CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0806
CALIFORNIA WATER CODE SECTION 13267
FOR

TSI,
MILLER SPRINGS REMEDIATION MANAGEMENT INC., AND
J.R. SIMPLOT COMPANY
SOLANO COUNTY

TSI, Miller Springs Remediation Management Inc., and J.R. Simplot Company (collectively referred to as Discharger), operates or operated an agricultural chemical distribution facility at 7235 Tremont Road in Dixon. Volatile organic compounds (VOCs), nitrate, and ammonium are found in groundwater beneath the facility. This pollution impaired the beneficial uses of this water resource.

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 1,2-dichloropropane, 1,2,3-trichloropropane, nitrate, and ammonium, emanating from the property resulting from the Discharger's current or past operation. 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. 5-00-812, which was issued to TSI on 4 May 2000.

Prior to construction of any new groundwater monitoring or extraction wells, and prior to destruction of any groundwater monitoring or extraction wells, the Discharger shall submit plans and specifications to the Regional 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 Figure 1, there are seven monitoring wells in the first water-bearing zone (MW-1, MW-2S, MW-3 through MW-7), eight monitoring wells in the second water-bearing zone (MW-1D, MW-2D, MW-3D, MW-5D, MW-6D, MW-8D, MW-9D, and MW-10D), and an on-site water supply well associated with this site. The groundwater monitoring program for the 15 monitoring wells, the supply well, and any wells installed subsequent to the issuance of this MRP, shall follow the schedule below. Sample collection and analysis shall follow standard EPA protocol.

Table of Constituents and Methods

Constituents	Analytical Method	Method Detection Limit[1]
Depth to Groundwater	---	0.01 ft
pH and electrical conductivity	field instrumentation	---
Nitrate-Nitrite (reported as Nitrogen)	EPA 353.3	0.5 mg/l
Ammonium	EPA 350.1	0.1 mg/l
Volatile Organic Compounds (VOCs)	EPA 8260B	0.5 ug/l
Fumigants (including 1,2,3-TCP)	EPA 504.1	0.02 ug/l
Chlorinated Herbicides	EPA 8151A	0.25 ug/l
Carbamate/Urea Compounds (including bromacil)	EPA 8321A	1.0 ug/l

[1] All concentrations between the Practical Quantitation Limit and the Method Detection Limit shall be reported as trace.

Table of Constituents and Monitoring Frequency

S: Semi-Annual samples shall be obtained in the first and third quarters (January-March and July-September).
A: Annual samples shall be obtained in the third quarter (July-September).
B: Biennial samples shall be obtained in even numbered years during the third quarter (July-September).

	VOCs (EPA 8260B)	**1,2,3-TCP** (EPA 504.1)	**Chlorinated Herbicides** (EPA 8151)	**Carbamate /Urea Compounds** (EPA 8321)	**Nitrate-N** (EPA 300.0)	**Ammonium** (EPA 350.1)
MW-1S					S	
MW-1D					S	
MW-2S	S	S		A	S	
MW-2D	S	S		A	S	
MW-3					S	
MW-3D					S	
MW-4	S	S	S		S	S
MW-5	S	S	A	A	S	A
MW-5D	S	S	A	A	S	A
MW-6	S	S		A	S	
MW-6D	A			A	S	
MW-7			A	A	S	
MW-8D					A	
MW-9D	S	S			S	
MW-10D	A[1]	A[1]			S	
Supply Well	B	B			B	

[1] If either VOCs or 1,2,3-TCP are detected in MW-10D in two consecutive events, the sampling frequency shall increase to semi-annual.

REPORTING

When reporting the 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 clearly illustrate compliance with this Order. In addition, the Discharger shall notify the Regional 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.

The Discharger shall submit semi-annual electronic data reports, which conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30. The semi-annual reports 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 corresponding to the first and third quarters (i.e. by **1 May and 1 November**) until such time as the Executive Officer determines that the reports are no longer necessary.

Semi-annual reports shall be submitted by hard copy to the Regional Water Board by the **1st day of the second month following the end of each appropriate calendar quarter (i.e., by 1 May and 1 November**) until such time as the Executive Officer determines that the reports are no longer necessary. Each semi-annual report shall 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, which may be submitted on electronic media;

(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 Regional Board by **1 November** 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 second semi-annual 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;

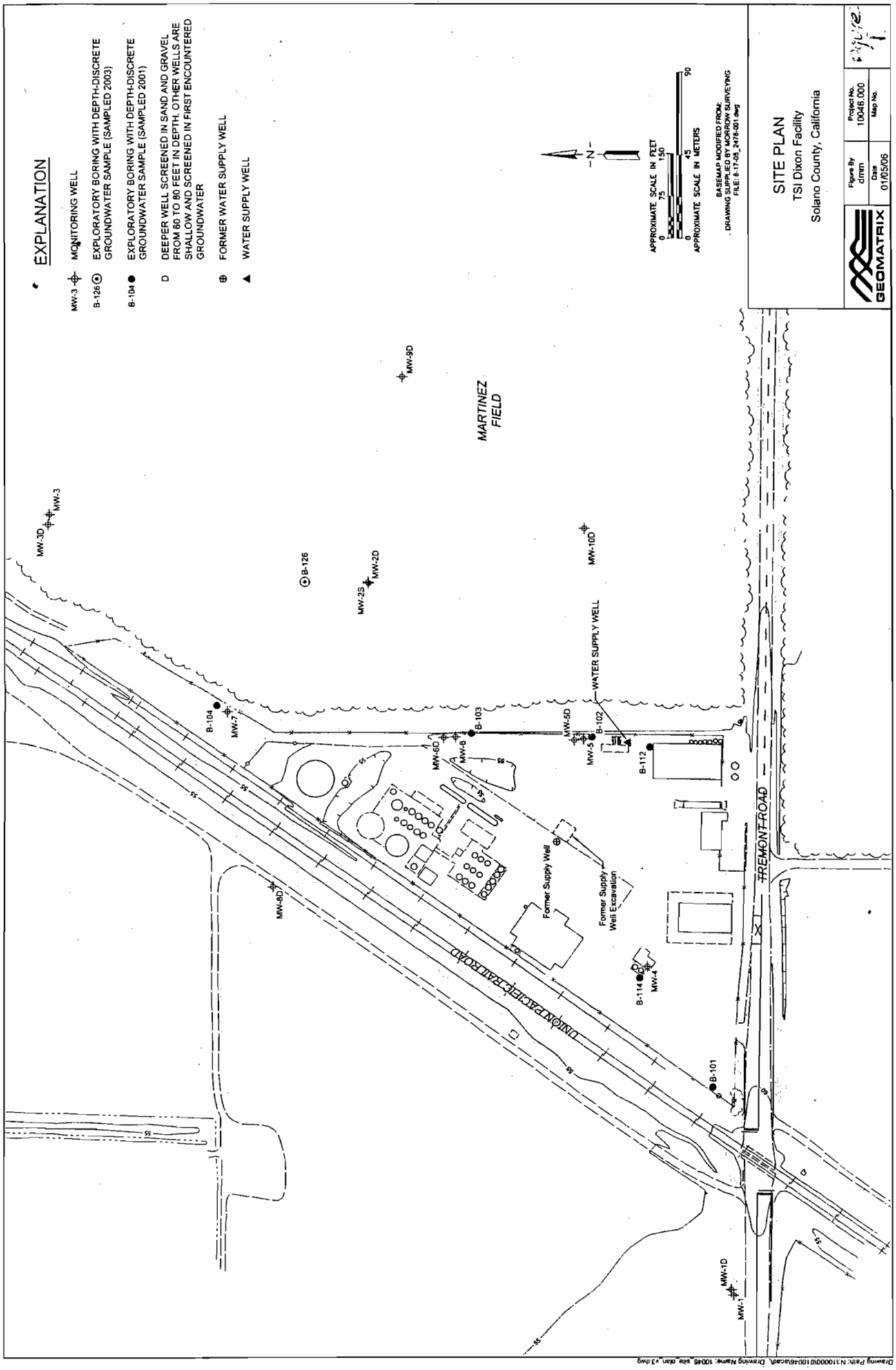
(f) an identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program; and

(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 Regional Board. The Discharger shall implement the above monitoring program as of the date of the Order.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

29 October 2007
(Date)


EXPLANATION
MW-3 MONITORING WELL
B-126 EXPLORATORY BORING WITH DEPTH-DISCRETE GROUNDWATER SAMPLE (SAMPLED 2003)
B-104 EXPLORATORY BORING WITH DEPTH-DISCRETE GROUNDWATER SAMPLE (SAMPLED 2001)
D DEEPER WELL SCREENED IN SAND AND GRAVEL FROM 60 TO 80 FEET IN DEPTH. OTHER WELLS ARE SHALLOW AND SCREENED IN FIRST ENCOUNTERED GROUNDWATER
FORMER WATER SUPPLY WELL
WATER SUPPLY WELL
APPROXIMATE SCALE IN FEET
0 75 150
APPROXIMATE SCALE IN METERS
0 45 90
BASEMAP MODIFIED FROM: DRAWING SUPPLIED BY MORROW SURVEYING FILE: 8-17-05_2476-001.dwg
SITE PLAN
TSI Dixon Facility
Solano County, California
GEOMATRIX
Figure By dmm
Date 01/05/06
Project No. 10046.000
Map No.
MARTINEZ FIELD
MW-9D
MW-3D
MW-3
B-126
MW-2S
MW-2D
MW-10D
WATER SUPPLY WELL
B-104
MW-7
B-103
MW-6D
MW-6
MW-5D
MW-5
B-102
B-112
FREMONT ROAD
Former Supply Well
Former Supply Well Excavation
UNION PACIFIC RAILROAD
MW-8D
B-114
MW-4
B-101
MW-1D
MW-1
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