

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

**REVISED MONITORING AND REPORTING PROGRAM NO. CI- 8566
FOR
BOEING REALTY CORPORATION - FORMER C-1 FACILITY
LONG BEACH, CALIFORNIA
(CLEANUP AND ABATEMENT ORDER 95-048, FILE NO. 95-034)
ORDER NO. R4-2003-0051**

The Discharger shall implement this monitoring and reporting program on the effective date of this Order.

I. GROUNDWATER MONITORING PROGRAM

A. BUILDING 1D

In Building 1D Area the following three categories of groundwater wells will be included in revised monitoring and reporting program.

Group A well: Injection wells IW0254 and IW0257 (Figure 1).

Group B wells: Monitor wells MW2036, MW2039, and MW2040 (Figure 1).

Group C wells: Monitor wells MW2030, MW2035, MW2037, and MW2038 (Figure 1).

The required constituents to be analyzed and the monitoring schedule for each well group for Building 1D are shown in the table below.

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLE LOCATIONS</u>	<u>FREQUENCY</u>
Volatile Fatty Acids ^(a)	mg/l	grab	Group B and C Wells	Baseline ⁽¹⁾
			Group A and B Wells	Post Injection ⁽²⁾
			Group A and B Wells	Annually
			Group C Wells	Biannually
DHC Assay ^(b)	N/A	grab	Group A, B and C Wells	Baseline ⁽¹⁾
			Group B Wells	Post Injection ⁽²⁾
			Group B Wells	Annually
			Group A and C Wells	Biannually

FOOTNOTES

(a) Volatile Fatty Acids include: acetate, butyrate, lactate and propionate.

(b) DHC Assay to determine presence of Dehalococcoides Ethenogenes (DHE).

- (1) Baseline sampling for Group B wells will only include MW2036 as MW2039, and MW2040 will not be installed until after injection has been completed. Baseline sampling will occur after wells installed prior to amendment injection.
- (2) Post injection sampling will also include MW2030, a Group C well that will not be installed at the time of baseline sampling. The post injection sampling will occur not less than 2 or more than 4 weeks post amendment injection.

B. BUILDING 3

All monitoring and reporting requirements related to the injection activities for the Building 3 area have been completed. No additional monitoring and reporting related to this permit is required.

C. BUILDING 14

In the Building 14 area, the following three categories of wells will be included in the modified monitoring and reporting program.

Group A wells: Injection wells IW0219 and IW0223 (Figure 2).

Group B wells: Performance monitoring well in treatment area MW1052 (Figure 2).

Group C wells: Other Monitor wells; two existing wells MW2001 and MW1059, two wells installed pre-injection MW2093 and MW2094 (C¹ Wells) and one well installed to the Middle Bellflower Aquitard (MBA) post injection MW2092 (C² Wells) (Figure 2).

Group D wells: Monitor wells (installed post injection) MW2095 and MW2091 (Figure 2).

The required constituents to be analyzed and the monitoring schedule for each well group for Building 14 are shown in the table below.

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLE LOCATIONS</u>	<u>FREQUENCY</u>
Volatile Fatty Acids ^(a)	mg/l	grab	Group B and C ¹ Wells	Baseline
			Group A, B, C ² and D Wells	Post Injection
			Group A, B and D Wells	Annually
			Group C Wells	Biannually
DHC Assay ^(b)	N/A	grab	Group A, B and C ¹ Wells	Baseline
			Group C ² and D Wells	Post Injection
			Group B and D Wells	Annually
			Group A and C Wells	Biannually

FOOTNOTES

(a) Volatile Fatty Acids include: acetate, butyrate, lactate and propionate.

(b) DHC Assay to determine presence of Dehalococcoides Ethenogenes (DHE).

D. BUILDING 36

In the Building 36 area, the following two groups of groundwater wells will be included in the modified monitoring and reporting program.

Group A wells: Monitor wells MW1069 and MW2083 to 2087 (Figure 3).

Group B wells: Monitor wells MW-1070, MW-2088 and MW-2089 (Figure 3).

The required constituents to be analyzed and the monitoring schedule for each well group for Building 36 are shown in the table below.

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLE LOCATIONS</u>	<u>FREQUENCY</u>
Volatile Fatty Acids ^(a)	mg/l	grab	Group A and B	Final Event July 2005
DHC Assay ^(b)	N/A	grab	Group A and B	Final Event July 2005

FOOTNOTES

(a) Volatile Fatty Acids include: acetate, butyrate, lactate and propionate.

(b) DHC Assay to determine presence of Dehalococcoides Ethenogenes (DHE).

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.

AMENDMENT INJECTION MONITORING REQUIREMENTS

The reports shall contain the following information regarding injection activities:

1. Depth of injection points;
2. Quantity, type, and concentration of amendment injected and dates injected;
3. Total amount of amendment injected.

II. REPORTING REQUIREMENTS

The Discharger shall submit Reports detailing the results of the remediation. The reports should include an evaluation of the effectiveness of using the amendment and KB-1 solution to remediate VOC-contaminated groundwater at the Site, the impact of any by-products on the receiving groundwater quality, and any other effects the in-situ treatment may have. This monitoring and reporting program supercedes previous requirements stated in work plan approval letters. The reports will be submitted in accordance with the following schedule:

Report	Report Due Date
Building 1D Annual Progress Report	October 31, 2006
	October 31, 2007
Building 1D Final Status Report	June 30, 2008
Building 14 Annual Progress Report	April 28, 2006
	April 30, 2007
Building 14 Final Status Report	June 30, 2008
Building 36 Final Pilot Test Report	January 31, 2006

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.

III. 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)"

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.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by: _____
Jonathan Bishop
Executive Officer

Date: June 22, 2005