

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-8944
FOR
PARTON & EDWARDS CONSTRUCTION, INC.
(ONE HOUR MARTINIZING DRY CLEANERS - LAKEWOOD SQUARE)
(SLIC FILE NO. 0737)
(ORDER NO. R4-2005-0030, SERIES NO. 025; CI NO. 8944)

I. REPORTING REQUIREMENTS

- A. Parton & Edwards Construction (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (August 19, 2005) under Regional Board Order No. R4-2005-0030.

Monitoring reports shall be received by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

The first monitoring report under this Program is due by November 15, 2005.

- B. If there is no discharge or injection during any reporting period, the report shall so state.
- C. By January 30 of each year, beginning January 30, 2006, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall explain the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements (WDRs).
- D. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.
- E. The Discharger shall comply with requirements contained in Section G of Order No. R4-2005-0030 "Monitoring and Reporting Requirements" in addition to the aforementioned requirements.

II. INJECTION MONITORING REQUIREMENTS

The quarterly reports shall contain the following information regarding the injection activities. If there is no injection, during any reporting period, the report shall so state:

1. Location Map showing injection points and groundwater depths.
2. Written summary defining:
 - Depth of injection points;
 - Quantity of ozone and / or peroxide solutions injected per injection point; and
 - Total amount of ozone injected at site.
3. Monthly visual inspection at each injection well shall be conducted to evaluate the well casing integrity for a period of three months after each injection. The quarterly report shall include a summary of the visual inspection.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities. The following sampling schedule shall constitute the monitoring program for upgradient wells MW-2, MW-4, MW-6, source wells DW-1, MW-1, MW-12A, MW-12B, MW-15, MW-16, MW-19, MW-21 and downgradient well MW-22 (Figure 2). These sampling stations shall not be changed and any proposed change of monitoring locations shall be identified and approved by the Regional Board Executive Officer (Executive Officer) prior to their use.

The Discharger shall conduct baseline sampling from wells DW-1, MW-1, MW-2, MW-4, MW-6, MW-12A, MW-12B, MW-15, MW-16, MW-19, MW-21 and MW-22 two weeks prior to injection of ozone and regular samplings for the duration of remediation in accordance with the following monitoring program:

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH ¹	pH units	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Temperature ¹	⁰ F	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Oxidation-reduction potential ¹	millivolts	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Specific conductivity ¹	µmhos/cm	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Ferrous iron	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Dissolved Oxygen ¹	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Tetrachloroethylene (PCE)	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴

Trichloroethylene (TCE)	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
cis -1,2-Dichloroethene (cis - 1,2 DCE)	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
1,2-Dichloroethane (1,2-DCA)	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Chloroform	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Vinyl Chloride	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Methane	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Total organic carbon	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Sulfate	mg/l	grab	Quarterly
Total iron	µg/L	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Total Nitrogen as nitrate and nitrite	µg/L	grab	Quarterly
Total dissolved solids	mg/L	grab	Semi-annual
Carbon dioxide	mg/L	grab	Semi-annual
Sodium	µg/L	grab	Semi-annual
Boron	mg/L	grab	Semi-annual
Manganese	µg/L	grab	Semi-annual
Alkalinity	µg/L	grab	Semi-annual
Total chromium	µg/L	grab	One Time ⁵
Hexavalent chromium	µg/L	grab	One Time ⁵
1, 4 - Dioxane	µg/L	grab	One Time ⁵
1,2,3-Trichloropropane (1,2,3 - TCP)	µg/L	grab	One Time ⁵

¹ Field instrument may be used to measure this parameter.

² Bi-weekly sampling is required for the first month of injection.

³ Monthly sampling is required for the next two months of injection.

⁴ Quarterly sampling is required thereafter.

⁵ One time sampling prior to injection of ozone. If detected, quarterly monitoring is required for the same monitoring well.

All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

The Discharger shall conduct annual sampling from wells MW-3 for volatile organic compounds (VOCs) analysis.

IV. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the _____ day of _____ at _____.

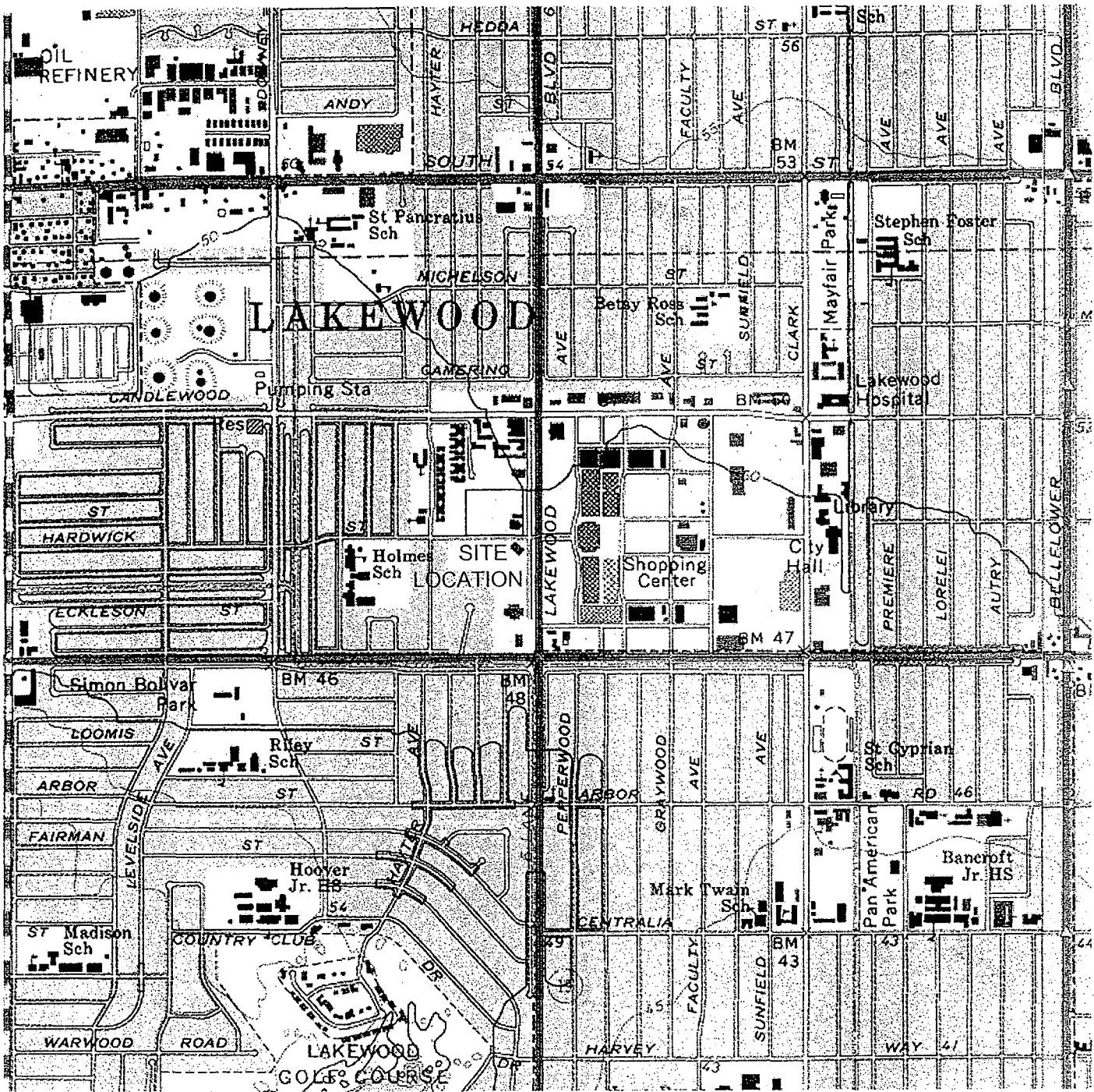
(Signature)

(Title)"

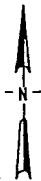
All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by: *for* David A. Bachorowski, AEO
Jonathan S. Bishop
Executive Officer

Date: August 19, 2005



Reference: USGS Topographic Map, Lakewood, California, July 1, 1981



UNDERGROUND
ENGINEERING &
ENVIRONMENTAL
SOLUTIONS

1-HOUR MARTINIZING
4009 HARDWICK STREET
LAKEWOOD, CALIFORNIA

FIGURE: 1

SITE LOCATION MAP

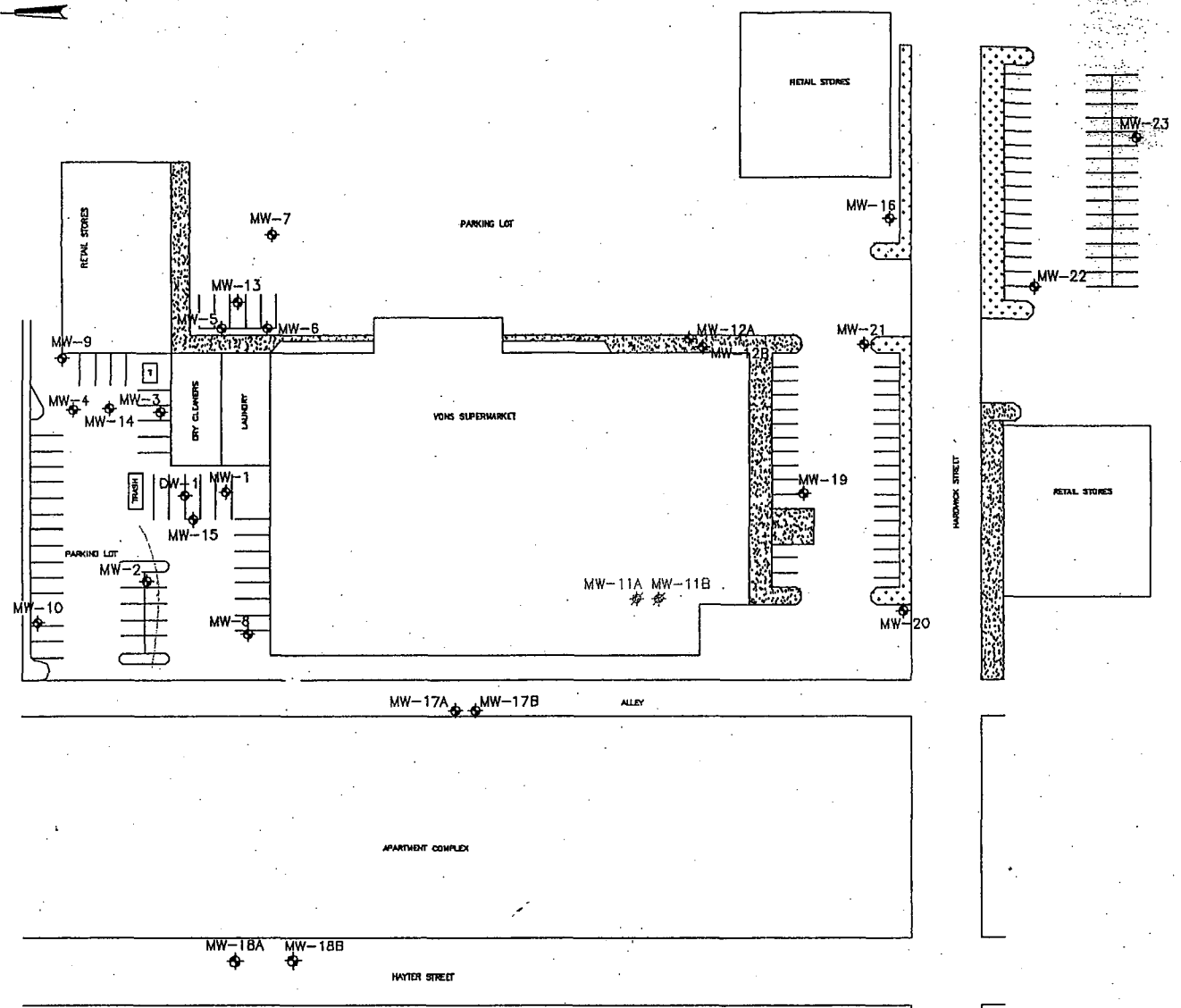
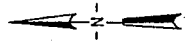
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
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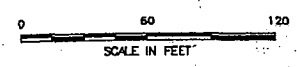
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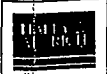
LEGEND

-  MONITORING WELLS
-  ABANDONED MONITORING WELLS

NOTES:



NOTE: LOCATION OF WELLS IS APPROXIMATE



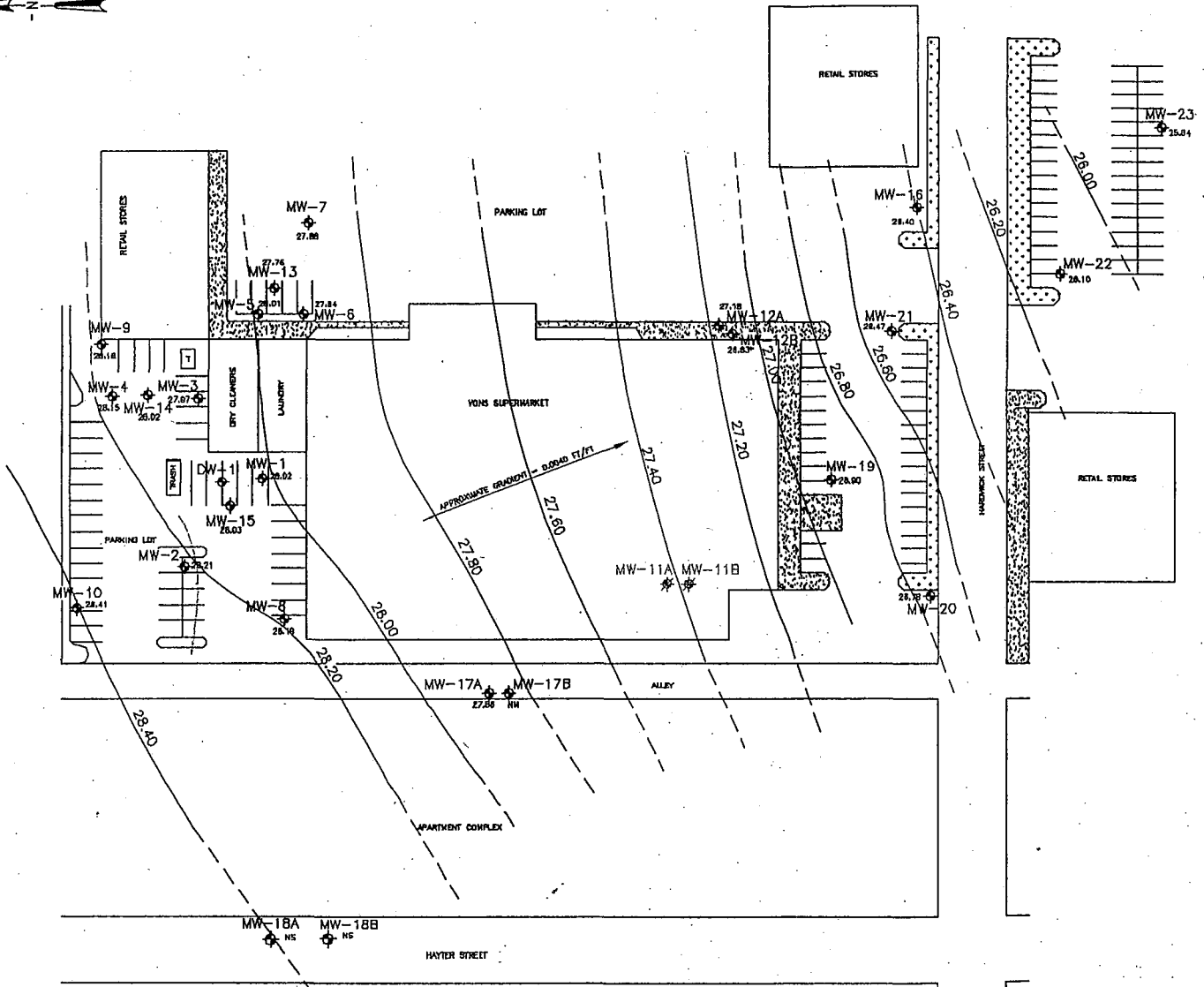
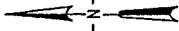
ONE-HOUR MARTINIZING FACILITY
 4000 HARDWICK STREET
 LAKEWOOD, CALIFORNIA

**SITE LAYOUT MAP SHOWING
 MONITORING WELL LOCATIONS**

SCALE AS SHOWN

OCTOBER 2003

FIGURE 2

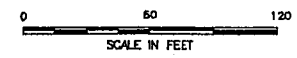


LEGEND

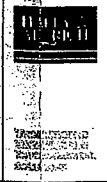
- MW-18A MONITORING WELLS
- MW-11B ABANDONED MONITORING WELLS
- ESTIMATED GROUNDWATER ELEVATION CONTOUR (FT), DASHED WHERE INFERRED
- 27.33 DENOTES GROUNDWATER ELEVATION MEASUREMENT INCONSISTENT WITH STATISTICAL RANGE

NOTES

1. GROUNDWATER ELEVATIONS MEASURED ON 25 AUGUST 2003.
2. ALL WELLS SURVEYED TO COMMON (CITY OF LONG BEACH NO. 1227). SURVEY IS BASED UPON CA COORDINATES IN NAD 83, AZIMUTH GROUP, JULY 2002.



NOTE: LOCATION OF WELLS IS APPROXIMATE

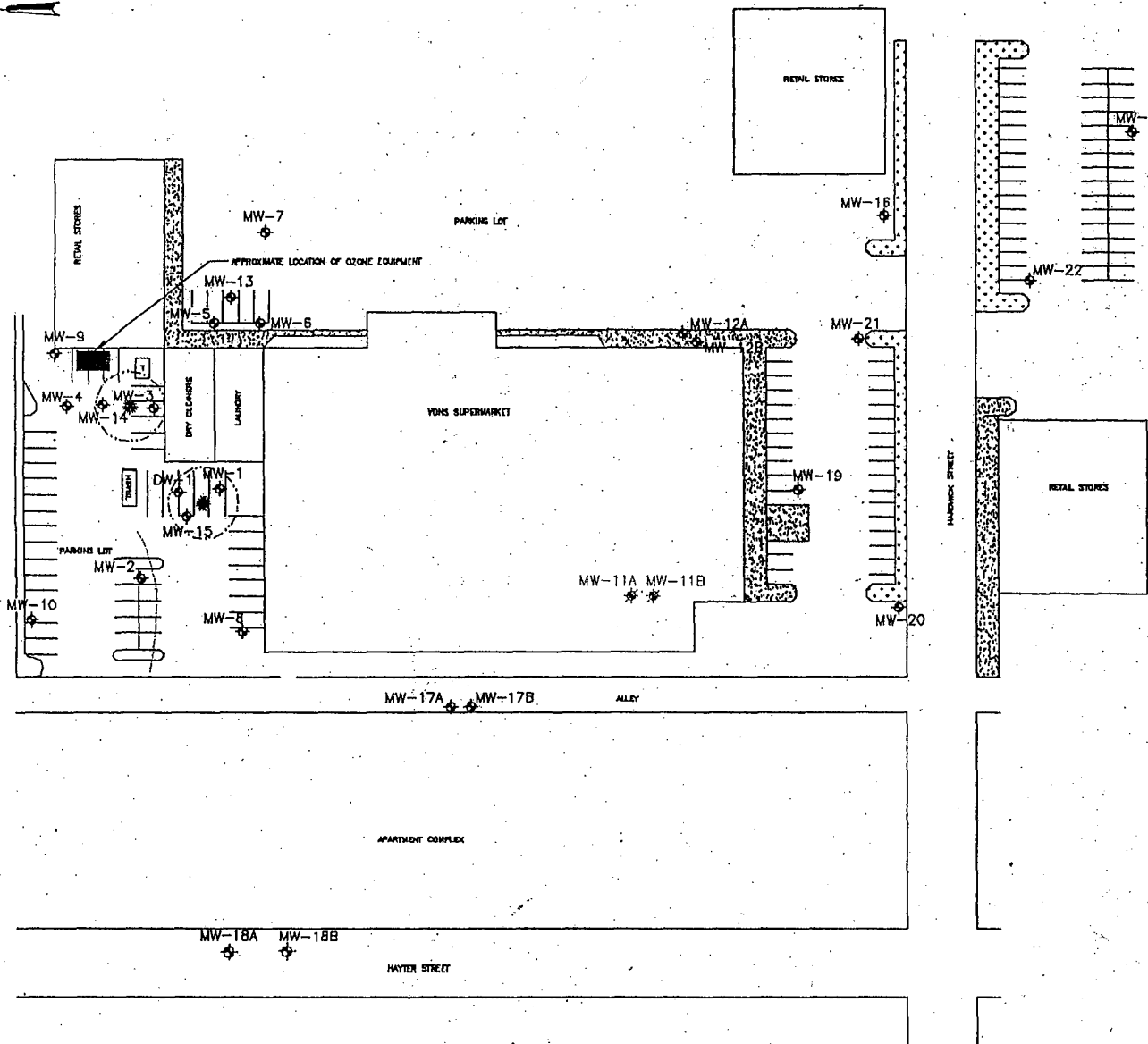
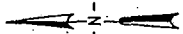


ONE-HOUR MARTINIZING FACILITY
 4000 HARDWICK STREET
 LAKEWOOD, CALIFORNIA
**GROUNDWATER SURFACE
 ELEVATION CONTOUR MAP - 3RD
 QUARTER 2003**

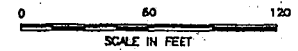
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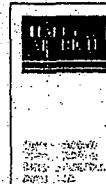
FIGURE 3



- LEGEND**
- MW-18A MONITORING WELLS
 - MW-11B ABANDONED MONITORING WELLS
 - OW-1 PROPOSED OZONE INJECTION PILOT WELL
 - ESTIMATE OF ZONE OF OZONE INFLUENCE



NOTE: LOCATION OF WELLS IS APPROXIMATE



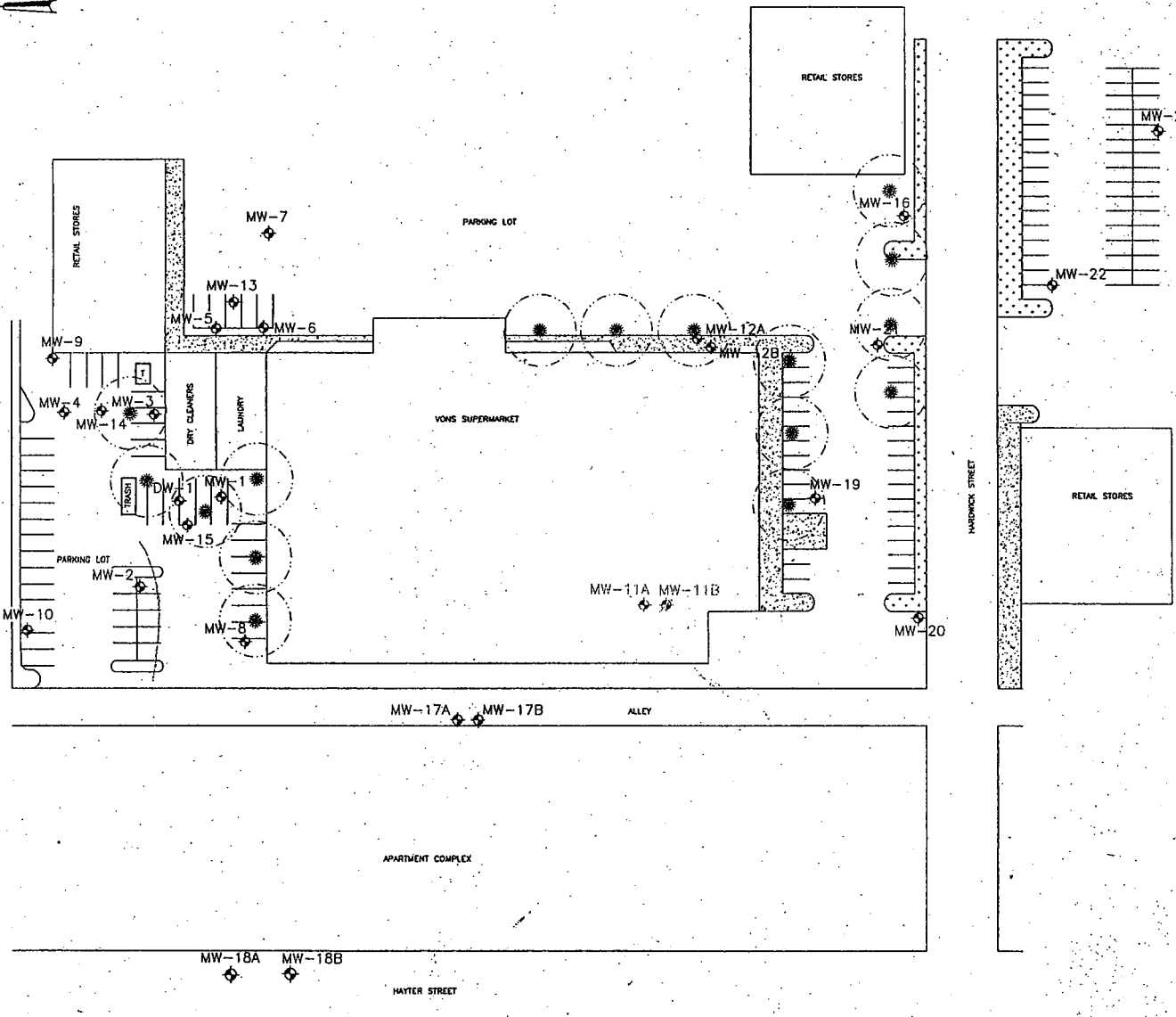
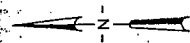
ONE-HOUR MARTINIZING FACILITY
4009 HARWICK STREET
LAKEWOOD, CALIFORNIA

SITE LAYOUT MAP SHOWING
PROPOSED OZONE INJECTION
PILOT TEST WELLS

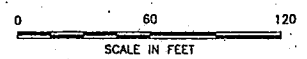
SCALE: AS SHOWN

OCTOBER 2003

FIGURE 4



- LEGEND**
- MW-18A MONITORING WELLS
 - MW-11B ABANDONED MONITORING WELLS
 - OW-1 PROPOSED OZONE INJECTION WELL
 - ESTIMATE OF ZONE OF OZONE INFLUENCE



NOTE: LOCATION OF WELLS IS APPROXIMATE



ONE-HOUR MARTINIZING FACILITY
4009 HARDWICK STREET
LAKEWOOD, CALIFORNIA

SITE LAYOUT MAP SHOWING
PROPOSED OZONE INJECTION
FULL SCALE SYSTEM WELLS

SCALE: AS SHOWN

OCTOBER 2003

FIGURE 5



California Regional Water Quality Control Board

Los Angeles Region



Alan C. Lloyd, Ph.D.
Agency Secretary

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

August 19, 2005

Mr. Lindsay Parton
Parton & Edwards Construction, Inc.
109 S. La Cumbre Lane
Santa Barbara, CA 93105-3136

GENERAL WASTE DISCHARGE REQUIREMENTS FOR INJECTION OF OZONE / PEROXIDE INTO GROUNDWATER – ONE HOUR MARTINIZING DRY CLEANERS, 4009 HARDWICK STREET, LAKEWOOD, CA 90712 (ORDER NO. R4-2005-0030, SERIES NO. 025; CI NO. 8944, SLIC FILE NO. 0737, SITE ID #2042F00)

Dear Mr. Parton:

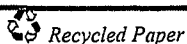
We have completed our review of your application submitted by your consultant, Haley & Aldrich (H & A) for a general waste discharge requirements (GWDR) for the injection of ozone or ozone / peroxide into groundwater at One-Hour Martinizing Dry Cleaners (SITE). The injection of ozone is for remediation of volatile organic compounds (VOCs) impacted groundwater at the SITE. The proposed remediation is a substitute remedial alternative in replace of the ineffective HRC injection applied by H & A during 2002-2003.

H & A submitted a revised Remedial Action Plan (RAP) in October 2003 and proposed to apply ozone sparging for remediation of VOC impacted groundwater at the SITE. The maximum concentrations of VOC contamination at the SITE described in RAP include: 1910 µg/L of tetrachloroethene (PCE), 518 µg/L of cis-1,2 dichloroethene (cis-1,2 DCE) and 47 µg/L of trichloroethene (TCE) respectively.

To remediate the VOC impacted groundwater beneath the site, H & A proposed to utilize a C-Sparge system. The proposed C-Sparge system includes initial installation/construction of two or three sparge wells and a compressor and ozone generator for the pilot test. The final design to implement the full scale ozone injection will be based on the results of the pilot test and effective radius of influence at the SITE. In some cases, a higher oxidation potential is required to overcome the natural oxidant demand and ozone may be combined with hydrogen peroxide for injection of a mixture of air, ozone and hydrogen peroxide. The RAP was approved by the Regional Board in our letter dated December 17, 2003.

The C-Sparge technology combines low-flow injection of 3 to 5 cubic feet per minute (cfm) air sparging with ozone or ozone and peroxide. Microbubbles (10 to 50 µm) of encapsulated ozone will be introduced below the water table through sparge points to oxidize contaminants into benign byproducts. These byproducts and residuals include acetate, butyrate, formate, propionate, carboxylic acids, tertiary butyl formate, formaldehyde, carbon dioxide, hydrogen peroxide, and oxygen.

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Mr. Lindsay Parton
Parton & Edwards Construction, Inc.

August 19, 2005

- 2 -

We have reviewed the information provided and have determined that the proposed discharge meets the conditions specified in Order No. R4-2005-0030, "General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites," adopted by this Regional Board on May 5, 2005.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2005-0030, Monitoring and Reporting Program No. CI-8944, and Standard Provisions.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment (August 8, 2005) under Regional Board Order No. R4-2005-0030. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-8944, which will assure that the reports are directed to the appropriate file and staff. Do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

We are sending a copy of Order No. R4-2005-0030 and Standard Provisions only to the applicant. A copy of the Order can be download from www.waterboards.ca.gov/losangeles or will be furnished upon request.

If you have any questions, please contact Mr. Rod Nelson at (213) 620-6119.

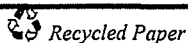
Sincerely,

for *David A. Bacharowski, AEO*
Jonathan S. Bishop
Executive Officer

- Enclosures: 1. Board Order No. R4-2005-0030
2. Standard Provisions Applicable To Waste Discharge Requirements
3. Monitoring and Reporting Program No. CI-8944

cc: Ms. Kurt Souza, California Department of Health Services
Mr. Chris Nagler, Central Basin Watermaster, California Department of Water Resources
Mr. Jose Reynoso, L. A. County Department of Health Services, Water Well Permits
Ms. Lindsey Thomas, Environmental Program Management, LLC
Mr. Jeremy Squire, Haley and Aldrich, Inc.

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.