California Regional Water Quality Control Board
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2011-0044
(Replaces Monitoring and Reporting Program No. R1-2009-0112)

FOR

DONALDSON PROPERTY
3015 COFFEY LANE
SANTA ROSA, CALIFORNIA

CASE NO. 1TSR027

Sonoma County

GROUNDWATER MONITORING

1. Prior to purging, each monitoring well to be sampled shall be checked for the presence or absence of free product. The thickness of the product shall be measured to the nearest 0.01 foot.

2. Prior to purging, the depth to groundwater shall be determined to at least 0.01 foot increments in all groundwater monitoring wells semiannually during first and third quarter groundwater monitoring events. The data generated from the elevation readings must be referenced to the same elevation datum used for the electronic GeoTracker survey values.

3. Groundwater samples from groundwater monitoring wells AR-1, MW-1, MW-4, MW-5R, MW-8, MW-9 and MW-10 shall be collected and analyzed semiannually, during first and third quarter groundwater monitoring events, for the following constituents:

   a. Total Petroleum Hydrocarbons measured as gasoline and as diesel;
   b. Benzene, toluene, ethyl benzene, and xylenes;
   c. Fuel oxygenates: methyl tert-butyl and tert-butyl alcohol; and
   d. Naphthalene

   EPA method 8260 shall be used for analysis of the fuel oxygenates and naphthalene.

4. Groundwater samples from monitoring wells AR-4, MW-5R and MW-8 will be used to monitor the ozone remediation system. Groundwater samples shall be collected prior to the beginning of ozone injection, 30 days after system restart, and quarterly thereafter for analysis of the following parameters:

   a. Bromide and bromate;
   b. Dissolved metals: chromium, hexavalent chromium, iron, arsenic, uranium, selenium and;

c. Dissolved carbon dioxide (CO_2), total dissolved solids (TDS) and chemical oxygen demand (COD).

The laboratory reporting limit for hexavalent chromium should be no higher than 5 µg/L and the laboratory reporting limit for bromate should be no higher than 1 µg/L. Dissolved oxygen, Oxidation Reduction Potential (ORP), temperature, and pH shall be measured in the field prior to or during purging.

5. All laboratory analyses shall be performed at a laboratory certified by the California Department of Health Services.

6. Analytical methods for sample analyses shall achieve minimum detection levels that are adequate for evaluating regulatory action levels for each constituent.

REPORTING

1. Semi-annual monitoring reports shall be submitted to this office in accordance with the following schedule:

Reporting Period	**Due Date**
January, February, March	May 1
July, August, September	November 1

2. A groundwater elevation contour map shall be included for each set of measurements and shall include the following:

   a. location of the facilities;
   b. location of the monitoring wells;
   c. location of the former underground tanks; and
   d. groundwater flow pattern including the direction of the groundwater gradient.

3. A contamination isogram map shall be included for each significant pollutant detected during the monitoring events and shall include the following:

   a. location of the facilities;
   b. location of the monitoring wells; and
   c. location of the former underground tanks.

4. Current and previous analytical results shall be reported in tables which include the following:

   a. sampling point;
   b. date of sample collection;
   c. constituents and analytical results; and
   d. quantification limits employed for non-detect analytical results.

5. All current and previous remedial system operation and maintenance activities shall be reported in the monitoring reports.

6. Each monitoring report shall contain copies of the well purging and sampling field logs; chain of custody (COC) documents showing the time and date of collection and person collecting; and signed laboratory sheets including quality control data and explanations of analytical anomalies, if any. These supporting documents may be included as appendices to the report. Filtration and preservation of groundwater samples for dissolved metals analysis shall be described on either the COC, sampling field log, or in the body of each monitoring report.

7. The concentration of Oxidation Reduction Potential (ORP) and pH sensitive constituents, as listed in Groundwater Monitoring, item 4 above, shall be discussed in each groundwater monitoring report. If during operation of the ozone treatment system, ORP and pH sensitive constituents become elevated, Regional Water Board staff shall be notified by phone or fax within one week. Additional appropriate actions to monitor, minimize or decrease the mobilization of elevated constituents may be required.

8. Indoor air quality shall be monitored semi-annually from sub-slab vapor sampling points P-1 through P-4. Vapor samples shall be analyzed for benzene, toluene, ethylbenzene, xylene, hexane, naphthalene and leak detection compounds. Vapor results from sub-slab points shall be reported and discussed in the semi-annual monitoring reports.

9. Ambient and indoor air shall be monitored for volatile organic compounds and ozone using a hand held device during every groundwater and sub-slab vapor sampling event and during remedial system maintenance activities. Results from hand held monitors shall be noted on field data sheets and included with semi-annual monitoring reports.

10. The monitoring reports and monitoring data shall be submitted electronically to the State Water Resources Control Board's GeoTracker database as required by Title 23, Division 3, Chapter 30 of the California Code of Regulations.

Ordered by _____
Catherine Kuhlman
Executive Officer

March 21, 2011