California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program No R1-2002-0110

for

Pierson Lumber Company
4100 Broadway
Eureka, California

Humboldt County

Monitoring

1. Monitoring wells (MWs) MW-2, M-3, and MW-101 through MW-107 shall be sampled within two weeks prior to the In-Situ BioJet® treatment to confirm baseline and background groundwater characteristics, which may be affected by the treatment application. The analyses shall be performed at a certified laboratory for dissolved iron, oxidation reduction potential, pH, conductivity, temperature, dissolved oxygen, total organic carbon, nitrite, nitrate as nitrogen, ammonia, potassium, phosphate, microbial enumeration, total petroleum hydrocarbons as gasoline, total petroleum hydrocarbons as paint thinner, total petroleum hydrocarbons as diesel, and Full-Range EPA Method 8260B scan.

2. The depth to groundwater shall be determined to at least 0.01-foot increments in all MWs within two weeks prior to the In-Situ BioJet® Treatment. Groundwater measurements shall be taken biweekly, for a minimum 90-day period following each In-Situ BioJet Treatment and then quarterly thereafter for a minimum of two years. The depth to groundwater shall be determined to at least 0.01-foot increments in all MWs during each monitoring event. The results of each measured elevation shall be reported in tabular form as well as on groundwater gradient maps indicating the surveyed elevations 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.

3. All MWs shall be sampled biweekly for a minimum 90-day period following each In-Situ BioJet® Treatment or until groundwater characteristics affected by the treatment application return to background levels. The analyses shall be performed at a certified laboratory for dissolved iron, reduction oxidation potential, pH, conductivity, temperature, dissolved oxygen, total organic carbon, nitrite, nitrate as nitrogen, ammonia, potassium, phosphate, microbial enumeration, total petroleum hydrocarbons as gasoline, total petroleum hydrocarbons as paint thinner, total petroleum hydrocarbons as diesel, and Full-Range EPA Method 8260B scan.

4. Upon completion of monitoring specified in item 3 above, all MWs shall be sampled quarterly for a minimum two-year period following the In-BioJet® Treatment. The analyses shall be performed at a certified laboratory for dissolved iron, reduction oxidation potential, pH, conductivity, temperature, dissolved oxygen, total organic carbon, nitrite, nitrate as nitrogen, ammonia, potassium, phosphate, microbial enumeration, total petroleum hydrocarbons as gasoline, total petroleum hydrocarbons as paint thinner, total petroleum hydrocarbons as diesel, and Full-Range EPA Method 8260B scan.

Reporting

1. A groundwater elevation contour map shall be submitted for each set of measurements and include the facility groundwater flow pattern including the direction of the groundwater gradient, and the location of the wells measured.

2. Monthly monitoring reports, including pre- and post-test gradient and sampling analyses data, shall be submitted to this office summarizing the two week period prior to the In-Situ BioJet® Treatment and each 30 day period within the 90 day period following the In-Situ BioJet® Treatment by the 15th day of the month beginning February 15, 2003.

3. Quarterly monitoring reports shall be submitted to this office summarizing all monitoring data collected for two years subsequent to the In-Situ BioJet® Treatment in accordance with the following schedule:

Reporting Period	**Due Date**
May, June, July	August 15
August, September, October	November 15
November, December, January	February 15
February, March, April	May 15

4. If necessary, additional quarterly monitoring reports shall be submitted to this office including ongoing quarterly gradient and sampling analyses data until groundwater characteristics affected by the treatment application return to background levels in accordance with the schedule stated in item 3 above.

Ordered by _____
Susan A. Warner
Executive Officer

December 5, 2002

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