CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-005

SITE CLEANUP REQUIREMENTS FOR:

MONTWOOD CORPORATION
RIO GRANDE HOLDING INC.

for the property at

1615 AND 1625 PLYMOUTH STREET
MOUNTAIN VIEW
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. Site History and Description (entire site). The site is bounded on the south by the Bayshore Expressway (US highway 101) and to the north by Plymouth Street (see attached map).

2. Arrow Development Company (ADC) occupied the site from April 1960 until November 1980. During this time, the property was one parcel with the address 1555 Plymouth Street. The only buildings in existence were those currently present at 1615 and 1625 Plymouth Street. ADC was acquired by Rio Grande Industries (RGI) in April 1971 and was operated as a wholly-owned subsidiary. In November 1980, the operating assets of ADC were purchased by Klaus Huss (Arrow-Huss). RGI created a holding company called Montwood Corporation (Montwood) which retained ownership of the physical buildings, appurtenances, and the property. Arrow-Huss, which continued the mode of operations, leased part or all of the site from Montwood until December of 1981.

3. The site was used as an amusement park manufacturing facility which included design, manufacturing, and assembly of amusement park rides. Operations included steel fabrication, machining, fiberglassing, painting, product development and warehousing of materials. Trichloroethylene (TCE) was reportedly used in small amounts in a vapor degreaser. At least four 55-gallon drums were purchased during the Rio Grande/Arrow-Huss/Montwood occupancy of the site. Several other degreasers, strippers, and solvents were reported to have been used for which the specific ingredients are not available. TCE may have been an ingredient in these products. Also, the chemical use history was only reviewed from 1975 to 1980; no information was available on chemical use history from 1960 to 1974. TCE could have been used during this time.

4. Montwood's chemical use history indicates the existence of one underground storage tank of acetone and one of fire retardant polyester resin. Twenty-six chemicals had unknown constituents. Drums were stored in the southwest corner of the property at 1625 Plymouth and east of the 1625 building (now Symtron).

5. South Bay Construction and Development Company purchased the site in November 1982 and divided it into three parcels. These parcels consist of 1555, 1615, and 1625 Plymouth Street (see attached map).

6. Site History and Description (1555 Plymouth). South Bay Construction and Development Company built the facility at 1555 Plymouth in 1983. 1555 Plymouth Street was bought by John and Liane Davila (the Davilas) in August 1983. The building was used as storage for Norcal Tech Inc. The Davilas were principals in Norcal Tech Inc. The property was sold to Sierra Greens in June 1985 and leased to Silicon Graphics from July, 1987 to the present.

7. Site History and Description (1615 Plymouth). Interaction Chemical leased 1615 Plymouth Street from South Bay Construction and Development Company in December 1982. Interaction Chemical's president and CEO, James R. Benson, purchased 1615 Plymouth Street in May 1983. In 1992, the assets of Interaction Chemical were purchased by Interaction Chromatography. Interaction Chromatography moved out of the building in May 1992. In October 1987, Paula Mychack was granted 35% ownership of the 1615 property but was recently removed from the title.

8. In July 1987, a 1000-gallon underground gasoline storage tank and associated piping were removed from the exterior south side of the 1615 Plymouth site.

9. Site History and Description (1625 Plymouth). The Davilas purchased the 1625 Plymouth site in November 1982. The property was leased to Norcal Tech Inc. from November 1982 to November 1989 and Symtron (who purchased NorCal Tech Inc.) from November 1989 to the present. NorCal Tech Inc. and Symtron manufactured printed circuit boards at the facility.

10. In the mid-1980s, two underground storage tanks were retired on the north side of the building at 1625 Plymouth Street. They contained acetone and fiberglass resin. Sand was used to fill in the acetone and fiberglass resin tanks. At this time, eight abandoned 1-gallon bottles of TCA were found on the property.

11. Hydrogeology. The two major water-yielding zones beneath the site consist of an upper aquifer and a deep aquifer. Two smaller aquifer sub-units within the upper aquifer are referred to as the shallow zone and the intermediate zone. The shallow aquifer zone is up to 10 feet thick and extends from approximately 5 feet below grade to 15 feet below grade.

12. The intermediate zone extends from about 30 to about 70 feet below grade consisting of sand and gravel layers. The upper and intermediate zones are divided by a soft blue-gray to olive-gray, fossiliferous, plastic clay and silty clay from about 15 to 30 feet below grade.

13. A confining zone of approximately 80 feet of silty marine clay is below the upper aquifer and extends to approximately 150 feet below grade. The deep aquifer begins at about 150 feet below grade to about 700 feet below grade.

14. Ground Water Investigation and Remediation. Teledyne Semiconductor Inc. (Teledyne) and Spectra-Physics Lasers Inc. (Spectra-Physics), Superfund sites, are located south of and upgradient from the former Montwood site, on the south side of Highway 101. Teledyne and Spectra-Physics are being regulated pursuant to Order 91-025. Ground water beneath the Teledyne site contains up to 2,900 parts per billion (ppb) TCE (well PZ-5, February 1992) and 2,300 ppb 1,2-DCE (well PZ-4, February 1992). The on-site system at Teledyne has been controlling migration of volatile organic compounds (VOCs) from the Teledyne and Spectra-Physics area since 1986. Ground water flow direction in the Teledyne/Spectra-Physics/Montwood area is generally to the north.

    The off-site Teledyne/Spectra-Physics ground water plume extends about one mile north to the City of Mountain View landfill. In addition to Teledyne and Spectra-Physics, the Regional Board has identified several source areas, including the Plymouth Street Site, that have contributed VOCs to the ground water plume. The Spring Street wells (area south/southeast of Montwood) show ground water concentrations of TCE up to 250 ppb in the shallow zone (well ES5S, May 1992) and up to 1000 ppb in the upper intermediate zone (well MS7I, May 1992). Between N. Shoreline Blvd. and Permanente Creek, extraction wells exist on the northern portion of the Teledyne property, along Spring Street, Morgan Street, Plymouth Street, Joaquin Road, and the area between Charleston Road and Amphitheater Parkway.

15. The extraction systems on Plymouth and Spring Streets appear to be reducing the VOC concentrations at the Plymouth Site. Since the start-up of the Spring Street extraction system in August 1991, all but two wells (NB-2 and W-1) have decreased in concentration.

16. In January 1991, ground water sampling from the intermediate zone reveals concentration at the southern (upgradient) property up to 576 ppb Halogenated Volatile Organic Compounds (HVOCs). Concentrations at the northern (downgradient) portion of the property were as high as 2205 ppb. VOCs appear to have been released on the site.

17. Shallow ground water sampling in 1988 indicated average TCE concentrations of 1400 μg/l and 1300 μg/l in wells RWB-1 and MW-8s respectively (area of former tanks at 1625 Plymouth). TCE concentrations upgradient at the southern border of the site

were only 97 μg/l in well MW-5s and 320 μg/l in well MW-6s. VOCs appear to have been released on the site. EPA method 601 was used to analyze the samples.

18. Soil Investigation. Soil sampling took place in December of 1987, June of 1988, and August of 1991. Chemical results from 1987 identified the presence of TCE, dichloroethene (DCE), and tetrachloroethene (PCE) at concentrations of 120, 76, and 4 μg/kg, respectively, at a five foot depth soil sample (RWB-2) in the vicinity of the previously removed tanks at 1625 Plymouth. TCE, DCE, and PCE were not detected at the 10 foot depth of RWB-2 soil sample, although acetone at 24 μg/kg was detected. In January 1990, a soil sample (depth 0-6 inches) taken behind the chemical storage area (near the southwest property line) showed discoloration.

19. In January 1990, sediment samples from a storm drain west of the 1625 Plymouth Street building revealed concentrations of 2,500 μg/kg copper; 1,400 μg/kg lead; 41,000 μg/kg 1,1-DCA; 2,900 μg/kg 1,1-DCE; 340μg/kg 1,2-DCA; 2,900 μg/kg 1,1-DCE; 710 μg/kg trans 1,2-DCE; 1,200 μg/kg methylene chloride; 7,100 μg/kg PCE; 19,000 μg/kg toluene; and 200,000 μg/kg 1,1,1-TCA. The land sloped to allow the storm drain to catch runoff from the uncontained storage area used for both metallic materials and wastes.

20. Board Orders. Montwood Corporation is currently under Cleanup & Abatement Order (CAO) No. 90-164 issued December 19, 1990. The CAO required a technical report to be submitted by December 29, 1990. This report was to contain results of installation and sampling of all monitoring wells and soil borings installed on the former Montwood property. This information was released on March 27, 1991.

21. Montwood/Rio Grande Holding Inc. has submitted the following reports to the Regional Board:

Date Submitted	Report Title
February 1, 1988	Underground Tank Investigation
August 26, 1988	Supplemental Underground Tank Investigation
March 7, 1991	Chemical Use
August 14, 1992	Subsurface Chemical Distribution Report

22. Montwood Corporation has stated its expectation that an agreement or agreements will soon be reached among all parties to a lawsuit filed by the Davilas in 1991 against various defendants. With reservation of any and all rights against those parties, representatives of Montwood have represented to the staff of the Regional Board,

Montwood's commitment to be primarily responsible for costs of investigation and cleanup of contamination originating from the Plymouth Street Site.

23. Montwood Corporation and Rio Grande Holding Inc. are dischargers for the purpose of this order, due to evidence of chemical use and probable releases prior to 1983 and also due to the recent agreement cited above. The Board reserves the right to name additional dischargers for 1615 and 1625 Plymouth Street if Montwood Corporation and Rio Grande Holding Inc. fail to comply with this order. Given the current lack of evidence of chemical releases at what is now 1555 Plymouth Street, the Board would not consider adding Sierra Greens, Ltd. and/or Silicon Graphics, Inc., as dischargers.

24. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Board amended the Basin Plan on December 11, 1991. The Basin Plan contains water quality objectives for the South San Francisco Bay and contiguous surface and ground waters.

25. The Basin Plan defines existing and potential beneficial uses of the ground water underlying and adjacent to the dischargers' facilities. These include:

    a. Industrial process water supply
    b. Industrial service supply
    c. Agricultural supply
    d. Municipal and domestic supply

    Upper aquifer ground water underlying and adjacent to the site is not currently used for any of the above purposes. Shallow zone ground water could potentially migrate into waters that make up marshland in the off-site area.

26. The discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.

27. This action is an Order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

28. The Board has notified the dischargers and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the dischargers and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

29. The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of polluted soil or ground water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The discharger shall conduct site investigations and monitoring activities as determined by the Executive Officer to define the current local hydrogeological conditions, and the lateral and vertical extent of the soil and ground water pollution. Should monitoring results show evidence of pollution migration, additional plume characterization of pollutant extent may be required.

C. PROVISIONS

1. Cleanup and Abatement Order No. 90-164 is hereby rescinded.

2. The discharger shall perform all investigations and remedial work in accordance with requirements of this Order.

3. The discharger shall submit to the Board acceptable monitoring program reports containing results of work performed according to the attached self-monitoring program.

4. The discharger shall comply with all Prohibitions and Specifications of this Order, in accordance with the following schedule and tasks:

a. TASK 1: Ground Water Conservation
COMPLETION DATE: **March 1, 1993**

Submit a technical report acceptable to the Executive Officer which documents compliance or intent to comply with Board Resolution No. 88-160, "Regional Board Position on the Disposal of Extracted Ground water From Ground water Cleanup Projects."

b. TASK 2: Proposal for Interim Soil and Ground Water Remediation
COMPLETION DATE: **March 1, 1993**

Submit a technical report acceptable to the Executive Officer which proposes interim remedial actions for soil pollution and ground water pollution and includes a schedule for implementation. This may be combined and submitted with the report of Task 1.

c. TASK 3: Results of Off-Site Investigation
COMPLETION DATE: **August 1, 1993**

Submit a technical report acceptable to the Executive Officer that describes the results of the off-site investigation. The report shall include, but is not limited to, the following information, if applicable: new soil borings and ground water monitoring well installation logs; copies of new well installation permits; tabulated results of soil and ground water pollutant analyses; appropriately scaled maps; soil boring and ground water monitoring well locations; site-specific geologic cross sections; explanation of off-site vertical and lateral extent of the soil and ground water pollution; an evaluation of their potential as conduits for the vertical migration of pollutants; description of site hydrogeologic conditions; evaluation of the extent to which soil pollution may be contributing to ground water pollution; and, submittal of off-site Phase II workplan if deemed necessary. The workplan should propose off-site interim remedial actions, if appropriate, with a schedule for implementation.

d. TASK 4: Evaluate and Propose Modifications to the Interim Remedial Actions
COMPLETION DATE: 1 year after the start-up of implementation of the work described in Task 2

Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the interim remedial actions which have been implemented. Submit a report acceptable to the Executive Officer which proposes modifications to the Interim Remedial Actions previously

implemented, or documents that the implemented actions for soil and ground water remediation are complete.

e. TASK 5: Complete Modifications to Interim Remedial Actions
COMPLETION DATE: 60 day after approval of Task 4

Submit a technical report acceptable to the Executive Officer which documents that any modifications proposed in Task 4, as accepted by the Executive Officer, have been completed by the dischargers and are in effect.

f. TASK 6: Propose On-Site and Off-site Final Remediation Plan
COMPLETION DATE: 1 year after the Executive Officer's approval of the report required by Task 4

Submit a technical report acceptable to the Executive Officer which contains a plan for the proposed remedial actions and implementation schedule. This report shall identify polluted soils and ground water and evaluate the need and alternatives for the cleanup of polluted soils, control of containment of a migrating ground water pollution plume, or, conducting pilot or treatability studies for the proposed remedial actions. The proposed remedial alternatives shall reduce the volume, mobility, and toxicity of pollutants. Cleanup standards shall consider a risk-based approach for all pollutants that may remain in the soil or ground water, in addition to the factors cited in Provision 7. The report shall include a schedule for the tasks and time schedule for implementation of the recommended remedial actions

5. Technical reports submitted under Tasks 2, 3, 4, 5, and 6 shall be provided to Teledyne and Spectra-Physics. Teledyne and Spectra-Physics operate a remedial system in the North Bayshore Area, therefore, work performed at the Plymouth Street Site may impact the Teledyne and Spectra-Physics system. Teledyne and Spectra-Physics may submit comments on the reports to the Regional Board within one month after the receipt of the report.

6. Pursuant to Section 13304 of the Water Code, the discharger is hereby notified that the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. Upon receipt of a billing statement for such costs, the discharger shall reimburse the Regional Board.

7. The submittal of technical reports evaluating interim cleanup measures will include a projection of the cost, effectiveness, benefits, and impact on public health, welfare, and environment of each alternative measure. The remedial investigation and feasibility study shall consider the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300); Section 25356.1 (c) of the California Health and Safety Code; CERCLA guidance documents with reference to Remedial Investigation, Feasibility Studies, and Removal Actions; and the State Water Resource Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California."

8. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Executive Officer. In the event of such delays, the Board may consider modification of the task completion dates established in this Order.

9. All hydrogeological plans, specifications, reports and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist or professional engineer.

10. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.

11. The discharger shall maintain in good working order, and operate as efficiently as possible, any facility or control system installed by the dischargers to achieve compliance with the requirements of this Order.

12. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order shall be provided to the following agencies:

    a. Santa Clara Valley Water District (1 copy, Tom Iwamura)

    The discharger shall provide copies of cover letters, title page, table of contents and the executive summaries of above compliance reports - except for the annual progress reports, Proposal for Ground Water Remediation, and Proposal for Soil Remediation which shall be submitted in full to the following agencies.

    a. Santa Clara County Health Department (Lee Esquibel)
    b. California EPA/DTSC Site Mitigation Branch (Barbara Cook)
    c. City of Mountain View, City Manager's Office (Dan Armenta)

The Executive Officer may require the discharger to provide copies to other parties, such as the U.S. Environmental Protection Agency, Region IX, and the local repository for public use.

13. The discharger shall permit the Board or its authorized representatives, in accordance with Section 13267 (c) of the California Water Code, access to copy any records required to be kept under the terms and conditions of this Order.

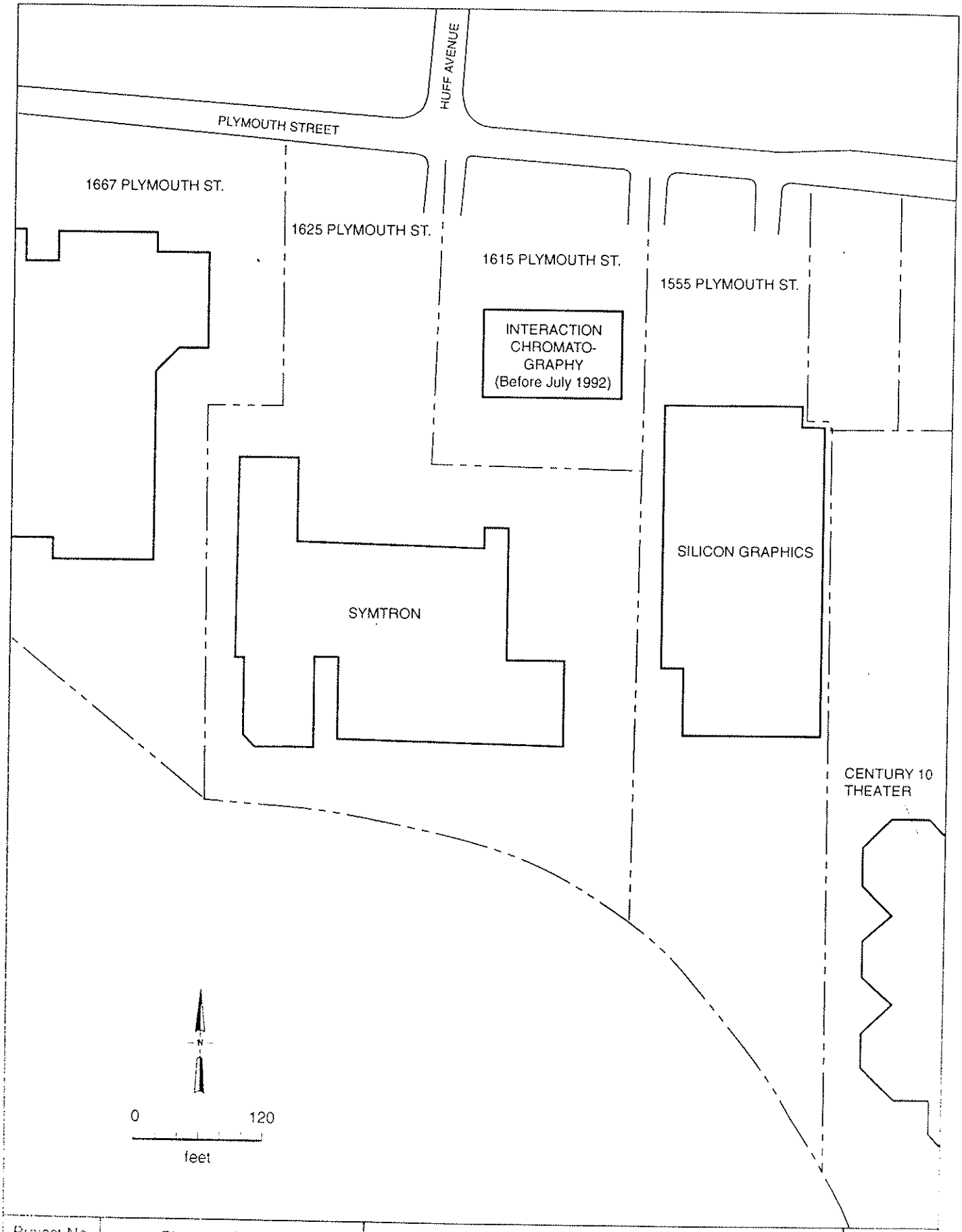
14. If any hazardous substance is discharged in or on any waters of the State, or discharged and deposited where it is, or probably will be discharged in or on any waters of the State, the discharger shall report such discharge to this Board, at (510) 286-1255 on weekdays during office hours from 8 AM to 5 PM, and to the Office of Emergency Services at (800) 852-7550 during non-office hours. A written report shall be filed with the Board within five (5) working days and shall contain information relative to: the nature of the waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention, Control and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons, notified.

15. The Board will review this Order periodically and may revise the requirements when necessary.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 20, 1993.

Steven R. Ritchie
Executive Officer

Attachment: Figure 1-2, Parcel Map of the Plymouth Street Site
Self-Monitoring Report



Project No 90308A	Plymouth Street Site Mountain View, California	PARCEL MAP OF THE PLYMOUTH STREET SITE	Figure 1-2
Woodward-Clyde Consultants			

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

GROUND WATER SELF-MONITORING PROGRAM

FOR

MONTWOOD CORPORATION
RIO GRANDE HOLDING INC.

1615 and 1625 Plymouth Street

Mountain View, Santa Clara County

ORDER NO. 93-005

Adopted on January 20, 1993

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

MONTWOOD CORPORATION
RIO GRANDE HOLDING INC.
Plymouth Street Facility

Ground water SELF-MONITORING PROGRAM

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383 and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and waste water quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the EPA Method 8000 series in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," dated November 1986; or other methods approved and specified by the Executive Officer of this Regional Board.

C. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violations of Requirements

In the event the discharger is unable to comply with the conditions of the site cleanup requirements due to:

a. Maintenance work, power failures, or breakdown of waste treatment equipment, or

b. accidents caused by human error or negligence, or

c. other causes, such as acts of nature, or

d. poor operation or inadequate system design,

The discharger shall notify the Regional Board office by telephone as soon as he/she or his/her agents have knowledge of the incident and confirm this notification in writing within 5 working days of the telephone notification. The written report shall include time, date, and person notified of the incident. The report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

2. The discharger shall file a written technical report to be received at least 30 days prior to advertising for bid (or 60 days prior to construction) on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, cost, and scheduling of all action necessary to preclude such discharge.

3. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar quarter (unless specified otherwise) and filed no later than the thirtieth day of the following quarter. The first quarterly report is due April 30, 1993. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter from the discharger transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period and actions taken or planned for correcting any requirement violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to this correspondence will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer or a duly authorized representative of that person.

The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Results of Analyses and Observations

(1) Results from each required analysis and observation shall be submitted in the quarterly self-monitoring regular reports. Results

shall also be submitted for any additional analyses performed by the dischargers at the specific request of the Board. Quarterly water level data shall also be submitted in the quarterly report.

(2) The quarterly reports shall include the ground water extraction rates from each extraction well, water level data from the extraction wells, the results of any aquifer tests conducted during the quarter.

(3) The quarterly reports shall include a discussion of unexpected operational changes which could affect performance of the extraction system, such as flow fluctuations, maintenance shutdown, etc.

(4) The quarterly report shall also identify the analytical procedures used for analyses either directly in the report or by reference to a standard plan accepted by the Executive Officer. Any special methods shall be identified and should have prior approval of the Board's Executive Officer.

(5) The discharger shall describe in the quarterly Self-Monitoring Report (SMR) the reasons for significant increases in a pollutant concentration at a well. The description shall include:

a) the source of the increase,

b) how the discharger determined or will investigate the source of the increase, and

c) what source removal measures have been completed or will be proposed.

(6) Original lab results shall be retained and shall be made available for inspection for six years after origination or until after all continuing or impending legal or administrative actions are resolved.

(7) Summary of work completed since submittal of the previous report, design specifications if applicable, and work projected to be completed by the time of the next report.

(8) Tabulated results of quarterly water quality sampling analyses for all wells using analytical methods specified in Provision 8.a.(4). Each report shall include updated isoconcentration maps of VOCs in ground water, including but not limited to TCE, cis-1,2-DCE, and total VOCs.

(9) Quarterly updated water table and piezometric surface maps, based on the most recent water level measurements for all affected water bearing zones for all onsite and offsite wells. Interpretations of the data shall be discussed.

(10) A map or maps shall accompany the quarterly report, showing all sampling locations and plume contours to final cleanup levels.

(11) The annual report shall be combined with the fourth quarter regular report and shall include cumulative data for the current year. The annual report for December shall also include minimum, maximum, median, and average water quality data for the year, a summary of water level data, and GC/MS results. The report shall contain both tabular and graphical summaries of historical monitoring data.

4. SMP Revisions:

Additional long term or temporary changes in the sample collection frequency and routine chemical analysis may become warranted as monitoring needs change. These changes shall be based on the following criteria and shall be proposed in a quarterly SMR. The changes shall be implemented no earlier than 45 days after the self-monitoring report is submitted for review unless approved in writing.

Criteria for SMP revision:

(1) Discontinued analysis for a routine chemical parameter for a specific well after a two-year period of below detection limit values for that parameter.

(2) Changes in sampling frequency for a specific well after a two-year period of below detection limit values for all chemical parameters from that well.

(3) Temporary increases in sampling frequency or changes in requested chemical parameters for a well or group of wells because of a change in data needs (e.g., evaluating ground water extraction effectiveness or other remediation strategies).

(4) Add routine analysis for a chemical parameter if the parameter appears as an additional chromatographic peak in three consecutive samples from a particular well.

(5) Alter sampling frequency based on evaluation of collective data base.

D. DESCRIPTION OF SAMPLING STATIONS

All existing and future shallow, intermediate and deep aquifer monitoring and extraction wells shall be monitored as appropriate. See Figure 3-2 (attached) for monitoring and extraction wells installed at the time of the adoption of this SMP.

E. SCHEDULE OF SAMPLING AND ANALYSES

1. All wells shall be sampled according to Table 1 and tested by EPA Method 8010. EPA Method 8240 shall replace EPA Method 8010 for the wells MW-1, MW-1s, MW-6, MW-6a, and RWB-1 during the second quarter of each year. Sampling and monitoring shall be coordinated with other parties performing investigations in the North Bayshore Area including Teledyne and Spectra-Physics. Montwood/Rio Grande are ultimately responsible for monitoring these wells, although results may be obtained from other parties performing investigations in the area.

TABLE 1 -- Monitoring Schedule

SHALLOW ZONE		
Quarterly	**Semi-Annual**	**Annual**
MW-1s	MW-3s	MW-8s
MW-5s	MW-4s	NB-4s
MW-6a	MW-7s	
MW-10	MW-9s	
MW-11		
NB-2		
RWB-1		
W-21s		
INTERMEDIATE ZONE		
Quarterly	**Semi-Annual**	**Annual**
MW-1	MW-4	MW-8
MW-3	MW-5	NB-1
MW-6	MW-7	NB-3
W-1	MW-9	

2. In addition, if a previously undetected compound or peak is detected in a sample from a well, a second sample shall be taken within a week after the results from the first sample are available. All chromatographic peaks detected in two consecutive samples shall be identified and quantified in the quarterly report.

3. Ground water elevations shall be obtained on a quarterly basis from all wells at the site and submitted in the quarterly report with the sampling results. This activity shall be coordinated with other parties performing investigations in the North Bayshore Area including Teledyne and Spectra-Physics.

4. Well depths shall be determined on an annual basis and compared to the depth of the well as constructed. If greater than ninety percent of screen is covered, the discharger shall clear the screen by the next sampling. This activity shall be coordinated with other parties performing investigations in the North Bayshore Area including Teledyne and Spectra-Physics.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with site cleanup requirements established in Regional Board Order No. 93-005.

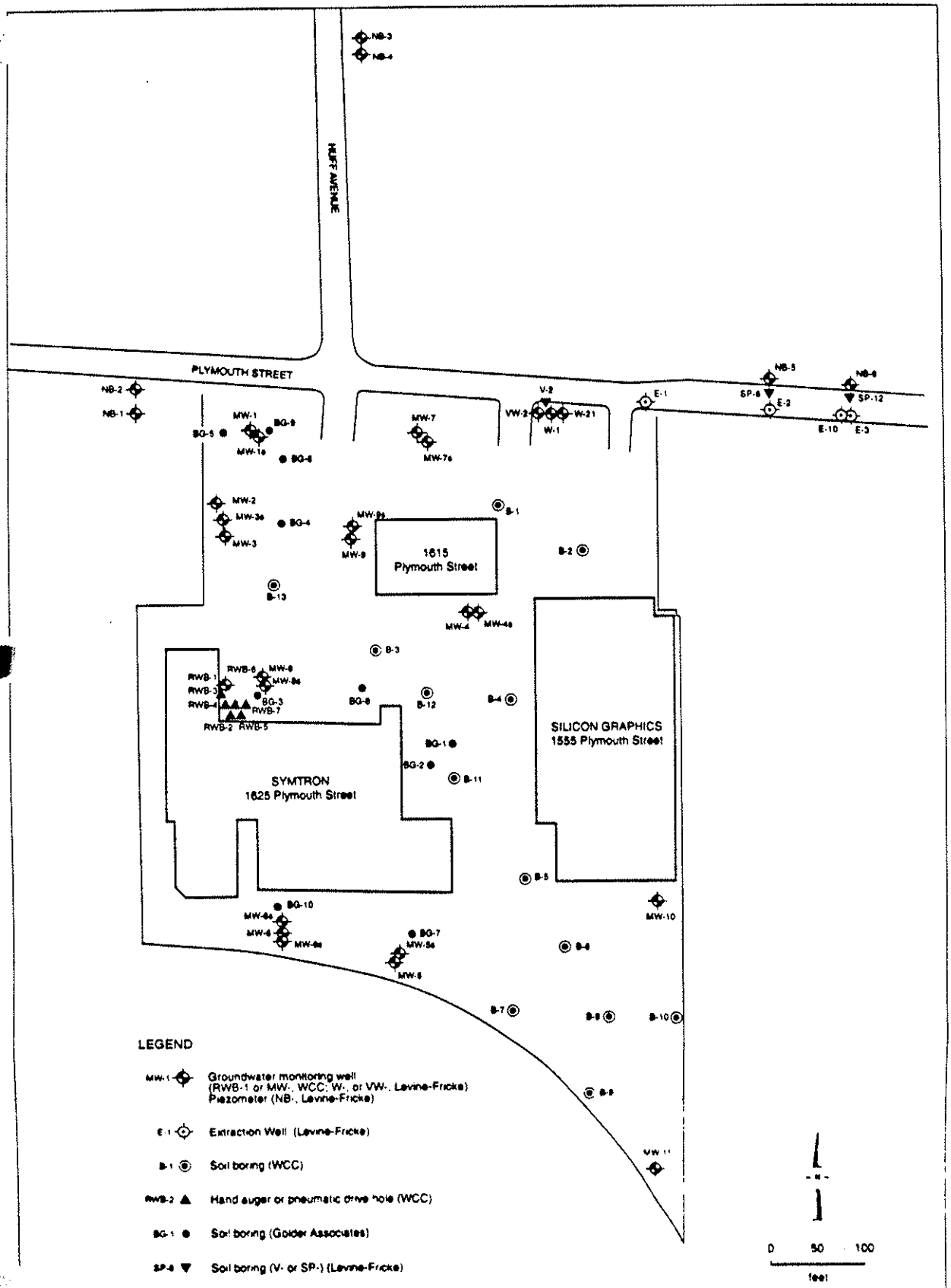
2. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.

3. Was adopted by the Board on January 20, 1993.

1/20/93
Date

Steven R. Ritchie
Executive Officer

Attachment: Figure 3-2, Monitoring Well and Soil Boring Location Map



Project No. 90308A	Plymouth Street Site Mountain View, California	MONITORING WELL AND SOIL BORING LOCATION MAP	Figure 3-2
Woodward-Clyde Consultants			