I declare under penalty of perjury that the foregoing is true and correct, to the best of my knowledge.

Executed in Mountain View, California, on November 27, 1989.

James E. Boarer

JAMES E. BOARER

Attachments A - E

EXHIBIT D.9

STATE OF CALIFORNIA
PETE WILSON, Governor
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, Suite 500
OAKLAND, CA 94612
Tel: (510) 286-1255
FAX: (510) 286-1380

Certified Mail No. P 377 814 100
Return Receipt Requested

Date: November 7, 1995
File No: 2189.8344 (RAD)

Mr. Ronald E. Hothem
East Charleston, Inc.
369 Broadway
San Francisco, CA 94133

SUBJECT: Former Advalloy Facility
844 East Charleston Road
Palo Alto, Santa Clara County

Dear Mr. Hothem:

We have received your letter dated October 30, 1995 regarding the above site. Our response to your comments are as follows:

Comment a Any subsurface contamination was not the fault of East Charleston, Inc.

Response The Tentative Order does not assert that East Charleston, Inc. caused the contamination. However, East Charleston, Inc., as the current property owner, qualifies as a discharger under current law and Board policy.

Comment b There is no documentation I have seen that establishes that the subsurface contamination was the fault of Advalloy.

Response Regional Board files contain sufficient documentation to show that there is evidence of VOC release at the Advalloy site and that Advalloy's activities caused or led to the release. This release is the source of the subsurface contamination. You or your representatives are free to come to our office to review the files. Our files also indicate that you have a copy of a report prepared by Levine-Fricke titled "Further Investigations of Soil and Ground Water Near the Advalloy, Inc. Facility" dated July 11, 1989.

Comment c If it was the fault of Advalloy, it may have originated from neighboring property which Advalloy leased and which was used for product storage manipulation, etc.

Response Soil contamination at the Advalloy site (844 East Charleston Road) show high levels of VOC's including TCE up to 7,000 ppb, DCE up to 630 ppb, and Methylene Chloride up to 5,500 ppb. Unless otherwise proven, the high soil concentrations onsite are a source for groundwater contamination. There is no evidence of release at Advalloy's leased site. Please provide information to support your claim.

Comment d: Advalloy's die grinding was conducted at 3400 Fabian across the street. As you know, many solvents were used in dye cutting. This building is approximately the same size as 844 East Charleston. Thus we have Advalloy occupying three sites, only one of which was purchased by East Charleston, Inc.

Response See response to comment c. There is no evidence of release at 3400 Fabian Way.

Comment e. This property was acquired by East Charleston, Inc. out of bankruptcy and is a corporation solely established to hold this property and as such no assets beyond the property. You should know, there are back property taxes and if there were money available, it would go first to pay the county.

Response Comment noted. However, in your October 23 telephone conversation with Stephen Hill of my staff, you stated that these back taxes were being paid. We have no direct evidence of East Charleston, Inc. financial condition.

Comment f. Historically, this property was operated by Fairchild who operated not only this tract and the adjoining tract, but also the tract across the street at 3040 Fabian Way. It is my belief that the contamination, if any was caused by them. This belief is supported by the nature of the contamination and the upgradient content of the same.

Response The Board considered Fairchild's possible contribution to onsite contamination at the Advalloy site during the January 17, 1990 Board meeting. Finding 7 of Advalloy's Order 90-116 states that "based on the available history of chemical usage, storage and handling at the site Fairchild is not considered a discharger". Information in our files supports Finding 7 and you have presented no new information that would justify reopening this issue.

Comment g. It is my recollection that the most southerly monitoring wells on the Advalloy site were picking up contamination and the most likely the contamination originates upgradient from the Advalloy site. I would make a request for any information you would have to as to upgradient contamination.

Response See response to comment b.

Comment h. It is my belief that the bankruptcy has extinguished any claim you may have against Advalloy for cleanup and your cleanup order does no apply nor could it apply to the present owner. Significantly, you could have filed a claim in bankruptcy but chose not to do so.

Response The Attorney General, on behalf of the Regional Board, did file a claim during bankruptcy. Please contact Gary Grimm, our legal counsel, at (510) 286-0889 for more information.

Please contact Rico Duazo at (510) 286-0837 if you have any questions

Sincerely,

Lawrence P. Kolb
Acting Executive Officer

Stephen I. Morse
Chief, Toxics Cleanup Division

cc:

Marc Melnic, Office of the Attorney General
Gary Grimm, RWQCB Legal Counsel
Thomas Trapp, Landels, Ripley & Diamond

EXHIBIT D.10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESPONSE TO COMMENTS

TO: Bruce H. Wolfe
Executive Officer

Date: August 5, 2008
File No. 43S0246 (LM)

FROM: _____
Laurent Meillier
Engineering Geologist

CONCUR: _____
John D. Wolfenden
Section Leader
Toxics Cleanup Division

_____
Stephen A. Hill
Division Chief
Toxics Cleanup Division

SUBJECT: Response to Comments on the Tentative Order for the Final Site Cleanup Requirements for Advalloy, Inc., and East Charleston, Inc., 844 East Charleston Road (Site), Palo Alto, Santa Clara County

This document provides the response to comments received on the Tentative Order (TO) for the Final Site Cleanup Requirements for the subject Site. On June 19, 2008, staff distributed the TO to the appropriate parties for comments. On July 18, 2008, we received comments on the TO from the following parties:

Attorneys at Law Greben & Associates – Counsel representing East Charleston, Inc.
Law Office of Gary J. Grimm – Counsel representing Ford Motor Company.

East Charleston, Inc.

1) ***Comment:*** Keep Advalloy as a named discharger on the TO.

Response: Comment noted. Advalloy remains as a named discharger on the Revised Tentative Order (RTO).

2) Comment: Add Schlumberger Technology Corporation (Schlumberger) as a named discharger for the Site. Our records indicate that Schlumberger is the successor to Fairchild Semiconductor (Fairchild), which operated for 10 years at the Site prior to Advalloy. Fairchild operated a business at the Site that used chemicals that have been detected in the soil and groundwater at this Site. State Water Board Resolution 92-49, adopted after the Regional Water Board decided not to name Fairchild as a discharger for the Site in 1990, provides additional support for naming Fairchild as a discharger.

Response: We disagree. Resolution 92-49 identifies the following types of evidence that should be considered when determining if an entity should be named as a discharger.

a) Documentation of historical activities, waste characteristics, chemical use, storage or disposal information, as documented by public records, responses to questionnaires, or other sources of information;
b) Evidence of poor management of materials or wastes;
c) Lack of documentation of responsible management of materials or wastes;
d) Physical evidence; and
e) Reports and complaints.

On January 17, 1990, the Regional Water Board adopted Site Cleanup Requirements Order No. 90-016 for the Site and named Advalloy as the sole discharger. While Resolution 92-49 had not been written at that time, it was standard practice in 1990 (and prior to that time) for the Regional Water Board to use all available site use history when determining whether or not to name an entity as a discharger. Therefore, Order 90-016 was consistent with Resolution 92-49. Finding 7 of Order 90-016 states:

> Additionally, the records indicate that Fairchild had used some of the chemicals that have been detected in the sites soil and groundwater. However, based on the available history of chemical usage, storage and handling at the site Fairchild is not considered a discharger.

During the January 17, 1990, Water Board public hearing, Fairchild testified that it used the Site for office space, and its research operations did not use chemicals. The meeting minutes elaborate on the finding:

> Fairchild reported that the research section did not use chemicals as they did not need to use such chemicals and if Fairchild did occupy some space, it was for their office space. He claimed that the sump was not there when Fairchild occupied the site, but they did not have any evidence from that year proving that the sump was not there when Fairchild was using the property.

On November 15, 1995, the Regional Water Board adopted revised Site Cleanup Requirements Order No. 95-222 for the Site and named Advalloy and East Charleston as dischargers. East Charleston had acquired the property in bankruptcy in 1994. East Charleston did not request that Fairchild be named as a discharger for Order No. 95-222. This Order was adopted as an uncontested item.

We have received no new information since 1990 that would cause us to name Fairchild as a discharger. We added a sentence to finding 2 that there is no available evidence indicating Fairchild should be a named discharger.

3) Comment: Delete MW-01 A from the quarterly monitoring list. Change the monitoring frequency of MW-3 from quarterly to semi-annual monitoring.

Response: Comment noted. We made the requested changes to the RTO.

Ford Motor Company

1) Comment: Finding #1 – Add proposed residential use to the land-use sentence.

Response: Comment noted. Finding #1 of the RTO was modified to reference the proposed residential land use in the surrounding area.

2) Comment: Finding #5 – Clarify groundwater migration pathways at the Site, and identify deeper groundwater as a drinking water source.

Response: Comment noted. Finding #5 of the RTO was modified to acknowledge the complex nature of the hydrogeology where the shallow (approximately 6 to 55 feet bgs) groundwater is found. We acknowledge the presence of a deep groundwater aquifer found between 80 and 90 feet bgs.

3) Comment: Finding #6– State that VOCs (volatile organic compounds) impacts from the Site's discharges to deep (depths greater than approximately 80 feet below ground surface) groundwater are currently unknown. Indicate that the Site's VOCs discharges extend downgradient.

Response: Comment noted. The detections of trichloroethylene (TCE) in groundwater downgradient from the Site may originate from the following sources:

a) Microbiologically mediated degradation of tetrachloroethylene (PCE) resulting in the formation of TCE;
b) TCE discharges originating from 844 East Charleston Road subsequently impacting groundwater below downgradient properties;
c) Currently unidentified sources of TCE originating from off-site discharges.

The contributions of these potential various sources to groundwater quality impacts downgradient of the Site is unknown. The extent of the TCE groundwater plume downgradient of the Site needs to be accurately delineated. Finding #6 of the RTO was modified to include our current understanding of the extent of TCE impacts to groundwater quality at the Site and off-site.

4) Comment: Finding #7 – A) Include downgradient properties impacted by VOC discharges from Advalloy.
B) Delete 901 San Antonio Road as a source site.
C) Clarify Space Systems/Loral's downgradient activities.

Response: A) We disagree. The purpose of this finding is to briefly describe any nearby pollution sites whose contamination or cleanup activities affect the Site (or are affected by pollution from the Site), including current status of investigation/cleanup. It is not the purpose of this finding to list non-source sites affected by the Site. Thus no change to the RTO was made.

B) Comment noted. 901 San Antonio Road has been deleted as a source site.

C) Comment noted. We clarified the status of activities at Space Systems/Loral.

5) Comment: Finding #8 – Additional soil and groundwater remediation is needed at downgradient properties impacted by the Site's discharges.

Response: Comment noted. Finding #8 of the RTO was modified to indicate that soil and groundwater remediation is needed at the Site and downgradient of the Site.

6) Comment: Finding #10 – State that the Remedial Action Plan does not address impacts of discharges from the Site on downgradient properties.

Response: Comment noted. Finding#10 of the RTO was modified to indicate that additional groundwater remediation is needed downgradient of the Site.

7) Comment: Prohibition A.3 – Add nuisance condition to the prohibition.

Response: We disagree. This is the standard finding used in site cleanup orders. This prohibition prohibits further migration of contaminants, whether or not that contaminant migration causes a condition of nuisance. Thus, no change to the RTO was made.

8) Comment: RAP B.1 – Require remediation for off-site areas impacted by the Site discharges.

Response: Comment noted. Section B.1. of the RTO was modified to reference additional remedial actions required downgradient of the Site.

9) Comment: Cleanup Standard B.4 – State that soil gas standards for downgradient properties impacted by discharges from the Site should be determined based on land use considerations.

Response: Comment noted. Section B.4. of the RTO was modified to indicate that soil gas cleanup standards are based on the land use of the parcel.

10) Comment: Task C.1 – Include a requirement to investigate the downgradient impacts of the discharges from the Site.

Response: Comment noted. Task C.1. of the RTO was modified to explicitly include definition of pollution both at the Site and downgradient of the Site.

11) Comment: Task C.3 – Require actions and a time schedule for cleanup of any on-site soil where cleanup standards are exceeded.

Response: Comment noted. Task C.3. of the RTO was modified to include all contaminated soil.

12) Comment: Add a task to require remediation for off-site groundwater impacts from Advalloy discharges.

Response: Comment noted. Task C.4.g. was modified to require a proposal for additional remedial actions for areas downgradient of the Site that are impacted by Site Discharges.

13) Comment: Self-Monitoring Program – Add six downgradient monitoring wells locations to the Self Monitoring Program.

Response: We disagree. The evidence to date is not sufficient to indicate the magnitude of groundwater quality impacts caused by the Site's discharges at these proposed monitoring locations. However, Water Board staff will evaluate updating the self monitoring program as new information becomes available.

EXHIBIT D.11

Lease

made this 26th day of September, 19 57

between

EDWARD E. SCHLAGER and GLADYS M. SCHLAGER, his wife

Parties

as "Lessor,"
and

FAIRCHILD SEMICONDUCTOR CORP.

as "Lessee,"

Premises

For and in consideration of the rents, covenants and agreements hereinafter agreed by Lessee to be paid, kept and performed, Lessor leases unto Lessee and Lessee rents from Lessor the following described premises situated in the city of Palo Alto, County of Santa Clara, State of California:

That certain warehouse building of 14,400 sq.ft. m.o.l. situated on a portion of Lot 1, "TRACT 1234, LOURIE INDUSTRIAL TRACT", (said portion measuring 120 ft. x 200 ft.) and more commonly designated and known as: 840-844-848 CHARLESTON ROAD.

Said building to be equipped by the Lessor with the office space having a finished floor covering, central heating system, and 50 ft.candls. of lighting fixtures in place; and the warehouse portion to be equipped by the Lessor with an adequate heating system and acid-resistant sewer cut-fall lines, to be installed as per the specifications of the Lessee in accordance with the City of Palo Alto Building Department. Lessor will make an allowance up to Two Thousand & no/100 ($2,000.00) dollars to help defray the cost of lighting fixtures in the warehouse portion of the building. Lessee may not remove more than 2/3 of said fixture upon his termination of occupancy.

Power panel, bus-ducts and mechanical equipment installed by the Lessee for ventilating purposes such as fans, blowers, air conditioning units, etc. may be removed by the Lessee upon the termination of his occupancy in the hereinabove described premises, providing that any damage to the structure will be repaired at the expense of the Lessee.

Term

together with appurtenances for a term of Two (2) years commencing on the 15th day of October, 19 57, and ending on the 14th day of October, 19 59, paying therefor as rent unto Lessor during said term the total sum of FORTY-ONE THOUSAND FOUR HUNDRED SEVENTY-TWO & NO/100 " " "Dollars ($41,472.00)

Rent

in lawful money of the United States, in monthly instalments, payable in advance, on the day of each and every month during said term as follows:

$1,728.00 due and payable upon the signing of this lease, receipt of which is hereby acknowledged, and $1,728.00 on or before the 15th day of November, 1957 and a like amount on or before the 15th day of each and every month thereafter until said total rental shall be paid.

all of said rental shall be paid to Edward E. Schlager 4225 Los Palos Ave. Palo Alto, Calif. unless Lessor shall notify Lessee otherwise in writing.

Exhibit 2

Legal Forms Printing Service—Oakland 1, Calif.

The premises are leased to Lessee expressly in consideration of the covenants and agreements on Lessee's part hereinafter contained, to-wit:

Utilities

1. Lessee shall pay Lessor the said rent in the manner and at the times herein specified, without previous demand therefor, and in addition thereto shall pay for all water, gas, heat, electricity and power which may be furnished to or used in or about the premises during the term of this lease.

Holding Over

2. Should Lessee hold over said premises after this lease has terminated in any manner, such holding over shall be deemed merely a tenancy from month to month and at the rental of $ 2,000. per month, payable monthly in advance, but otherwise on the same terms and conditions as herein provided.

Destruction of Premises

3. In case the premises, or the building in which the same are situated, are totally destroyed by any cause whatever prior to the commencement of or during the term of this lease, then this lease shall thereupon immediately terminate and neither party hereto shall have any further rights or be under any further obligations on account of this lease, except Lessee for rent accrued; and if Lessee is not then in default in the performance of any of its obligations under this lease, Lessor shall refund to Lessee any unearned rents paid in advance by Lessee. For the purposes hereof, damage or injury to the extent of 33-1/3 per centum of the value of the premises shall constitute a total destruction thereof. In case the premises, or the building in which the same are situated, are partially destroyed by any cause whatever, Lessor with reasonable promptness and dispatch, shall repair and rebuild the same, providing the same can be repaired and rebuilt under State and Municipal laws and regulations within thirty working days, and Lessee shall pay rent during such period of repair or rebuilding in the proportion that the portion of the premises occupied by Lessee bears to the entire premises. For the purposes hereof, damage or injury which does not amount to 33-1/3 per centum of the value of the premises shall be considered as a partial destruction.

Assignment and Sub-letting

4. Lessee shall not assign or transfer this lease or any interest therein, nor sub-let the whole or any part of the premises without first having obtained the written consent of Lessor. Lessee agrees not to make or to suffer to be made any alterations, additions to, or repairs in or upon the premises without having first obtained the consent in writing of Lessor thereto; and Lessee further covenants and agrees that neither this lease nor any interest therein shall be assignable or transferable in any proceedings in execution against Lessee, or in any voluntary or involuntary proceedings in bankruptcy, or insolvency taken by or against Lessee, or by process of any law applying to such proceedings without the written consent of Lessor; and that upon any assignment, sale or transfer of this lease, or any interest therein, by judgment, execution, bankruptcy or insolvency proceedings, or by any process of or operation of any law applying to such proceedings, this lease shall immediately terminate at the option of Lessor.

Use

5. The premises are hereby leased to Lessee upon the express condition that Lessee shall use said premises **for electronic research, development and production, general warehousing and office space, as allowed by the Zoning Ordinance of the City of Palo Alto, California.**

and for no other purpose, without the written consent of Lessor, during the whole term of this lease; and upon the further condition that no goods, merchandise or materials shall be kept, stored or sold in said premises which are in any way hazardous, or which will increase the present rate of fire insurance upon the building of which said premises form a part; and upon the further condition that no auction sale shall be conducted in said premises.

Repairs and Maintenance

6. The taking possession of the premises by Lessee shall, in itself, constitute an acknowledgment by Lessee that said premises are in good and tenantable condition and Lessee hereby expressly waives the benefit of the provisions of Section 1942 of the Civil Code of the State of California and any and all other statutes, laws or ordinances permitting a tenant to make repairs at the expense of a landlord or to terminate a lease by reason of the condition of said premises, and covenants and agrees at its own cost and expense, during the full term hereof, to keep and maintain the interior of said premises, including plumbing, in good order and repair and in tenantable condition, injury thereto or destruction thereof by the elements or an act of God excepted; and also during the full term of this lease, at its own cost and expense, to make all repairs and replacements of whatsoever kind or nature, either to the exterior or to the interior of said premises rendered necessary by reason of any negligence or omission of Lessee or its agents, servants or employees.

Removal of Fixtures

All locks or bolts, alterations or improvements, affixed to or made upon said premises by either of the parties hereto, except movable and unattached partitions and other trade fixtures placed therein by Lessee, shall be and become the property of Lessor, and shall remain upon and be surrendered with the premises as part thereof upon the termination of this lease, **excepting as hereinabove mentioned.**

Window Glass

7. Lessee shall replace at once and at its own cost and expense all show windows or skylight glasses in said premises that may be broken from any cause whatsoever during its occupancy of said premises, breakage by fire, act of God, or of Lessor, its agents or employees excepted, and the taking possession of said premises by Lessee shall constitute an acknowledgment by Lessee that all show windows and skylight glasses in said premises are unbroken and in good condition at the commencement of this lease. Lessee shall compensate Lessor upon demand for all damage or injury to said premises, or the building of which said premises form a part, by the act or omission of Lessee, its agents or employees, or of any person or persons who may be in or upon said premises with or without the consent of Lessee.

Hold Harmless

8. This lease is made upon the express condition that Lessor shall not be liable for any damages or claims for damages by reason of any injury or death to any person or persons while in, upon or in any way connected with said premises, or the sidewalks adjacent thereto, during the occupancy thereof by Lessee; and Lessee further agrees to hold and save Lessor harmless from any and all liability and every and all damages or claims for damages, together with any and all costs and expenses connected therewith, arising out of the injury to or the death of any person or persons in or about, or in any way connected with the premises or the sidewalks adjacent thereto, during the term of this lease.

Waiver of Damages

9. Lessee expressly waives all claim against Lessor for damage or injury from any cause whatsoever to any property of any kind, contained in said premises, or for the destruction thereof from any cause.

Entry and Inspection

10. Lessor, or its duly authorized representatives, or agents, may enter upon said premises at any and all reasonable times during the term of this lease for the purpose of determining whether Lessee is complying with the terms and conditions hereof, or for any other purpose incidental to the rights of Lessor.

Costs of Suit

11. If any action shall be brought by Lessor for the recovery of any rent due under the provisions of this lease, or for the breach or enforcement of any of the conditions, covenants or agreements herein set forth on the part of Lessee to be kept and performed, or for the recovery of said premises and Lessor shall prevail in any such action, Lessee agrees to pay to Lessor on demand a reasonable attorney's fee (not exceeding the sum of $ 200.00), and further agrees that said attorney's fee shall be and become a part of Lessor's judgment in any such action.

Non Waiver of Breach

12. No waiver by Lessor at any time of any of the terms, conditions, covenants or agreements of this lease shall be deemed or taken as a waiver at any time thereafter of any of the same, nor of the strict and prompt performance thereof by Lessee.

Surrender of Premises

13. Lessee agrees at the expiration of the term of this lease, or upon the earlier termination thereof for any reason, to quit and surrender said premises to Lessor in as good state and condition as said premises are in when possession thereof is given to Lessee, reasonable wear and tear and damage by the elements or an act of God excepted, and Lessee agrees at the expiration of the leased term hereof or any prior termination thereof to remove or cause to be removed any and all signs that have been placed upon, in or about the premises by Lessee and to repair and restore the premises to the same condition prior to the time of placing of said signs upon, in or about the premises by Lessee, reasonable wear and tear and damage by the elements excepted; Lessee agrees that at any time after thirty days prior to the termination of this lease, Lessor may place thereon any usual or ordinary "To Let" or "To Lease" or "For Sale" signs.

Default in Rent and Re-entry

14. If the rents herein reserved, or any part thereof, shall be unpaid for ten days after the date on which the same shall become due, as aforesaid, or if default on the part of Lessee be made in all or any of the agreements herein contained, Lessor shall have the option to declare this lease forfeited, and the same shall thereupon entirely cease and determine without written notice; and it shall be lawful for Lessor to re-enter and take possession of said premises and remove all persons and property therefrom; and Lessor may, after taking possession as aforesaid, at Lessor's option and without notice to Lessee re-let the premises, all without prejudice to Lessor of any remedies which might otherwise be used for the collection of the rents hereinbefore specified, or damages to Lessor occasioned by such removal is hereby expressly waived by Lessee. It is understood and agreed that each and all of the remedies given Lessor hereunder are cumulative and that the exercise of one right or remedy by Lessor shall not impair its right to any other remedy.

Uses Prohibited

15. The premises shall not be used or permitted to be used in whole or in part during the said term of this lease for any purpose or use in violation of any of the laws or ordinances applicable thereto; and Lessee agrees at all times during the term of this lease to construct, repair, maintain and do all things necessary to maintain the premises in a clean and sanitary manner and in compliance with any and all Federal, State or Municipal regulations or ordinances now or hereafter enacted concerning the conduct of Lessee's business in the premises.

Notices

16. Any demand or notice which either party shall be required, or may desire, to make upon or give to the other, shall be in writing and shall be delivered personally upon the other, or sent by prepaid registered mail addressed to the respective parties, as follows:

Lessor: 4225 Los Palos Ave. Palo Alto, California.

Lessee: 844 Charleston Road Palo Alto, California.

Notice by registered mail shall be deemed to be communicated twenty-four hours from the time of mailing.

Delivery of Possession

17. In the event of the inability of Lessor to deliver possession of the premises at the time herein provided, Lessee agrees that Lessor shall not be liable for any damages thereby, and that this lease shall not thereby become void or voidable but in such event Lessee shall not be liable for any rent until such time as Lessor can deliver possession.

Terms Defined

18. The words "Lessor" and "Lessee" as used herein shall include the plural as well as the singular. Words used in masculine gender include the feminine and neuter. If there be more than one Lessor or Lessee the obligations hereunder imposed upon Lessor or Lessee shall be joint and several. The marginal headings or titles to the paragraphs of this lease are not a part of this lease and shall have no effect upon the construction or interpretation of any part thereof.

Binding

19. This lease is and shall be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto.

Time

20. Time is hereby expressly declared to be of the essence of this lease and of all the covenants, agreements, conditions and obligations herein contained.

Deposit

21. In further consideration of the foregoing lease, the Lessee does hereby deposit with the Lessor the sum of $3,456.00, receipt of which is hereby acknowledged, said sum to be held by the Lessor as security that the Lessee shall well and truly pay all rents and perform all the covenants herein contained on his part, and in the event of his failure to do so in any particular, said sum shall be applied by the Lessor on account of damages, whereupon Lessee shall forthwith restore said security to its original amount; and in the event of the Lessee's fully performing all the covenants herein contained on his part and paying all rents, then in that event the said sum shall, at the expiration of the term herein provided, be returned to the Lessee.

Possession 22. Possession of the building shall be given Lessee upon completion by the Lessor, [illegible] to be pro-rated depending on whether possession is given before or after October 15, 1957.

Option 23. Lessee is hereby given the option to renew this lease through the offices of Jerrold S. Engle, Realtor and Yarkin Realty, for an additional period of one to three years subject to all its terms and conditions, provided however said option is exercised in writing at least 60 days prior to the expiration of the existing term, and provided further that in the event the City of Palo Alto and/or the County of Santa Clara real property taxes and/or assessments increase beyond said taxes and assessments for the fiscal year 1958-59, such increases if any shall be paid by the Lessee. Lessee is further given the option to renew this lease through the offices of Jerrold S. Engle, Realtor and Yarkin Realty for an additional five (5) years beyond the aforementioned three years, subject to all its terms and conditions except rental, providing said option is exercised in writing at least 90 days prior to the expiration of the then term. In the event that the Lessee and the Lessor cannot agree on a monthly rental for said additional term within the next 45 days, the monthly rental shall be determined by arbitration in the customary manner, to wit: Lessor and Lessee shall each appoint an arbitrator to represent them. In the event said arbitrators are unable to arrive at an agreeable monthly rental, then and in that event, the aforementioned arbitrators shall mutually agree and appoint a third arbiter, and settle the dispute by majority vote.

Insurance 24. Lessee agrees to provide public liability insurance in an amount not less than $500,000.00 and name the Lessor as co-insured.

IN WITNESS WHEREOF the said parties hereto have subscribed their names and affixed their seals, in duplicate, the day and year first hereinabove written.

FAIRCHILD SEMICONDUCTOR CORP.

by: .....
Title

by: .....
Title

Lessee Lessor

(corp. seal)

BUILDING .....
ADDRESS .....
DATED .....
COMMENCEMENT OF TERM
EXPIRATION OF TERM
MONTHLY RENTAL .....

LESSEE

LESSOR

True

EXHIBIT D.12

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

TO: Bruce H. Wolfe
Executive Officer

Date: December 3, 2008
File No. 43S0246 (LM)

FROM: Laurent Meillier
Laurent Meillier
Engineering Geologist

CONCUR: John D. Wolfenden
John D. Wolfenden
Section Leader
Toxics Cleanup Division

John D. Wolfenden FOR
Stephen A. Hill
Division Chief
Toxics Cleanup Division

SUBJECT: Recommendation to Name Fairchild Semiconductor Corporation as a Discharger, 844 East Charleston Road, Palo Alto, Santa Clara County

I. Summary

Staff recommends that the Water Board name Fairchild Semiconductor Corporation (Fairchild) as a discharger in the Site Cleanup Requirements for 844 East Charleston Road in Palo Alto (Site). This recommendation is a change from staff's recommendation to not name Fairchild when the Board considered site cleanup requirements for the Site in 1990. The two new pieces of information we now have that caused us to change our recommendation are: 1) based on our experience with other cases and industry-wide experience, we now know that sanitary sewer lines are prone to leak, and 2) a recent sewer video shows the sanitary sewer line that Fairchild discharged to has corrosion, which further indicates that leaks could have occurred during Fairchild's occupancy.

II. Background

The 14,600 square foot building at the Site (Figure 1) was constructed in 1957. Fairchild began leasing the Site on October 15, 1957. In 1959 at this Site, Fairchild completed the first integrated circuit that could be produced commercially. It consisted of a complete electronic circuit inside a small silicon chip. From 1957 through 1961, Fairchild conducted research and small-scale production of integrated circuits at the Site; from 1961 through 1962, it conducted research and development; and from 1962 through 1967, it conducted instrumentation manufacturing. Fairchild's lease on the Site terminated on October 14, 1967.

Advalloy, Inc., (Advalloy) leased the Site in 1968 and purchased the Site in 1971. Advalloy occupied the Site until 1989. Advalloy conducted precision metal stamping for the semi-conductor industry. Advalloy declared bankruptcy in 1994. Advalloy discharged its industrial wastes through a sump located in the southern portion of the Site (Figure 2). East Charleston, Inc., (East Charleston) acquired the Site in bankruptcy in 1994. The Site is currently used for storing furniture for real estate staging.

On January 17, 1990, the Water Board adopted initial Site Cleanup Requirements Order No. 90-016. This Order required Advalloy to complete the characterization of groundwater impacts at the Site, identify the source of this groundwater pollution, propose and implement interim remedial actions, and propose final remedial actions. On November 15, 1995, the Water Board adopted revised Site Cleanup Requirements Order No. 95-222. This Order required Advalloy and East Charleston to complete the remedial investigation, propose and implement interim remedial actions, and propose final remedial actions.

III. Summary of 1990 Board Decision to Not Name Fairchild as a Discharger

During the January 17, 1990, Board meeting, both Advalloy and Fairchild presented arguments on the issue of naming Fairchild as a discharger. In a January 1990 report, Water Board staff summarized its recommendation for not naming Fairchild as a discharger at that time.

The 1990 report notes that:
1) Fairchild used VOCs that were found in the soil and groundwater;
2) Fairchild discharged its VOCs through the sanitary sewer;
3) Fairchild stored VOCs and acids on the site;
4) Industry chemical handling practices were poor at that time.
However, Water Board staff recommended that Fairchild not be named as a discharger in Site Cleanup Requirements Order No. 90-016. This decision was based on the absence of any known spills or releases to the environment during Fairchild's occupancy of the property. The 1990 staff report also indicated that "there does not seem to be a clear picture of Fairchild chemical and amount of manufacturing". The report indicates that that "there was no significant treatment of waste" at the Site during Fairchild's occupancy.

No one has contested naming Advalloy as a discharger in any of the Board decisions. Advalloy used chlorinated solvents in its precision metal stamping for the semi-conductor industry and discharged these solvents to the southern sanitary sewer network. The southern sanitary sewer network leaked and caused a discharge to groundwater.

IV. New Information

The following new information was made available to Water Board staff as staff prepared an update to the Site Cleanup Requirements.

- An August 29, 2008, video of the underground sanitary sewer lines at four locations at the Site.
- Recent Water Board case experience where discharge of chlorinated solvents to the sanitary sewer line was the source of a discharge to soil and groundwater.

V. Arguments for Naming Fairchild as a Discharger

The arguments for naming Fairchild as a discharger include:

- Fairchild used chlorinated solvents (including TCE) and acids in its manufacturing processes.
- Fairchild discharged chlorinated solvents and acids to the sanitary sewer.
- A video of the sanitary sewer line that Fairchild discharged to shows evidence of corrosion and potential leakage points.
- Sanitary sewer lines are prone to leak.
- TCE is present in groundwater in the immediate vicinity of the sanitary sewer line.

Fairchild Used Chlorinated Solvents in Its Manufacturing Processes

Fairchild's manufacturing processes of innovative integrated circuits required the testing of various highly specialized processes. Julius Blank, a former employee of Fairchild, indicated in a declaration made in 1989 that: "Fairchild's researchers experimented with various methods of lapping, polishing, etching and cleaning fragments of the silicon crystal slices. Some of these processes involved the use of acids and solvents, including trichloroethylene ("TCE"), in very small quantities. Because the research was directed at finding the best chemicals for these processes, various chemicals were constantly being tried and accepted or rejected for further use. Research on lapping, polishing, etching and cleaning of the silicon slice fragments took place in six to eight small rooms added by Fairchild in two rows down the center of the building."

Fairchild chemical use history during its operations indicated that it used the same solvents that were found in soil and groundwater beneath the Site. Chemical inventory records dated November 1957 indicate that trichloroethylene, carbon tetrachloride, nitric acid and hydrofluoric acid 48% were stored at the Site in cases ranging between gallons to pints size bottles depending on the chemical. The record for November 1957 shows a total of 126 lbs of nitric acid, 50 liters of hydrofluoric acid 48% and 22 liters of TCE were stored at the Site. This November 1957 chemical inventory information is an estimate for the first year of operation. Fairchild's chemical use during the production years of 1958 through 1961 was likely greater. Chemical handling practices conducted by Fairchild are not clearly known during their leasing of the Site.

A May 1958 Fairchild letter to the Palo Alto Building Department indicates that polyethylene and PVC piping was unsuitable for sink drains installed at the Site where organic solvents were used. The letter notes that "polyethylene sinks are standing up under hard usage of both acids and solvents with no visible sign of serious deterioration. This is probably due to the fact that no fluid can collect in the sink and is allowed to drain freely."

A November 1989 letter from Landels, Ripley & Diamond representing Fairchild indicated that "Fairchild's former employees also recall that the small amount of solvents and acids remaining in the Petri dishes at the conclusion of the experiments were disposed of through the sink drains in the center rooms to the sanitary sewer lines following acid neutralization by dilution in flow-through catch basins below the sinks."

In October 1964, Fairchild issued a letter to the Palo Alto Fire Department highlighting steps recently taken to eliminate Fairchild's violations of the fire code. For example, the letter states that "Gallon containers of solvent have been placed in the storage sheds awaiting purchase of safety containers."

Overall, the emerging semiconductor industry did not have consistent and documented chemical handling practices in the 1950's and 1960's. Manufacturing activities during this time pre-dated our understanding of the potential for soil and groundwater contamination from these activities. Regulators didn't require extensive reporting on these activities due to the lack of knowledge at the time of their potential impacts to soil and groundwater.

Fairchild Discharged Chlorinated Solvents and Acids to the Sanitary Sewer

Fairchild's manufacturing activities at the Site discharged chlorinated solvents and acidic solutions to the northern sanitary sewer network. Water Board staff reviewed a map submitted by Advalloy to the Palo Alto Regional Water Quality Control Plant and blueprints available for the Site. The northern network of pipes and drains is physically separated from the southern sanitary sewer network that Advalloy used for manufacturing activities. Advalloy reportedly only used the southern sanitary sewer network for discharge of industrial wastes. Advalloy reportedly used the northern network for its sanitary waste discharges. There is no documented use of this northern section of the sanitary system for industrial waste disposal by Advalloy. Figure 2 is a diagram of the sanitary sewer lines at the Site.

Sanitary Sewer Line Corrosion and Potential Leakage Points Observed on Video

ECI's consultant filmed a video of four different locations of the sewer lines at the Site on August 29, 2008. The video revealed varying degrees of corrosion and potential leakage points in all the sewer lines. The northern section of the sewer line where Fairchild discharged appeared to have corrosion. It had corrosion pits on all sides throughout its entire length. In some instances, zones of seemingly bare soils were observed on the video recording. In some areas of the northern sewer network, the lines appear to have lost their spherical shape and show an oval shape that could be caused by weakening of the sewer pipe wall (Figure 3). An apparent leak area was observed immediately prior to a northwesterly turn in the pipe at the 57-foot mark where fluid velocities could be reduced due to the turn in the pipe. This apparent leak area is also marked on Figure 2.

The acid / solvent waste stream that Fairchild discharged to the sanitary sewer could have caused enough corrosion for leaks to occur during Fairchild's occupancy. Leaks could have also occurred through pipe joints or some of the defects seen in the sanitary sewer video.

On November 21, 2008, Water Board staff met with Rich Cunningham, Public Works Manager of the City of Albany and current chair of the Collection Systems Committee of the Bay Area Clean Water Agencies, to view the sanitary sewer line video. Staff discussed the corroded nature of the cast iron sanitary sewer pipe with Mr. Cunningham. Staff learned from him that the corrosion appears to be classic wear patterns of normal corrosion for a fifty-year-old cast iron sanitary sewer pipe. The small indentation-marks in the sides of the pipe along its total length

appear to be the cast iron pipe slowly delaminating. There do not appear to be signs of significant acid-based corrosion along the length of the pipe which would be indicated with distinct troughing or tunneling along the length of the pipe. There appears to be bare soil at the 57-foot marker and a trough at the 58-foot marker, but these are unusual in that they are an isolated occurrence and not consistent throughout the length of the pipe. One possible cause for these occurrences could be an external disturbance to the pipe at this location. Regardless of the origin of the apparent defects at 57 and 58 feet, the defects could be a source of leakage from the pipe.

Sanitary Sewer Lines are Prone to Leak

It is the experience of Water Board staff, based on many years of overseeing contaminated site investigation and cleanup, that sanitary sewer lines are prone to leak and even small VOC releases from a sanitary sewer can cause significant water quality impacts and soil contamination. Because of this experience, current investigative practices usually include collecting soil, soil gas, and groundwater samples around and beneath sanitary sewer lines. Staff conducted an internal survey of active cleanup sites we oversee to identify cases where leaks from sanitary sewer lines were the source of discharges to soil and groundwater. Ten such cases were reported in the survey (Table 1).

High Levels of Groundwater Contamination Near Sanitary Sewer Line

Groundwater in the vicinity of the sanitary sewer line Fairchild discharged to is contaminated with TCE, which is a chemical Fairchild discharged to the sanitary sewer during its occupancy of the Site. A shallow water bearing zone (A-aquifer) is found between 6 to 30 feet below ground surface (bgs). A deeper water bearing zone (B-aquifer) is found between 38 to 55 bgs. The C-aquifer is found between 80 and 90 feet bgs. The primary volatile organic compounds (VOCs) detected in groundwater beneath the Site are trichloroethylene (TCE) and its associated degradation products: cis-1,2 dichloroethylene (DCE) and vinyl chloride (VC). In September 2008, TCE, DCE and VC were detected in the onsite A-aquifer at the respective groundwater concentrations of 440 ppb, 96 ppb and 1,400 ppb (Figure 4). In October 2008, TCE, DCE and VC were detected in the onsite B-aquifer at the respective groundwater concentrations of 42,000 ppb, 4,300 ppb and 45,000 ppb in the northern portion of the Site (Figure 5). The bulk of the contamination is currently found in the B-aquifer.

The higher TCE concentration found in the B-aquifer may be caused by the difference in the horizontal groundwater velocity between the A- and B-aquifers, the characteristics of TCE, the heterogeneous geological conditions, and the age of the releases. The horizontal groundwater velocity for the A- and B-aquifers have been calculated at 1.9 – 2.5 ft/day and 0.27 feet/day, respectively. The slower groundwater velocity in the B-aquifer may slow down TCE dilution in the B-aquifer, resulting in higher VOC concentrations in groundwater.

TCE is heavier than water (specific gravity 1.46) and has a low solubility value (1,110 mg/L). Therefore, TCE is classified as a dense nonaqueous phase liquid, or DNAPL. This class of chemicals will tend to sink through the water column until they encounter a barrier (such as an aquitard) that is sufficiently impermeable to stop transport. The behavior of DNAPL in groundwater partly explains the higher TCE detections in the B-aquifer.

VI. Arguments against Naming Fairchild as a Discharger

The arguments against naming Fairchild as a discharger include:

- Fairchild's manufacturing and chemical use was on a very small scale that was not large enough to impact soil and groundwater.
- During the four years of Fairchild's manufacturing operations (1957 – 1961), the sanitary sewer line was new and should not have leaked.
- Advalloy's chemical use practices can explain all the contamination in soil and groundwater at the Site.
- If Fairchild caused discharges to soils and groundwater from the northern sanitary sewer line, then groundwater concentrations should be higher in the A-zone than the B-zone.

Small Scale Manufacturing and Chemical Uses Conducted by Fairchild at the Site

Fairchild conducted limited manufacturing at the Site that did not require the use of large quantities of chlorinated solvents. According to former Fairchild employees, chemical uses were minimal. Mr. Blank stated that chemicals such as solvents were applied "to the silicon slice fragments in small petri dishes." Mr. Wilson stated that "solvent recovery was not practiced due to the extremely small quantities of waste, solvents produced." He further stated that "limited production activities" took place to the east and west of the center rooms in the 844 East Charleston Road building.

Experiments conducted at the Site were held using stringent chemical handling practices, which prevented chemical spills at the Site. The Palo Alto Fire department does not have a record of any spills during Fairchild's occupancy of the property.

Any chemical waste generated by Fairchild was first transported in an above ground piping system that would have made any leaks easily detectable. Waste was carried above ground within the building in a high silicon content Duriron pipe (14.5% silicon) whereas waste was carried below the building in cast-iron sanitary sewer (2 % silicon) pipes. Duriron pipes are usually of smaller diameter and thinner walled. Hydrofluoric acid (HF) is used in etching glass and silicon wafers. Therefore, due to its higher silicon content, Duriron would have been more susceptible to leaks than the cast iron sanitary sewer pipe. Since there were no above ground leaks noticed in the Duriron piping, it's unlikely that below ground leaks occurred in the cast iron pipe.

Sanitary Sewer Line was New During Fairchild's Use

The sanitary sewer line was new when Fairchild first occupied the building. It is unlikely that Fairchild's small chemical usage corroded the new sanitary sewer line in the four years of Fairchild's manufacturing use (1957 – 1961). The sanitary sewer video from 2008 was taken 41 years after Fairchild vacated the Site. It is unreasonable to conclude that the current sanitary sewer line condition is representative of the time during Fairchild's use of the sanitary sewer line.

Advalloy's Chemical Use Caused Soil and Groundwater Contamination

Advalloy's chemical use practices can explain all the contamination in soil and groundwater at the Site. Advalloy used TCE in its precision and metal stamping activities for the semi-conductor and defense industries. Numerous notices and violations of hazardous materials handling practices have been documented by the City of Palo Alto during Advalloy's use of the property. East Charleston does not contest the fact that Advalloy is a discharger at the site.

Despite the absence of documentation, Advalloy may have used the northern sanitary sewer network for the disposal of its industrial wastes and subsequently caused additional degradation to the drains network.

Low A-aquifer Concentrations Do Not Indicate Release from Sanitary Sewer Line

If Fairchild caused discharges to soils and groundwater from the northern sanitary sewer line, then groundwater concentrations should be higher in the A-aquifer than the B-aquifer. But this is not the case. Chlorinated solvents concentrations are an order of magnitude higher in the B-aquifer than the A-aquifer. The pattern of contamination at the site is not consistent with a release from the sanitary sewer line.

VII. Discussion

In order to name Fairchild as a discharger, the Board must find that Fairchild caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into waters of the State. Whether a person caused or permitted such waste discharges has been broadly construed by the State Water Resources Control Board (State Water Board) and the courts to include owners and operators at the time of discharge. Further, the State Water Board has held, "Generally speaking it is appropriate and responsible for a regional board to name all parties for which there is reasonable evidence of responsibility, even in the cases of disputed responsibility. There must be substantial evidence to support a finding of responsibility for each party named. This means credible and reasonable evidence which indicates the named party has responsibility." In the Matter of Exxon Company, Order No. WQ 85-7.

State Water Board Resolution 92-49 provides instructions on the kinds of evidence that will support the naming of a party to a cleanup order. It states that a regional water board shall:

A. Use any relevant evidence, whether direct or circumstantial, including, but not limited to, evidence in the following categories:

1. Documentation of historical or current activities, waste characteristics, chemical use, storage or disposal information, as documented by public records, responses to questionnaires, or other sources of information;

2. Site characteristics and location in relation to other potential sources of a discharge;

3. Hydrologic and hydrogeologic information, such as differences in upgradient and downgradient water quality;

4. Industry-wide operational practices that historically have led to discharges, such as leakage of pollutants from wastewater collection and conveyance systems, sumps, storage tanks, landfills, and clarifiers;

5. Evidence of poor management of materials or wastes, such as improper storage practices or inability to reconcile inventories;

6. Lack of documentation of responsible management of materials or wastes, such as lack of manifests or lack of documentation of proper disposal;

7. Physical evidence, such as analytical data, soil or pavement staining, distressed vegetation, or unusual odor or appearance;

8. Reports and complaints;

9. Other agencies' records of possible or known discharge; and

10. Refusal or failure to respond to Regional Water Board inquiries.

The arguments in section V. above for naming Fairchild as a discharger provide sufficient evidence to find that Fairchild caused a release to soil and groundwater.

We conclude that the arguments against naming Fairchild as a discharger carry less weight than the arguments for naming Fairchild as a discharger, as discussed below.

a) Regarding the volume of Fairchild's chemical usage, Fairchild's production was reportedly small-scale, but it was a production facility nonetheless. We only have a chemical use estimate from the first month of Fairchild's operation at this site. Fairchild's chemical usage was likely greater in subsequent production years.

b) Regarding the sanitary sewer line being new during Fairchild's tenure, it is true that a newer sanitary sewer line should be less susceptible to leakage. However, the acid / solvent waste stream that Fairchild discharged to the sanitary sewer could have caused enough corrosion for leaks to occur during Fairchild's occupancy. Leaks could have also occurred through pipe joints or some of the defects seen in the sanitary sewer video. It is now considered common knowledge in the investigation and cleanup field that sanitary sewer lines receiving acid / solvent discharges are prone to leaking.

c) It is not possible to tell exactly when the corrosion occurred based on a video of a 50-year-old pipe. However, the combination of the following factors, when collectively taken together, are enough to recommend that Fairchild be named as a discharger on the Site Cleanup Requirements: Fairchild used acids and solvents in its manufacturing processes and discharged these chemicals to the sanitary sewer line; sanitary sewer lines are prone to leak; the sanitary sewer line Fairchild discharged to was corroding during its life; and groundwater beneath the sanitary sewer line is contaminated with TCE.

d) Regarding Advalloy's chemical usage being adequate to explain the TCE found in soil and groundwater, it is possible that the TCE found in soil and groundwater could be caused by Advalloy. However, it is more likely that the TCE found in A-aquifer well RW-2A on the northwest of the Site would be from a discharge from the northern side of the building, which is where Fairchild discharged to the sanitary sewer. A section of the line with what appears to be a leak area and bare soil is 12 feet cross gradient from B-aquifer monitoring well MW-3B where TCE concentrations of up to 42,000 ppb were detected, and is 44 feet cross gradient from A-aquifer monitoring well RW-2A where TCE concentrations of up to 120,000 ppb were detected.

e) Regarding a reasonable explanation for why TCE is found at roughly an order of magnitude higher concentration in the B-zone than in the A-zone, it is not uncommon for TCE to sink to lower groundwater zones because TCE is heavier than water. The higher TCE concentration found in the B-aquifer may be caused by the difference in the horizontal groundwater velocity between the A- and B-aquifers, the chemical characteristics of TCE, the heterogeneous geological conditions, and the age of the releases.

VIII. Conclusion

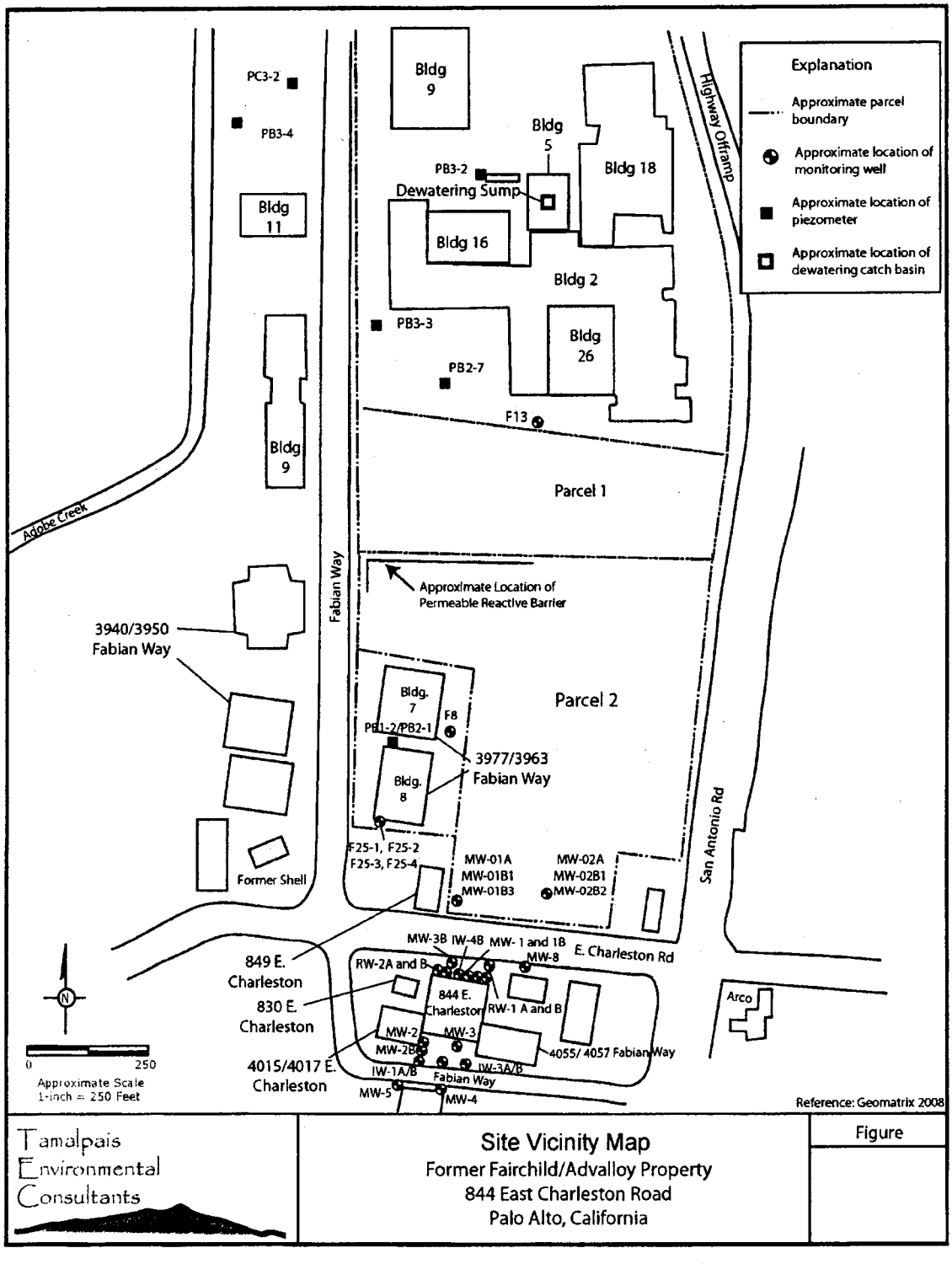
Based on a review of all relevant information (including the Site history), and in light of the available new information (including the current knowledge that sanitary sewer lines are prone to leak and the video showing corrosion in the sanitary sewer line Fairchild discharged to) staff recommends that the Water Board name Fairchild as a discharger in the Site Cleanup Requirements.

Attachments:
Table 1: List of Water Board Cases where Leaks from Sanitary Sewer Lines were the Source of Discharges to Soil and Groundwater
Figure 1: Site Vicinity Map
Figure 2: Sanitary Sewer Lines and Piping Network below the Site
Figure 3: Video Image of Sanitary sewer Line at 57 feet Interval Showing Corroded Section of Line Used by Fairchild.
Figure 4: A-Aquifer TCE Concentrations in Groundwater (September 2008)
Figure 5: B-Aquifer TCE Concentrations in Groundwater (October 2008)

Table 1: List of Water Board Cases where Leaks from Sanitary Sewer Lines were the Source of Discharges to Soil and Groundwater

Sites Where Sanitary Sewer Line Caused VOC Discharge to Subsurface		
Site	**Case Manager**	**Comments**
1114 Branham Lane, San Jose	Dave Barr	Dry cleaner with highest level of contamination under sanitary sewer line
Roy's Dry Cleaner, Redwood City	Dave Barr	Dry cleaner with leaking sanitary sewer line causing high groundwater contamination
Electroglas, Santa Clara	Dave Barr	Release of PCE from sanitary sewer line caused groundwater contamination
Sunnyvale Town Center Mall	Nathan King	Dry cleaner with high groundwater contamination under sanitary sewer line
Marin Cleaners	Ralph Lambert	Dry cleaner with high groundwater contamination along sanitary sewer line
IBM, San Jose	Max Shahbazian	TCE impacted soil and groundwater around sanitary sewer line
Heon's Dry Cleaner, Marin County	John Jang	Dry cleaner where leaking sanitary sewer line contributed to groundwater contamination
Royal Crown Cleaners, Sonoma	John Jang	Dry cleaner where leaking sanitary sewer line contributed to groundwater contamination
Teledyne, Mountain View	Roger Papler	High TCE concentrations beneath sanitary sewer line
Montwood, Mountain View	Roger Papler	Breaks in sanitary sewer line upgradient of high TCE groundwater contamination
Hewlett Packard, Palo Alto	Roger Papler	Accidental discharge of TCE to storm sewer caused TCE release to groundwater

Figure 1: Site Vicinity Map



Tamalpais Environmental Consultants

Site Vicinity Map
Former Fairchild/Advalloy Property
844 East Charleston Road
Palo Alto, California

Figure

Figure 2: Sanitary Sewer Lines and Piping network below the Site

Approximate Location of the 57 feet benchmark Indicating Pipe Perforation

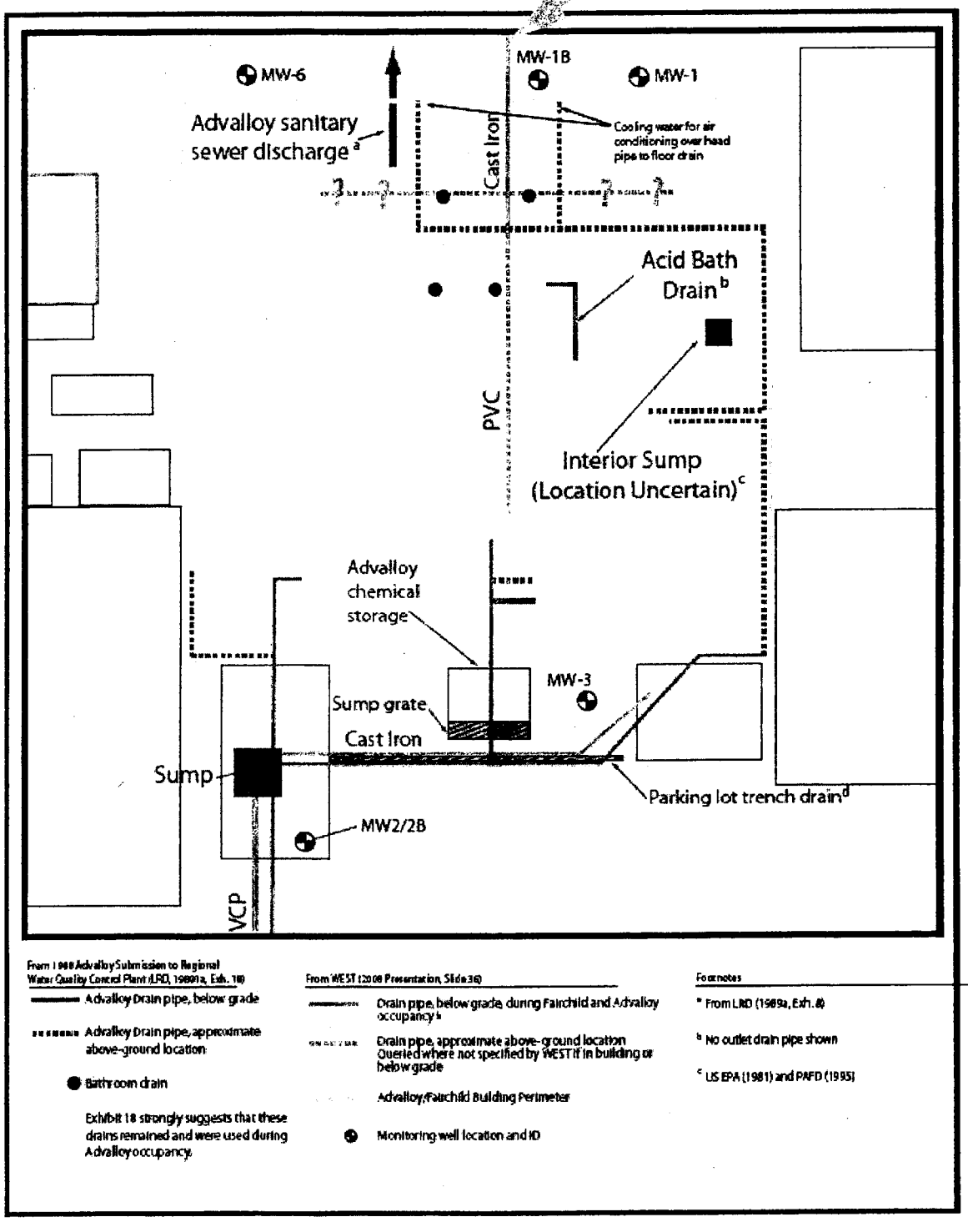
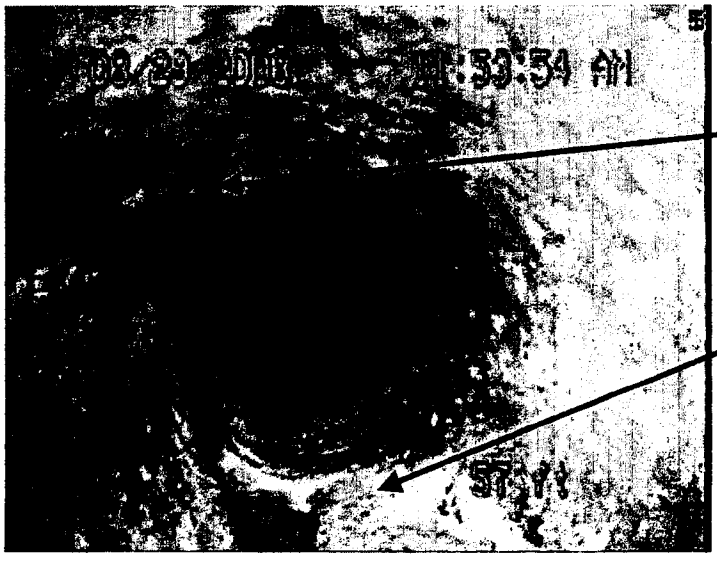


Figure 3: Video Image of Sanitary Sewer Line at 57 feet Interval Showing Corroded Section of Line Used by Fairchild

<u>Invert</u>: Bottom portion of the inside open section of a pipe.
<u>Sofit</u>: Top portion of the inside open section of a pipe.



Note: Due to a video recording artifact, the top of the sanitary sewer line is depicted in the bottom of the pictures included in Figure 3 above. Pipe orientation is determined by fluxing fluid through the pipe during video recording.

Figure 4: A- Aquifer TCE Concentrations in Groundwater (September 2008)

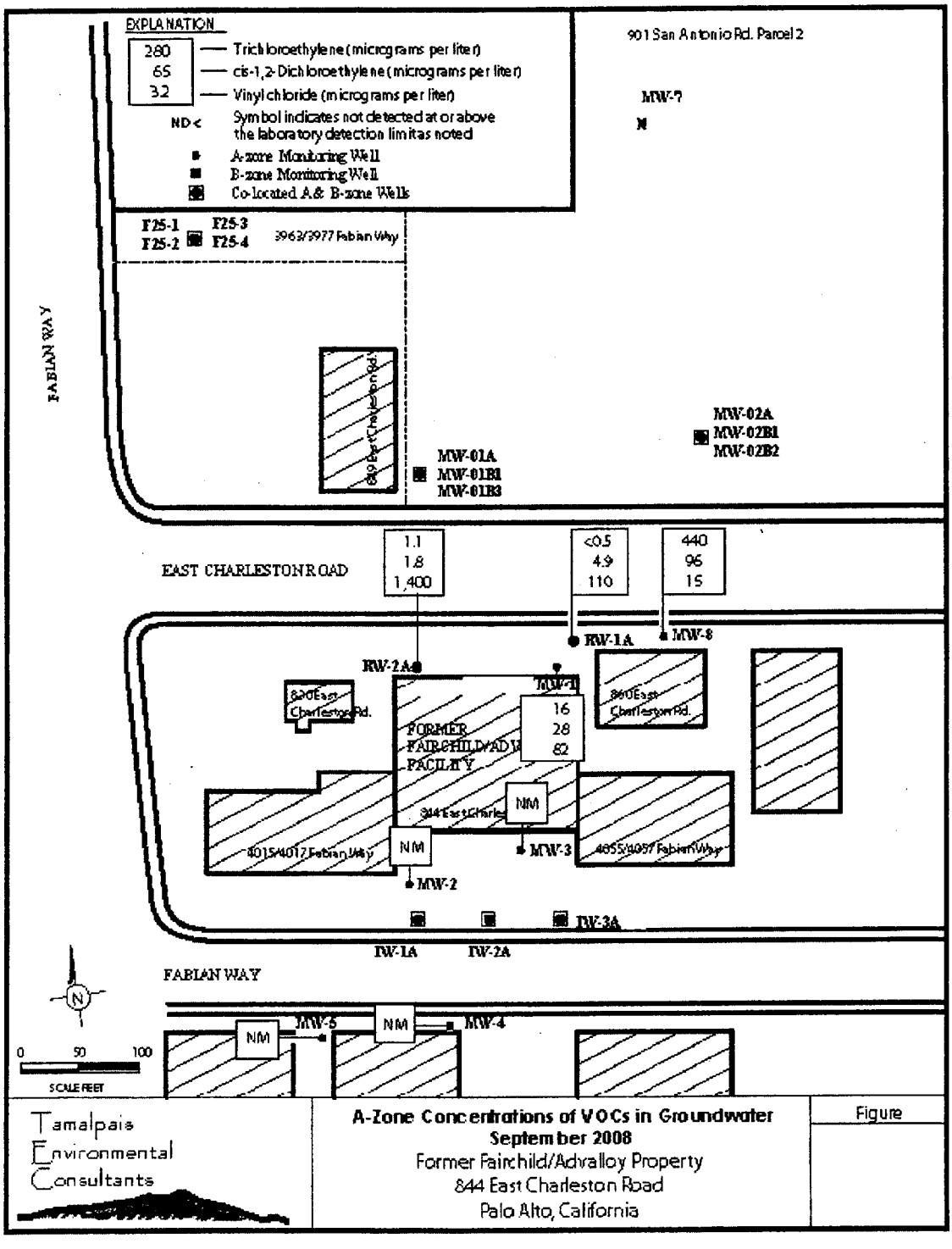


Figure 5: B- Aquifer TCE Concentrations in Groundwater (October 2008)

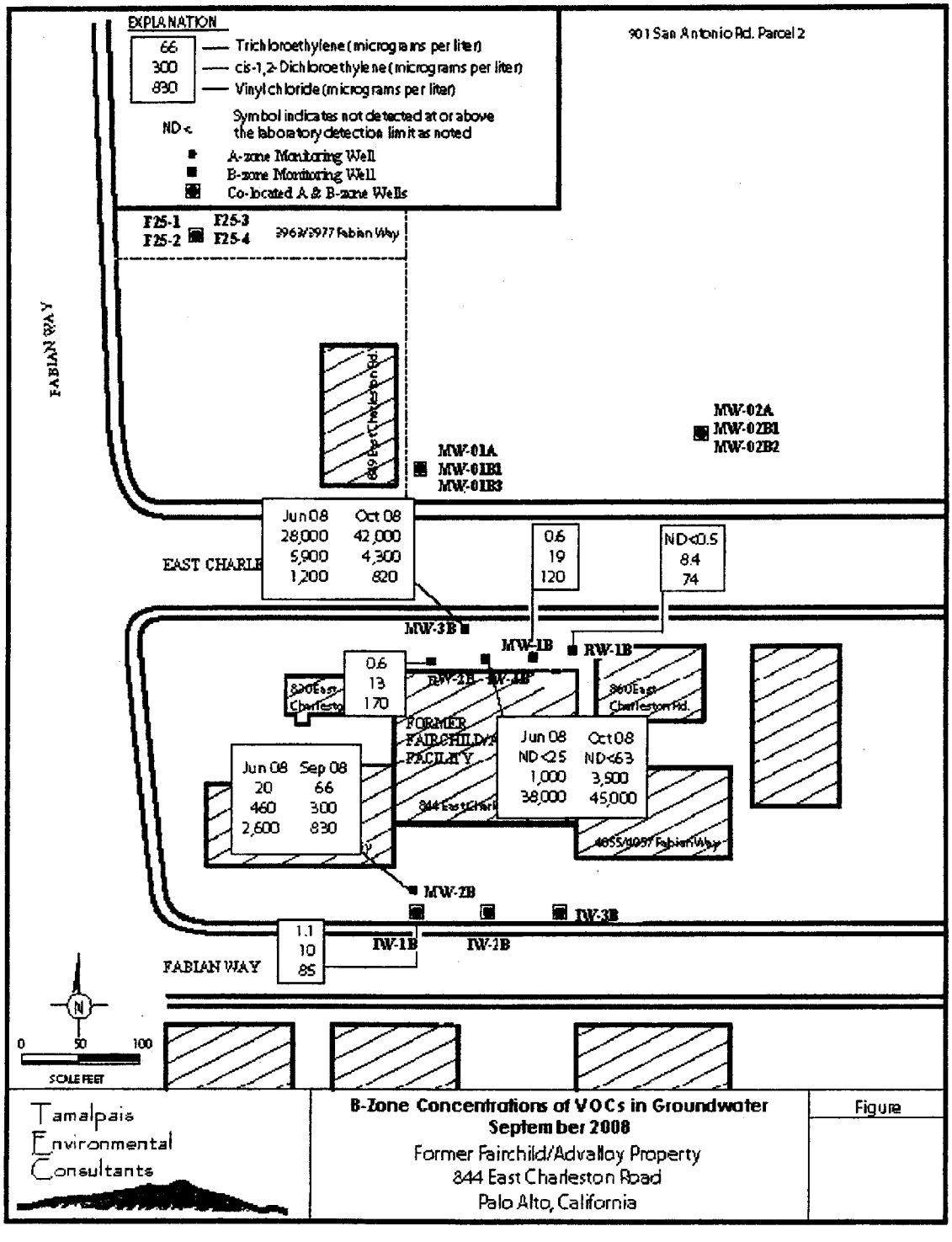


EXHIBIT D.13

InfraMetrix℠

INFRASTRUCTURE DIAGNOSTIC SERVICES

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DEC 0 8 2008

BARG COFFIN LEWIS & TRAPP, LLP

December 1, 2008

Tom Boer
Barg Coffin Lewis & Trapp
350 California Street 22nd Floor
San Francisco, CA 94104-1435

Re: Service Lateral Review and Report for 844 E. Charleston Road, Palo Alton, CA

Dear Tom:

We have completed a review of the information provided for the above referenced site. Data reviewed included:

- Four DVDs labeled West Sewer Video 1-4
- Sewer Video Location Map showing location of Video data collection
- Sewer Video Location Map showing details of sewer video 2
- "Correspondence from West Environmental (October 31, 2008) re: Response to California Regional Water Quality Control Board – San Francisco Bay Region, Facts Findings"

The videos provided were reviewed to determine what conclusions could be made regarding the service laterals current condition. The videos were reviewed by a Pipeline Assessment and Certification Program (PACP) certified trainer and evaluated based on standard PACP rating system. PACP was developed by the National Association of Sewer Services Companies (NASSCO) for evaluating the condition of the pipelines. The following items were noted:

- The pipelines had not been adequately cleaned to provide a view of the pipeline surfaces for the entire length to be evaluated. A detailed view of the surface of the pipe was not possible.
- The video did not provide a continuous video image for the entire length of the inspection.
- No pan and tilt capabilities were used to provide directional views for specific areas along the surface of the pipe
- No zoom capabilities were used to take a closer look at any sections of the pipe surface.
- The speed of the camera movements was very rapid during some portions of the video.
- The camera did not maintain a horizontal position during the entire inspection
- Deposits were noted at several locations in the pipelines

Based on the limitation outlined above a more comprehensive approach would be required to make detailed conclusions about the current condition of the pipelines. The videos did however, provided some basic data about pipe material, directional changes and connection location for other pipelines.

Based on the available video information no significant defects were noted during the inspection.

The video provided limited data about the current condition and does not provide adequate information to determine the condition of the pipelines in the past. The impact of surface activities and loads, quantities of flow discharged, and chemical composition of flows discharged would all have impacts on the current pipeline condition.

Several methods could be conducted to determine more definitive information about the current condition of the pipelines. These could include:

- Detail cleaning of the pipelines before internal inspection
- Use of pan and tilt camera equipment
- Use of zoom camera capability
- Use of pressure testing or leak detection for the pipelines

You will find attached the resumes of the certified PACP trainer who reviewed the videos, Bob Kerry; Chief Engineer for InfraMetrix, Bill Di Tullio; and Operation Manager for InfraMetrix, Ronald Thompson. All these individuals have more than 100 years of combined experience performing utility evaluation programs.

InfraMetrix, LLC's primary focused is on pipeline inspection for underground utilities. We have included a brief summary of our services.

Please let me know if you need addition information related to this project

Sincerely,
INFRAMETRIX, LLC

Ronald Thompson

Ronald Thompson
Project Manager.

EXHIBIT D.14

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER: WQ 97 - 08

In the Matter of the Petition of
EAST CHARLESTON, INC.
for Review of Administrative Civil Liability
Orders 96-108 and 96-109 of the
California Regional Water Quality Control Board,
San Francisco Bay Region

SWRCB/OCC File A-1039

BY THE BOARD:

On July 17, 1996, the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) adopted two orders assessing administrative civil liability against a closely held corporation called East Charleston, Inc. The two orders were based on complaints issued by the Executive Officer and were affirmed in the amounts of $184,400 and $9,400. The Regional Water Board suspended 80 percent of the larger sum on condition that certain actions required by an earlier cleanup and abatement order be carried out in a timely fashion.

East Charleston, through its sole stockholder, Ronald Hothem, filed a timely petition challenging both orders. About two months after the petition was filed and while it was under consideration by legal staff, Mr. Hothem was killed in an industrial accident. His widow and two young children contacted legal staff and requested a dismissal of the orders under review. They were referred to the Regional Water Board so that all relevant circumstances could be considered by the fact-finder most familiar with the case.

On July 16, 1997, the Regional Water Board adopted Resolution 97-093 asking the State Water Resources Control Board (State Water Board) to amend the orders so that only staff costs of $2,760 are owed.

I. BACKGROUND

The site in Palo Alto was formerly occupied by Fairchild Chemical, then by Advalloy, Inc. The latter caused the site to be polluted with volatile organic compounds before going bankrupt and dissolving a few years ago. East Charleston was formed by Mr. Hothem for the sole purpose of buying the site from the trustee in bankruptcy. The sale took place in April 1995. Staff from the Regional Water Board met with Mr. Hothem before he bought the property so that he was well aware of the pollution at the site.

In October 1995, after East Charleston bought the site, Regional Water Board staff issued what they insist on calling "site cleanup requirements" to East Charleston pursuant to Water Code Section 13304. An order was adopted by the full Board in November after a hearing that was not attended by Mr. Hothem or anyone else representing East Charleston. No petition to review the order was filed with the State Water Board.

The Section 13304 order required the submittal of a remedial investigation workplan by January 1996. None was received. Staff contacted Mr. Hothem in February to notify him that East Charleston was in violation of the order. He responded by explaining that his company did not have enough money to begin the cleanup activity and that other neighboring properties and former occupants of his property should be contacted about the problem. (In 1990, the Regional Water Board had determined in a public hearing that there was not enough evidence in the file to justify naming Fairchild to the order. Advalloy no longer exists as a corporate entity.)

In May 1996, believing that East Charleston was a shell corporation, the Regional Water Board staff attempted to learn more about its finances. The Executive Officer served a request for more information pursuant to Water Code Section 13267. No answers were provided in the time specified.

In May 1996, the Executive Officer issued an administrative civil liability complaint to East Charleston in the amount of $22,000 for its failure to abide by the Section 13304 order. A hearing was scheduled for June 19, 1996. Mr. Hothem was unable to attend that hearing because of a trial in Sonoma County and asked a colleague to attend and request a continuance. The Regional Water Board granted the request but instructed staff to reissue the complaint for the additional days that had passed and to use a higher per-day amount to set the proposed assessment. They also asked staff to issue a separate complaint for the failure to respond to the Section 13267 request.

New complaints for administrative civil liability were issued in the amount of $170,960 for violation of the Section 13304 order and $7,000 for the Section 13267 order. By the time of the hearing on July 17, 1996 both amounts were higher because of ongoing violations.

At the hearing on the new complaints, the Regional Water Board staff made a presentation and both Mr. Hothem and his consultant testified. Thereafter, the Regional Water Board affirmed the complaints and adopted orders assessing civil liability in the amounts of $184,400 and $9,400. All but 20 percent ($36,880) of the larger order was suspended conditioned on future compliance with a time schedule for cleanup. None of the smaller assessment was suspended.

II. CONTENTION AND FINDING

Contention: The change of circumstances occasioned by the death of Mr. Hothem justifies amending the administrative civil liability order as requested by the Regional Water Board's resolution.

Finding: Considering what has happened since the adoption of the two orders, it is entirely reasonable to amend them as suggested by the Regional Water Board. Given the facts of this case, it is appropriate for the State Water Board to defer to the judgment of the Regional Water Board. They are more familiar with the facts of the case, the intent that was behind the decision to adopt the orders, and the impact that amending the orders will have on their programs.

Section 13323(d) of the Water Code says that an order assessing administrative civil liability is "effective and final upon issuance thereof" and requires payment within 30 days. The petition process does not alter the finality of the Regional Water Board order. Therefore, the Regional Water Board is unable to amend its own administrative civil liability orders and must rely on the State Water Board to do so.

III. CONCLUSION

The death of Mr. Hothem significantly changed the circumstances behind the administrative civil liability assessment. The request by the Regional Water Board, based on its judgment that the changed circumstances justify amending the orders, should be honored.

IV. ORDER

IT IS HEREBY ORDERED THAT Orders 96-108 and 96-109 issued by the San Francisco Bay Regional Water Quality Control Board on July 17, 1996, should be and hereby are amended as follows:

1. The amount owed by East Charleston, Inc. under Order 96-108 shall be reduced to $2,400.

2. The amount owed by East Charleston, Inc. under Order 96-109 shall be reduced to $360.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 23, 1997.

AYE: John P. Caffrey
James M. Stubchaer
Marc Del Piero
Mary Jane Forster
John W. Brown

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marché
Administrative Assistant to the Board

EXHIBIT D.15

Table 3. Summary of the Available Records of Advalloy's Chemical Storage/Usage

Date	Location	Chemical	Quantity	Source
4/22/69	Outdoor storage area	Flammable liquids	Large quantities	PAFD Fire Prevention Inspection Report
5-6-69	Unspecified	Acetone, alcohol, MEK	1200 gallons	PAFD FPB Permit
5-6-69	Unspecified	Acetone, IPA, MEK, TCE, Sulfuric Acid, Acetic Acid, Lacquers, Nitrogen	1200 gallons	PAFD Fire Prevention Inspection Report
11/14/73	Unspecified	Sodium Hydroxide waste	300 gallons/month	Application for Industrial Wastes Discharge Permit
		Hydrochloric acid	1.5 gallons discharged to sewer per day	
		Acetic acid	1 gallon discharged to sewer per day	
		Sodium hydroxide per day	1 gallon discharged to sewer per day	
8/85	Chemical storage room interior east side	Nitric Acid Ammonium Hydroxide Hydrochloric acid Sodium Hydroxide Sulfuric acid Acetic acid	269 lbs or 43 gallons	Inventory submitted by Advalloy
		Stop off lacquer and MEK base reducer	50 gallons	
	Chemical storage area – north end rear parking lot	Machine oils and lubricants	500 gallons	
		Waste TCM	1320 lbs (110 gal)	
		Caustic Soda 10%	2640 lbs (660 gal)	
	Oil and Lubricant Storage Area middle of parking – rear of building not next to compressor shed	Machine oils and lubricants	500 gallons	
	Chemical shed rear of building middle of parking lot	Acetone MEK	605 gallons	
		IPA	55 gallons	
		TCM	400 gal (4800 lbs)	
	Total		2923 gallons	
3/27/91	4035 Fabian Way Plating Room	Cyanide	Unspecified	CoPA FPB RoFI

Table 3. Summary of the Available Records of Advalloy's Chemical Storage/Usage (continued)

Date	Location	Chemical	Quantity	Source
6/21	Unspecified	Sodium hydroxide solution	55 gallon drums (total unspecified)	Letter to Advalloy from DHS
8/8/83	Unspecified	Liquefied petroleum	Unspecified	CoPA FPB RoFI
		Acid bath	Unspecified	
		Flammable liquids	20 drums	
3/14/84	Unspecified	Acetic Acid 99%	Unknown (marked as qty range 1[a])	HMIS
		Citric Acid		
		Hydrochloric Acid 36%		
		Nitric acid 63%		
		Phosphoric acid 98%		
		Sulfuric acid 98%		
		Acetone 100%	Unknown (marked as qty range 3[c])	
		Vinyl, resins and MEK	Unknown (marked as qty range 1[a])	
		MEK 95%		
		Ammonium Hydroxide		
		Potassium Hydroxide		
		Sodium Hydroxide 50%	Unknown (marked as qty range 2[b])	
		Sodium Hydroxide Silicates 100%		
		Trichlortrifluroethane		
		Trichloethane	Unknown (marked as qty range 3[c])	
		Trichloroethylene	Unknown (marked as qty range 1[a])	
		Kerosene, Diesel Fuel		
		Mineral Oil		

Current 2008 quantity ranges used by the PAFD are

[a] Up to and including 500 pounds for solids, 55 gallons for liquids, and 200 cubic feet at STP for compressed gases

[b] Between 500 and 5,000 pounds for solids, 55 and 550 gallons for liquids, and 200 and 2,000 cubic feet at STP of compressed gases

[c] Range 3: Between 5,000 and 25,000 pounds for solids, 550 to 2,750 gallons for liquids, and 2,000 to 10,000 cubic feet at STP for compressed gases

[d] Range 4: Between 25,000 and 50,000 pounds for solids, 2,750 and 5,500 gallons for liquids, and 10,000 and 20,000 cubic feet at STP for compressed gases,

[e] Range 5: More than 50,000 pounds for solids, 5,500 gallons for liquids, and 20,000 cubic feet at STP for compressed gases;

Table 3. Summary of the Available Records of Advalloy's Chemical Storage/Usage (continued)

Date	Location	Chemical	Quantity	Source
		Naphthenes		
		Kerosene		
		Toluene 100%		
		Naphthenes		
		Potassium cyanide		
		Sodium cyanide		
		Sodium Hydroxide 100%		
		Sodium phosphate 100%		
		IPA		
10/16/84	Unspecified	Acetone	Unspecified. NaOH in quantities sufficient to suggest UST as a storage option	CoPA FPB RoFI
		Sodium Hydroxide		
2-4-85	Inside	Flammable/combustible liquids	>5 gallons	Permit fees notice
	Unspecified	Corrosive liquids	>55 gallons	
2/8/85	Chemical Storage Building	Acetone	1,000 gallons in 55 gallon drums	Application
		Degreasing solvent	400 gallons in one tank	
3-21/85	Unspecified	Class I Flammable Liquids	>5 gallons	CoPA FPB RoFI
		Corrosives	>55 gallons	
10/30/85	Unspecified	Class I Flammable Liquids	>5 gallons	CoPA FPB RoFI
		Corrosives	>55 gallons	
	Storage Area B	Caustic Soda	Unspecified	
		Oils		
4/30/86	Degreasing machine, storage tank	Vatron-TCM – methylene chloride 51.5%, Cyclopentane 9.3 %	500 gal tank piped to still which feed 2 degreasers on production floor	Letter from Advalloy to RWQCP
	Electro plating bath	Potassium Cyanide	Unspecified	
4/30/87	Exterior Storage	Flammable liquids	Unspecified	CoPA FPB RoFI
		Oil	Unspecified number of 5 gallon containers	
4/30/87	Exterior Storage	Sodium hydroxide	Quantity sufficient to recommend 1000 gall tank in lieu of drum storage	CoPA FPB RoFI
		Oil	Unspecified	
		Combustible liquids		

Table 3. Summary of the Available Records of Advalloy's Chemical Storage/Usage (continued)

Date	Location	Chemical	Quantity	Source
	Room 407	Acids	5 gallon containers on	
	Gold room	Gold reclaim	55 gallon drum	
	Floor spray line	MEK	5 gallons	
	Room 407	Poison B	55 gallon drum	
7-30-87	Wastewater from sump in n. rear of building in cyclone fence area	Chloroform	26 ppb	Palo Alto RWQCP Industrial Waste Monitoring
		Methylene Chloride	292 ppb	
		1,1,1-Thrichloroethane	10 ppb	
4/21/88	Unspecified	Caustic Soda	500 lbs/month	Letter to Industrial Waste Water Quality Control
		Acetic Acid	2 gallons/month	
		Hydrochloric Acid	2 gallons/month	
		Phosphoric acid	1 liter/month	
		Acetone	900 gallons/month	
		MEK	30 gallons/month	
		Potassium Hydroxide	20 gallons	
		Kerosene	5 gallons/month	
		Shell Toluene	5 gallons/month	
		Naphthenes		
		Potassium gold cyanide	100 troy oz/month	
		IPA	15 gallons/month	
		Vatron-TCM – methylene chloride 51.5%, Cyclopentane 9.3 %	80 gallons/month	
		Mokleen	300 lbs/month	
		Boron nitride	½ lb/month	
		Sodium gluconate	50 lbs/month	
		Lacquer	30 gallons/month	
		Potassium cyanide	10 gallons/month	
		Ace-b-sob	19 gallons/month	
5/16/88	Unspecified	Dichloromethane waste	6 drums/month	Industrial waste inspection report
		Acetone waste	5-12 drums/ per 2 months	
		Potassium cyanide waste	2 drums/month	
7/29/88	Wastewater	Bromodichloromethane	2.8 µg/L	Analytical Report
		2-butanone	15 µg/L	
		Chlorodibromomethane	2.2 µg/L	

Table 3. Summary of the Available Records of Advalloy's Chemical Storage/Usage (continued)

Date	Location	Chemical	Quantity	Source
		Chloroform	40 µg/L	
		Methylene chloride	310 µg/L	
		1,1,1-trichloroethane	6.1 µg/L	
12/5/88	Sump	Acetone	2300 µg/L	Letter from CoPA
1/20/89	Unspecified	Potassium cyanide, potassium gold cyanide	1320 gallons/year	Form submitted to RWQCP pretreatment program
5/10/89	Unspecified	Acetone waste	330 gal/month	Industrial Waste IL
		TCM waste	200 gal/month	
		Sodium hydroxide waste	1000 gal/month	
		Cyanide waste	150 month/month	
		Oil	400 gal/month	

Notes and Abbreviations

µg/L	micrograms per Liter
CoPA FPB	City of Palo Alto Fire Prevention Bureau
HMIS	
MEK	methyl ethyl ketone
NaOH	sodium hydroxide
oz	ounce
IL	Inspection Log
IPA	isopropyl alcohol
PAFD	Palo Alto Fire Department
RoFI	Record of Fire Inspection
RWQCP	Regional Water Quality Control Plant
qty	quantity
TCE	trichloroethene
TCM	tetrachloromethane
UST	underground storage tank

EXHIBIT D.16

Table 4. Advalloy Hazardous Material Handling Violations and Notices

Date	Agency	Type of document	Violation	Potential Release?	Comment/Date Corrected
3/6/1969	PABD	Letter	3 unpermitted storage areas	YES	used for chemical. storage (see 4/22/69)
3/6/1969	PABD	Letter	Illegally parked trailer	NO	4/10/1969
4/22/1969	PAFD	IR	3 unpermitted storage areas with large quantities of flammable liquids	YES	Advalloy plant engineer stated that quantities larger than what Advalloy intends to store
5/6/1969	PAFD	IR	None	NO	
11/24/1969	PAFD	Alarm Investigation Report	Tub of metal cleaning solution boiled over	YES	alarms several times in the past w/o apparent reason
11/29/1969	PAFD	Alarm Investigation Report	TCE tank overheated, gaseous TCE spread throughout room	YES	high explosive range vapor within degreaser unit
3/29/1974	CoPA	FI	Alcohol fire 4 sq feet area	POSSIBLE	no vent hood
11/14/1974	CoPA	FIR	Fire in the rear of building. TCE dip tank on fire	POSSIBLE	
4/17/1980	No letterhead. Presume POTW	Letter	Investigation of illegal connections to sanitary sewer	NA	
5/13/1980	No letterhead. Presume POTW	Letter	Request to repipe area drains to discharge into rain gutters rather than sanitary sewer	NO	
7/14/1980	Utilities Dept	Letter	pH violations (12.2 pH)	IF PIPE CORRODES	
6/21/1983	DHS	Letter	Exothermic reaction during pumping of sodium hydroxide	POSSIBLE	
8/8/1983	CoPA FPB	RoFI	Vertical openings	UNLIKELY	
8/8/1983	CoPA FPB	RoFI	Secondary containment requirements in storage area outside flammible storage area	YES	
8/8/1983	CoPA FPB	RoFI	Secondary containment - acid bath	YES	4057 Fabian Way, filed under 844 Charleston
8/8/1983	CoPA FPB	RoFI	Secondary containment -storage area outside	YES	4058 Fabian Way, filed under 844 Charleston
8/8/1983	CoPA FPB	RoFI	Secondary containment -storage area outside	YES	4059 Fabian Way, filed under 844 Charleston
3/22/1984	CoPA FPB	RoFI	Containment diking	YES	
3/22/1984	CoPA FPB	RoFI	Require oily rags stored in closed metal	POSSIBLE	4/27/1984

Table 4. Advalloy Hazardous Material Handling Violations and Notices (continued)

Date	Agency	Type of document	Violation	Potential Release?	Comment/Date Corrected
			container with lid		
4/27/1984	CoPA FPB	RoFI	Containment diking	YES	
10/16/1984	CoPA FPB	RoFI	Consultation re: Double Containment Options	NA	1. Acetone-->NaOH storage area, 4' cinder block wall with roof + containment; NaOH --> Acetone area w/ containment 2. 2 hour structure for acetone, new containment for NaOH; 3. Double wall underground tanks
2/8/1985	CoPA Dept of Planning and Community Env.	Application	Upgrade of existing storage building to two hour burn building at the required of Fire dept.	NA	CEQA. Approved.
2/27/1985	CoPA PW	Application	844 E. Charleston Chemical Storage	NA	
3/7/1985	CoPA ARB	Information Memo	Chemical Storage Facility	NA	Existing - at rear of building and chain link fence with redwood slab and corrugated metal roof
3/7/1985	CoPA ARB	Minutes	Includes chemical storage facility	NA	
3/21/1985	CoPA FPB	RoFI	Containment diking	YES	
3/21/1985	CoPA FPB	RoFI	Check solid core door on acid storage	NO	
4/30/1985	CoPA FPB	RoFI	Double containment for storage area D and Storage Area C	YES	As of 2/6/86 will be subject to fine if not in compliance with the haz. Mat. Ordinance
10/30/1985	CoPA FPB	RoFI	Containment diking	YES	
10/30/1985	CoPA FPB	RoFI	Double containment needed for waste caustic soda and oils (storage area B)	YES	
3/14/1986	CoPA FPB	RoFI	Double containment	YES	Contacted by phone. Nothing has been done about double containment
3/25/1986	CoPA FPB	RoFI	Double containment	YES	Spoke with Eric Iseman about double containment. Will be getting his permits to start work on it
9/9/1986	CoPA FPB	RoFI	Double containment	YES	Still out of compliance. Plans are in the works. No definite date
11/12/1986	CoPA FD of Planning and Community Involvement	Application	Chemical Storage proposal to comply with double containment provisions of haz mat ordinance	YES	
4/30/1987	CoPA FPB	RoFI	Double containment	YES	Lack of compliance since 8/83
4/30/1987	CoPA FPB	RoFI	Oil leaking from compressor 3' away from		

Table 4. Advalloy Hazardous Material Handling Violations and Notices (continued)

Date	Agency	Type of document	Violation	Potential Release?	Comment/Date Corrected
			storm drain		
4/30/1987	CoPA FPB	RoFI	Spillage evident in caustic and oil storage outside		
4/30/1987	CoPA FPB	RoFI	TMF drums holes punched in tops		
4/30/1987	CoPA FPB	RoFI	Concrete etched from chemical reaction in gold room		
4/30/1987	CoPA FPB	RoFI	Spillage on floor in gold room; 1 clean station		
4/30/1987	CoPA FPB	RoFI	Contain 55 gallon drum of godl recliam solution; chemicals on floor under wet bench; clean growth from reaction		
3/1/1988	CoPA FPB	Record of Additional Information	na	NA	inspect flammable storage area. Still need: [...] (3) putty up hole when TCM is piped; (6) fill in space around sump opening
4/6/1988	Palo Alto RWQCP	Incident Report	**Sump water with strong odor of solvents and appeared to be layered, bottom layer heavier and dark, suspect this sump to be contaminated with industrial solvent**	YES	sump in n. back in fenced area; **we believe they were negligently discharging solvents to the sewer**
4/11/1988	CoPA FPB	RoFI	Final inspection of flammable storage area	NA	
4/16/1988	Palo Alto RWQCP	Industrial Waste Monitoring Report	Copper, lead, nickel and zinc above limit	YES	[...] sump area cracks filled
4/21/1988	Advalloy	letter to PO	Toxic Organic Mgmt Plan submittal.	NA	Desire to cooperate and prevent concentrated toxic organics from getting into waste waters
4/26/1988	Advalloy	Industrial Waste Water Control PRoC	na	NA	Gold line; ec lines, etch lines; sampling shows chloroform (36ppb), methylene chloride (660ppb) acetone (9300 ppb), 1,1,1-TCA (19ppb) + other solvents under 1ppb
4/27/1988	Sequoia Analytical	Solvent water sample analysis	na	NA	Freon and dichloroethane
5/16/1988		IL	No secondary containment here btw haz	YES	DCA and acetone waste - 6 drums per

Table 4. Advalloy Hazardous Material Handling Violations and Notices (continued)

Date	Agency	Type of document	Violation	Potential Release?	Comment/Date Corrected
			waste drums and sewer sump;		month
5/16/1988		IL	Secondary containment - not everywhere in process areas	YES	
5/16/1988		IL	No secondary containment in haz mat storage area	YES	Unknown waste stored in unbermed area. Rain has washed labels off; storage area can run into sump; housekeeping not good; not proper segregation; waste not removed from site in compliance with permit; 3 open full cyanide wastewater buckets from au line
12/5/1988	CoPA	letter	Acetone at 2,300 micrograms/liter	YES	
12/29/1988	CoPA	letter	**Ordered to seal the sump within 30 days**	YES	Effluent discharge and monitoring sump continues to be located in the center of the hazardous waste storage area; no berm around the effluent sump and the is not protection against runoff from the surrounding storage area
1/12/1989	CoPA FPB	RoFI	Discussion re: changing 55 gal drums to NaOH to tank	UNLIKELY	
5/10/1989		Industrial waste IL	Haz waste area not 2ndarily contained;	YES	
			Air strippers recirculate and discharge to storm sewer (Al dust)	YES	Conditions somewhat improved, but still need to be improved. Sump is not used any longer.

Abbreviations

CoPA	City of Palo Alto
CoPA ARB	Architectural Review Board
CoPA FPB	City of Palo Alto Fire Prevention Bureau
DHS	Department of Health Services
IL	Inspection Log
IR	Inspection Report
FIR	Field Incident Report
PABD	Palo Alto Building Dept
PAFD	Palo Alto Fire Department
PRoC	Period Report of Compliance
RoFI	Record of Fire Inspection
IR	Inspection Report
TCE	trichloroethene

EXHIBIT D.17

Facts Finding ECI-Advalloy-Fairchild Semiconductors/ Schlumberger Submittals
844 East Charleston Road
Palo Alto, CA
October 27, 2008

Laurent Meillier
Regional Water Quality Control Board Oakland CA
LMeillier@waterboards.ca.gov

Sewer lines videos

Confirm that the sewer lines videos released to the Water Board were taken with the bottom sections of the lines displayed on the lower portion of the video display. In case the video camera was rotated during the recording, indicate the following:

- Video number;
- Timing(s) and distance interval(s) for which the rotation has occurred;
- Purpose of the recording rotation;
- Approximate location of the basal portion of the pipe on the video display during the valid rotation interval;

Sewer line video 1

The VCP (Vitrified Clay Pipe) passes by the most heavily contaminated groundwater area and is actively used today for wastewater transport however that line does not seem heavily corroded. Why?

Sewer line video 2

Is the integrity of the PVC pipe south of the area where video 2 was started known?

Water Board staff noted the presence of water (@ 23 feet marker) in the bottom of the pipe. Is this water caused by: discharge from upgradient area, leakage, or was it introduced during the video recording?

Is the left lateral observed at 23 feet the mapped spur on the figures released at the 9/04/08 West Environmental presentation?

Map the sewer lateral observed at the 46 feet marker.

Confirm that the video recording head is rotated at the 48 feet and 60 feet markers. Confirm the location of the bottom portions of the pipe during this rotational interval.

White deposits was noted in the upper (?) section of pipe after the 57 feet marker. Explain the origin of the white deposits observed in that section of the video.

Is the elliptical shape of the pipe in the vicinity of the 57 feet marker an artifact of the digital video or caused by physical/ environmental factors? Describe these factors.

How did we determine that the "soil exposed" at the 57 feet marker is exposed soil and not sedimentary deposition. What is the approximate above-ground location of this 57 feet interval section? Determine the distance of this anomaly to the interior sump mapped on Figure 2 included in the 10/20/08 Weiss Associates report.

A heavily corroded section was observed at the pipe bends at the 58 feet marker. Map this bend on a revised map. Within that area there are various pipe connections. Are they related to replacements made?

Determine the distance to onset of video 1 from the end of video 2 at the 77 feet marker.

Sewer line video 3

The absence of water was observed in the pipe, however high amount of particulates seem to impede the movement of the recording device. Confirm that this southern sanitary network is not actively used at this time. Explain the origin of the particulate material. Explain the basis for the absence of numerous video signals during the recording?

Did that video end in the southwestern or the southern (near MW-3) sump? Why didn't we record the structural integrity of the sumps?

Sewer line video 4

Confirm the presence of tree roots in the video. Could the video recording have been started at the southwestern sump?

Blue prints records: Attachments to letter from Landels, Ripley & Diamond to S. Ritchie, Water Quality Control Board dated November 27, 1989

1957-era Fairchild Semiconductors Blueprint (Attachment C, Exhibit 8)
Confirm the exact date of the drafting of this blueprint. Is this blueprint an actual (as built) layout of the building or projected? Explain the purpose of soil mains.

Using an 8X magnifying glass, I was able to read in the southwestern area: "Soil main. Waste Area." Confirm the readout at this location. Is there a blueprint available with improved resolution? If so, please submit it.

1985 Advalloy Blueprint (Attachment D, Exhibit 8)
Clarify the captions of "forced sewer to..." and "Iron.." in the northern section of the piping network crossing the middle of the building on a north to south transect. Resolve the discrepancy of the western spur to the sewer network included in the 1996 and 1999 figures (see 9/4/08 presentation) but absent in the 10/9/08 Sewer Video Map and the 1989 blueprint.

The 1985 blueprint includes 3 drain holes which are mapped in the general vicinity of the 1957-era soil mains. The southwestern drain hole is slightly offset to the northwest of the 1957 mapped location. Where do these drain holes lead to?

The 1985 blueprint indicates a sump in the southwestern portion of the building where a soil main may have been located in the 1957 blueprint. In that area, the 1985 plan includes a sump with grate over the top. Per the 1985 blueprint the southwestern sump is located 7 feet from center from the building wall. During Mr. Boarer's site visit on November 1989 he noted: "During my November 17, 1989 visit to the site, I measured the dimensions of the sump and its location in relation to the building on the 844 East Charleston property. From its center, the sump is located 22' 5" south of the back of the building and 8' from the lot line between 844 East Charleston and 4017 Fabian Way, the adjacent property to the west. The sump is 3'1" square by 6'11" deep." Boarer states "Four separate pipes at one time fed into the sump." However, he further states that "The 1985 Advalloy plans show two sumps behind the building, neither of which is the sump referred to above." Per the 1989 map scale, feature 10 is 20 feet from the building. These 1985 plans include a sump in the southern area (vicinity of MW-3) running midline of the building. That sump is absent on the 10/9/08 map. Why? Resolve the discrepancies noted in the locations of the various sumps at the Site.

Approximate layout of the 844 East Charleston Road circa 1957-1961 drafted on 11/14/1989 (Attachment A, Exhibit 1)
Do we have information on the purpose of structure 10? Why were the soil mains and spur laterals omitted from the blueprint? Confirm that the southern sanitary sewer network was not in place during the late 1950's/ early 1960's.

--*-*

EXHIBIT D.18

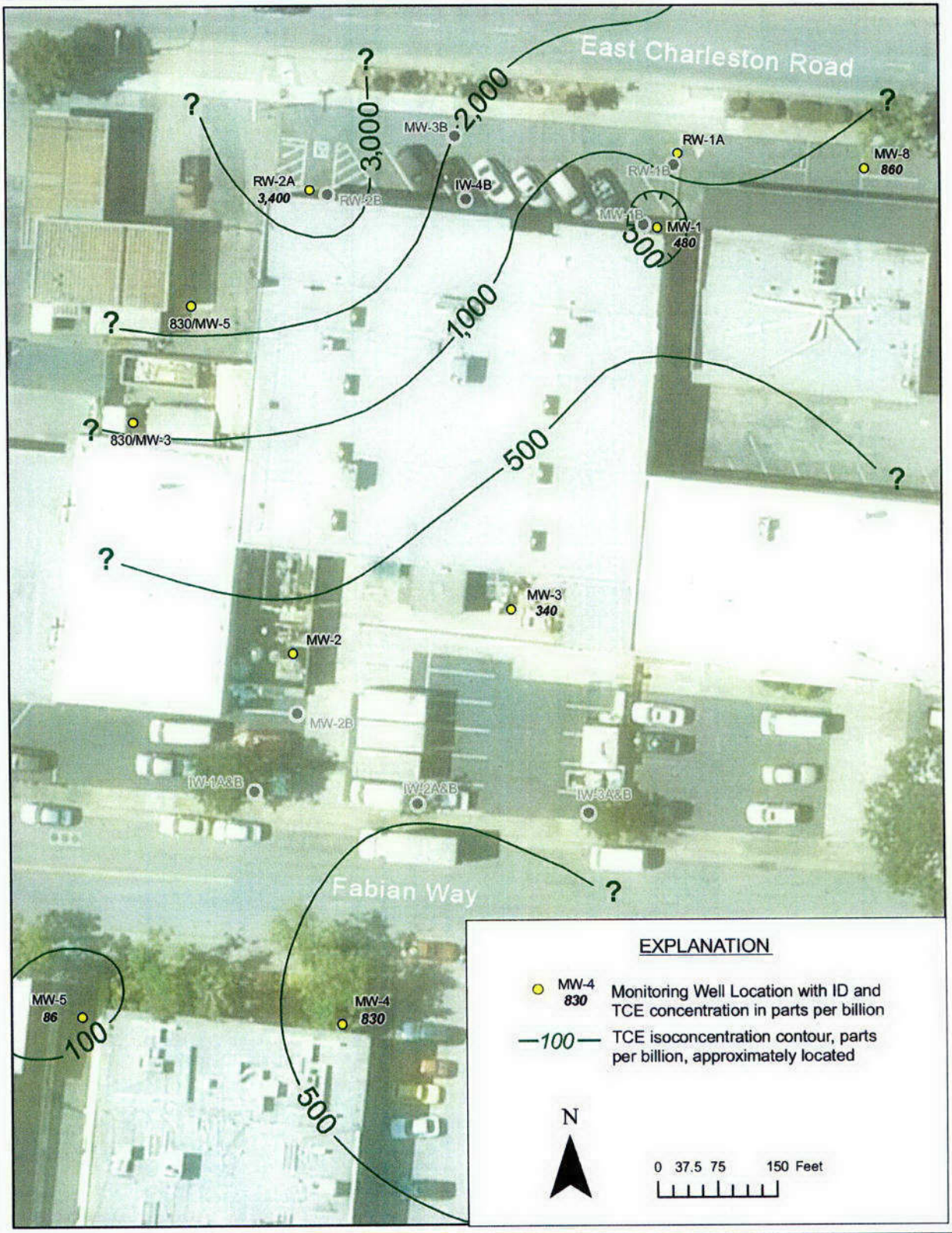

Figure 8. TCE Isoconcentration Contours in the A Water-Bearing Zone on October 19, 1999, 844 E. Charleston Rd., Palo Alto California.

EXHIBIT E

Richard C. Coffin (Bar No. 70562)
J. Tom Boer (Bar No. 199563)
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Attorneys for Petitioner

BEFORE THE STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition for Review by FAIRCHILD SEMICONDUCTOR CORPORATION, through the successor to certain environmental liabilities, Schlumberger Technology Corporation, of Cleanup and Abatement Order No. R2-2008-0104	**DECLARATION IN SUPPORT OF STAY REQUEST**

DECLARATION OF RICHARD C. COFFIN

IN SUPPORT OF STAY REQUEST

I, Richard C. Coffin, declare:

1. I am a partner at the law firm of Barg Coffin Lewis & Trapp, LLP, located in San Francisco, California.
2. Except as otherwise specifically stated below, I have personal knowledge of the facts stated in this declaration.
3. At a hearing on December 10, 2008, the Regional Water Quality Control Board, San Francisco Bay Region ("Regional Board") voted 4-2 to adopt Cleanup and Abatement Order No. R2-2008-00104 (the "Order") for the 844 E. Charleston Road, Palo Alto, California Site (the "Site").

4. The Order named Fairchild Semiconductor Corporation ("Fairchild") as a discharger at the Site, as well as Advalloy, Inc.("Advalloy"), and East Charleston, Inc. ("ECI").
5. Adoption of the Order reversed eighteen years of the Regional Board's refusal to name Fairchild as a discharger at the Site.
6. Fairchild, through the successor in interest to certain of its environmental liabilities, Schlumberger Technology Corporation ("STC"), ("Petitioner") has filed a Petition for Review ("Petition") with the State Water Resources Control Board ("State Board") challenging the Regional Board's adoption of the Order.
7. Pursuant to California Water Code § 13321 and 23 CCR § 2053, Petitioner requests that the State Board stay implementation of the Order, as against Fairchild, pending a decision on the Petition.
8. Petitioner requests a stay because: (a) there will be substantial harm to the Petitioner if a stay is not granted; (b) there will be no substantial harm to other interested persons and to the public interest if a stay is granted; and (c) there are substantial questions of fact and law regarding the disputed action.
9. Upon information and belief, neither Advalloy nor ECI have adequate funds to comply with the requirements of the Order.
10. Advalloy declared bankruptcy in 1994 and is defunct. Advalloy ceased its investigations of the Site in, or before, 1994. Since 1994 Advalloy has not complied with prior orders issued for the Site by the Regional Board. Upon information and belief, Advalloy has no assets to contribute to remediating the Site.
11. ECI is a privately held company. In the past, ECI claimed that "it did not have enough money to begin the cleanup activity." State Water Resources Control Board Order WQ 97-08 at 2 (Exhibit D, accompanying the Petition at Tab 14).
12. ECI has a history of neglecting the requirements imposed by prior Regional Board orders for the Site and refusing to disclose financial records. The Regional Board adopted two orders assessing administrative penalties against ECI for its failure to comply with the requirements of Order 95-222 and failure to provide requested financial information.

13. Upon information and belief, ECI has not yet entered into any agreement with the Petitioner to share costs necessary to implement the Order at the Site. ECI has not committed to participate with Petitioner in performing the investigations and cleanup required by the Order. To Petitioner's knowledge, ECI does not intend to appeal the Order to the State Board.

14. Petitioner will be required to expend significant funds to comply with the requirements of the Order in the short term. The Order requires extensive site characterization and soil removal, as well as ongoing sampling and monitoring, over the next six months.

15. The Order requires the removal of soil in unsaturated locations upgradient from the alleged discharge that is the basis for naming Fairchild on the Order. The Regional Board made no allegation in its December 3, 2008 Staff Report or at the December 10, 2008 hearing that Fairchild is responsible for unsaturated soil contamination in the areas that will require removal pursuant to the Order.

16. The Site is currently owned by ECI and used for warehouse and/or furniture storage. Because zoning precludes residential use of the Site, there will be no significant change in the type of use of the Site in the short term.

17. The Regional Board has been aware of contamination at the Site for at least 18 years. A stay of the Order as against Fairchild for several months to allow the State Board to fairly evaluate the Regional Board's basis for naming Fairchild on the Order will not substantially alter or delay the long term remediation of the Site.

18. Based upon information and belief, the Regional Board has never named a discharger under the circumstances giving rise to naming Fairchild on the Order. The sewer lateral at the Site, cited as support for naming Fairchild, has not conclusively been determined to be a source of chemicals of concern and there is no direct evidence of any other release to the environment by Fairchild during its limited occupancy and operation. The Regional Board also failed to follow standard policies and procedures for investigating sewer lines by neglecting to investigate soil gas, shallow soil, and shallow groundwater along the sewer lateral before naming Fairchild on the Order.

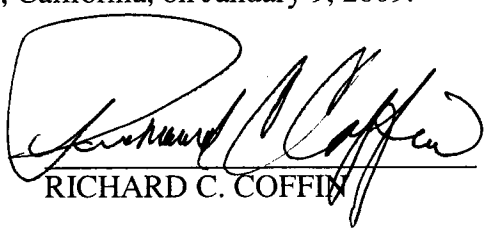
19. There is a substantial question of fact and law concerning whether there was substantial, credible, and reliable evidence to support the Regional Board's determination to name Fairchild as a discharger on the Order.

20. Based upon the information on ECI's and Advalloy's finances cited above, Petitioner would be unable to recover its costs of complying with the Order if a stay is not granted and the State Board ultimately grants the Petition to remove Fairchild as a discharger on the Order.

21. Based on the facts cited above, there will not be substantial harm to the public or other interested parties if a stay of the Order is granted during the State Board's consideration of Fairchild's Petition.

I declare under penalty of perjury that the forgoing is true and correct, to the best of my knowledge.

Executed in San Francisco, California, on January 9, 2009.



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