

FAX TRANSMITTAL

TO Susan Hugo
FROM Gary Hayes

**GERAGHTY & MILLER, INC.
RICHMOND, CALIFORNIA OFFICE**

DATE 2-15-95 JOB # _____
FAX # 510 475-7337-9335 TELEPHONE # _____

COMMENTS:

Per Judy Gervens at Electro-Coatings, I am faxing the attached document for your review & comment. Please call me if you have any questions.

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February 13, 1995
Project No. RC0304.001

Ms. Judy Garvens
Administrative Manager
Electro-Coatings Inc.
P.O. Box 310
815 Marina Vista
Martinez, California 94553

SUBJECT: Soil and Groundwater Investigation Work Plan for the Electro-Coatings Facility at 1401 and 1421 Park Avenue, Emeryville, California.

Dear Ms. Garvens:

Geraghty & Miller, Inc. (Geraghty & Miller) appreciates the opportunity to provide this scope of work for environmental services to Electro-Coatings Inc. for the above-referenced property (Figure 1). This scope of work addresses existing data gaps identified by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) in a letter dated August 26, 1994, by obtaining additional soil and groundwater data to further delineate impacts from chromium, trichloroethylene (TCE), and possibly petroleum hydrocarbons. It also provides for collection of site specific parameters such as biological oxygen demand (BOD), chemical oxygen demand (COD), dissolved oxygen (DO) for risk assessment and remedial alternative evaluation.

In addition to performing groundwater and limited soil sampling, Geraghty & Miller proposes using draft guidelines developed by the RWQCB and proposed amendments to State Water Resources Control Board (SWRCB) Resolution 92-49 to pursue non-attainment designation for the site for management of site environmental issues. These guidelines are applicable when the environmental impacts and site characteristics can be shown to meet specific criteria. For a site to qualify under the guidelines, issues of contaminant transport, source removal, cost-effective cleanup, and long-term risk management are addressed to demonstrate a minimal impact to human health and the environment. This would be appropriate for sites which have groundwater pollution or residual soil pollution with limited water quality, environmental, and health risks. To be considered under these provisions for non-attainment designation, the site conditions need to be delineated.

BACKGROUND

FACILITY DESCRIPTION

The site is located in a proposed redevelopment area of Emeryville. The area is currently predominantly industrial with some commercial land use. The site is approximately one acre in size and is bounded by Park Avenue to the north, by Holden Street to the east, by a lumber yard to the south, and a clothing outlet and crematorium to the west.

The facility consists of four buildings on two parcels. The eastern parcel is owned by Electro-Coatings. The site has been operated as a metal plating facility since 1952. In the past, both hard chrome and nickel plating were performed at the facility. Currently only nickel plating is being performed. Reportedly, there are two empty underground fuel storage tanks (USTs) west of 1421 Park Avenue in the parking area. In discussions with Electro-Coatings personnel familiar with historic operations, they indicated that the USTs were reportedly emptied in the early 1970s. There was a plan to abandon the USTs in place by backfilling them with sand after they had been emptied. It is uncertain whether the USTs were backfilled. The condition of the USTs at the time they were emptied is unknown.

SITE CONDITIONS

In general, the site is underlain by a thin fill layer which is underlain by clays and silts which are interbedded with sand or gravel lenses. Depth to groundwater varies from approximately 4 to 9 feet below ground surface (bgs). Groundwater reportedly flows to the west/northwest. The nearest surface water is San Francisco Bay, approximately 0.5 miles west of the site.

Groundwater samples have been collected sporadically in the past. Concentrations in groundwater have ranged from below detection limits for both TCE and total chromium to 22,000 micrograms per liter ($\mu\text{g/L}$) TCE and 892,000 $\mu\text{g/L}$ chromium. Based on the most recent sampling analytical results from July 1994, the maximum detected concentration of TCE (22,000 $\mu\text{g/L}$) occurs in water samples collected from Monitor Well MW-16, with lower concentrations extending approximately 100 feet ^{west/northwest} east/northeast of this area. Also based on the July 1994 sampling analytical results, the maximum detected concentration of hexavalent chromium (454,000 $\mu\text{g/L}$) occurs in water samples collected from Monitor Well MW-5 (downgradient of the former chrome-plating area), with lower concentrations extending approximately 200 feet west/northwest of this area.

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Groundwater samples have not been collected consistently. Therefore, it is indeterminate whether or not groundwater elevations or constituent concentrations fluctuate seasonally. Based on the data provided, it appears that the maximum detected concentrations of total chromium occur in the soil immediately beneath the former chrome-plating area and within groundwater downgradient of this area.

PROJECT APPROACH

It is our understanding that Electro-Coatings' goal for this site is to gain no further action status from Alameda County Health Care Services Agency (ACHCS) or provide the agency with an acceptable risk management plan for the site to allow for future redevelopment. It may also be necessary to perform site remediation and/or limit future land uses of the site.

SCOPE OF WORK

The scope of work that follows is designed to initiate the process of gaining regulatory approval for no further action or an acceptable risk management plan, and provide additional site-specific data for developing preliminary remedial alternatives. Additionally, the scope is designed to respond further to the RWQCB letter dated August 26, 1994.

TASK 1: PREFIELD ACTIVITIES

Geraghty & Miller will schedule work and arrange for materials. A site-specific health and safety plan will be prepared to cover the assessment activities. It is assumed that Electro-Coatings will identify locations for the proposed hand-augered borings that are free of subsurface utilities. Additionally, since the borings will not encounter groundwater, no costs for well permits have been included. Before augering, Geraghty & Miller will confirm that well permits are not required.

TASK 2: GROUNDWATER SAMPLING OF SELECT WELLS

Groundwater samples will be collected from existing groundwater monitor wells (MW-1, MW-3A and MW-3C, MW-4 through MW-6, MW-8 through MW-10, MW-12, MW-14 through MW-18A, MW-18B, and MW-20) and submitted for laboratory analysis. Monitor Wells MW-2, MW-7, MW-19, and MW-21 are not locatable and will not be monitored. Monitor Well MW-3B will be monitored for depth to water, but not sampled as it represents essentially the same zone and area as Monitor Well MW-3C. Wells MW-11 and MW-13 are within the groundwater area affected by chromium and are duplicative of nearby wells. These will be monitored for depth to water, but not sampled.

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Before sampling, depth-to-water-measurements will be obtained for each well and each well will be purged of a minimum of three casing volumes of water. During purging, field measurements will be made of pH and Eh. The purged water will be stored onsite in 55-gallon drums for proper disposal by Electro-Coatings pending groundwater analytical sampling results. All equipment that will enter the well will be washed in a solution of phosphate-free detergent and water, and triple-rinsed in potable water. Following purging, groundwater samples will be collected using a disposable polyethylene bailer. A new bailer will be used for each well. Groundwater samples for laboratory analysis will be collected into appropriate United States Environmental Protection Agency (USEPA) approved containers, placed on ice, and transported to a State-certified laboratory along with appropriate chain-of-custody documentation.

Groundwater samples collected from all sampled wells will be analyzed for total chromium by USEPA Method 200.7, for hexavalent chromium by USEPA Method 7196, and for purgeable halocarbons by USEPA Method 601. To determine if the USTs have impacted groundwater, groundwater samples collected from Monitor Wells MW-4, MW-8, MW-10, and MW-15 will be analyzed for total petroleum hydrocarbon (TPH) Fuel Fingerprint by USEPA Method 8015, modified, and purgeable aromatics (including benzene, toluene, ethylbenzene, and total xylenes [BTEX]) by USEPA Method 602. Additional select samples will be analyzed for total dissolved solids by USEPA Method 160.1, oxidation/reduction potential, total organic carbon, and biochemical oxygen demand (BOD) by USEPA Method 405.1, and chemical oxygen demand (COD) by USEPA Method 410.1. The samples will be submitted to the laboratory on a standard turnaround time.

TASK 3: SOIL SAMPLING IN THE CHROMIUM SOURCE AREA AND NEAR THE FORMER VAPOR DEGREASER

Soil sample collection will be limited to the vadose or unsaturated zone. Soil samples collected below the water table contain groundwater and are therefore not representative of soil conditions only. To distinguish between total chromium and hexavalent chromium in soils in the former chromium storage area, soil samples will be collected at two locations from the vadose zone to a total depth of approximately 9 feet below ground surface (bgs) (Figure 2). Samples will be collected using a hand auger and slidehammer equipped with a brass or stainless steel liner. The holes will be backfilled with the cuttings and a bentonite/cement slurry mix. Soil samples for laboratory analysis will be retained in the brass liners, sealed with Teflon™ tape and plastic end caps, placed on ice, and transported to a State-certified laboratory, along with appropriate chain-of-custody documentation. The soil samples will be submitted to the laboratory on a standard turnaround time. Each soil sample will be analyzed



for total chromium by USEPA Method 200.7 and for hexavalent chromium by USEPA Method 7196. It is assumed that two soil samples will be analyzed from each boring.

To determine if soils beneath or near the former vapor degreaser and in the sump area are affected by TCE previously used to clean parts to be plated, soil samples will be collected at two locations within the plating room from the vadose zone to a total depth of approximately 9 feet bgs (Figure 2). Samples will be collected and handled according to the above described procedures. Each soil sample will be analyzed for purgeable organic compounds by USEPA Method 8010. Due to the proximity of active acid tanks to the proposed augering locations, collection of the soil samples for TCE evaluation will be postponed until site operations allow for the complete emptying of the tanks prior to collecting these soil samples. It is assumed that two soil samples will be analyzed from each boring.

TASK 4: REPORT PREPARATION

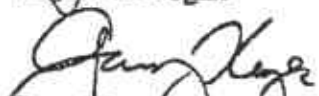
Upon receipt of the laboratory analytical results, a report will be prepared that will include:

- Description of field procedures;
- Exploratory boring logs;
- Summary and discussion of results; and
- Identification of remedial alternatives.

Geraghty & Miller appreciates this opportunity to prepare this scope of work for Electro-Coatings. If you have any questions, please call.

Sincerely,
GERAGHTY & MILLER, INC.

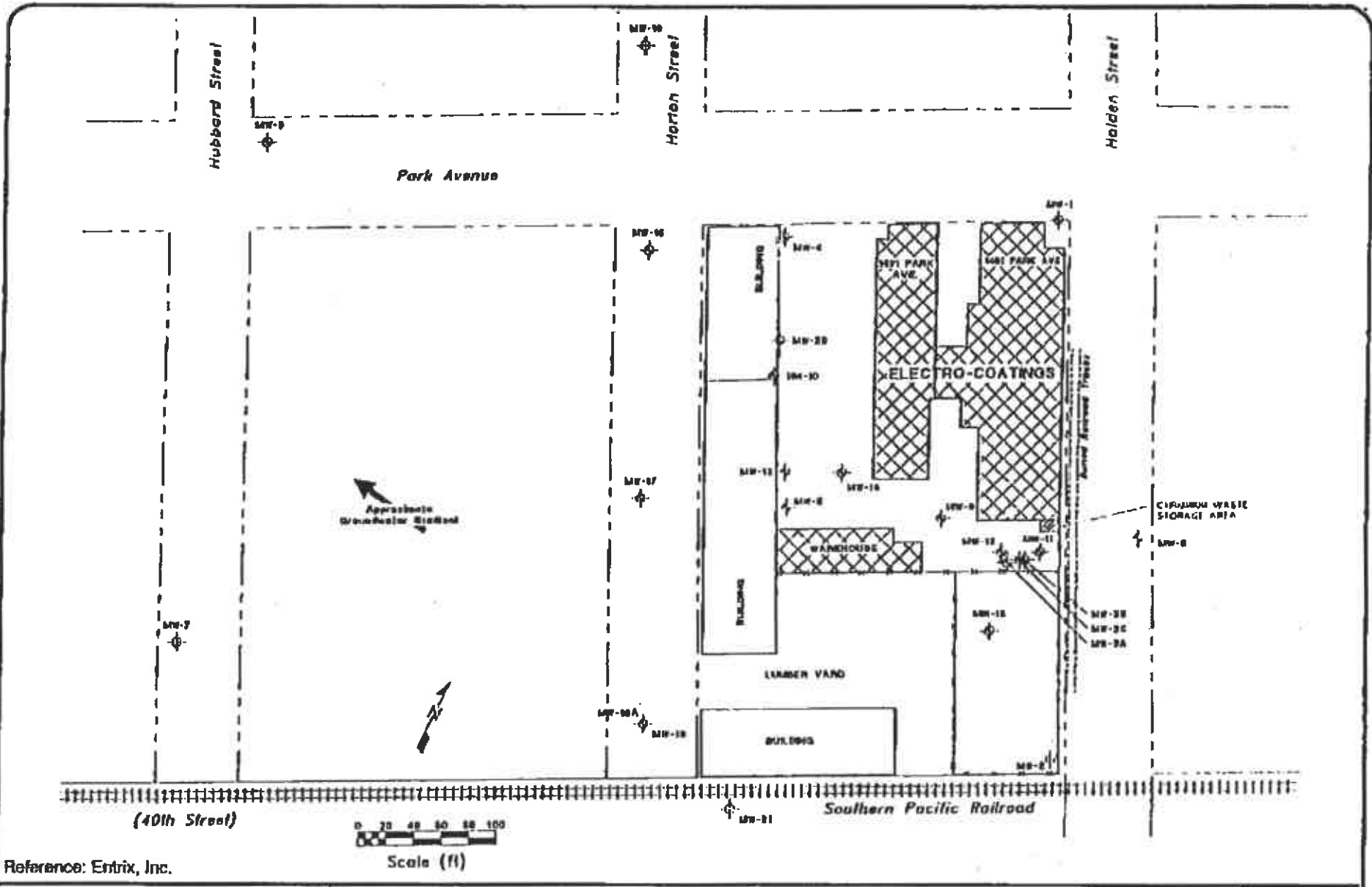

Catherine W. McCatchen
Project Geologist


Gary W. Keyes, P. E.
Principal Engineer/Associate
Richmond, California Office Manager

Enclosures: Figure 1 Site Plan
 Figure 2 Detail

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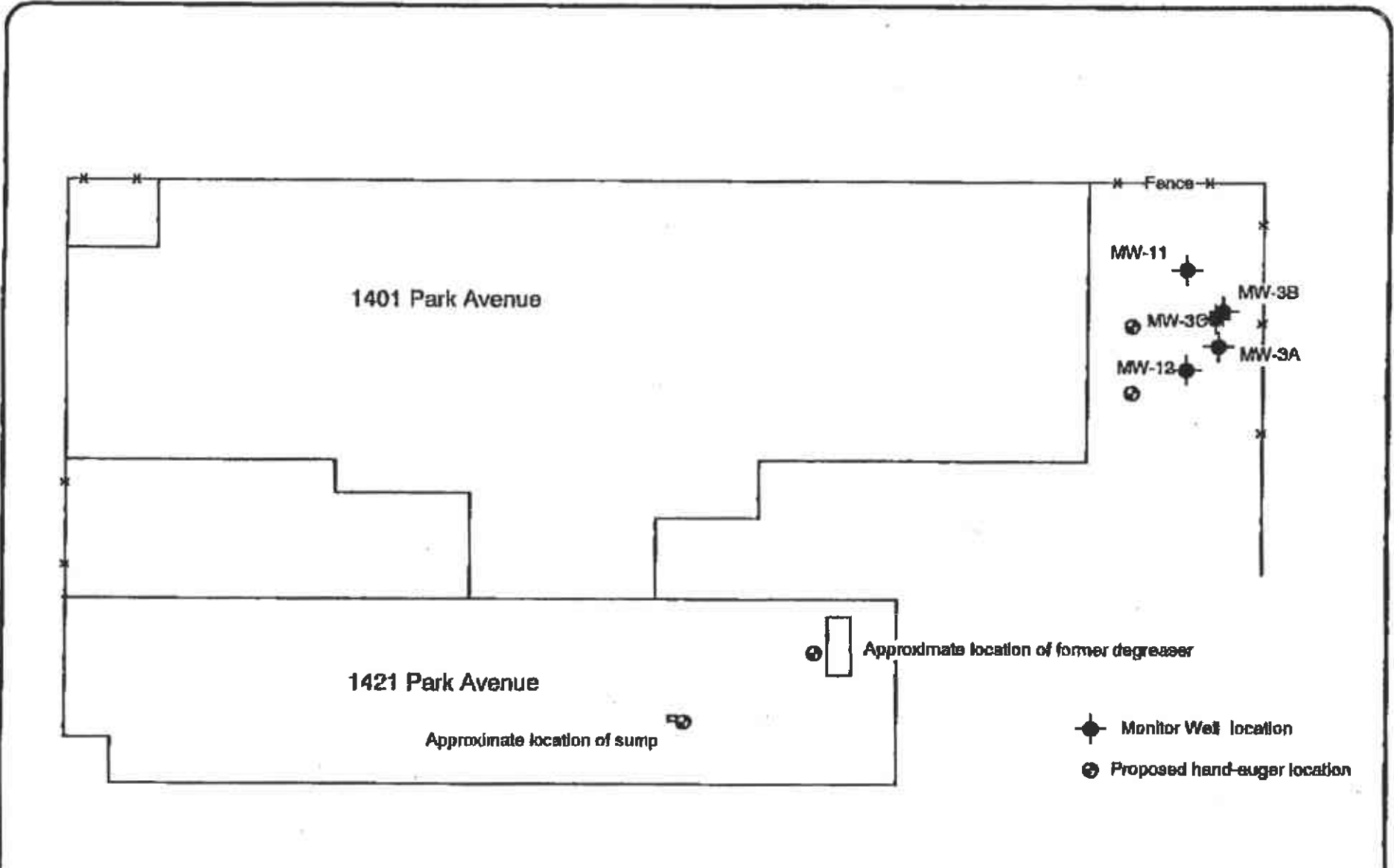


Reference: Entrix, Inc.

GERAGHTY & MILLER, INC.
Environmental Services
 Project No. RC0304.001

SITE PLAN
 Electro-Coatings, Inc.
 1401 and 1421 Park Avenue
 Emeryville, California

FIGURE
1



Reference: Entrix, Inc.

 **GERAGHTY & MILLER, INC.**
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DETAIL
 Electro-Coatings, Inc.
 1401 and 1421 Park Avenue
 Emeryville, California

FIGURE
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