



California Regional Water Quality Control Board

Los Angeles Region

C1104



Linda S. Adams
Acting Secretary for
Environmental Protection

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<http://www.waterboards.ca.gov/losangeles>

Edmund G. Brown Jr.
Governor

March 30, 2011

Mr. James Mitchell
1717 2nd street
Manhattan Beach, CA 90266-7011

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT
PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR
HEXAVALENT CHROMIUM IMPACTED SITES (ORDER NO. R4-2007-0019)
JIM'S SMOG CENTER (B-2 PRIORITY SITE)
5825 E. IMPERIAL HIGHWAY, SOUTH GATE (CASE # R-25381)**

Dear Mr. Mitchell:

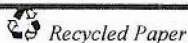
We have completed our review of your application for coverage under the General Waste Discharge Requirements to inject ozone into the groundwater to supplement active remediation of the groundwater contamination plume beneath the subject site (Site). The Site is currently operated as smog testing and automotive repair facility within an area of mixed residential and commercial properties.

The Site is located within the Los Angeles Groundwater Basin. According to boring logs and cross section maps, the subsurface lithology of the Site consists of fine grain sand with variable amounts of silty sand from ground surface to a depth of approximately 35 feet below ground surface (bgs), and clayey silt from 35 feet bgs to 50 feet bgs, followed by gravely sand to 60 feet bgs.

A total of six groundwater monitoring wells (MW-1 through MW-6) have been monitored since March 2007. Historically, groundwater monitoring detected TPHg up to 190,000 µg/L, benzene up to 14,000 µg/L, toluene up to 32,000 µg/L, ethylbenzene up to 3,800 µg/L, and xylenes up to 28,400 µg/L in well MW-2. On November 16, 2010, TPHg of 19,000 µg/L, benzene of 640 µg/L, toluene of 98 µg/L, ethylbenzene of 210 µg/L, xylenes of 700 µg/L, MTBE of 53 µg/L and TBA of 17,000 µg/L, were detected in the groundwater beneath the site. The groundwater table was measured at approximately 46 feet bgs and the flow direction was toward the south. The extent of groundwater plume has not been fully defined, as the highest concentrations of fuel constituents were detected in the most downgradient monitoring well (MW-6).

In a Workplan dated September 19, 2008, your consultant, GCI proposed to install three offsite monitoring wells to assess the extent of groundwater plume offsite. In a remedial action plan (RAP) dated October 1, 2008, GCI intends to implement soil vapor extraction (SVE) using three existing vapor wells (VW-2, VW3 and VW-4) onsite and install up to seventeen ozone sparging probes (OAS-1 through OAS-8 and optional offsite OAS-9 through OAS-17) to cleanup groundwater plume. GCI has submitted an application for a Waste Discharge Requirements (WDR) for the ozone injection. On March 22, 2011, Regional Board staff approved the RAP.

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.

Based on our review, Regional Board staff has determined that the proposed discharge meets the conditions specified in Order No. R4-2007-0019, "Revised General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel, Volatile Organic Compound and/or Hexavalent Chromium Impacted Sites" adopted by the Regional Board on March 1, 2007.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2007-0019, Monitoring and Reporting Program No. CI-9676, and Standard Provisions.

The WDRs issued shall not be terminated until Regional Board staff determines the WDRs are no-longer needed for the site cleanup.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.


When submitting monitoring or technical reports to the Regional Board, please reference Compliance File No. CI-9676 to assure that the reports are directed to the appropriate staff. Do not combine other reports with your monitoring reports complying with Order No. R4-2007-0019. Submit each type of report as a separate document.

To avoid paying future annual fees, please submit written request for termination of your enrollment under the general permit in a separate letter, when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1.

We are sending a copy of Order No. R4-2007-0019 only to the applicant. A copy of the Order will be furnished to anyone who requests it, or on line at: http://www.waterboards.ca.gov/losangeles/board/decisions/adopted_orders/general_orders/r4-2007-0019/r4-2007-0019.pdf

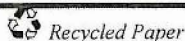
If you have any questions on Order No. R4-2007-0019, please contact Dr. Rebecca Chou at (213) 620-6156. Questions regarding the underground storage tank issues should be forwarded to Mr. Magdy Baiady at (213) 576-6699.

Sincerely,

for 
Samuel Unger, P.E.
Executive Officer

Enclosures:

California Environmental Protection Agency



1. Board Order No. R4-2007-0019
2. Monitoring and Reporting Program No. CI-9676
3. Standard Provisions

cc: Kathy Jundt, Underground Storage Tank Cleanup Fund, State Water Resources
Control Board
Tim Smith, Los Angeles County Department of Public Works
Richard Lavin, County of Los Angeles, Department of Public Health Drinking Water
Program
Henry Olivier, GCI

5825 imperial hwy WDR cover ltr (3-18-11)



STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. CI-9676
FOR
JIM'S SMOG SHOP

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2007-0019
SERIES NO. 154

I. REPORTING REQUIREMENTS

- A. Jim's Smog Shop (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019.

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

<u>Reporting Period</u>	<u>Sampling Period</u>	<u>Report Due Date</u>
January – June	April - June	July 15 th
July – December	October - December	January 15 th

The first monitoring report under this monitoring program is due by July 15, 2011.

- B. If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. 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 (WDR).
- 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 the WDR. 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. In addition to the aforementioned requirements, the Discharger shall comply with requirements contained in Section G of Order No. R4-2007-0019 "*Monitoring and Reporting Requirements*".

II. DISCHARGE MONITORING REQUIREMENTS

The monitoring 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.
2. Written summary defining:
 - Depth of injection points;
 - Quantity of ozone injected at each injection point.
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.
4. To avoid groundwater monitoring network reduction, data bias, and well screen clogging or alteration, no groundwater monitoring wells shall be used as injection points during the proposed ozone injection. Separate injection points/wells must be installed at the Site for the proposed Ozone injection.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities. The monitoring well network must include MW-1 and MW-5 as a background wells; MW-2, MW-3 and MW-4 as source wells; and MW-6 as downgradient well. 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 the downgradient well (MW-6) one or two weeks prior to the proposed Ozone injection and regular sampling with the required frequencies from all the monitoring wells in the monitoring network for the following constituents:

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH	PH units	Grab	Semi-annual ¹
Temperature	°F	grab	Semi-annual ¹
Oxidation-reduction potential	Milivolts	grab	Semi-annual ¹
Specific conductivity	µmhos/cm	grab	Semi-annual ¹
Dissolved Ferrous iron	µg/L	grab	Semi-annual ¹
Dissolved Oxygen	µg/L	grab	Semi-annual ¹

MTBE, Tert-Butyl Alcohol (TBA), Di-isopropyl Ether (DIPE), Ethyl-t-Butyl Ether (ETBE), Tert-Amyl-Methyl Ether (TAME)	µg/L	grab	Semi-annual ¹
Ethanol Formaldehyde Acetone	µg/L	grab	Semi-annual ¹
Total Petroleum Hydrocarbons as gasoline (TPHg) and as diesel (TPHd)	µg/L	grab	Semi-annual ¹
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	grab	Semi-annual ¹
Total organic carbon	µg/L	grab	Semi-annual ¹
Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L	grab	Semi-annual ¹
Total Chromium and Chromium six ²	Mg/L	grab	Semi-annual ¹

¹ One week before injection and semi-annual thereafter.

² The Discharger is required to monitor for total chromium and chromium six in the baseline, semi-annually. If detected at any of these sampling events, the total chromium and chromium six must be monitored quarterly thereafter.

All groundwater monitoring reports must include, at a 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.

III. 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

TOPO! map printed on 02/15/09 from "California.tpo" and "Untitled.tpo"
118°11.000' W 118°10.000' W WGS84 118°09.000' W



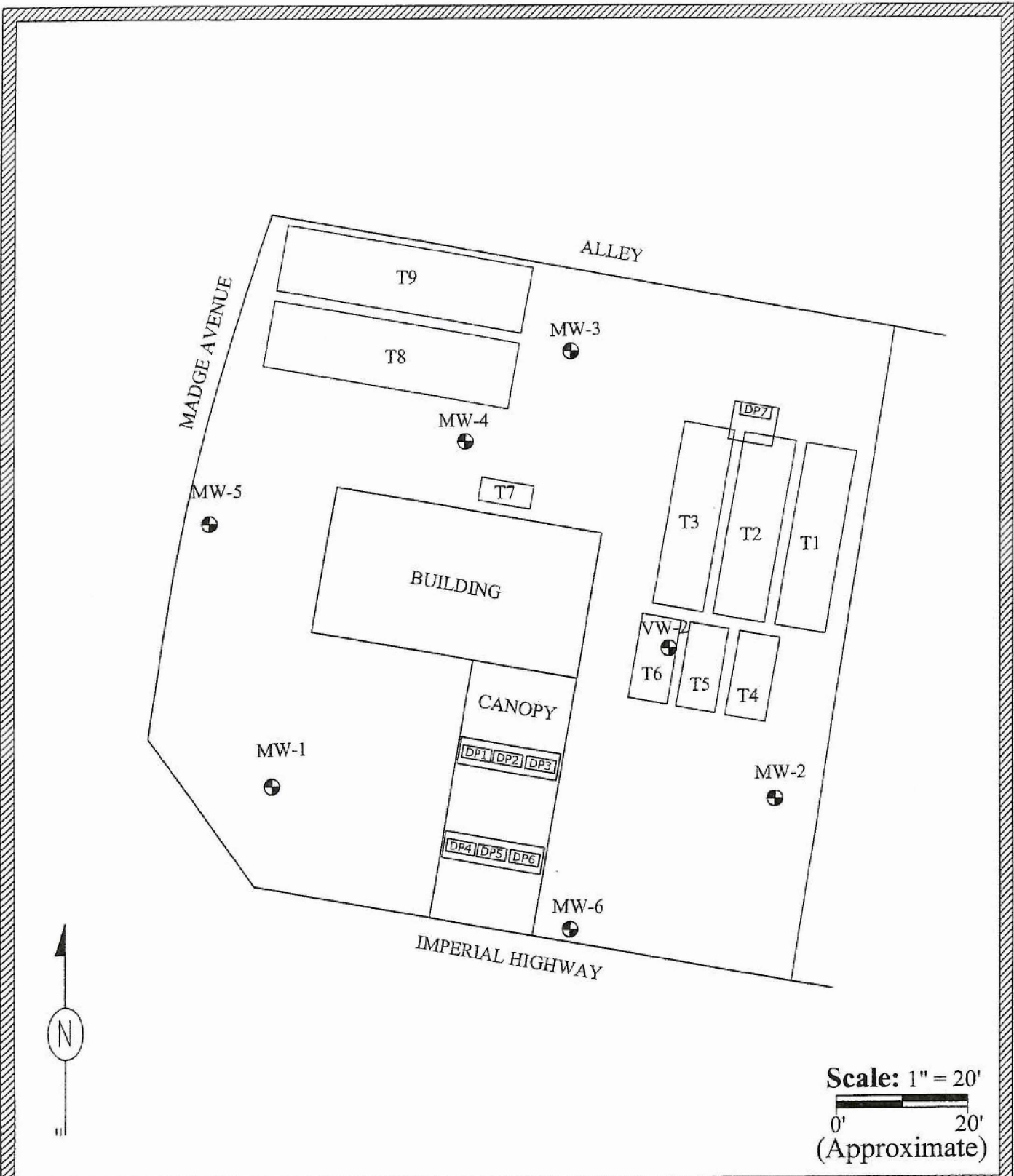
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**GEO-CAL, INC.**
Environmental & Geotechnical Engineering
4370 Hallmark Prkwy. Ste #101
San Bernardino CA 92407

Figure 1
Site Location Map

Jim's Smog Shop
5825 Imperial Highway
South Gate, Ca 90280



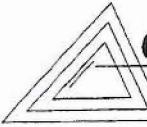

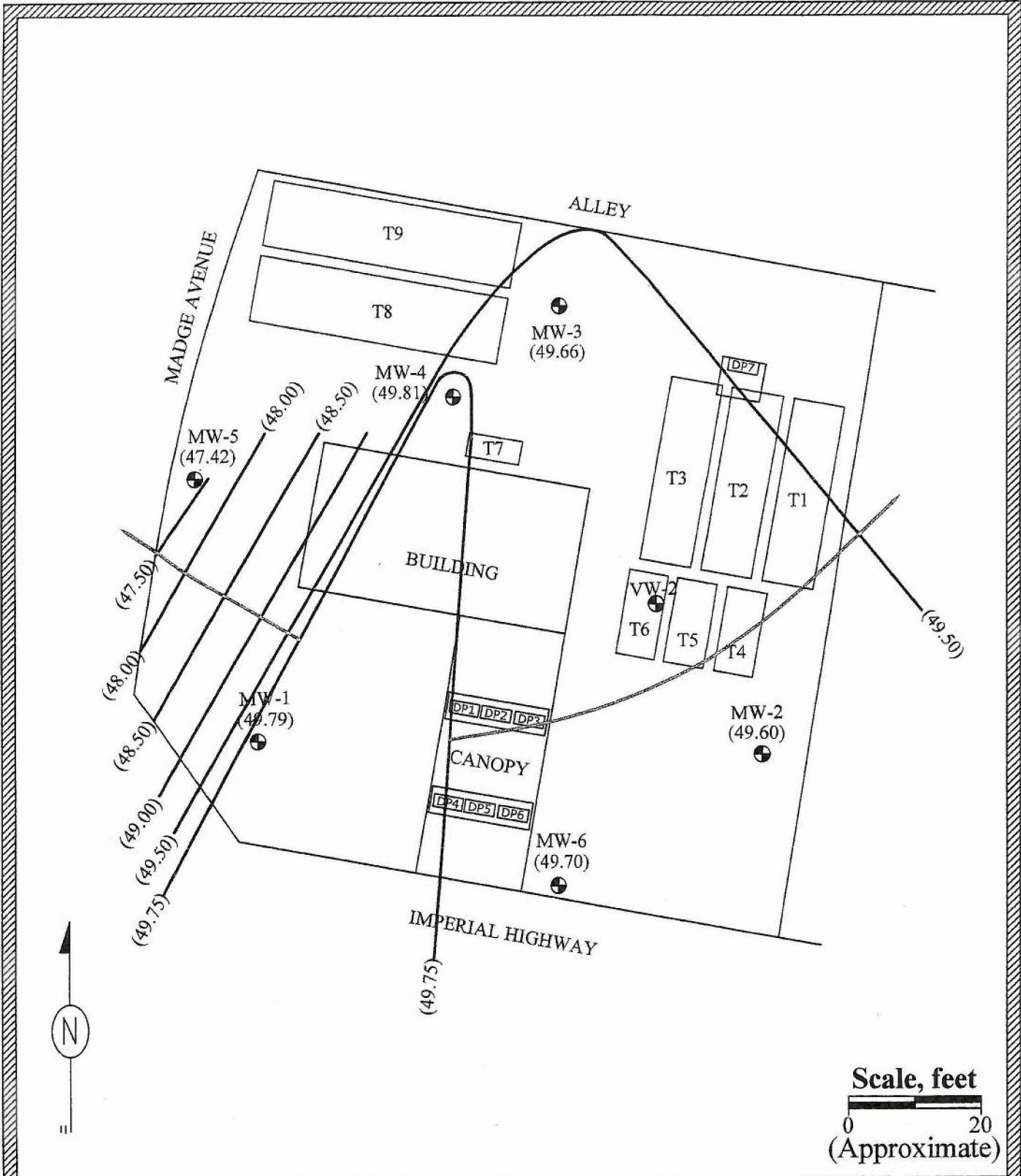

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Figure 2
 Site Plot Plan
 Jim's Smog Shop
 5825 Imperial Highway
 South Gate, Ca 90280

LEGEND:
 : Groundwater Monitoring Well






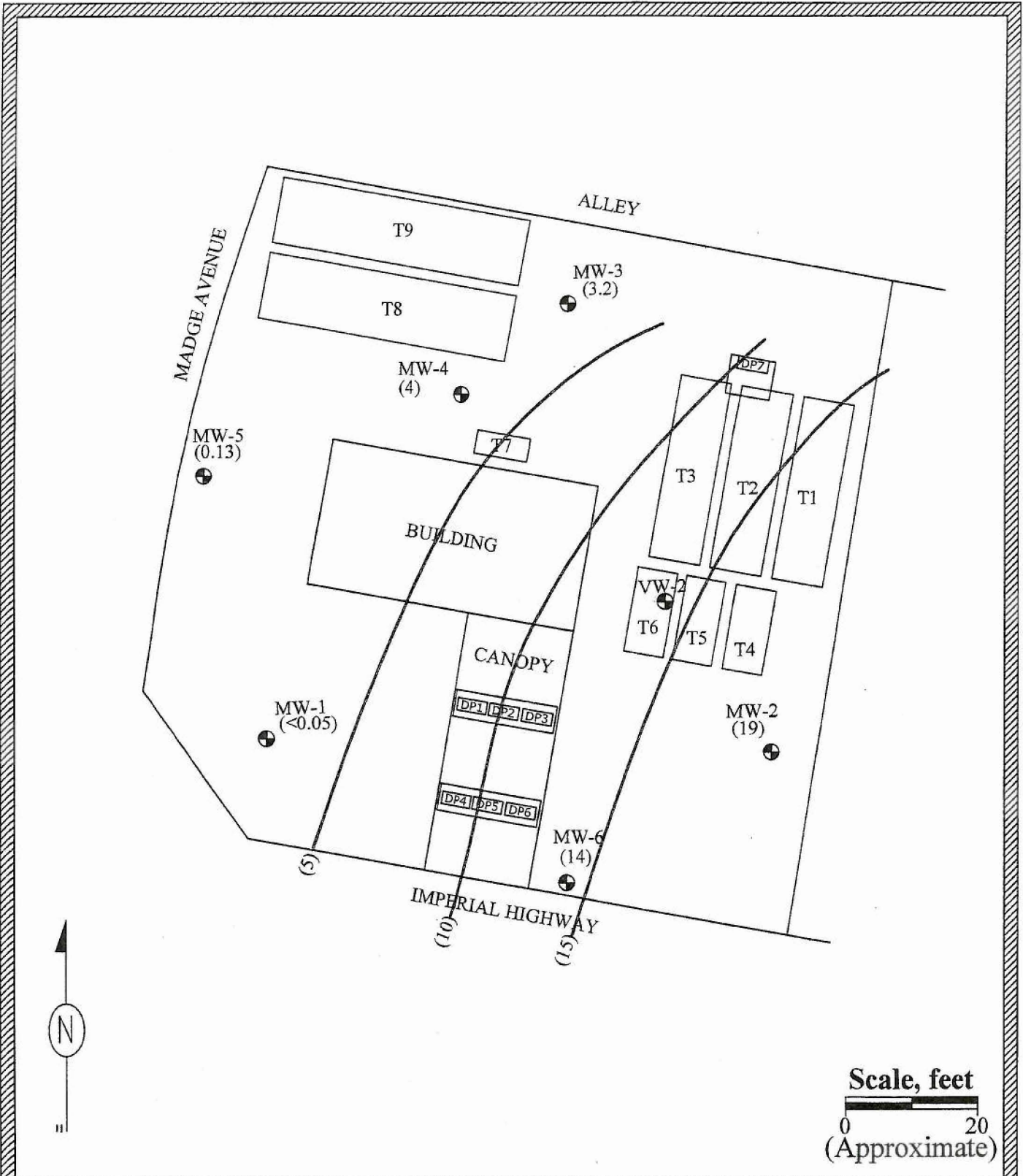

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Figure 3
 Groundwater Elevation
 Contour Map
 November 16, 2010
 Jim's Smog Shop
 5825 Imperial Highway
 South Gate, Ca 90280

LEGEND:
 : Groundwater Monitoring Well
 (49.50): Groundwater Elevation
 (feet, mean sea level datum)
 : Groundwater Flow Direction



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Figure 4
 TPHg Concentration Map
 November 16, 2010
 Jim's Smog Shop
 5825 Imperial Highway
 South Gate, Ca 90280

LEGEND:
 ● : Groundwater Monitoring Well
 (19) : TPHg Concentration (mg/L)
 ~ : Isoconcentration line

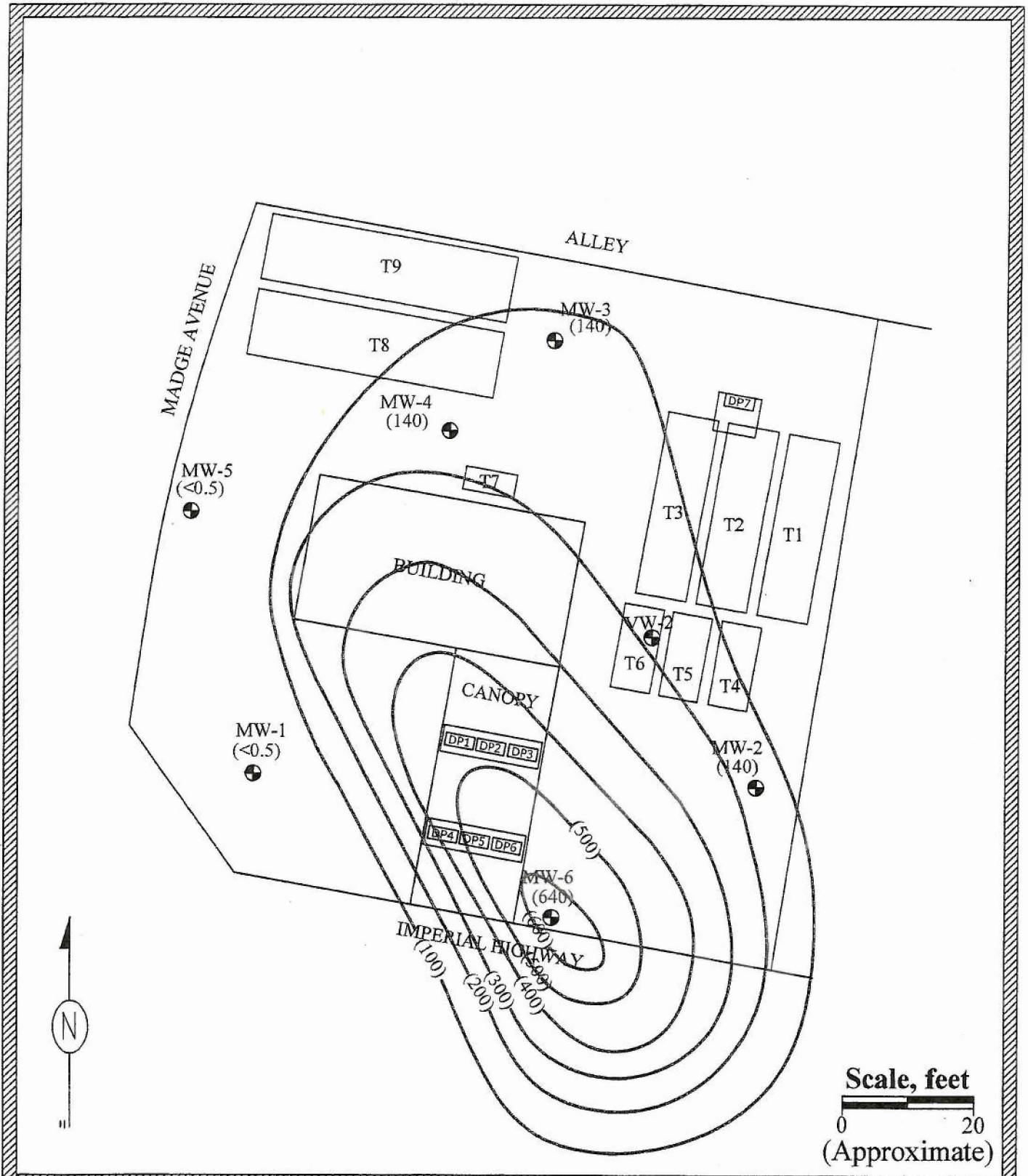


Figure 5
Benzene Concentration Map
November 16, 2010

Jim's Smog Shop
5825 Imperial Highway
South Gate, Ca 90280

LEGEND:

- ⊕ : Groundwater Monitoring Well
- (89) : Benzene Concentration (ug/L)
- ~ : Isoconcentration line

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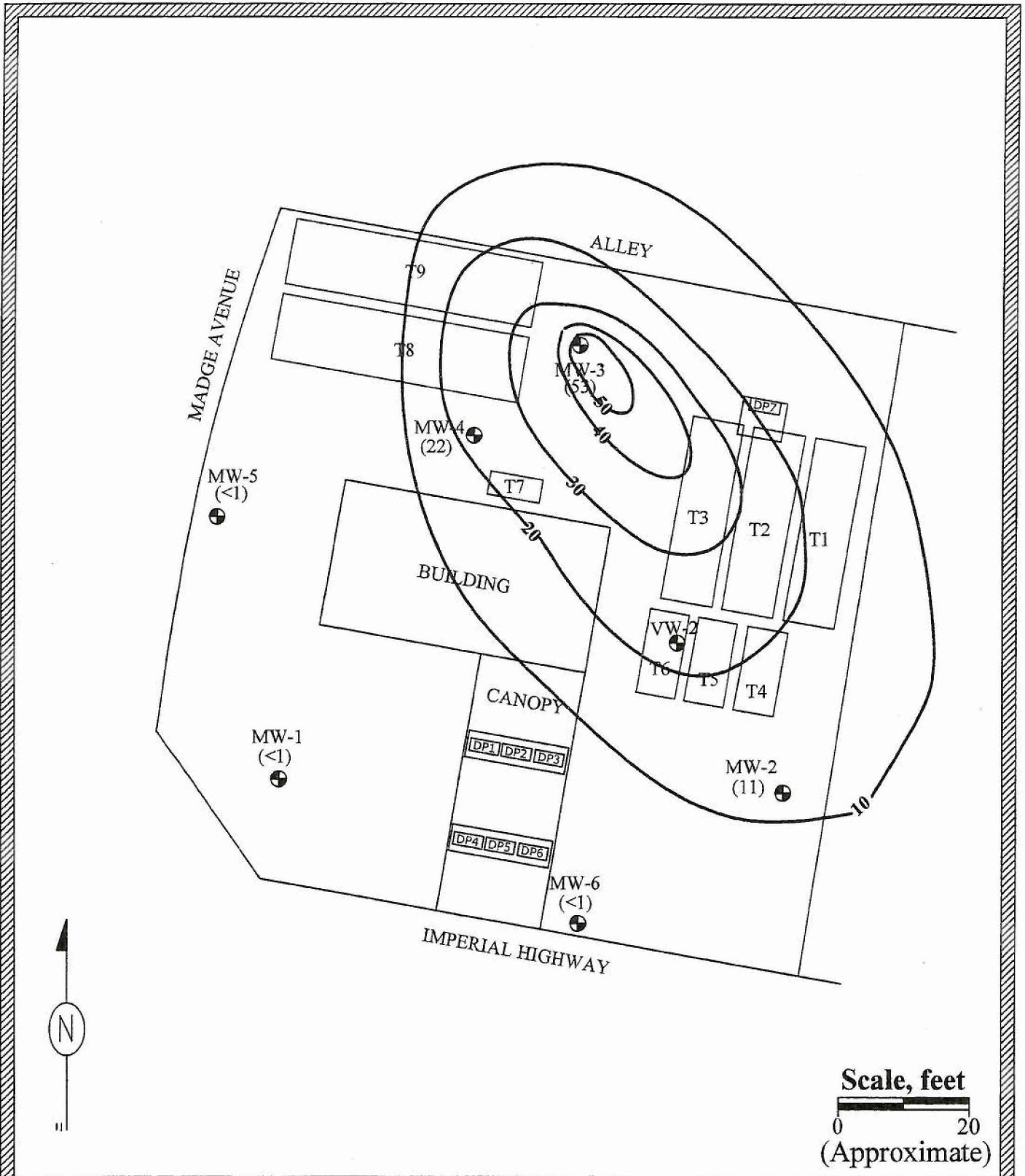
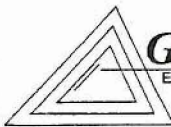


Figure 6
 MTBE Concentration Map
 November 16, 2010

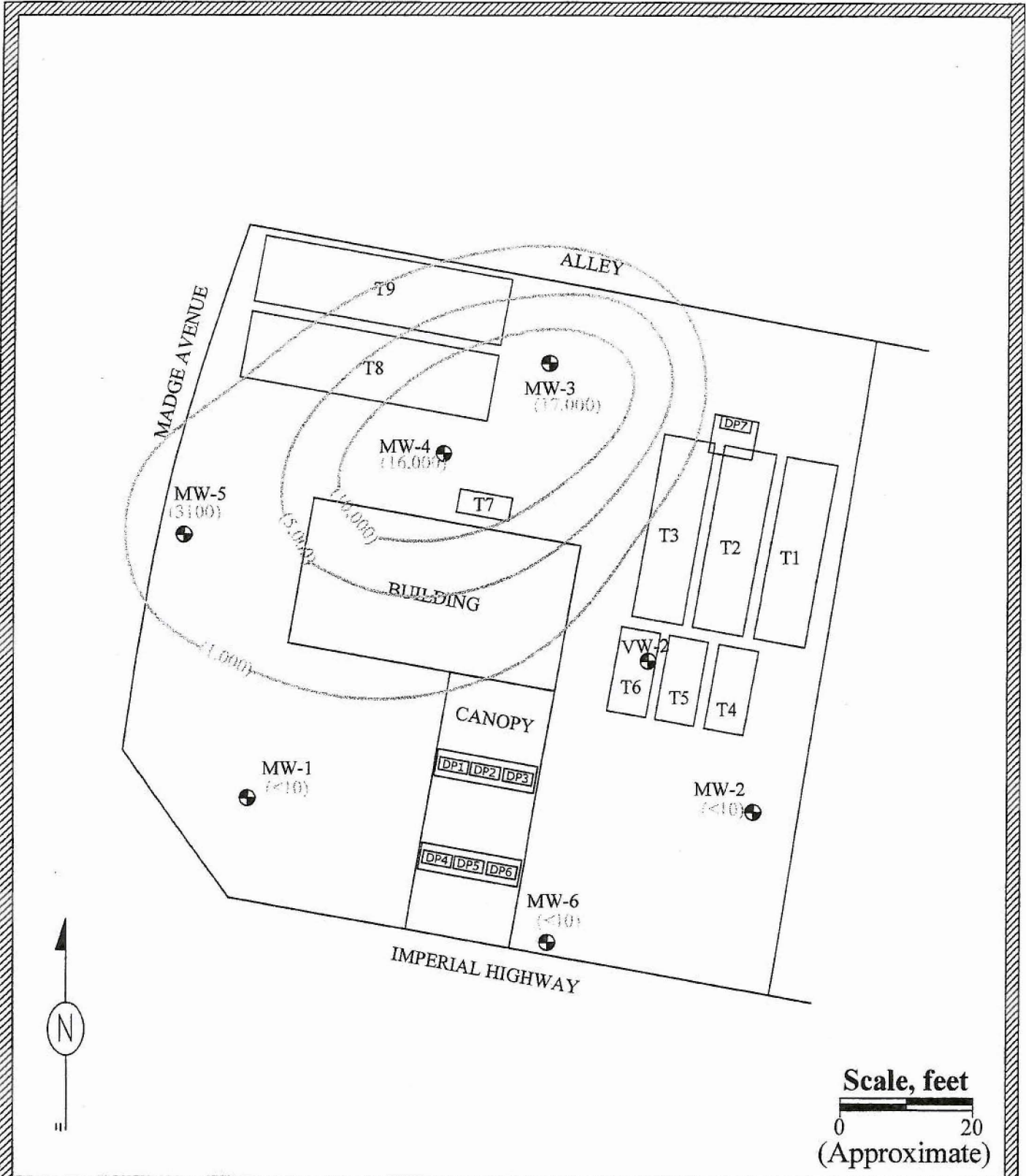
Jim's Smog Shop
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LEGEND:

- ⊕ : Groundwater Monitoring Well
- (60) : MTBE Concentration (ug/L)
- ~ : Isoconcentration line



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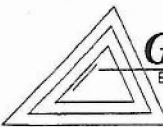

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Figure 7
 TBA Concentration Map
 November 16, 2010
 Jim's Smog Shop
 5825 Imperial Highway
 South Gate, Ca 90280

LEGEND:
 ⊕ : Groundwater Monitoring Well
 (21) : TBA Concentration (ug/L)
 --- : Isoconcentration line