0 067	0 048	-----	ND<0 010	0 154	ND<0 005	2 25	0 056	0 586
	10/04/00	ND<0 020	0 064	ND<0 005	ND<0 010	0 0043	0 018	ND<0 030	ND<0 020	0 25	0 060	0 038
	01/29/01	NA	NA	ND<0 005	0 023	0 016	NA	NA	ND<0 020	0 23	NA	NA
	04/11/01	NA	NA	ND<0 005	0 013	0 0076	NA	NA	ND<0 020	0 17	NA	NA
	10/11/01	NA	NA	0 024	0 19	0 010	NA	NA	ND<0 020	0 90	NA	NA
	02/21/02	NA	NA	0 014	0 033	NA	NA	NA	ND<0 02	0 24	NA	0 16
	01/30/03	0 035	0 65	0 023	0 14	0 011	0 065	0 17	ND<0 02	0 91	0 23	0 58
MW-2-P	09/01/98	ND<0 010	0 11	ND<0 001	0 08	-----	ND<0 010	ND<0 010	ND<0 005	0 03	0 05	0 03
	12/01/98	ND<0 010	0 102	ND<0 001	0 097	-----	ND<0 010	ND<0 010	ND<0 005	0 019	0 047	ND<0 010
	06/18/99	ND<0 010	0 14	0 014	0 15	-----	ND<0 010	0 061	0 19	0 046	0 099	0 027
	08/25/99	ND<0 010	0 064	ND<0 001	0 198	-----	ND<0 010	ND<0 010	ND<0 005	0 010	0 045	0 041
	10/04/00	ND<0 020	0 18	0 018	0 040	0 016	ND<0 010	ND<0 030	ND<0 020	0 12	0 029	0 37
	02/20/02	NA	NA	0 029	0 11	NA	NA	NA	ND<0 02	0 08	NA	0 45
MW-3-P	09/01/98	ND<0 010	0 26	ND<0 001	0 48	-----	0 09	0 04	ND<0 005	0 04	0 10	0 05
	12/01/98	ND<0 010	0 143	ND<0 001	0 548	-----	0 063	ND<0 010	ND<0 005	0 029	0 093	0 028
	06/18/99	ND<0 010	0 23	ND<0 001	0 79	-----	0 089	0 086	0 17	0 046	0 099	0 046
	08/25/99	ND<0 010	0 046	ND<0 001	0 662	-----	0 080	ND<0 010	ND<0 005	0 017	0 052	ND<0 010
	10/04/00	ND<0 020	0 052	ND<0 005	0 22	0 21	0 090	ND<0 030	ND<0 020	0 025	0 053	ND<0 020
	01/29/01	NA	NA	ND<0 005	0 52	0 38	NA	NA	ND<0 020	0 039	NA	NA
	04/11/01	NA	NA	ND<0 005	0 63	0 50	NA	NA	ND<0 020	0 046	NA	NA
	10/11/01	NA	NA	ND<0 005	0 078	0 041	NA	NA	ND<0 020	0 024	NA	NA
	02/21/02	NA	NA	ND<0 005	1 3	0 14	NA	NA	0 05	0 39	NA	0 85
MW 4 P	09/01/98	ND<0 010	0 19	ND<0 001	0 07	-----	0 03	0 03	ND<0 005	0 03	0 07	0 04
	12/01/98	ND<0 010	0 127	ND<0 001	0 084	-----	0 020	ND<0 010	ND<0 005	0 025	0 047	0 021
	06/18/99	ND<0 010	0 12	ND<0 001	0 15	-----	0 029	0 047	0 14	ND<0 010	0 053	ND<0 010
	08/25/99	ND<0 010	0 041	ND<0 001	0 140	-----	0 020	ND<0 010	ND<0 005	ND<0 010	0 033	ND<0 010
	10/04/00	IIS - Note 1	NS - Note 1	NS - Note 1	NS - Note 1	NS - Note 1	NS - Note 1	NS - Note 1	NS - Note 1	NS Note 1	NS Note 1	NS - Note 1

TABLE 7, Continued

02/11/03

1801 Metals in Groundwater February 2003

Well Number	Sample Date	Detected Title 22 Metals (mg/L)										
		Arsenic	Barium	Cadmium	Chromium	Cr ⁶⁺	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
MW-5-P	08/25/99	ND<0.010	0.072	ND<0.001	ND<0.010	-----	ND<0.010	ND<0.010	ND<0.005	ND<0.010	0.010	ND<0.010
	10/04/00	ND<0.020	0.036	ND<0.005	ND<0.010	ND<0.0020	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.031	ND<0.020
MW-6-P	08/25/99	ND<0.010	0.066	ND<0.001	ND<0.010	-----	ND<0.010	ND<0.010	ND<0.005	ND<0.010	0.016	ND<0.010
	10/04/00	ND<0.020	0.13	ND<0.005	ND<0.010	ND<0.0020	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.023	ND<0.020
MW-7-P	08/25/99	ND<0.010	0.036	ND<0.001	ND<0.010	-----	ND<0.010	ND<0.010	ND<0.005	ND<0.010	0.017	ND<0.010
	10/04/00	ND<0.020	0.043	ND<0.005	ND<0.010	0.0053	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.055	ND<0.020
MW-8-P	08/25/99	ND<0.010	0.029	ND<0.001	ND<0.010	-----	ND<0.010	ND<0.010	ND<0.005	ND<0.010	0.013	ND<0.040
	10/04/00	ND<0.020	0.052	ND<0.005	ND<0.010	ND<0.0020	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.040	ND<0.020
	01/29/01	NA	NA	ND<0.005	ND<0.010	ND<0.0020	NA	NA	ND<0.020	ND<0.020	NA	NA
	04/11/01	NA	NA	ND<0.005	ND<0.010	ND<0.0020	NA	NA	ND<0.020	ND<0.010	NA	NA
	10/11/01	NA	NA	ND<0.005	0.25	ND<0.0020	NA	NA	0.023	0.16	NA	NA
	02/21/02	NA	NA	ND<0.005	0.14	NA	NA	NA	ND<0.02	0.087	NA	0.22
	01/30/03	ND<0.020	1.2	ND<0.005	0.13	ND<0.0020	0.087	0.20	ND<0.02	0.078	0.39	0.21
MW-9-P	08/25/99	ND<0.010	0.061	ND<0.001	0.081	-----	0.063	0.016	ND<0.005	0.017	0.015	ND<0.010
	10/04/00	ND<0.020	ND<0.020	ND<0.005	ND<0.010	ND<0.0020	0.072	ND<0.030	ND<0.020	0.021	0.015	ND<0.020
	02/20/02	NA	NA	ND<0.005	0.45	0.037	NA	NA	ND<0.02	0.130	NA	0.29
	01/30/03	ND<0.020	0.93	ND<0.01	0.23	0.011	0.13	0.18	ND<0.04	ND<0.04	0.19	0.17
MW-10-P	10/04/00	ND<0.020	0.052	0.022	0.061	0.057	0.035	ND<0.030	ND<0.020	ND<0.020	0.02	0.028
	01/29/01	NA	NA	0.13	0.075	0.063	NA	NA	ND<0.020	ND<0.020	NA	NA
	04/11/01	NA	NA	0.044	0.24	0.20	NA	NA	ND<0.020	0.024	NA	NA
	10/11/01	NA	NA	0.48	6.9	0.016	NA	NA	ND<0.020	0.55	NA	NA
	02/21/02	NA	NA	0.26	0.32	0.072	NA	NA	ND<0.020	0.11	NA	0.29
	01/30/03	ND<0.020	0.15	0.07	0.78	0.22	0.025	0.056	ND<0.020	0.079	0.083	0.23
MW-11-P	10/04/00	ND<0.020	0.033	ND<0.005	0.090	0.087	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.026	ND<0.020
	02/20/02	NA	NA	ND<0.005	0.245	0.098	NA	NA	ND<0.020	0.111	NA	0.322

TABLE 7, Continued

02/11/03

1801 Metals in Groundwater February 2003

Well Number	Sample Date	Detected Title 22 Metals (mg/L)										
		Arsenic	Barium	Cadmium	Chromium	Cr ⁶⁺	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
MW-12-P	10/04/00	ND<0.020	0.046	ND<0.005	ND<0.010	ND<0.0020	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.043	ND<0.020
	01/29/01	NA	NA	ND<0.005	ND<0.010	ND<0.0020	NA	NA	ND<0.020	ND<0.020	NA	NA
	04/11/01	NA	NA	ND<0.005	ND<0.010	ND<0.0020	NA	NA	ND<0.020	ND<0.010	NA	NA
	10/11/01	NA	NA	ND<0.005	ND<0.010	0.0027	NA	NA	ND<0.020	ND<0.020	NA	NA
	02/21/02	NA	NA	ND<0.005	0.017	NA	NA	NA	ND<0.020	ND<0.020	NA	0.045
MW-13-P	10/04/00	ND<0.020	0.13	ND<0.005	ND<0.010	ND<0.0020	0.13	ND<0.030	ND<0.020	ND<0.020	0.013	ND<0.020
	02/21/02	NA	NA	ND<0.005	0.051	ND<0.0020	NA	NA	ND<0.020	0.035	NA	0.089
	01/30/03	ND<0.020	1.8	ND<0.005	0.33	ND<0.0020	0.23	0.49	ND<0.020	0.17	0.80	0.49
R3	02/20/02	NA	NA	ND<0.005	0.3	0.006	NA	NA	ND<0.020	0.23	NA	0.63
R4	01/30/03	ND<0.020	0.09	ND<0.005	0.015	0.0053	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.06	0.045
R6	02/21/02	NA	NA	ND<0.005	0.3	0.054	NA	NA	ND<0.020	0.16	NA	0.54
R7	01/30/03	ND<0.020	0.57	ND<0.005	0.095	0.015	0.051	0.10	ND<0.020	0.047	0.21	0.14
R10	02/20/02	NA	NA	ND<0.005	0.293	0.18	NA	NA	ND<0.020	0.056	NA	0.138
	01/30/03	ND<0.020	0.034	ND<0.005	0.016	0.011	ND<0.010	ND<0.030	ND<0.020	ND<0.020	0.046	ND<0.020
R14	02/20/02	NA	NA	ND<0.005	1.113	0.03	NA	NA	ND<0.020	0.45	NA	0.98

ND = not detected above stated laboratory method detection limit

NA = not analyzed

NS = not sampled

Mo = molybdenum

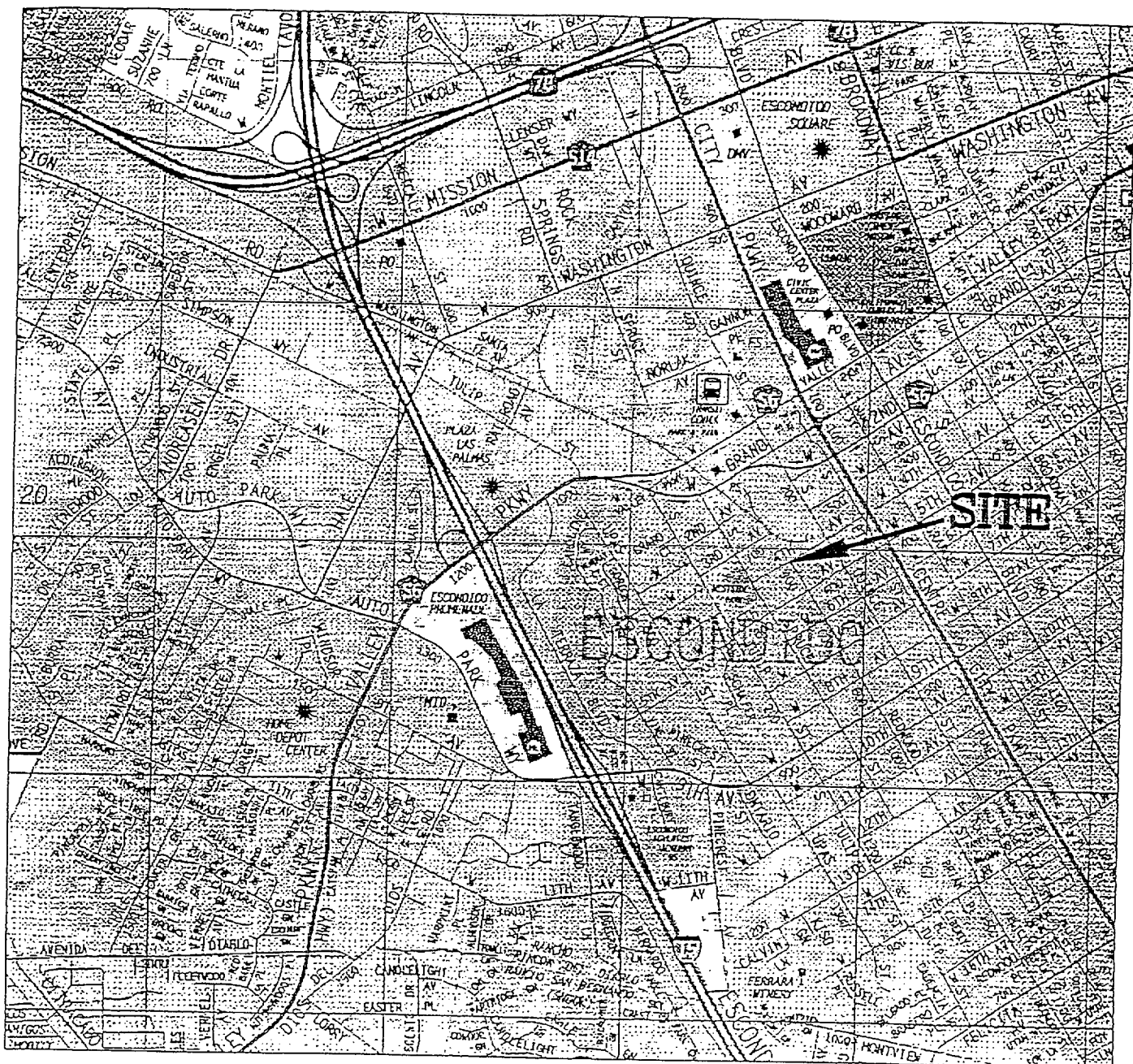
Cr⁶⁺ = hexavalent chromium

Note 1 - Well covered/lost/not located

Note 2 - Concentrations of metals in groundwater exceeding proposed cleanup goals are shown in bold-type.

Note 3 - Maximum contaminant level for Total Chromium (USEPA Current Drinking Water Standards, updated 07/24/00)

FIGURES



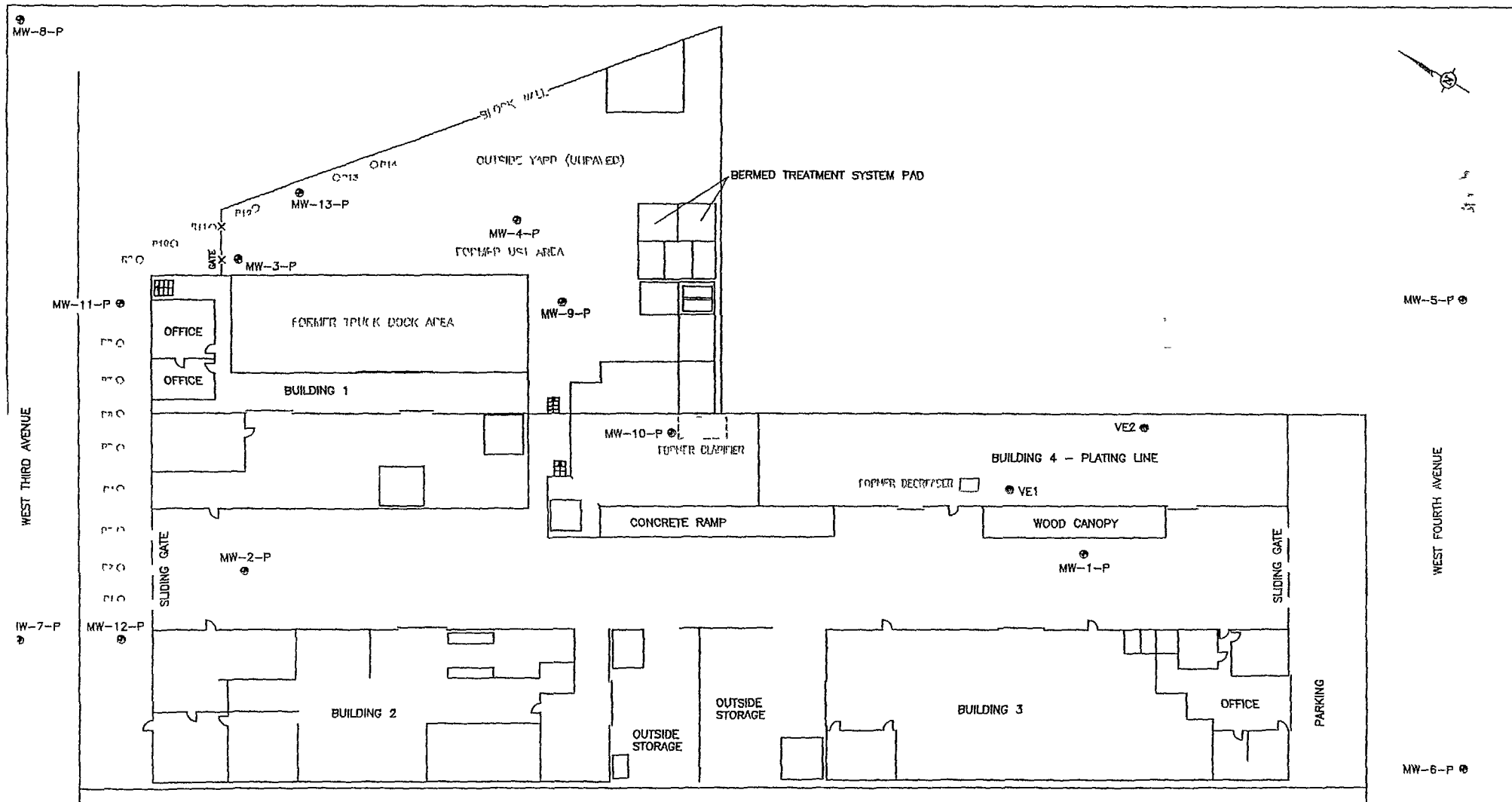
0 1750 3500
 APPROXIMATE SCALE IN FEET

FIGURE 1
 SITE LOCATION MAP

PALOMAR PLATING COMPANY, INC.
 722 WEST FOURTH AVENUE
 ESCONDIDO, CALIFORNIA
 EST1801

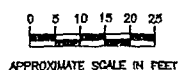
DRAWN BY: A Bolkhovitinov SCALE: AS SHOWN DATE: 04-26-00

REFERENCE: THOMAS BROS. MAPS, 1999



EXPLANATION

- APPROXIMATE LOCATION OF A GROUNDWATER MONITORING WELL
- APPROXIMATE LOCATION OF A GROUNDWATER RECOVERY WELL
- ⊙ APPROXIMATE LOCATION OF A VAPOR EXTRACTION WELL



APPROXIMATE SCALE IN FEET

SOURCE OF BASE MAP: TRILOGY REGULATORY SERVICES

REFERENCE: THE PARK CORPORATION

FIGURE 2

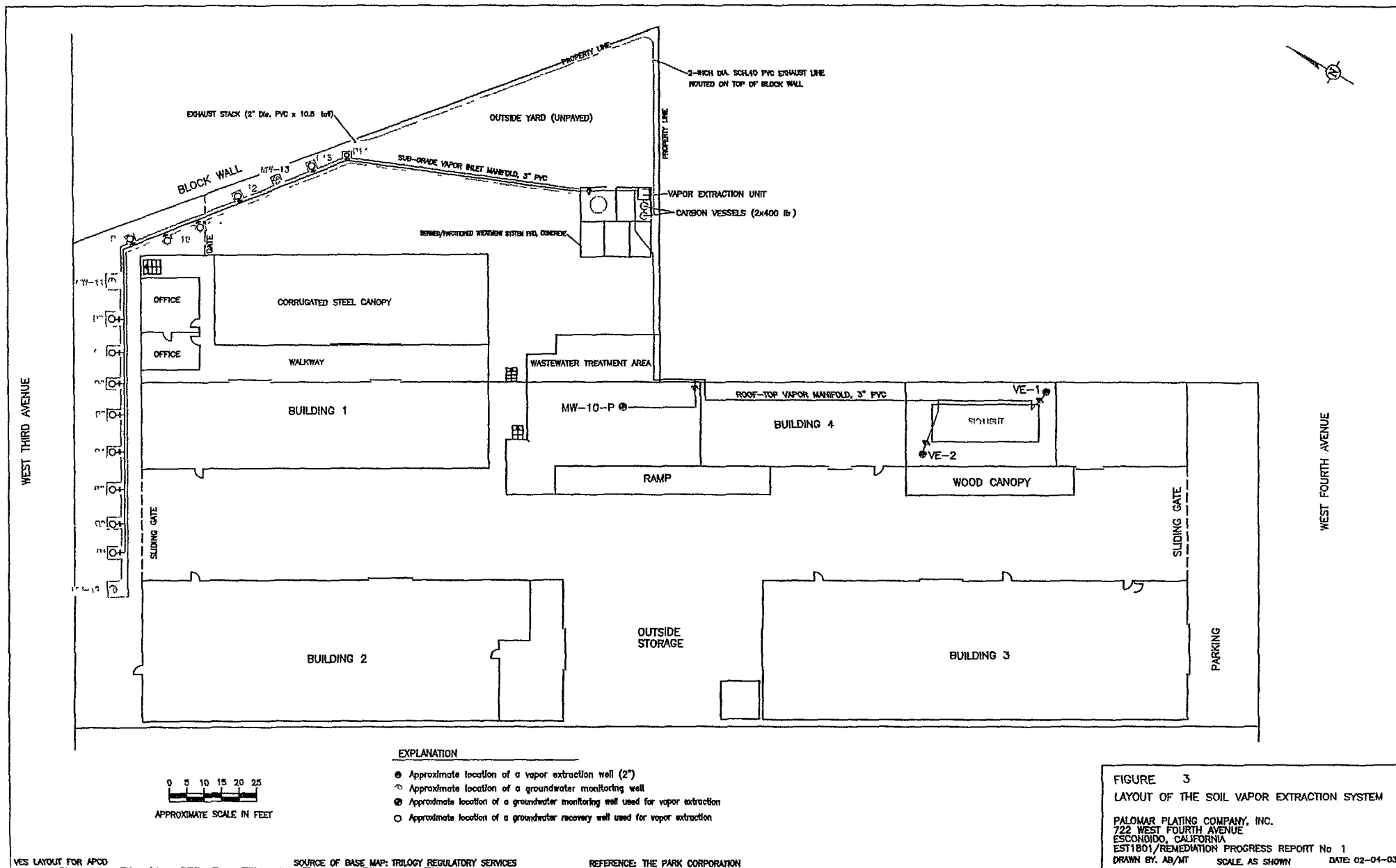
SITE MAP

PALOMAR PLATING COMPANY, INC.
722 WEST FOURTH AVENUE
ESCONDIDO, CALIFORNIA
EST11801/REMEDIATION PROGRESS REPORT No. 1

DRAWN BY: AB/MT

SCALE: AS SHOWN

DATE: 02-05-03



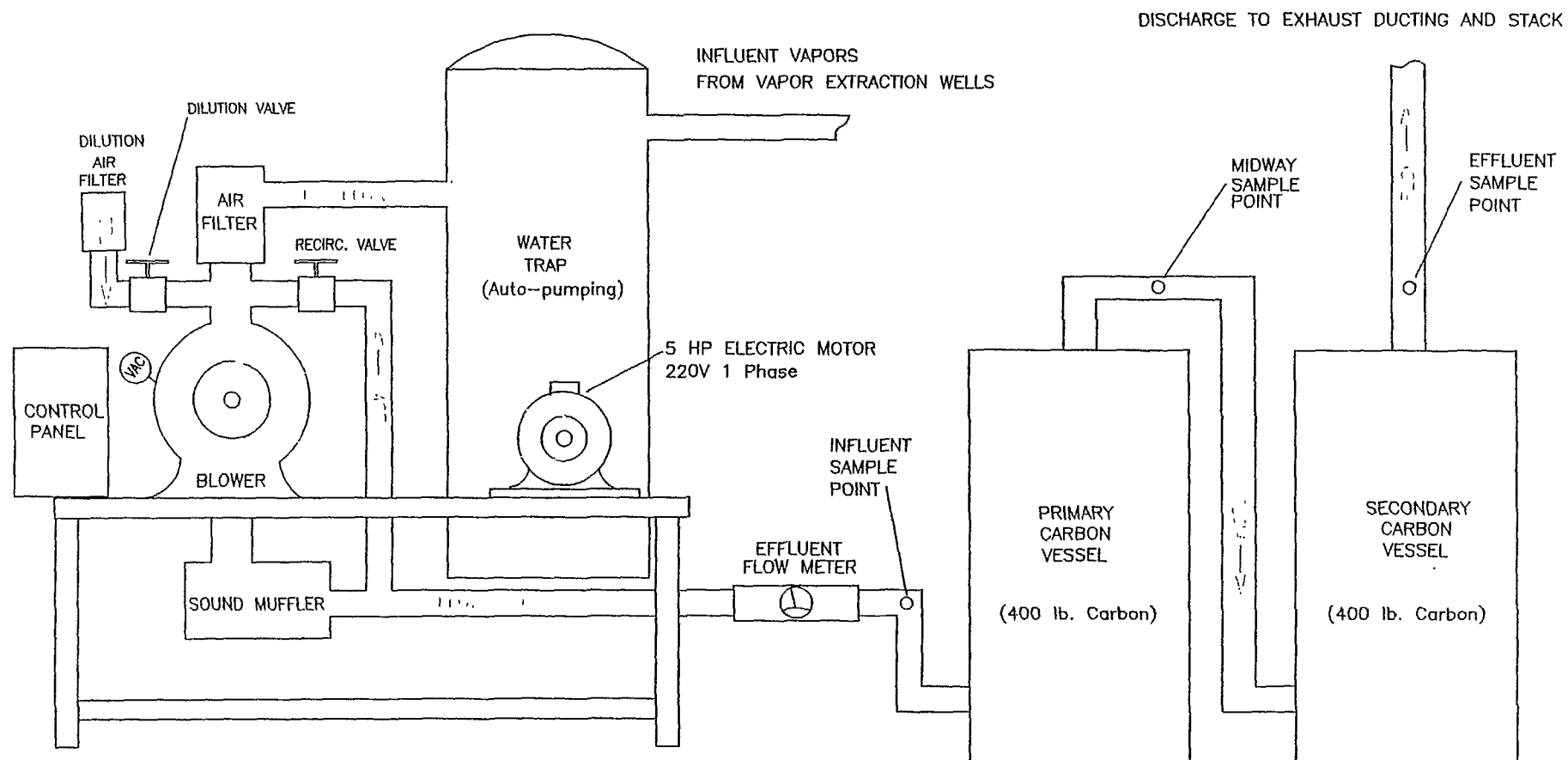


FIGURE 5

VAPOR EXTRACTION UNIT (APCD Permit 977216)

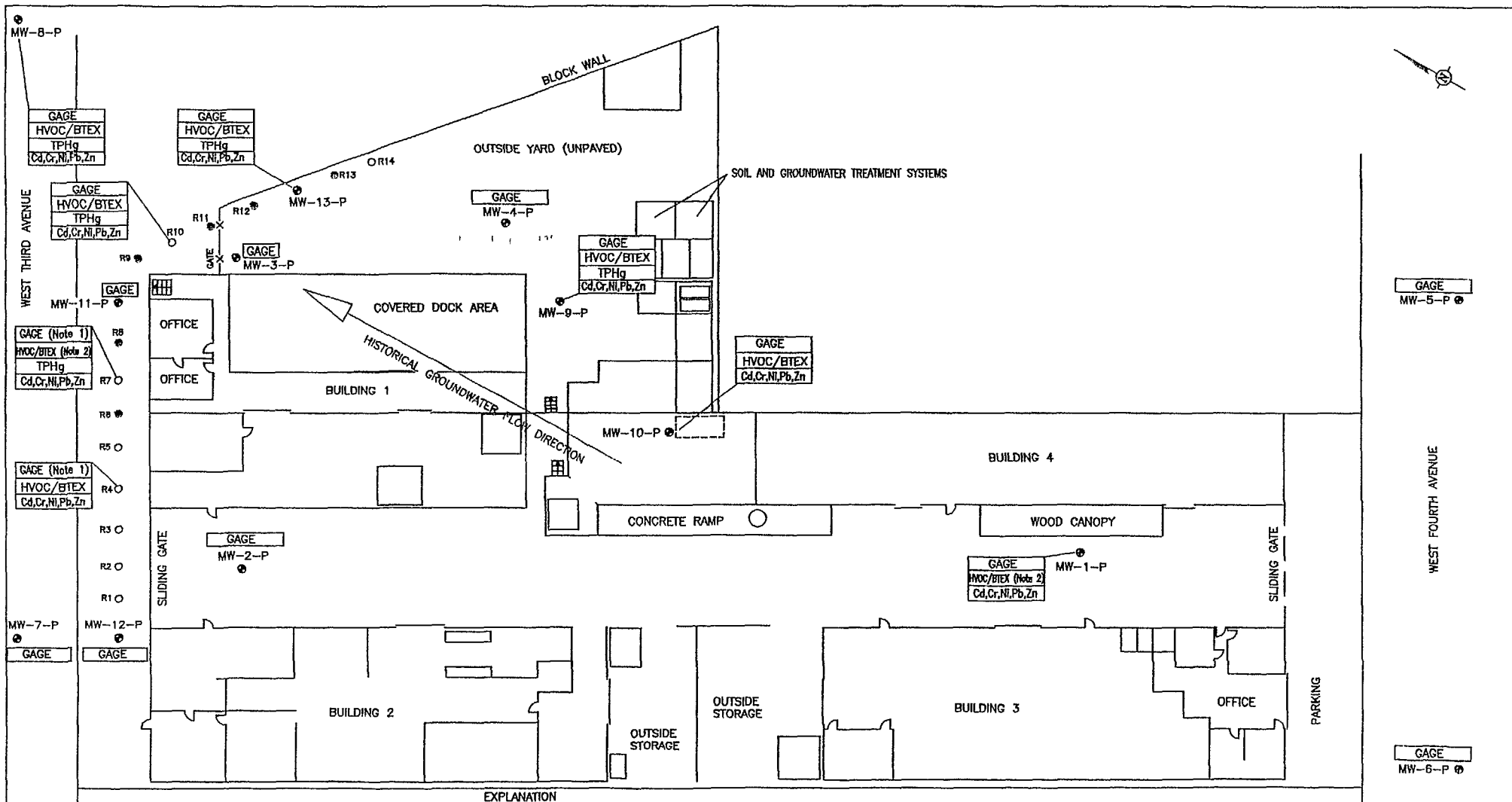
PALOMAR PLATING COMPANY
722 WEST FOURTH AVENUE
ESCONDIDO, CALIFORNIA

EST1801/REMEDIATION PROGRESS REPORT No. 1

DRAWN BY: MT

SCALE: None

DATE: 02-05-03



EXPLANATION

- APPROXIMATE LOCATION OF AN INACTIVE GROUNDWATER RECOVERY WELL
- ◻ APPROXIMATE LOCATION OF A PUMPING GROUNDWATER RECOVERY WELL
- APPROXIMATE LOCATION OF A GROUNDWATER MONITORING WELL

Note 1) Well casing elevation to be reference surveyed.

Note 2) BTEX analytes are included in EPA 8260B method

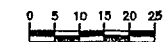
GAGE = Depth-to-water measured in well to nearest 0.01 foot

HVOC/BTEX = Groundwater sample analyzed using EPA Method 8260B for halogenated and aromatic VOCs

CrVI = Groundwater sample analyzed for hexavalent chrome

TPHg = Groundwater sample analyzed for gasoline range hydrocarbons

Cd, Cr, Ni, Pb, Zn = Groundwater sample analyzed for cadmium, chromium, nickel, lead, and zinc



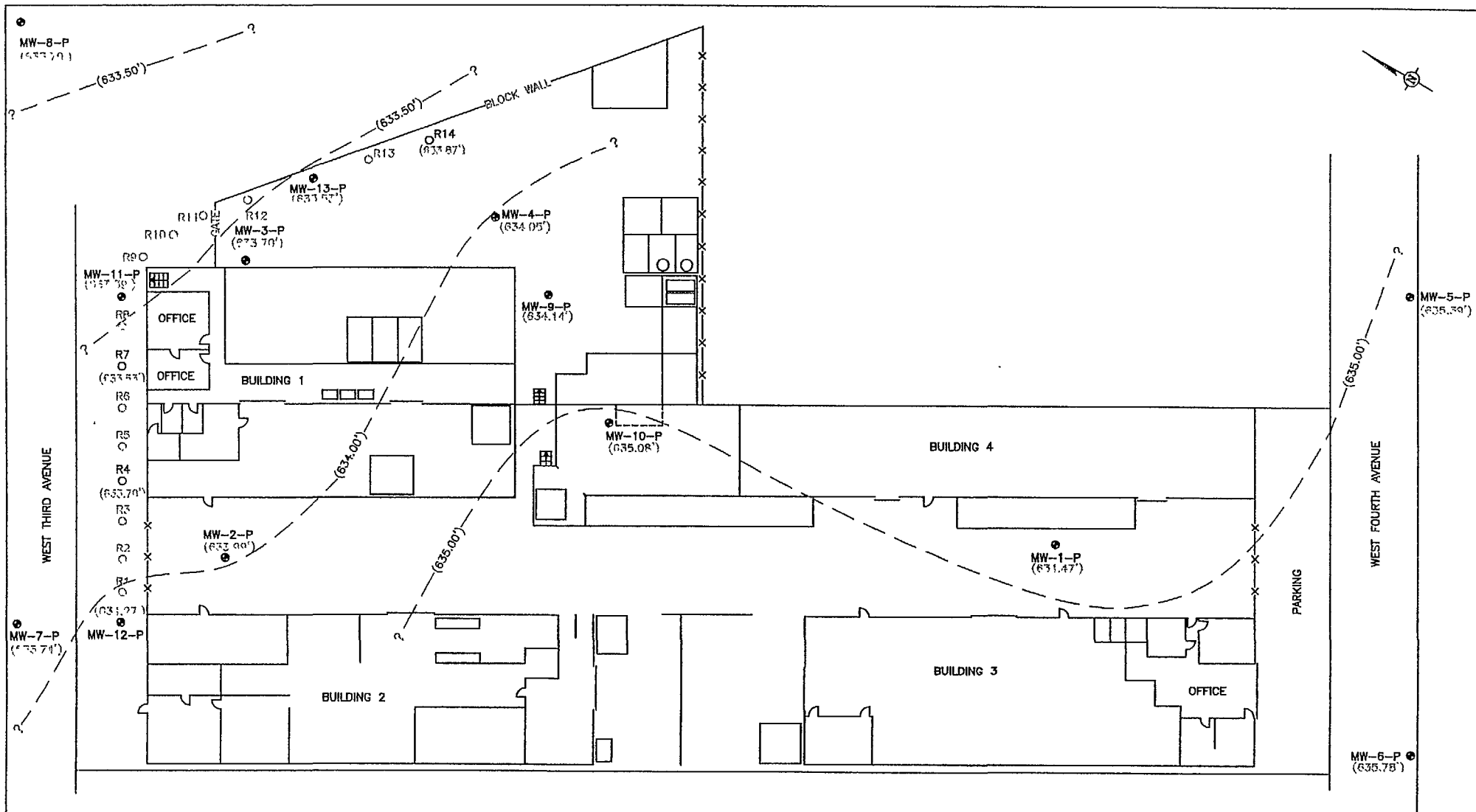
APPROXIMATE SCALE IN FEET

FIGURE 6
GROUNDWATER MONITORING PLAN
(First Quarter 2003)

PALDMAR PLATING COMPANY, INC
722 WEST FOURTH AVENUE
ESCONDIDO, CALIFORNIA
EST1801/REMEDIATION PROGRESS REPORT No. 1

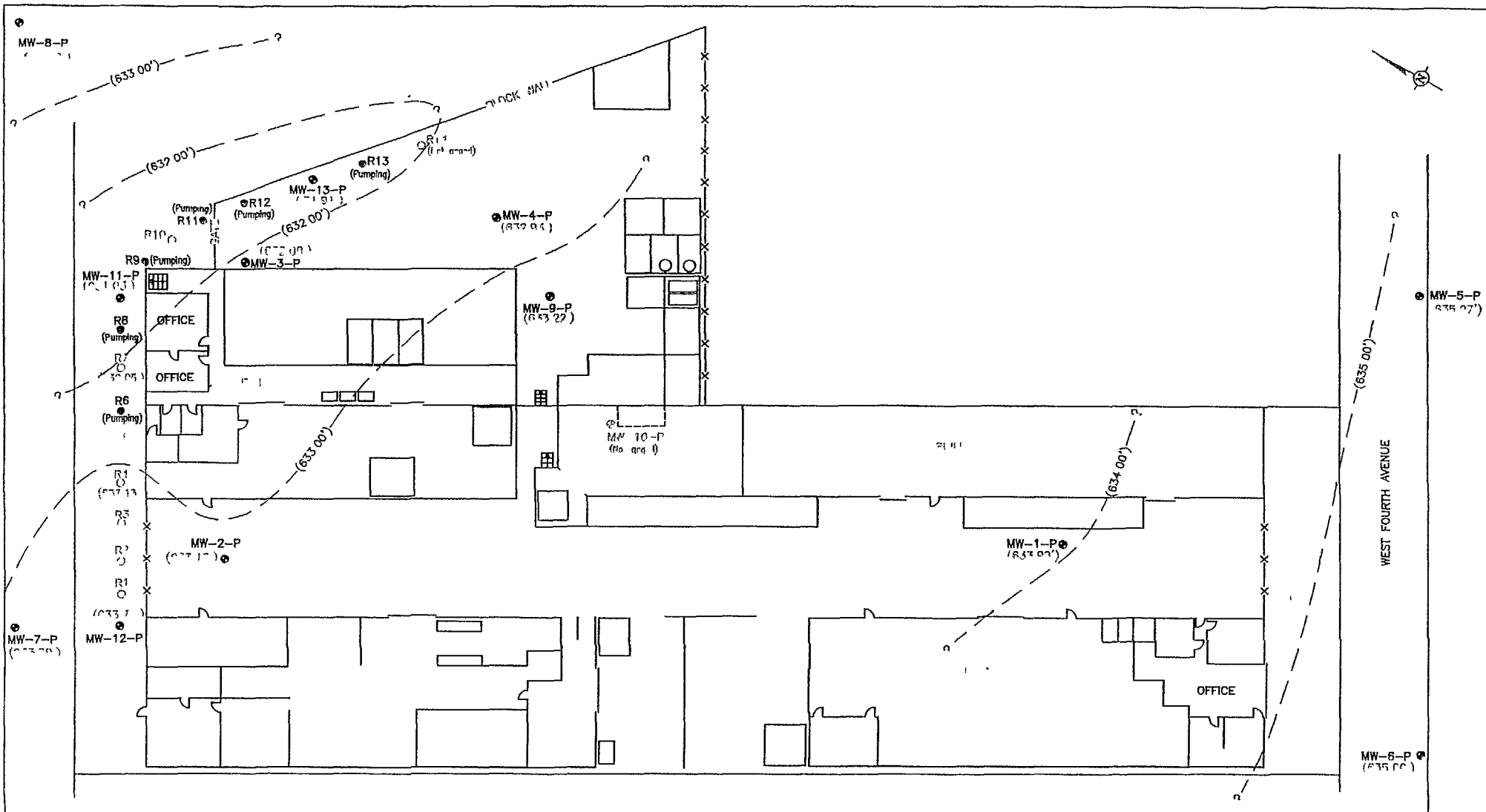
DRAWN BY: AB/MT

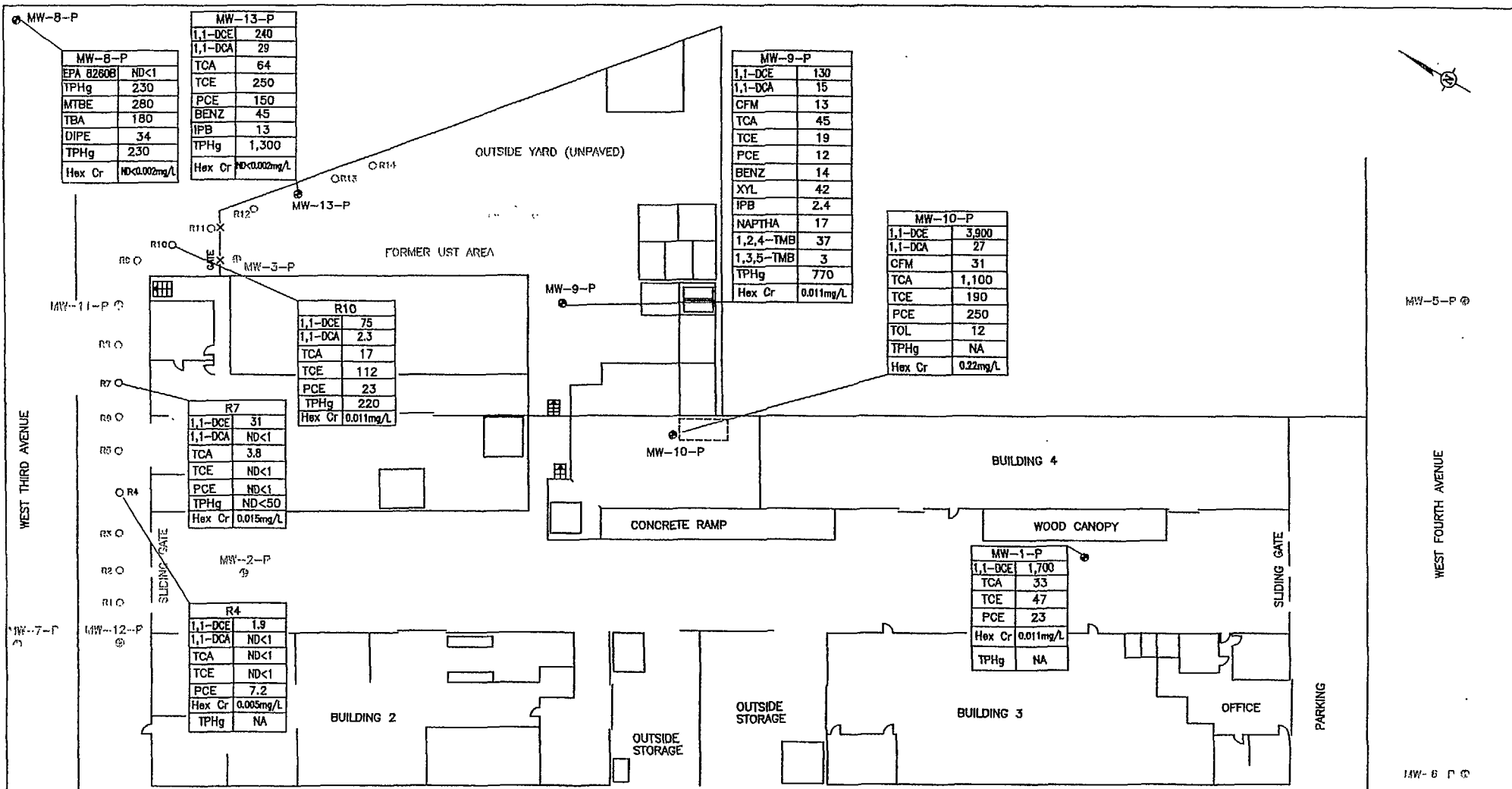
SCALE: AS SHOWN DATE: 01-28-03



0 5 10 15 20 25
APPROXIMATE SCALE IN FEET

FIGURE 7
GROUNDWATER ELEVATION CONTOURS
(Based on January 30, 2003 gaging data)
(Groundwater extraction system OFF)
PALOMAR PLATING COMPANY, INC.
722 WEST FOURTH AVENUE
ESCONDIDO, CALIFORNIA
EST1801/GROUNDWATER MONITORING REPORT
DRAWN BY: AB/MT SCALE: AS SHOWN DATE: 02-03-03





EXPLANATION

- APPROXIMATE LOCATION OF A MONITORED GROUNDWATER RECOVERY WELL
- APPROXIMATE LOCATION OF A GROUNDWATER RECOVERY WELL
- APPROXIMATE LOCATION OF A MONITORED GROUNDWATER WELL
- APPROXIMATE LOCATION OF A GROUNDWATER WELL
- ND - not detected above method detection limit
- NA - not analyzed
- mg/L - milligrams per liter
- TPHg - total petroleum hydrocarbons (as gasoline)

MTBE - methyl tert butyl ether
 BENZ - benzene
 1,1-DCE - 1,1-dichloroethene
 1,1-DCA - 1,1-dichloroethane
 Hex Cr - hexavalent chromium
 TCA - 1,1,1-trichloroethene
 TCE - trichloroethene
 PCE - tetrachloroethene
 IPB - isopropylbenzene
 1,3,5-TMB - 1,3,5-trimethylbenzene
 1,2,4-TMB - 1,2,4-trimethylbenzene
 DIPE - diisopropyl ether
 TBA - tert-butanol
 CFM - chloroform
 XYL - total xylene
 NAPTHA - naphthalene

CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER EXCEPT AS NOTED (Hex Cr)

FIGURE 9 GROUNDWATER ANALYSES RESULTS DETECTED ANALYTES (First Quarter 2003)

PALOMAR FLATING COMPANY, INC.
 722 WEST FOURTH AVENUE
 ESCONDIDO, CALIFORNIA
 EST1801/REMEDIATION PROGRESS REPORT No. 1
 DRAWN BY: AB/MT SCALE: AS SHOWN DATE: 02-11-03