CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM No. R5-2007-0829
CALIFORNIA WATER CODE SECTION 13267
FOR

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
BULK FUEL TERMINAL # 1001621
BANTA, SAN JOAQUIN COUNTY

Chevron Environmental Management Company (Discharger) owns and operates a bulk fuel terminal at 22888 South Kasson Road in Banta (site). The active fuel terminal has nine aboveground fuel storage tanks, tank-truck loading racks, above and below ground piping, an office building, and other structures used for storage. Operations at the terminal resulted in petroleum hydrocarbon pollution of soil and groundwater. This pollution impaired the beneficial use of this water resource. Depth to first encountered groundwater is about six feet below ground surface. There are two water bearing zones identified as A and B. The A water bearing zone is divided into the upper A zone (UA) and the lower A zone (A). The groundwater is polluted with both separate and dissolved phase petroleum hydrocarbons.

This Monitoring and Reporting Program (MRP) is issued pursuant to Section 13267 of the California Water Code and is necessary to delineate groundwater pollutant plumes and determine whether remediation efforts are effective. Existing data and information about the site show the presence of various chemicals, including total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and tertiary amyl methyl ether (TAME) emanating from the property due to the Discharger's past operations. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. This MRP replaces the requirements listed in MRP No. R5-2002-0806, which was issued on 26 March 2002 and is hereby rescinded.

Prior to construction of any new groundwater monitoring or extraction wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the monitoring program and shall be sampled and analyzed according to the schedule below.

GROUNDWATER MONITORING

As shown on Site Plan (attached), there are 39 monitoring wells, one extraction well, one water supply well, and nine former ISO-GEN system wells. The groundwater monitoring program for the 50 wells, and any wells installed subsequent to the issuance of this MRP, shall follow the schedule in Table 1 (attached). Wells with free phase petroleum product or visible sheen shall be monitored for product thickness and depth to water only. Sample collection and analysis shall follow standard EPA protocol.

REPORTING

When reporting data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with this Order. In addition, the Discharger shall notify the Board within 48 hours of any unscheduled shutdown of any soil vapor and/or groundwater extraction system.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.

Quarterly electronic data reports, which conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30, shall be submitted electronically over the internet to the Geotracker database system by the **1st day of the second month following the end of each calendar quarter (i.e., by 1 February, 1 May, 1 August, and 1 November**), until such time as the Executive Officer determines that the reports are no longer necessary.

Quarterly reports shall be submitted to the Board by the **1st day of the second month following the end of each calendar quarter (i.e., by 1 February, 1 May, 1 August, and 1 November**) until such time as the Executive Officer determines that the reports are no longer necessary. Each quarterly report is to include the following minimum information:

(a) a description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume(s) is delineated;

(b) field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.;

(c) groundwater contour maps for all groundwater zones, if applicable;

(d) isocontour pollutant concentration maps for all groundwater zones, if applicable;

(e) a table showing well construction details such as well number, groundwater zone being monitored, coordinates (longitude and latitude), ground surface elevation, reference elevation, elevation of screen, elevation of bentonite, elevation of filter pack, and elevation of well bottom;

(f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;

(g) cumulative data tables containing the water quality analytical results and depth to groundwater;

(h) a copy of the laboratory analytical data report;

(i) if applicable, the status of any ongoing remediation, including cumulative information on the mass of pollutant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system; and

(j) if applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions.

An Annual Report shall be submitted to the Board by **1 February** of each year. This report shall contain an evaluation of the effectiveness and progress of the investigation and remediation, and may be substituted for the fourth quarter monitoring report. The Annual Report shall contain the following minimum information:

(a) both tabular and graphical summaries of all data obtained during the year;

(b) groundwater contour maps and pollutant concentration maps containing all data obtained during the previous year;

(c) a discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells;

(d) an analysis of whether the pollutant plume is being captured by an extraction system or is continuing to spread;

(e) a description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the pollutants, and plans to improve remediation system effectiveness;

(f) an identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;

(g) if desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.

The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Board. The Discharger shall implement the above monitoring program as of the date of the Order.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

_____
(27 November 2007)

TABLE 1
Monitoring and Reporting Program No. R5-2007-0829
CHEVRON BULK FUEL TERMINAL # 1001621
BANTA, SAN JOAQUIN COUNTY

		Constituents	TPHg	TPHd	BTEX	MTBE	TBA	TAME
		EPA Method	8015M	8015M	8020 or 8260B	8260B	8260B	8260B
		Practical Quantitation Limit (ug/L)[4]	50	50	0.5	0.5	5	0.5
Sampling Frequncy[1]	Well							
Quarterly	MW-22B			x		x		
	MW-23B			x		x		
	MW-24A		x	x	x	x	x	x
	MW-25A		x	x	x	x	x	x
	MW-26A		x	x	x	x	x	x
	MW-27A		x	x	x	x	x	x
	MW-28A		x	x	x	x	x	x
	MW-29A		x	x	x	x	x	x
	MW-30A		x	x	x	x	x	x
	MW-31A		x	x	x	x	x	x
	MW-32A		x	x	x	x	x	x
	MW-47A		x	x		x	x	x
	MW-50A		x	x		x	x	x
	MW-50B			x		x		
	MW-51A		x	x		x		
	New Wells		x	x	x	x	x	x
Semi-Annually[2]	MW-1UA		x	x	x	x	x	x
	MW-3UA		x	x	x	x	x	x
	MW-5A		x	x	x	x	x	x
	MW-6A		x	x	x	x	x	
	MW-7A		x	x	x	x	x	
	MW-12B			x		x		
	MW-13B			x		x		
	MW-34UA			x				
	MW-35UA			x				
	MW-36UA		x	x		x		
	MW-37UA		x	x		x	x	
	MW-38UA		x	x	x	x	x	x
	MW-39UA		x	x		x	x	
	MW-40UA		x	x		x		
	MW-41UA		x	x		x		
	MW-42UA		x	x				
	MW-43A			x				
	MW-44A		x	x	x	x	x	
	MW-45A			x		x	x	
	MW-46A			x				
	MW-49A		x	x	x	x	x	x
	MW-52A			x		x		
	MW-54A			x		x		
	MW-55A			x				
	MW-61UA		x	x				
	MW-62UA		x	x	x	x		
	MW-63A			x				
	MW-64B			x		x		
	MW-65A		x	x		x	x	
	MW-65B[5]		x	x	x	x	x	x
	MW-67UA		x	x	x	x	x	x
	MW-68A		x	x	x	x	x	x
	MW-69UA		x	x	x	x	x	x
	EW-1		x	x	x	x	x	x
	WSW-1		x	x	x	x	x	x
Annually[3]	MW-50B		x	x	x	x	x	x
	MW-65B			x		x		

[1] All wells shall be monitored quarterly for water levels.
[2] Wells shall be sampled semi-annually during the first and third quarters.
[3] Wells shall be sampled annually during the third quarter.
[4] For nondetectable results.
[5] Constituents sampled only during first quarter.

TPHg - Total petroleum hydrocarbons as gasoline
TPHd - Total petroleum hydrocarbons as diesel
BTEX - Benzene, toluene, ethylbenzene, and total xylenes
MTBE - Methyl tertiary butyl ether
TBA - Tertiary butyl alcohol
TAME - Tertiary amyl methyl ether
(ug/L) - Micrograms per liter