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April 20, 2016

Max Shahbazian, PG
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

RE: Vapor Intrusion Data Summary
Former Fairchild Facility
101 Bernal Road, San Jose, California
RWQCB File No. 43S0036
Weiss Job No. 363-2016-08

Dear Mr. Shahbazian:

This Vapor Intrusion Data Summary was prepared for the former Fairchild Semiconductor Facility located at 101 Bernal Road in San Jose, California (Figure 1) and in response to a request by the Regional Water Quality Control Board (Water Board) in an email dated September 17, 2015.[1] The Water Board requested that Fairchild respond to a memorandum dated April 21, 2014 from the United States Environmental Protection Agency (USEPA)[2] that identified four vapor intrusion scenarios:

1. Area/building was a former source or is directly above or adjacent to a former source.
2. Area/building is above an area of contaminated groundwater.
3. Area/building is in an area where contaminants are migrating laterally through the vadose zone.
4. Area/building is in an area where conduits are transporting contaminants from a source area.

The USEPA memorandum concludes that a *Vapor Intrusion Evaluation and Screening Level Risk Assessment* submitted in January 2014 for the site[3] addressed Scenario 2 and that the other scenarios may have been addressed in previous five-year reviews or during site remediation activities. This letter presents: 1) a summary of site conditions that may affect vapor intrusion; 2) the results of previously

[1] California Regional Water Quality Control Board, San Francisco Bay Region (Water Board), 2015. Email correspondence from Max Shahbazian of the Water Board to Tom Fojut of Weiss Associates regarding comments on the *Fifth Five-Year Review Report*, September 17.

[2] United States Environmental Protection Agency (USEPA) Region 9, 2014. Memorandum. Subject: Former Fairchild Semiconductor Superfund Site – South San Jose, California, Comments on Appendix B of the January 31, 2014 *Fifth Five-Year Review Report & Vapor Intrusion Evaluation and Screening Level Risk Assessment*, Former Fairchild Semiconductor Corporation Facility, 101 Bernal Road, San Jose, California, April 21.

[3] Weiss Associates (Weiss), 2014. *Vapor Intrusion Evaluation and Screening Level Risk Assessment*, prepared on behalf of Schlumberger Technology Corporation as Appendix B to the *Fifth Five-Year Review Report for the Former Fairchild Semiconductor Corporation Facility, 101 Bernal Road, San Jose, California*, January 31.

completed risk assessments and soil remediation; and 3) conclusions about whether these vapor intrusion scenarios present a potential vapor intrusion risk.

SITE CONDITIONS

Former Source Area

Volatile organic compounds (VOCs) at the site are from a single source: a single-walled underground storage tank (UST) that contained waste solvent from the semiconductor plant (Figure 2). The bottom of the tank was installed at approximately 15 feet below ground surface (bgs) when construction of the plant was completed in 1977. In 1982, Fairchild confirmed that a release occurred from the UST. In response, Fairchild advanced 15 soil borings to determine the extent of the impacted soil. The data from this investigation identified VOCs in saturated and unsaturated soil between 15 and 50 feet bgs. The primary compounds detected were 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), acetone, xylenes, 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113), tetrachloroethene (PCE) and isopropanol (IPA).[4] These samples were also analyzed for trichloroethene (TCE).[4] Because TCE was not detected in nearly any soil or groundwater samples collected from the site, TCE was determined not to be a chemical of concern (COC) and was not included in the Record of Decision.[5]

Between 1982 and 1987, Fairchild advanced hundreds of on-site soil borings. No source areas other than the former waste solvent UST were identified. Maps of the boring locations are presented in Attachment A.

Removal and Remediation of Source

Based on soil sample data from pre-excavation borings, Fairchild removed the UST and excavated soil from an area of approximately 50 feet by 65 feet using an augured caisson in 1982 (Figure 2). Approximately 3,400 cubic yards of impacted soil were disposed of, resulting in the removal of an estimated 38,000 pounds of VOCs.[4] Each caisson was backfilled with concrete from 15 feet to 52 feet bgs. The top 15 feet were backfilled with the clean overburden from the excavation. The area was restored to original grade and paved with asphalt to minimize surface water infiltration.[6]

Soil borings advanced in 1987 and 1989 confirmed that nearly all of the VOC mass had been removed from the vadose zone. Fairchild advanced over 40 borings to assess the extent of residual VOCs around the source area. Soil samples were generally collected at five- to ten-foot intervals for laboratory analysis. No soil samples from less than 10 feet bgs contained VOCs above reporting limits. The highest 1,1,1-TCA or 1,1-DCE concentration detected in soil shallower than 35 feet, the depth to groundwater, was 0.47 milligrams per kilogram (mg/kg) 1,1,1-TCA. This sample was collected

[4] Canonie Environmental Services (Canonie), 1988. *Remedial Action Plan, Fairchild Semiconductor Corporation, San Jose Facility*, October.
[5] USEPA, 1989. *EPA Superfund Record of Decision*, Fairchild Semiconductor (S. San Jose), CA, First Remedial Action – Final, EPA/ROD/R09-89/028, March 20.
[6] Locus Technologies (Locus), 1999. *Ten Year Review, 101 Bernal Road, San Jose, California*, February.

from 31 feet bgs in boring SB-227, which was drilled on the northwestern side of the former excavation.

In January 1989, Fairchild started operation of a soil vapor extraction (SVE) system to remove residual VOCs from vadose zone soil in the vicinity of the former source area and from normally saturated soil in the bottom of the A Zone and top of the B Zone. SVE was feasible from the normally saturated soil because the on-site groundwater extraction system was depressing the water table (Figure 3). A total of 39 SVE wells were screened in the A Zone (which includes the vadose zone), B Zone, and the A-B aquitard.[4] When the system was permanently shut down in April 1990, it had removed an estimated 15,906 pounds of VOCs, 12,410 pounds of which were 1,1,1-TCA and 1,1-DCE.[6] The Water Board approved SVE shutdown after VOC removal reached asymptotic levels and reached the proposed clean-up criteria.

In 1995, Fairchild collected post-remediation soil samples from twelve soil borings to assess the residual concentrations of acetone, 1,1-DCE, IPA, PCE, 1,1,1-TCA, and xylenes around the former source area. The samples were collected from depths between 34.5 and 62.5 feet below ground surface. The sample with the highest combined 1,1,1-TCA and 1,1-DCE concentrations was from 60 feet below ground surface in boring SB-282. Concentrations of TCA in the 1995 soil borings ranged from non-detect at 0.002 mg/kg to 4.6 mg/kg with an average of 0.18 mg/kg. This represents a 99.97 percent reduction from the pre-SVE system soil samples.[6]

Current Site Use

The site is currently a shopping center with a grocery supermarket, restaurants, clothing stores, a gymnasium, a bank, a service station, and other retail businesses. No residential structures exist on the property. The former source area is covered by parking lot, consisting of an asphalt-paved surface with landscaped planters. The nearest current building to the former source area is more than 200 feet away. Fairchild is not aware of plans for site redevelopment or a change in land use. A land use covenant recorded for the site with the Santa Clara County Office of the Clerk-Recorder prohibits excavation or soil disturbance deeper than five feet bgs without the Water Board's approval.

Existing Underground Utility Lines

In October 2015, Weiss retained a private line locator to mark underground utilities around the former source area. Weiss recorded the marking locations, which are presented on Figure 2. A 24-inch diameter storm drain and an 8-inch dimeter sanitary sewer run southwestward beneath the parking lot to Via Del Oro. The pipe bedding in these trenches is unknown.

A trench containing remediation system piping and pea gravel backfill runs from the former source area to near the former remediation treatment system enclosure near the northwestern site boundary. The trench depth varies between approximately 5 and 10 feet below current grade. Although this trench runs beneath a current building, it is capped with 6 inches of reinforced concrete underlain by a 6-mil vapor barrier.[7]

[7] Canonie, *1989. In-Situ Soil Aeration System, Interim Design Report*, prepared for Fairchild Semiconductor Corporation, March.

Site utility trenches do not reach groundwater, and thus sewers and storm drains are not subject to groundwater infiltration, and trench backfill does not act as preferential pathways for groundwater flow. Since groundwater monitoring began in 1982, the depth to groundwater in site wells has been consistently deeper than 25 feet bgs.

RISK ASSESSMENT SUMMARY

Previous to preparing this data summary, Fairchild completed four site risk assessments at the request of the Water Board and USEPA. In general, these risk assessments conclude that the site COCs are primarily 1,1,1-TCA and 1,1-DCE, which are non-carcinogenic and have human toxicity factors that are significantly higher than other VOCs often associated with industrial site releases (e.g., TCE). Unlike many other cleanup sites at former semiconductor manufacturing plants, TCE is not a COC at this site. A summary of these risk assessments as they pertain to vapor intrusion are presented below.

In 1988, a Public Health Evaluation (PHE) was included as an appendix to the Remedial Action Plan and was conducted to evaluate the exposure to chemical residues, to quantify levels of exposure and associated health risk, and to establish clean-up objectives. The PHE was performed after the facility was closed and when the site was unoccupied. It concluded that there was no known chemical exposure to humans through groundwater, surface water, soil or air occurring at concentrations that would represent a significant risk to human health.[4] However, the PHE did not address the vapor intrusion pathway. The Water Board accepted the results of the PHE when it issued Site Cleanup Order 89-16.[8]

In 1995, a Supplemental Health Risk Assessment (SHRA) to the PHE was conducted because the unoccupied site was planned for redevelopment as a retail center. The SHRA evaluated vapor intrusion risk to hypothetical on-site buildings from VOCs in soil in the former source area. It conservatively considered VOC concentrations in soil samples collected prior to the completion of SVE in 1990. The SHRA concluded that potential vapor migration from soil into a hypothetical building constructed above the former source posed no significant health risk to either residential or commercial building occupants[9]. In response, the Water Board concluded that "*the supplemental health risk assessment considered all reasonable exposure pathways and used appropriately conservative modelling assumptions in predicting incremental health risks…In summary, the supplement demonstrates that residual subsurface pollution at this Site does not pose a health risk to future residential or commercial use of the Site.*"[10]

In 2008, a vapor intrusion assessment was conducted at the request of the Water Board and presented in the annual status report.[11] The Water Board requested the assessment in preparation for the USEPA's forthcoming five-year review in 2009. Weiss conducted the assessment consistent with the Water Board's tiered approach in which VOC concentrations in groundwater were compared to

[8] Water Board, 1989. *Site Cleanup Requirements for Fairchild Semiconductor Corporation and Schlumberger Technology Corporation, San Jose, Santa Clara County, Board Order No. 89-16*, January 18.
[9] Smith Environmental Technologies Corporation, 1995. *Supplemental Health Risk Assessment prepared for Fairchild Semiconductor Corporation, San Jose, California*, November.
[10] Water Board, 1995. Letter to V. Thomas Jones, Schlumberger Technology Corp, regarding the *Supplemental Health Risk Assessment for Former Fairchild Facility, 101 Bernal Road, San Jose, Santa Clara County*, December 19.
[11] Weiss, 2008. *Annual Status Report for Former Fairchild Semiconductor Corporation Facility, 101 Bernal Road, San Jose California*, November 10.

Tier-1 groundwater Environmental Screening Levels (ESLs) for potential vapor intrusion risk. The assessment conservatively assumed that groundwater was only 10 feet bgs even though the depth to groundwater was 35 to 40 feet. All VOC concentrations were below the Tier-1 ESLs for both commercial and residential scenarios, and thus, the assessment concluded that VOCs in groundwater did not present potential vapor intrusion risks to indoor air at the site. In response, the USEPA and the Water Board concluded in the *Fourth Five-Year Review* that *"The remedy at the Fairchild-San Jose Superfund Site at 101 Bernal Road in San Jose, California is currently protective of human health and the environment….There is no exposure risk from vapor intrusion."*[12]

In 2013, the Water Board requested a fourth health risk assessment, a *Vapor Intrusion Evaluation and Screening Level Risk Assessment Report*, to further evaluate potential vapor intrusion concerns in light of new USEPA guidance that was summarized in a December 3, 2013 letter from the USEPA for National Priorities List sites in the South Bay. Weiss presented its assessment as an appendix of the *Fifth Five-Year Review Report.*[13] The evaluation included a comparison of site COC and TCE concentrations to Water Board ESLs for groundwater and USEPA regional screening levels (RSLs) for indoor air. Two methods were used to estimate target groundwater concentrations based upon the RSLs: the USEPA's vapor intrusion screening level (VISL) calculator and the Johnson & Ettinger model spreadsheet developed by USEPA with toxicity value updates by the California Office of Environmental Health Hazard Assessment. The assessment concluded that the vapor intrusion pathway from groundwater is not a concern for on-site or off-site buildings. Subsequently, the USEPA concurred it was unlikely that VOCs in groundwater posed an indoor risk to on-site buildings.[2,14]

ASSESSMENT OF VAPOR INTRUSION SCENARIOS

Weiss evaluated each of the vapor intrusion scenarios identified by the USEPA. In the evaluation below, Weiss considered previous site remediation, previous health risk assessments, and current site conditions.

Scenario 1: Area/building was a former source or is directly above or adjacent to a former source.

The former source area does not present a risk to adjacent buildings because the nearest existing building is more than 200 feet away. The USEPA has established a "buffer zone" of 100 feet for identifying buildings subject to potential vapor intrusion. Certain conditions could subject a building outside this buffer zone to vapor intrusion, but these conditions do not exist at the site.[15] These conditions include advective flow caused by landfill gas generation, a release of a vapor-forming chemical inside an enclosed space, or a pressurized gas line release.

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[12] Water Board, 2009. *Fourth Five-Year Review, Fairchild Semiconductor – San Jose Site, 101 Bernal Road, San Jose, Santa Clara County, California,* concurred by USEPA, September 30.

[13] Weiss, 2014. *Fifth Five-Year Review Report for Former Fairchild Facility, 101 Bernal Road, San Jose, California,* January 31.

[14] United States Army Corps of Engineers Seattle District, 2014. *Fifth Five-Year Review Report of Fairchild Semiconductor Corporation South San Jose Plant Superfund Site, San Jose, Santa Clara County, California,* approved by Water Board, August 4, 2014 and USEPA, August 13, 2014.

[15] USEPA, Office of Solid Waste and Emergency Response, 2015. *OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air,* OSWER Publication 9200.2-154, June.

In addition to the fact that buildings are more than 200 feet away, the former source area does not present a vapor intrusion risk because the source was removed, surrounding and underlying soil was excavated to 52 feet bgs, and the adjacent area was subsequently remediated with SVE. Sampling from more than 40 post-remediation borings around the former source area identified no or low concentrations of residual VOCs in the vadose zone. As presented previously in this summary letter, no VOCs were detected above reporting limits in soil samples in the shallowest 10 feet, and the highest 1,1,1-TCA or 1,1-DCE concentration detected in soil shallower than 35 feet was only 0.47 mg/kg 1,1,1-TCA, detected at 31 feet bgs. Deeper soil samples yielded higher VOC concentrations, but these were collected from below the historically high water table and represent soil that is at times saturated.

Based on pre- and post-remediation data, the SHRA concluded that there would be no unacceptable vapor intrusion risk to a hypothetical residential or commercial building constructed directly above the former source. As summarized above, the Water Board concurred with this conclusion.

Scenario 2: Area/building is above an area of contaminated groundwater.

The *Vapor Intrusion Evaluation and Screening Level Risk Assessment* completed in 2014 concluded that residual VOCs were not present in groundwater at concentrations that exceeded levels of potential concern for vapor intrusion to indoor air in on-site or off-site buildings. The USEPA memorandum dated April 21, 2014 concluded that this evaluation addressed this scenario, and the USEPA's *Fifth Five-Year Review Report* states, *"Because the area within the slurry wall is commercial, groundwater contamination is unlikely to pose an indoor air risk to buildings within the slurry wall,"* and, *"off-site groundwater contamination is unlikely to pose an indoor air risk to buildings overlying the groundwater plume."*[15]

Scenario 3: Area/building is in an area where contaminants are migrating laterally through the vadose zone.

Vapor intrusion due to lateral migration through the vadose zone is not a significant risk at this site. Lateral migration disperses VOC concentrations at the source, and as a result, exposure due to vapors that have migrated laterally is less than exposure directly above the source. As demonstrated under Scenarios 1 and 2, there is no significant risk to future buildings constructed adjacent to the former source area, and residual VOCs in groundwater do not present a risk to on-site or off-site buildings.

Moreover, the natural soil types and backfill at the site impedes lateral migration through the vadose zone. The vadose zone consists of primarily silty clay and clayey silt, with discontinuous units of higher permeable soil (Figure 3). Migration is also limited through the former source area by the high-density concrete backfilled into the augered caissons and beneath the building to the northwest by bentonite-slurry backfill.[4] Excess bentonite slurry was backfilled in this area in 1987 after construction of the site-perimeter slurry wall. The extent and depth of the backfill was documented in the *Remedial Action Plan* and are shown on Figures 2 and 3.

Scenario 4: Area/building is in an area where conduits are transporting contaminants from a source area.

Although utility trenches are present near the former source area, it is unlikely that VOC vapors are accumulating in the trench backfill at concentrations that would present a risk of vapor transport and intrusion into current site buildings for the following reasons:

- The utility trenches do not intersect high permeability soil.
- More than 30 feet of low-permeability soil separate residual VOCs in soil and groundwater from the bottom of the remediation piping, sanitary sewer and storm drain trenches (Figures 2 and 3).
- As summarized previously, the remediation system piping trench that is beneath the downgradient building is capped with 6 inches of reinforced concrete underlain by a 6-mil vapor barrier.

In its memorandum, the USEPA also raised the general concern of an ongoing or residual release of contaminated material to sewer lines either by direct release or infiltration of contaminated groundwater. At this site, the source has been removed and the water table is far deeper than utility trenches, and thus, groundwater does not infiltrate into site sewers.

CONCLUSIONS

Residual VOCs do not present a vapor intrusion risk to current or future commercial buildings. This conclusion is based on the following lines of evidence that are discussed in detail above:

- The source has been removed, and impacted soil has been extensively remediated.
- The COCs are primarily 1,1,1-TCA and 1,1-DCE, which are non-carcinogenic and have human toxicity factors that are significantly higher than other VOCs often associated with industrial site releases (e.g., TCE).
- The site is a retail shopping center, and Fairchild is not aware of plans for site redevelopment or a change in land use.
- The former source area consists of a paved parking lot and is more than 200 feet from the nearest building.
- Post-remediation sampling did not identify VOCs in the shallowest 10 feet of soil and contained a maximum of only 0.47 mg/kg 1,1,1-TCA in the shallowest 35 feet of soil.
- Soil beneath most of the site has a low estimated permeability that likely impedes vapor migration to existing utility trenches or laterally toward buildings constructed on other portions of the site.
- Previous risk assessments conclude that residual VOCs in soil and groundwater do not present an unacceptable risk to site buildings.

For these reasons, Weiss recommends no further action at this time with regards to vapor intrusion at the site and a re-assessment of the potential for vapor intrusion at the time of future site development. The current land use covenant requires Water Board approval for excavation or soil disturbance deeper than 5 feet bgs. This recommendation is consistent with the USEPA's conclusion

in the most recent five-year review report regarding vapor intrusion due to VOCs in site groundwater: *"Because the area within the slurry wall is commercial, groundwater contamination is unlikely to pose an indoor air risk to buildings within the slurry wall. Should the land use change in the future, from commercial to residential, then there would be a potential for indoor air risk to those residents whereby additional indoor air assessments are recommended."*

LIMITATIONS

Weiss Associates' work at the Former Fairchild Semiconductor Facility at 101 Bernal Road in San Jose, California was conducted under our supervision. To the best of our knowledge, the data contained herein are true and accurate, based on what can be reasonably understood as a result of this project while satisfying the scope of work prescribed by the client for this project. The data, findings, recommendations, specifications, and/or professional opinions were prepared solely for the use of Schlumberger Technology Corporation in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of the contents herein.

Sincerely,
Weiss Associates

Trish A. Eliasson, PE
Senior Project Engineer

Thomas Fojut, PE, PG, CHG
Principal Engineer

Attachments: Figure 1. Site Location
Figure 2. Location of Lithologic Cross-Section E-E'
Figure 3. Lithologic Cross-Section E-E'
Attachment A – Maps of Soil Sample Locations

cc: Mr. Vic Cocianni, Schlumberger Technology Corporation
Ms. Melanie Morash, United States Environmental Protection Agency
Ms. Janet Naito, Department of Toxic Substances Control
Mr. George Cook, Santa Clara Valley Water District
Mr. Napp Fukuda, City of San Jose, Environmental Programs Department
Mr. Eric Lacy, State Water Resources Control Board
Ms. Diane Longoria, Dr. Martin Lurther King Jr. Public Library
Ms. Cindy Moody, Pedron Enterprises
Mr. John Roeder, Great Oaks Water Company

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FIGURES

Figure 1. Site Location — 101 Bernal Road, San Jose, California

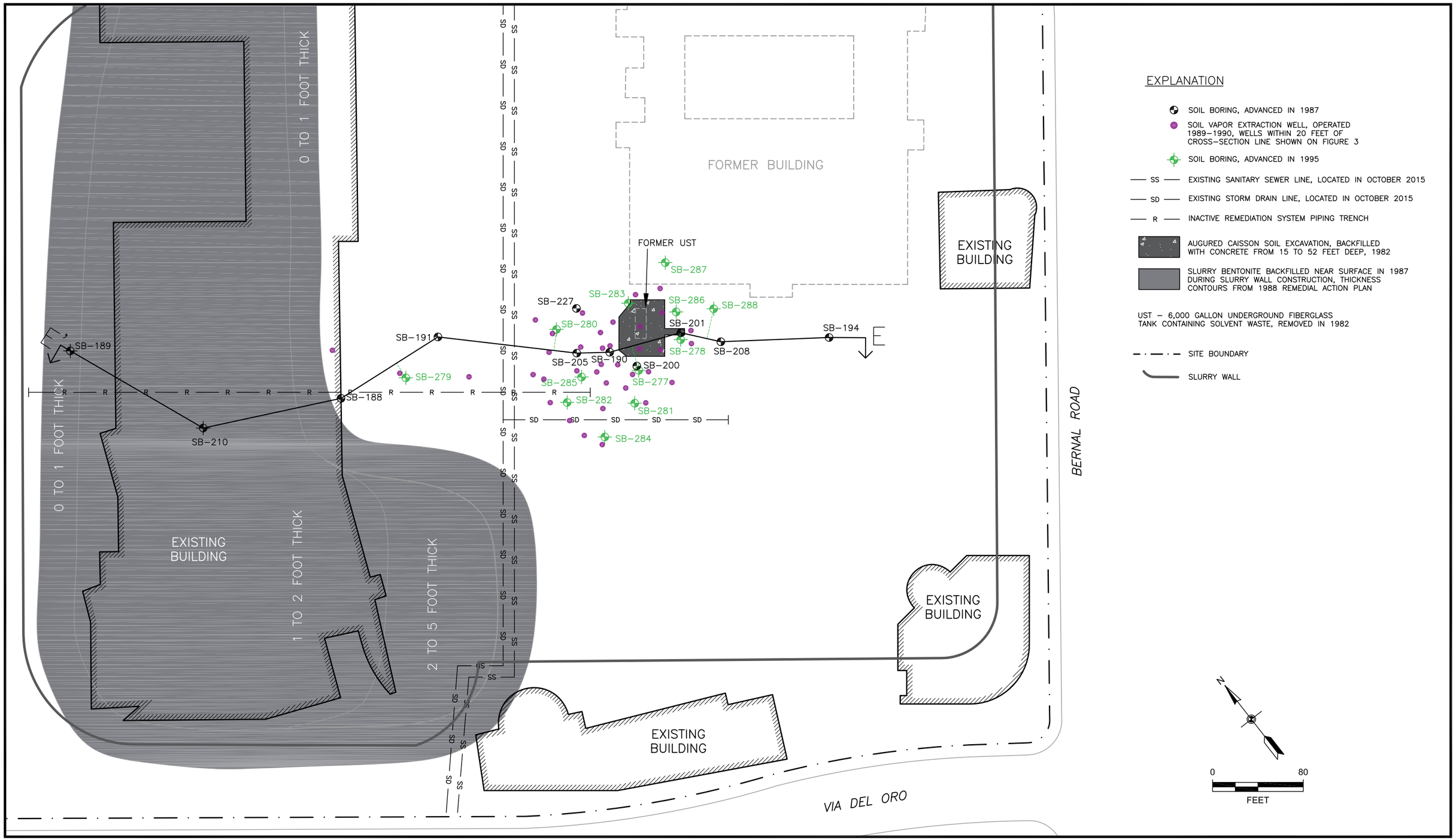
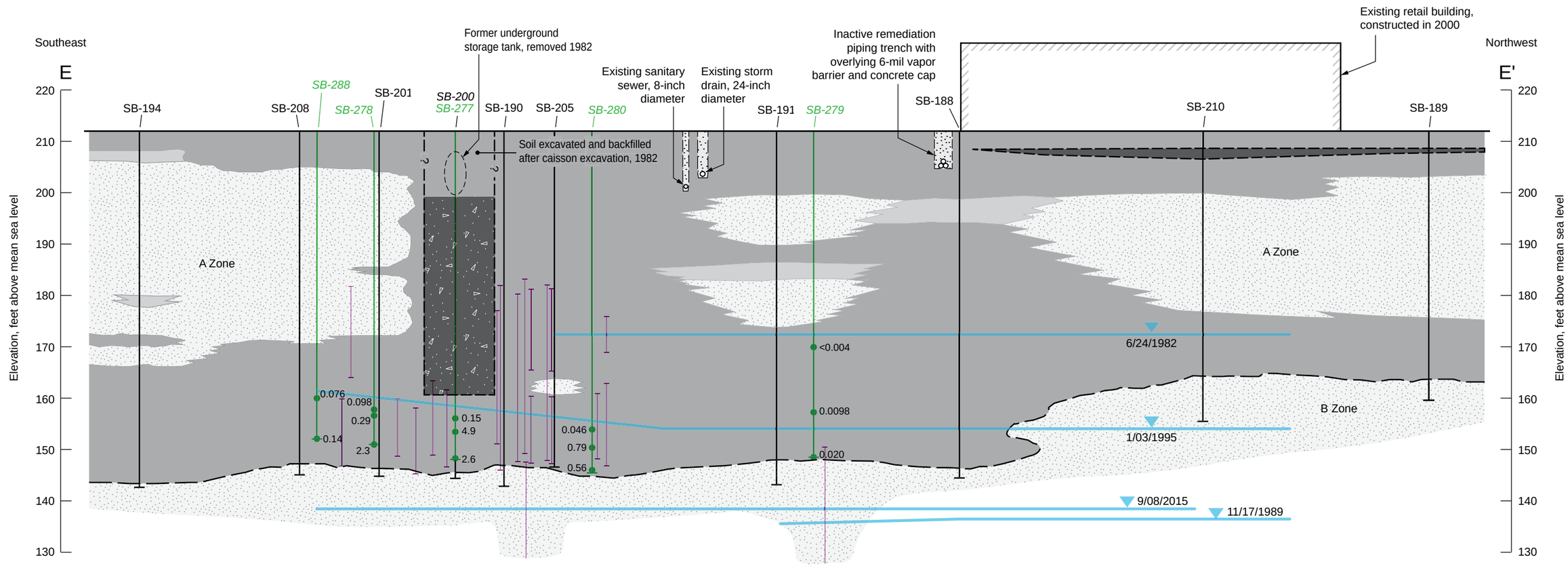


Figure 2. Location of Lithologic Cross-Section E-E' — Former Fairchild Semiconductor Facility, 101 Bernal Road, San Jose, California



EXPLANATION

SOIL BORING

SB-191 — Boring identification, *italics* if projected onto cross-section

Black: advanced in 1987, shown for lithological information

Green: advanced in 1995, shown for soil analytical data

0.29 — Soil sample location, value is sum of 1,1,1-trichloroethane and 1,1-dichloroethene concentrations, milligrams per kilogram, dry weight

Bottom of boring

SOIL VAPOR EXTRACTION WELL

Sand pack interval of soil vapor extraction well, operated 1989 – 1990

Soil with low estimated permeability (CL, GC, ML, SC)

Soil with medium estimated permeability (SM)

Soil with high estimated permeability (GP, GW, SP, SW, SP/SM, SW/SM)

Concrete backfill in 1982 augered caisson excavation

Slurry bentonite backfilled in 1986 during slurry wall construction

Fill/native soil contact, queried where uncertain

A Zone/B Zone contact

1/03/1995 — Approximate water table elevation, with date of measurement, based on water level measurements in adjacent monitoring wells.

20
10
0
0
30
60

Scale in feet
(3x vertical exaggeration)

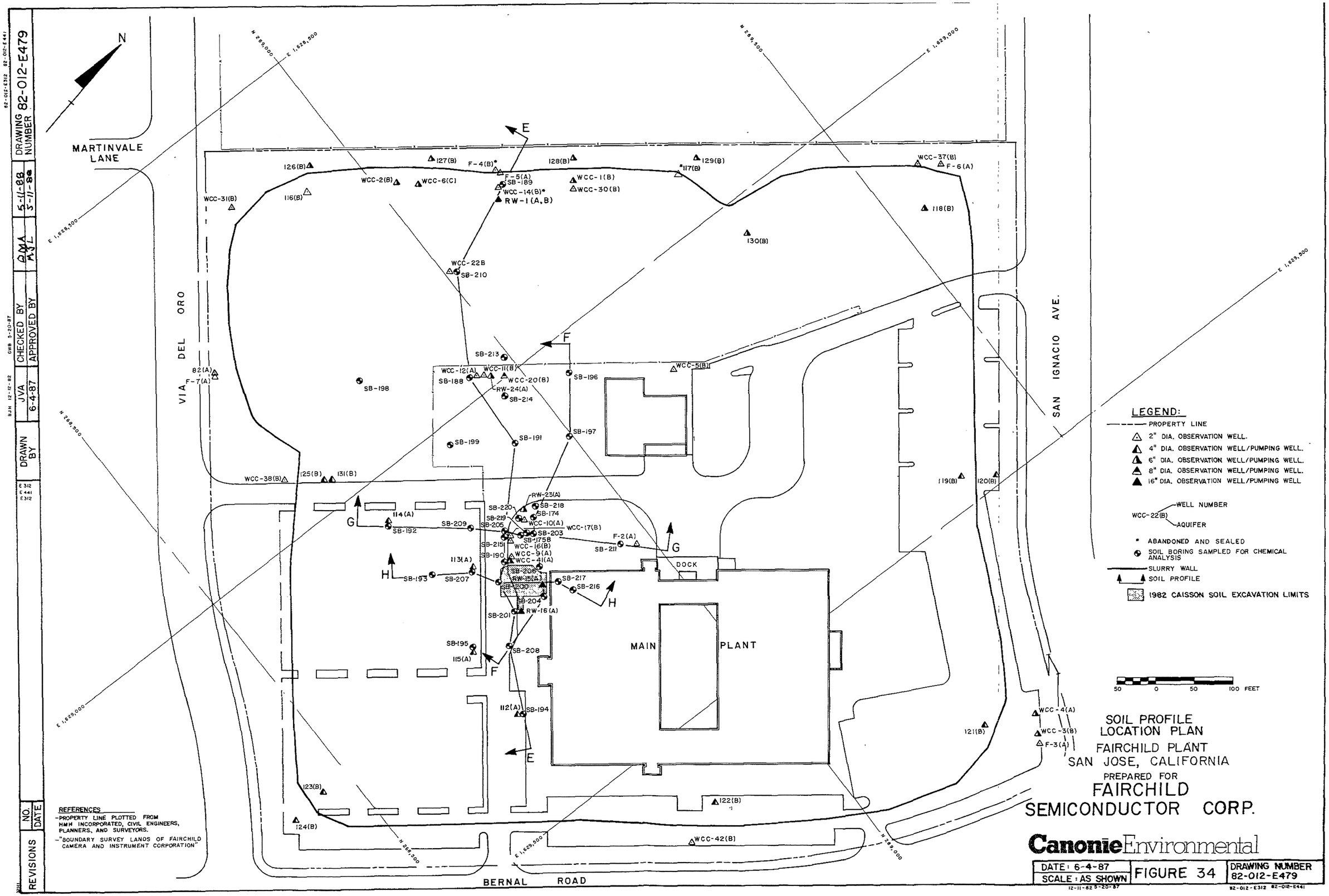
Lithology from 1988: *Remedial Action Plan*, Figure 36.

Figure 3. Lithologic Cross-Section E-E', Former Fairchild Semiconductor Facility, 101 Bernal Road, San Jose, California

APPENDIX A

MAPS OF SOIL SAMPLE LOCATIONS

N
MARTINVALE LANE
VIA DEL ORO
SAN IGNACIO AVE.
BERNAL ROAD
MAIN PLANT
DOCK
LEGEND:
PROPERTY LINE
FENCE LINE
SLURRY WALL
EXISTING SOIL BORING
2" DIA. OBSERVATION
4" DIA. OBSERVATION/ PUMPING W
6" DIA. OBSERVATION/ PUMPING W
8" DIA. OBSERVATION/ PUMPING W
16" DIA. OBSERVATION/ PUMPING W
ABANDONED AND SEALED
SCALE
50 0 50 100 FEET
REFERENCES:
- PROPERTY LINE PLOTTED FROM HMH INCORPORATED, CIVIL ENGINEERS, PLANNERS AND SURVEYORS.
- "BOUNDARY SURVEY LANDS OF FAIRCHILD CAMERA AND INSTRUMENT CORPORATION"
ON-SITE SOIL BORING AND WELL LOCATION PLAN
FAIRCHILD PLANT
SAN JOSE, CALIFORNIA
PREPARED FOR
FAIRCHILD SEMICONDUCTOR CORP.
Canonie Environmental
DATE: 5-27-87
SCALE: AS SHOWN
FIGURE 8
DRAWING NUMBE 82-012-E469
DRAWING NUMBER 82-012-E469
DRAWN BY JVA 5-27-87
CHECKED BY DMA 8-17-87
APPROVED BY SD 8-17-87
REVISIONS
NO.
DATE



REFERENCES
-PROPERTY LINE PLOTTED FROM HMH INCORPORATED, CIVIL ENGINEERS, PLANNERS, AND SURVEYORS.
-"BOUNDARY SURVEY LANDS OF FAIRCHILD CAMERA AND INSTRUMENT CORPORATION"

SOIL PROFILE LOCATION PLAN
FAIRCHILD PLANT
SAN JOSE, CALIFORNIA
PREPARED FOR
FAIRCHILD SEMICONDUCTOR CORP.

Canonie Environmental

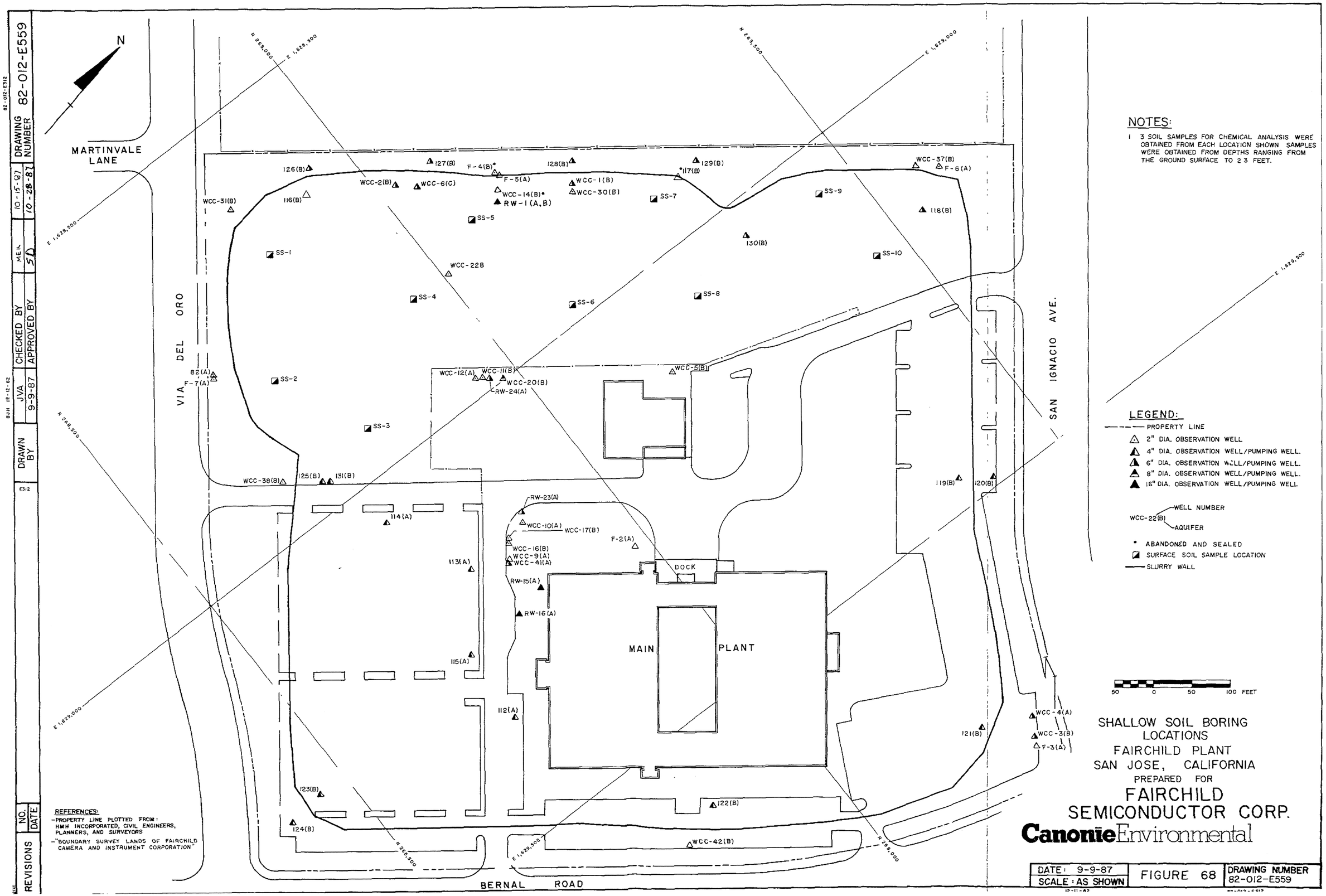
DATE: 6-4-87	FIGURE 34	DRAWING NUMBER 82-012-E479
SCALE: AS SHOWN		

12-11-82 5-20-87 82-012-E312 82-012-E441

REVISIONS	NO.	DATE

DRAWN BY JVA 6-4-87
CHECKED BY DMA 5-11-88
APPROVED BY MJL 5-11-88
DRAWING NUMBER 82-012-E479

82-012-E312 82-012-E441



NOTES:

1 3 SOIL SAMPLES FOR CHEMICAL ANALYSIS WERE OBTAINED FROM EACH LOCATION SHOWN SAMPLES WERE OBTAINED FROM DEPTHS RANGING FROM THE GROUND SURFACE TO 23 FEET.

LEGEND:

- PROPERTY LINE
- △ 2" DIA. OBSERVATION WELL
- ▲ 4" DIA. OBSERVATION WELL/PUMPING WELL.
- ▲ 6" DIA. OBSERVATION WELL/PUMPING WELL.
- ▲ 8" DIA. OBSERVATION WELL/PUMPING WELL.
- ▲ 16" DIA. OBSERVATION WELL/PUMPING WELL
- WCC-22(B) — WELL NUMBER / AQUIFER
- * ABANDONED AND SEALED
- ◪ SURFACE SOIL SAMPLE LOCATION
- SLURRY WALL

50 0 50 100 FEET

REFERENCES:
-PROPERTY LINE PLOTTED FROM: HMH INCORPORATED, CIVIL ENGINEERS, PLANNERS, AND SURVEYORS
-"BOUNDARY SURVEY LANDS OF FAIRCHILD CAMERA AND INSTRUMENT CORPORATION"

SHALLOW SOIL BORING LOCATIONS
FAIRCHILD PLANT
SAN JOSE, CALIFORNIA
PREPARED FOR
FAIRCHILD SEMICONDUCTOR CORP.

Canonie Environmental

DATE: 9-9-87	FIGURE 68	DRAWING NUMBER
SCALE: AS SHOWN		82-012-E559

REVISIONS	NO.	DATE	DRAWN BY	JVA 9-9-87	CHECKED BY	MEK 10-15-87	DRAWING NUMBER	82-012-E559
					APPROVED BY	SD 10-28-87		