

**STATE OF CALIFORNIA**  
**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**  
**LOS ANGELES REGION**  
**MONITORING AND REPORTING PROGRAM NO. CI-8940**  
**FOR**  
**FORMER FAST GAS #538, TARGET STORE T-290**  
**ENROLLMENT UNDER REGIONAL BOARD**  
**ORDER NO. R4-2005-0030**  
**SERIES NO. 019**

I. REPORTING REQUIREMENTS

- A. Tesoro Petroleum Companies, Inc. (hereinafter Dischargers) shall implement this monitoring program on the effective date of this enrollment (August 16, 2005) under Regional Board Order No. R4-2005-0030. The first monitoring report under this Program is due by October 15, 2005.

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

- 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. By January 30 of each year, beginning January 30, 2006, the Dischargers 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 Dischargers 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 Dischargers 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 for ozone, hydrogen peroxide, and oxygen
2. Written summary defining:
  - Depth of injection points;
  - Quantity of ozone, hydrogen peroxide, and oxygen injected per injection point; and
  - Total amount of ozone, hydrogen peroxide, and oxygen 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 (ozone, hydrogen peroxide, and oxygen). The following shall constitute the monitoring program for up-gradient wells MW-C and MW-D; source area wells EW-1, EW-2, EW-3, EW-4, MW-A, MW-F and MW-O; and down-gradient well MW-H. 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 Dischargers shall conduct baseline sampling from wells MW-C, MW-D, EW-1, EW-2, EW-3, EW-4, MW-A, MW-F, MW-O and MW-H two weeks prior to ozone, hydrogen peroxide, and oxygen solutions injections and regular sampling with the required frequencies for the following constituents:

<u>CONSTITUENT</u>	<u>UNITS</u> <sup>1</sup>	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
PH <sup>5</sup>	PH units	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Temperature <sup>5</sup>	<sup>0</sup> F	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Oxidation-reduction potential <sup>5</sup>	Milivolts	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Specific conductivity <sup>5</sup>	µmhos/cm	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Ferrous iron	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Dissolved Oxygen <sup>5</sup>	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
MTBE	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Tert-Butyl Alcohol (TBA)	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>

Di-isopropyl Ether (DIPE)	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Ethyl-t-Butyl Ether (ETBE)	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Tert-Amyl-Methyl Ether (TAME)	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Total Petroleum Hydrocarbons as gasoline (TPHg)	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
1,2,4-trimethylbenzene	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Benzene	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Ethylbenzene	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Toluene	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Total xylenes	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Formaldehyde	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Acetone	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Ethanol	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Methane	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Total organic carbon	µg/L	grab	Weekly <sup>2</sup> /Monthly <sup>3</sup> /Quarterly <sup>4</sup>
Total dissolved solids	mg/L	grab	Quarterly <sup>4</sup>
Sulfate	Mg/l	grab	Quarterly <sup>4</sup>
Chloride	mg/L	grab	Quarterly <sup>4</sup>
Boron	mg/L	grab	Quarterly <sup>4</sup>
Sodium	mg/L	grab	Quarterly <sup>4</sup>
Carbon dioxide	mg/L	grab	Quarterly <sup>4</sup>
Manganese	µg/L	grab	Quarterly <sup>4</sup>
Total iron	µg/L	grab	Quarterly <sup>4</sup>
Chromium (VI)	mg/L	grab	Quarterly <sup>6</sup>
Total Chromium	mg/L	grab	Quarterly <sup>6</sup>
Alkalinity	µg/L	grab	Quarterly <sup>4</sup>

<sup>1</sup> mg/L: milligrams per liter; µg/L: micrograms per liter; µmhos/cm: microohms per centimeter; °F: degree Fahrenheit.

<sup>2</sup> Weekly sampling events are required for the first two weeks from the injection date

<sup>3</sup> Monthly sampling events are required after the two weekly sampling events for a period of six months from the injection date.

<sup>4</sup> Quarterly sampling events are required after the first six months sampling events.

<sup>5</sup> Field instrument will be used to test for this constituent.

<sup>6</sup> One time sampling event is required for this constituent. If detected, quarterly monitoring is required from the same monitoring wells.

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.

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 Dischargers 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.

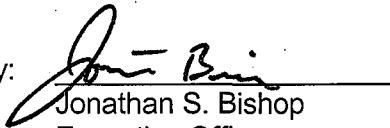
Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)

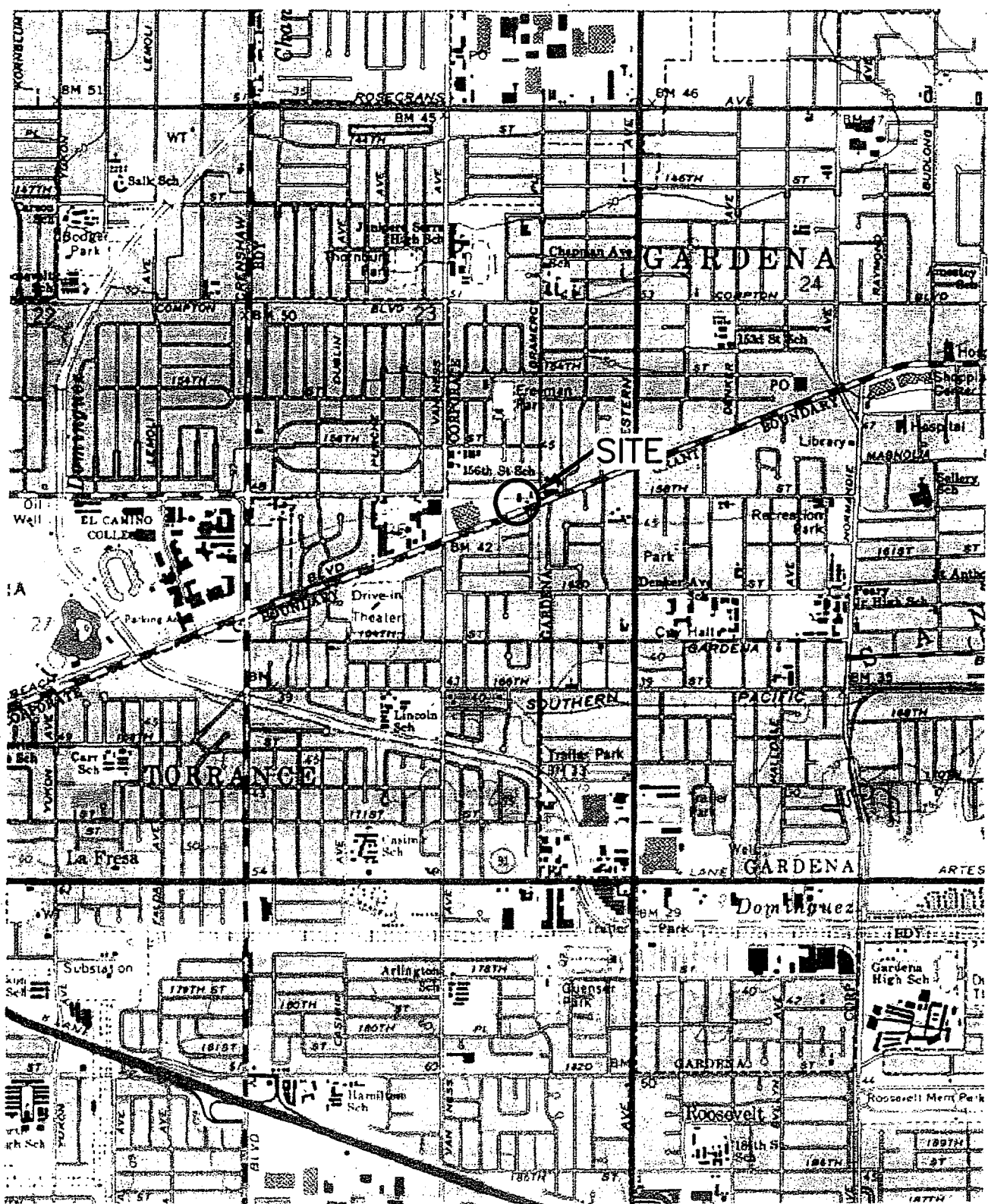
\_\_\_\_\_  
(Title)"

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 Dischargers, will be treated as confidential.

Ordered by:

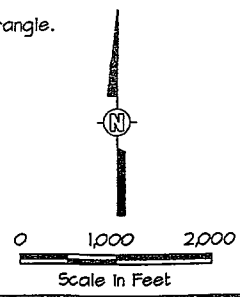
  
Jonathan S. Bishop  
Executive Officer

Date: August 16, 2005



4/6/2004 1:36 PM 01GA2A0600.dwg

Reference  
 7.5-minute USGS topographic Map of Inglewood, California quadrangle.  
 Date 1978, photorevised 1981  
 Scale = 1:24,000



ORION ENVIRONMENTAL INC.			
TESORO - GARDENA			
SITE LOCATION MAP			
PROJECT NO. OIGAR	DRAWN BY MY	CHECKED BY MC	APPROVED BY JPG
FILE NO. 01GA2A0600.DWG		FIGURE 1	

TPHg	56
Benzene	ND<0.5
MTBE	ND<0.5

MW-H  
(17.75)

MW-K  
(17.93)

157th Street

Sidewalk

TPHg	3,300
Benzene	96
MTBE	150

EW-2  
(18.01)

Treatment Compound

TPHg	2,400
Benzene	34
MTBE	17

Shopping Center

TPHg	36,000
Benzene	2,000
MTBE	3,100

Apparent Property Boundary

TPHg	130
Benzene	2
MTBE	130

TPHg	36,000
Benzene	2,500
MTBE	280

Shopping Center

TPHg	56,000
Benzene	4,900
MTBE	10,000

TPHg	18,000
Benzene	1,600
MTBE	1,700

TPHg	600
Benzene	38
MTBE	210

Target Store  
Parking Lot

Groundwater Gradient ↑

MW-I  
(18.76)

TPHg	16,000
Benzene	980
MTBE	240

MW-L  
(18.67)

EW-1  
(19.01)

TPHg	570
Benzene	9
MTBE	5

MW-E/EW-4  
(18.97)

MW-A  
(19.09)

MW-B  
(19.19)

MW-D  
(19.26)

MW-C  
(19.29)

TPHg	4,200
Benzene	110
MTBE	ND<1.0

TPHg	12,000
Benzene	190
MTBE	160

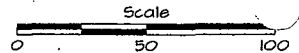
TPHg	ND<50
Benzene	ND<0.5
MTBE	ND<0.5

Sidewalk

Driveway

Redondo Beach Blvd

- Legend**
- MW-L (18.67) Groundwater Monitoring Well and Groundwater Elevation on 19 and 21 October 2004
  - EW-2 (18.01) Extraction Well and Groundwater Elevation on 19 and 21 October 2004
  - TPHg 12,000 Total Petroleum Hydrocarbons as Gasoline in  $\mu\text{g/l}$  as Analyzed Using EPA Method 8260B
  - Benzene 190 Benzene in  $\mu\text{g/l}$  as Analyzed Using EPA Method 8021 or 8260B
  - MTBE 160 Methyl Tert-butyl Ether in  $\mu\text{g/l}$  as Analyzed Using EPA Method 8021 or 8260B
  - ND Not Detected at the Reporting Limit Listed
  - 1,000 MTBE Concentration Contour ( $\mu\text{g/l}$ )
  - tbd To Be Determined

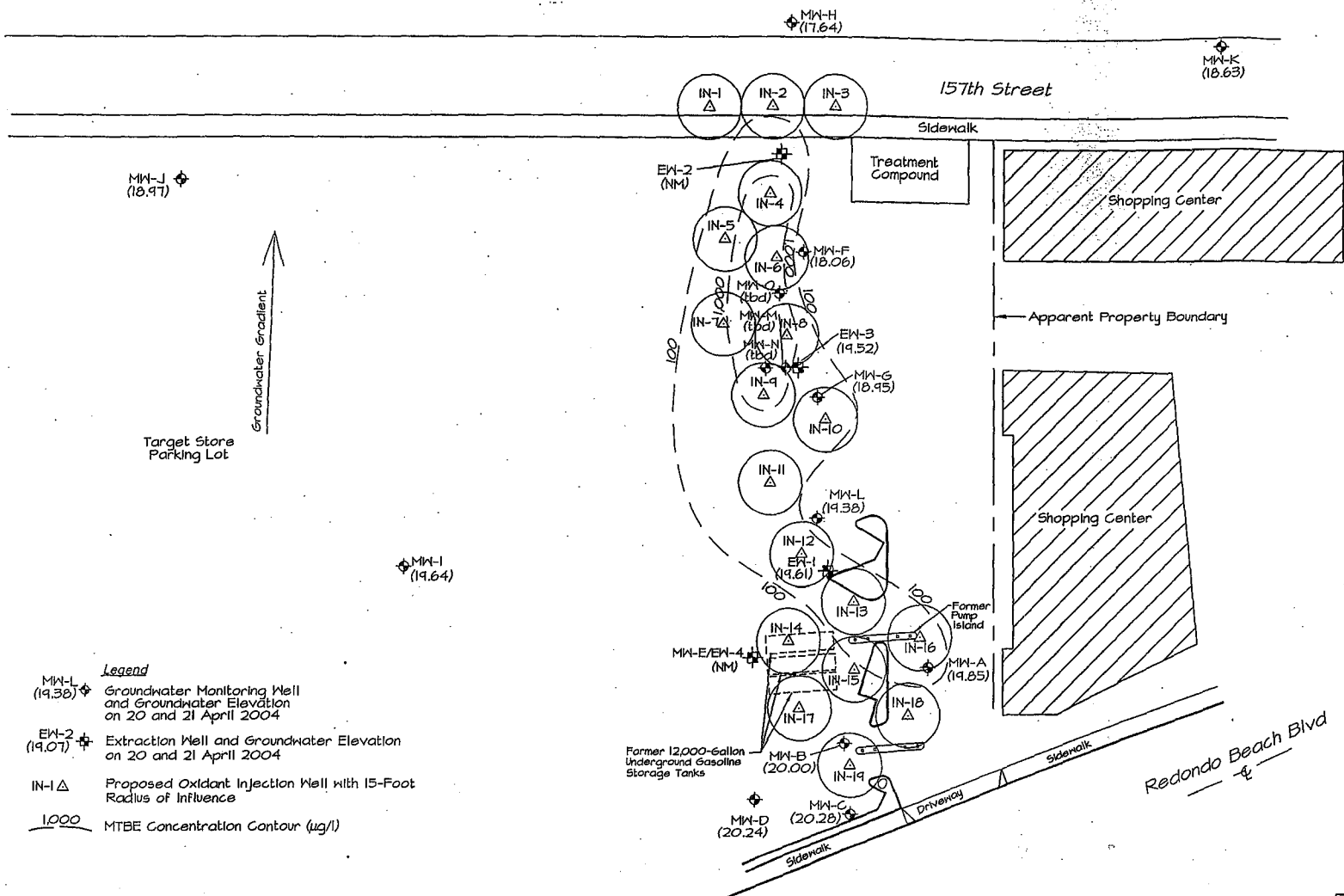


NO.	BY	DATE	DESCRIPTION
20	MY	10/15/03	Third Quarter 2003 6M Monitoring
21	MY	1/15/04	Fourth Quarter 2003 6M Monitoring
22	MY	4/15/04	First Quarter 2004 6M Monitoring
23	MY	7/15/04	Second Quarter 2004 6M Monitoring
24	MY	10/15/04	Third Quarter 2004 6M Monitoring
25	MY	1/15/05	Fourth Quarter 2004 6M Monitoring

ORION ENVIRONMENTAL INC.			
TESORO - GARDENA			
<b>SITE PLAN AND MTBE ISOCONCENTRATION CONTOURS</b>			
PROJECT NO. OIGAR	DRAWN BY MY	CHECKED BY JB	APPROVED BY JPG
FILE NO. OIGA2A0425.DWG			FIGURE 2

016A2A0900.dwg

10/14/2004 6:27 AM



- Legend**
- MN-L (19.38) ◆ Groundwater Monitoring Well and Groundwater Elevation on 20 and 21 April 2004
  - EX-2 (19.07) ◆ Extraction Well and Groundwater Elevation on 20 and 21 April 2004
  - IN-1 △ Proposed Oxidant Injection Well with 15-Foot Radius of Influence
  - 1,000 MTBE Concentration Contour (µg/l)

REVISION	NO.	BY	DATE	DESCRIPTION
0			9/18/04	Remedial Action Plan

ORION ENVIRONMENTAL INC.			
TESORO - GARDENA			
PROPOSED OXIDANT INJECTION WELL LOCATIONS			
PROJECT NO. 016A2A	DRAWN BY MY	CHECKED BY HT	APPROVED BY JPG
FILE NO. 016A2A0900.DWG			FIGURE 3