

California Regional Water Quality Control Board
North Coast Region

Revised Monitoring and Reporting Program No. R1-2003-0107

for

Unocal Bulk Plant #0220
720 North Franklin Street
Fort Bragg, California

Mendocino County

MONITORING

1. The depth to groundwater in all monitoring wells shall be determined to at least 0.01 foot increments quarterly. The results shall be reported in tabular form indicating the surveyed elevation of each well reference point, depth to groundwater from the reference point, and the actual groundwater elevation. The data generated from the elevation readings must be referenced to mean sea level.
2. Groundwater in each monitoring well shall be monitored quarterly for dissolved oxygen, dissolved carbon dioxide, oxidation-reduction potential, pH, temperature, and conductivity.
3. Headspace in each monitoring well shall be monitored quarterly using field instruments to measure percent oxygen, percent carbon dioxide, and organic vapor.
4. Groundwater in each monitoring well shall be sampled according to Table 1 (Attached). The analyses shall be performed by a state certified laboratory for total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), benzene, toluene, ethylbenzene, xylene (collectively identified as BTEX), methyl tertiary butyl ether (MTBE), dissolved methane, dissolved iron, dissolved manganese, nitrate, and sulfate (collectively identified as ADDITIONAL).

REPORTING

1. The following maps shall be submitted with each quarterly monitoring report:
 - a. A map of the facility showing the quarterly groundwater flow pattern, including the direction of the groundwater gradient and the location of all monitoring wells, and
 - b. A map of the facility showing the quarterly chemical concentrations.
2. The results of each quarter's elevation shall be reported in a tabular form indicating the surveyed elevations of each reference point, depth to groundwater from the reference point, and the actual groundwater elevation.

3. Sampling analytical and monitoring data from each quarter shall be summarized in tabular form, including all previously generated sampling data.
4. Monitoring reports shall be submitted to the Regional Water Board at a quarterly frequency. Monitoring reports shall be prepared by or under the supervision of a California Registered Engineer or Geologist. Monitoring reports shall be submitted to this office in accordance with the following schedule:

<u>Reporting Period</u>	<u>Due Date</u>
January, February, March (1 st Quarter)	April 15
April, May, June (2 nd Quarter)	July 15
July, August, September (3 rd Quarter)	October 15
October, November, December (4 th Quarter)	January 15

5. All monitoring reports, data, and depth to groundwater shall also be submitted electronically to the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as required by Title 23, Division 3, Chapter 16, Article 12 of the California Code of Regulations (i.e., AB2886 electronic reporting requirements)¹
6. An annual report shall be submitted to the Regional Water Board by January 15 of each year. The annual report serves as a document to evaluate data generated throughout each calendar year. This report needs to include a full evaluation of all data generated throughout the year, including concentration trend evaluation for all analyses performed, evaluation of all indicator parameters in terms of remedial effectiveness, conditions of the remedial system, and an overall evaluation of the effectiveness of the active remedial system.
7. The annual report shall also include all maintenance and operations records for the entire year. Records should include date of inspections, parameters measured, summary of visual observations made, and changes made to the operating system.

Ordered by

Catherine Kuhlman
Executive Officer

May 3, 2005

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¹ Information on AB2886 electronic reporting can be obtained on the Internet by following the Electronic Submittal of Information link on the GeoTracker home page at <http://geotracker.waterboards.ca.gov/>.

Table 1

Well ID	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
MW-1	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-2	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-3	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-4	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d, BTEX, MTBE	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d, BTEX, MTBE
MW-5	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-6	TPH-g, TPH-d, BTEX, MTBE			
MW-7	TPH-g, TPH-d, BTEX, MTBE			
MW-8	TPH-g, TPH-d, BTEX, MTBE	TPH-g, TPH-d	TPH-g, TPH-d, BTEX, MTBE	TPH-g, TPH-d
MW-9	TPH-g, TPH-d, BTEX, MTBE			
MW-10	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL		TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	
MW-11	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d
MW-12	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL		TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	