PARTNER
Engineering and Science, Inc.



PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

The Sun Valley Group Arcata Properties
3160 Upper Bay Road
Arcata, California 95521

Report Date: June 2, 2015
Partner Project No. 15-139484.1



Prepared for:

The Sun Valley Group, Inc.
3160 Upper Bay Road
Arcata, California 95521

PARTNER
Engineering and Science, Inc.

June 2, 2015

Robert Jenkins
The Sun Valley Group, Inc.
3160 Upper Bay Road
Arcata, California 95521

Subject: Phase I Environmental Site Assessment
3160 Upper Bay Road
Arcata, California 95521
Partner Project No. 15-139484.1

Dear Mr. Jenkins:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in general conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (415) 992-3755.

Sincerely,

Jay Grenfell
Relationship Manager

2154 Torrance Blvd., Suite 200, Torrance, CA 90501 ◊ Phone 800-419-4923 ◊ Fax 866-928-7418

EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by The Sun Valley Group, Inc. for the property located at 3160 Upper Bay Road in the City of Arcata, Humboldt County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide The Sun Valley Group, Inc. with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located on the south side of Upper Bay Road and Lanphere Road, the north side of Foster Avenue, the east side of Seidel Road and the western terminus of 27th Street within a mixed commercial, agricultural and residential area of unincorporated Humboldt County. Please refer to the table below for further description of the subject property:

Subject Property Data	
Address:	3160 Upper Bay Road, Arcata, California
Additional Addresses:	3318 Foster Avenue, 2725 Simpson Mill Road, 4044 Lanphere Road, 2353 Seidel Road and 1780 27th Street
Historical Address:	3315 Foster Avenue
Property Use:	Agricultural flower bulb production, Storage and Offices
Land Acreage:	Approximately 520 Acres
Number of Floors:	One and two
Date of Development:	Residential: 1947; Lumber mill: 1951; Floral Farm: 1969
Assessor's Parcel Numbers (APNs):	505-151-003, 505-151-004, 505-151-005, 505-161-009, 506-131-011, 506-131-014, 506-131-015, 506-131-016, 506-231-004, 506-231-005, 506-231-010, 506-231-011, 506-241-016, 507-181-007, 506-231-009, 507-162-003, 506-241-003, 507-203-056, 507-162-013, 507-162-014 and 507-181-016
Type of Construction:	Varied
Current Tenants:	The Sun Valley Group, ABC Storage and Carlson Wireless
Site Assessment Performed By:	David Gerhardstein of Partner
Site Assessment Conducted On:	May 27, 2015

The subject property is currently occupied by The Sun Valley Group, ABC Storage, Carlson Wireless and several residential tenants for agricultural, commercial storage, office and residential use. Onsite operations consist of planting, growth and packaging of flower bulbs for sale as well as recreational vehicle storage and office use. In addition to the current structures, the subject property is also improved with agricultural bulb and hay fields; 11 groundwater wells; three diesel aboveground storage tanks (ASTs); two gasoline ASTs; one 30,000-gallon, one 500-gallon and two 100-gallon propane ASTs; more than 100 hoop houses; multiple natural gas boiler systems providing heat to greenhouses and hoop houses; six diesel-powered backup generators; agricultural and storm water drainage ditches; one lined

agricultural water retention pond and two storm water retention ponds; a large wooden water tank for fire suppression with electric and diesel-powered fire pumps; outdoor storage and soil stockpile yards; asphalt and gravel paved roads and parking areas; and perimeter fencing.

According to available historical sources, the subject property was formerly developed residentially as early as 1947; developed with a lumber mill between 1951 and circa 1989; and developed as a floral farm from 1969 to present day. Tenants on the subject property include residential tenants (1951-Present); Simpsons Redwood Company (1951-1989); The Sun Valley Group (1969-Present); and ABC Indoor RV Storage and Carlson Wireless (Present).

The immediately surrounding properties consist of residential and agricultural properties to the north, south, east and west.

According to data from an ongoing subsurface investigation on the subject property, as further discusses in Section 4.0, the depth and direction of groundwater in the vicinity of the subject property is inferred to be approximately two to 13 feet below ground surface (bgs) and flow toward the southeast.

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property; due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- The southern portion of the subject property was formerly occupied by the Simpson Redwood Company (Simpson) as a lumber mill and plywood manufacturer from 1951 until 1989. Prior to sale of the property, Simpson entered into a Voluntary Cleanup Agreement (VCA) with the California Department of Toxic Substances Control (DTSC) during February 1997 to assess potential environmental liability and cleanup any impacts that existed. Simpson engaged EnviroNet Consulting (EnviroNet) to perform a thorough environmental assessment of the property in 1997 which was completed in September 1997 and revealed multiple areas of the property with potentially significant impacts to soil and groundwater. The findings identified two former 5,000-gallon gasoline USTs, one 10,000-gallon diesel UST, and one 500-gallon unidentified UST which had been closed in place by filling with sand and concrete during 1985 and 1987 with oversight from the Humboldt County Environmental Health Department (HCEHD) as well as a groundwater hotspot containing a small plume of volatile organic compounds (VOCs) in the southeastern corner of the property and multiple other areas of concern related to the former manufacturing and maintenance operations at the property. As a result, EnviroNet recommended development and implementation of a remedial action workplan (RAP).

  A RAP was developed and approved by the DTSC in November 1997. Remedial actions commenced which included excavation and offsite disposal of approximately 8,600 cubic yards of soil as well as extraction and treatment of approximately 1.2 million gallons of groundwater. The DTSC issued a certification in February 1999 which stated that the completed remedial actions sufficiently addressed onsite contamination with the exception of the small VOC plume in

groundwater in the southeastern portion of the property. Groundwater monitoring was required to continue in that area in compliance with the 1998 Operations and Maintenance Plan implemented to monitor the natural attenuation of those impacts. Groundwater monitoring continued until 2013 which demonstrated a continued downward trend in concentrations of contaminants of concern (COCs). In September 2013 an agreement with Simpson's consultant, SHN Consulting Engineers and Geologists, Inc. (SHN), was reached with the Regional Water Quality Control Board (RWQCB) and DTSC to halt semi-annual groundwater monitoring with two additional events to take place in 2015 and review of the regulatory status for the case set for 2016.

As a result of the open VCA case with ongoing groundwater monitoring at the subject property, the former use, cleanup activities and ongoing monitoring program at the subject property represent a *REC*. However, based on the certified remedial actions that were undertaken, the regulatory oversight and identification of the responsible party with ongoing participation, as well as the downward trending concentrations of COCs in the only remaining area of the property under investigation, no additional investigation is recommended at this time.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify historical recognized environmental conditions during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The subject property has been used for agricultural purposes since at least 1969 with agricultural chemicals such as pesticides, fungicides, herbicides and fertilizers in frequent use throughout the subject property. Based on the continued use of the subject property for agricultural purposes and the proper handing and usage of these materials to prevent potential releases, the historical and continued agricultural usage of the subject property should not represent a significant environmental concern. Should the property use change however, additional investigation may be

warranted to determine the potential for agricultural chemicals to have accumulated in the subsurface.

- Three concrete sumps, in the areas of the fungicide dip tank, chemical storage room and equipment were observed at the subject property. The sumps are used to catch and accumulate runoff from fungicide dipping operations, spills during mixing and formulation of agricultural chemicals and wash/rinse water from cleaning field applicator equipment. Occasionally these features have been known to crack or otherwise degrade to the point where materials can be released to the subsurface. All three sumps appeared to be in good condition at the time of partner's visit and are not expected to represent a significant environmental concern at this time.
- The subject property is equipped with one 30,000-gallon propane AST; two 1,000-gallon diesel ASTs; one 1,000-gallon gasoline AST; one 550-gallon diesel AST; one 550-gallon gasoline AST; one 500-gallon propane AST; six 250-gallon diesel ASTs; two 120-gallon motor oil ASTs; two 100-gallon propane ASTs; and one 50-gallon diesel fire pump AST. The ASTs are located throughout the subject property. With the exception of the propane tanks and 250-gallon diesel generators, all ASTs are equipped with secondary containment. No staining, leaks or spills were noted in the vicinity of the ASTs, and no releases were identified in regulatory agency research. Based on the good condition of equipment and lack of a release, these tanks are not expected to represent a significant environmental concern at this time.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 3160 Upper Bay Road in the City of Arcata, Humboldt County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- The groundwater monitoring in the southeastern portion of the subject property should be continued in line with the DTSC Operations and Maintenance plan.

TABLE OF CONTENTS

1.0 INTRODUCTION 1

1.1 Purpose 1
1.2 Scope of Work 1
1.3 Limitations 2
1.4 User Reliance 2
1.5 Limiting Conditions 3

2.0 SITE DESCRIPTION 5

2.1 Site Location and Legal Description 5
2.2 Current Property Use 5
2.3 Current Use of Adjacent Properties 5
2.4 Physical Setting Sources 6
2.4.1 Topography 6
2.4.2 Hydrology 6
2.4.3 Geology/Soils 6
2.4.4 Flood Zone Information 7

3.0 HISTORICAL INFORMATION 8

3.1 Aerial Photograph Review 8
3.2 Fire Insurance Maps 10
3.3 City Directories 10
3.4 Historical Topographic Maps 11

4.0 REGULATORY RECORDS REVIEW 13

4.1 Regulatory Agencies 13
4.1.1 Health Department 13
4.1.2 Fire Department 14
4.1.3 Air Pollution Control Agency 14
4.1.4 Regional Water Quality Agency 15
4.1.5 Department of Toxic Substances Control 15
4.1.6 Building/Planning Department 15
4.1.7 Oil & Gas Exploration 16
4.1.8 Assessor's Office 16
4.2 Mapped Database Records Search 16
4.2.1 Regulatory Database Summary 17
4.2.2 Subject Property Listings 17
4.2.3 Adjacent Property Listings 18
4.2.4 Sites of Concern Listings 19
4.2.5 Orphan Listings 19

5.0 USER PROVIDED INFORMATION AND INTERVIEWS 20

5.1 Interviews 21
5.1.1 Interview with Owner 21
5.1.2 Interview with Report User 21
5.1.3 Interview with Key Site Manager 21
5.1.4 Interviews with Past Owners, Operators and Occupants 21

5.1.5 Interview with Others 21
5.2 User Provided Information 21
5.2.1 Title Records, Environmental Liens, and AULs 21
5.2.2 Specialized Knowledge 21
5.2.3 Actual Knowledge of the User 21
5.2.4 Valuation Reduction for Environmental Issues 21
5.2.5 Commonly Known or Reasonably Ascertainable Information 22
5.2.6 Previous Reports and Other Provided Documentation 22
6.0 SITE RECONNAISSANCE 23
6.1 General Site Characteristics 23
6.2 Potential Environmental Hazards 24
6.3 Non-ASTM Services 27
6.3.1 Asbestos-Containing Materials (ACMs) 27
6.3.2 Lead-Based Paint (LBP) 27
6.3.3 Radon 28
6.3.4 Lead in Drinking Water 28
6.3.5 Mold 28
6.4 Adjacent Property Reconnaissance 29
7.0 FINDINGS AND CONCLUSIONS 30
8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS 33
9.0 REFERENCES 34

Figures

Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Topographic Map

Appendices

Appendix A Site Photographs
Appendix B Historical/Regulatory Documentation
Appendix C Regulatory Database Report
Appendix D Qualifications

1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 3160 Upper Bay Road in the City of Arcata, Humboldt County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in general accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential

exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

The Sun Valley Group, Inc. engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of The Sun Valley Group, Inc. Either

verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this report. Any parties relying on this report do so having accepted the Terms and Conditions for which this report was completed. A copy of Partner's standard Terms and Conditions can be found at http://www.partneresi.com/terms-and-conditions.php.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not reasonably ascertainable, which constitutes a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner was not able to document the historical use of the subject property prior to 1947. The following sources were reviewed during the course of this assessment and found to be limited: aerial photographs were not available prior to 1954; city directories were not available prior to 1977; topographic maps prior to 1947 were not reasonably ascertainable; and other historical sources such as fire insurance maps did not provide coverage of the subject property. This data failure is not considered critical and does not change the conclusions of this report.
- Partner was unable to determine the property use at five-year intervals, which constitutes a data gap. Except for property tax files and recorded land title records, which were not considered to be sufficiently useful, Partner reviewed all standard historical sources and conducted appropriate interviews.
- Partner submitted a Freedom of Information Act (FOIA) request to the Humboldt County Planning and Building Department for information pertaining to hazardous substances, underground storage tanks, releases, inspection records, etc. for the subject property. As of this writing, this agency has not provided documents pertinent to Partner's request. Based on information

obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 3160 Upper Bay Road in Humboldt County, California is located on the south side of Upper Bay Road and Lanphere Road, the north side of Foster Avenue, the east side of Seidel Road and the western terminus of 27th Street. According to the Humboldt County Assessor, the subject property is described as APNS 505-151-003, 505-151-004, 505-151-005, 505-161-009, 506-131-011, 506-131-014, 506-131-015, 506-131-016, 506-231-004, 506-231-005, 506-231-010, 506-231-011, 506-241-016, 507-181-007, 506-231-009, 507-162-003, 506-241-003, 507-203-056, 507-162-013, 507-162-014 and 507-181-016, and ownership is currently vested in The Sun Valley Group, Inc..

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property is currently occupied by The Sun Valley Group, ABC Storage, Carlson Wireless and several residential tenants for agricultural, commercial storage, office and residential use. Onsite operations consist of planting, growth and packaging of flower bulbs for sale as well as recreational vehicle storage and office use. In addition to the current structures, the subject property is also improved with agricultural bulb and hay fields; 11 groundwater wells; three diesel aboveground storage tanks (ASTs); two gasoline ASTs; one 30,000-gallon, one 500-gallon and two 100-gallon propane ASTs; more than 100 hoop houses; multiple natural gas boiler systems providing heat to greenhouses; six diesel-powered backup generators; agricultural and storm water drainage ditches; one lined agricultural water retention pond and two storm water retention ponds; a large wooden water tank for fire suppression with electric and diesel-powered fire pumps; outdoor storage and soil stockpile yards; asphalt and gravel paved roads and parking areas; and perimeter fencing.

The subject property is designated for industrial development by Humboldt County.

The subject property was identified in the Voluntary Cleanup Program (VCP); EnviroStor; Proposition 65 Records (Notify 65); Spills, Leaks, Investigations and Cleanups (SLIC); Land Disposal Sites (LDS); Registered Aboveground Storage Tank (AST); Historical Underground Storage Tanks (HIST UST); Facilities Index Data (CA FID) UST; Statewide Environmental Evaluation and Planning System (SWEEPS) UST; and Certified Unified Program Agency (CUPA) Listings databases in the regulatory database report, as further discussed in Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a mixed residential and agricultural area of unincorporated Humboldt County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

Immediately Surrounding Properties

North: Upper Bay Road and Lanphere Road, beyond which are agricultural land and residences (3203 Upper Bay Road; 3635, 3851 and 4067 Lanphere Road; and 3485-3731 Spear Avenue)

Immediately Surrounding Properties

South: Residences, agricultural land and Foster Avenue, beyond which are additional residences and agricultural land (2665, 3067, 3266, 3364, and 3422 Foster Avenue)

East: Residences, agricultural land and the western terminus of 27th Street (1650, 1750, 1754, 1758, 1969 and 1971 27th Street; 1694 and 1698 29th Street; and 2160 Foster Avenue)

West: Seidel Road, beyond which are agricultural land and residences (2474, 3012 and 3466 Seidel Road)

An adjacent property to the south was identified in the CUPA Listings database, an adjacent property to the west was identified in the HIST UST database and an adjacent property to the north was identified in the CA FID UST and SWEEPS UST databases in the regulatory database report in the regulatory database report, as discussed in Section 4.2.

2.4 Physical Setting Sources

2.4.1 Topography

The United States Geological Survey (USGS) *Arcata North, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 20 feet above mean sea level (MSL). The contour lines in the area of the subject property indicate the area is sloping gently toward the west. The subject property is depicted on the 1972 map as developed with numerous small structures and a lumber mill.

A copy of the 1972 topographic map is included as Figure 3.

2.4.2 Hydrology

According to data from an ongoing subsurface investigation on the subject property, as further discussed in Section 4.0, the depth and direction of groundwater in the vicinity of the subject property is inferred to be approximately two to 13 feet below ground surface (bgs) and flow toward the southeast. The nearest surface water in the vicinity are the unnamed ponds located on the subject property.

According to onsite observations and information provided by the property owner, water for the subject property is provided by onsite groundwater wells and from the Humboldt Bay Municipal Water District. The sources of public water for the Humboldt Bay Municipal Water District are public groundwater wells located in the bed of the Mad River to the northeast of the City of Arcata.

2.4.3 Geology/Soils

The subject property is situated within the Coast Ranges geomorphic province of the State of California. According to information obtained from the United States Geological Survey (USGS), the area surrounding the subject property is underlain by alluvium and marine deposits of the Quaternary era. Soils from this series are characterized as alluvium, lake, playa and terrace deposits; unconsolidated and semi-consolidated. Soils of this area consist of mostly of non-marine deposits, with some marine deposits near the shore.

Based on information obtained from the United States Department of Agriculture (USDA) Natural Resources Conservation Service Web Soil Survey online database, the subject property is mapped as

Swainslough, Jollygiant, Arlynda, Dungan and Canalschool soils. These consist of very poorly drained soils in depressions, backswamps, low flood-plain steps, and reclaimed salt marshes formed in mixed alluvium on alluvial plains. Slopes range from 0 to 2 percent.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 0600600615D, dated February 8, 1999, the subject property appears to be located in Zone A, an area located within the 100-year and 500-year flood plains.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

Historical Use Information		
Period/Date	**Source**	**Description/Use**
1947-1951	Topographic Maps	Residential
1951-1969	Aerial Photographs, Agency Records, City Directories, Interviews, Previous Report, Sanborn Maps	Lumber mill and Residential
1969-1989	Aerial Photographs, Agency Records, City Directories, Interviews	Lumber Mill, Floral Farm and Residential
1989-Present	Aerial Photographs, Building Records, City Directories, Interviews, Onsite Observations, Agency Records	Flower Farm and Residential

Tenants on the subject property include residential tenants (1951-Present); Simpsons Redwood Company (1951-1989); The Sun Valley Group (1969-Present); and ABC Indoor RV Storage and Carlson Wireless (Present). Potential environmental concerns were identified in association with the current or former use of the subject property, as further discussed in Section 4.0.

3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Data Resources (EDR) on May 19, 2015. The following observations were noted to be visible on the subject property and adjacent properties during the aerial photograph review:

Date: 1954	*Scale: 1"=500'*
Subject Property:	Appears developed agriculturally across most of the property with a residences in the northern portion and one large building with large outdoor timber storage yards in the southern portion
North:	Appears developed agriculturally and residentially
South:	Appears developed agriculturally and residentially
East:	Appears developed agriculturally and residentially
West:	Appears developed agriculturally and residentially

Dates: 1956, 1969	*Scale: 1"=500'*
Subject Property:	The large building on the southern portion appears to have been expanded and new outdoor storage yards developed
North:	No significant changes visible
South:	No significant changes visible
East:	No significant changes visible
West:	No significant changes visible

Date: 1972	*Scale: 1"=500'*
Subject Property:	Appears under development in the northern and central portion
North:	No significant changes visible

Date: 1972		***Scale: 1"=500'***
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Date: 1982		***Scale: 1"=500'***
Subject Property:	Appears developed with several larger buildings northern portion with roads and crops in the central and eastern portion and three ponds to the west of the timber storage yards	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Date: 1989		***Scale: 1"=500'***
Subject Property:	Appears additionally developed with greenhouses in the northern portion	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Date: 1998		***Scale: 1"=500'***
Subject Property:	Appears developed with more greenhouses in the northern and central portions and the outdoor storage yards in the southern portion appear empty	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Dates: 2005, 2009		***Scale: 1"=500'***
Subject Property:	Appears developed with many more greenhouses and hoop houses in the central portion as well as soil stockpiles in the storage yards and an additional pond in the western central portion	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Dates: 2010, 2012		***Scale: 1"=500'***
Subject Property:	Appears additionally developed with a pond in the northern central portion, to the west of the green houses	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Copies of reviewed aerial photographs are included in Appendix B.

3.2 Fire Insurance Maps

Partner reviewed the collection of Sanborn Fire insurance maps from EDR on May 13, 2015. Sanborn map coverage was not available for the subject property.

A copy of the EDR no coverage letter is included in Appendix B.

3.3 City Directories

Partner reviewed historical city directories obtained from EDR on May 22, 2015 for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

City Directory Search for the Subject Property

Year(s)	Occupant Listed
1977	Sun Valley Bulb Farms (1780 27th Street)
1982	Sun Valley Bulb Farms (1780 27th Street)
1992	Sun Valley Bulb Farms (3160 Upper Bay Road); Sun Valley Farms (1780 27th Street)
1995	Sun Valley Bulb Farms (3160 Upper Bay Road)
1999	Sun Valley Floral Farms (3160 Upper Bay Road); Northcoast Environmental Construction (3318 Foster Avenue); Occupant Unknown (1780 27th Street)
2003	Sun Valley Floral Farms (3160 Upper Bay Road); Occupant Unknown (2353 Seidel Road); Arcata Land Co, Sun Valley Floral Farms (3318 Foster Avenue); Occupant Unknown (1780 27th Street)
2008	Sun Valley Floral Farms (3160 Upper Bay Road); Arcata Land Co, Sun Valley Floral Farms (3318 Foster Avenue)
2013	Sun Valley Floral Farms (3160 Upper Bay Road); Residential (2353 Seidel Road); ABC Indoor RV Storage, Arcata Land Co, Sierra Madre Mushrooms (3318 Foster Avenue)

According to the city directory review, the subject property has been occupied by an agricultural operation since at least 1977 and was briefly occupied by an environmental construction firm during 1999.

City Directory Search for Adjacent Properties

Year(s)	Occupant Listed
1958	Westwood Village Auto Body & Paint (1650 27th Street)
1963	Residential (1650 27th Street)
1968	Residential (1650 27th Street)
1973	Residential (1650 27th Street); Residential (1750 27th Street)
1977	Residential (1650 27th Street); Residential (1750 27th Street)
1982	Residential (1650 27th Street); Residential (1750 27th Street); Residential (1969 27th Street); Residential (1971 27th Street)
1992	Residential (3203 Upper Bay Road); Residential (3466 Seidel Road); Residential (3067 Foster Avenue); Residential (3266 Foster Avenue); Residential (3364 Foster Avenue); Residential (3422 Foster Avenue); Residential (1750 27th Street); Residential (1971 27th Street)
1995	Residential (3067 Foster Avenue); Residential (3266 Foster Avenue); Residential (3364 Foster Avenue); Residential (3422 Foster Avenue); Occupant Unknown (1650 27th Street); Residential (1750 27th Street); Residential (1969 27th Street); Residential (1971 27th Street)
1999	Residential (2474 Seidel Road); Residential (3012 Seidel Road); Residential (3067 Foster Avenue); Residential (3266 Foster Avenue); Residential (3364 Foster Avenue); Residential

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
	(3422 Foster Avenue); Occupant Unknown (1650 27th Street); Residential (1750 27th Street); Residential (1754 27th Street); Residential (1969 27th Street); Residential (1971 27th Street)
2003	Occupant Unknown (3203 Upper Bay Road); Residential (2474 Seidel Road); Residential (3067 Foster Avenue); Occupant Unknown (3266 Foster Avenue); Residential (3364 Foster Avenue); Residential (3422 Foster Avenue); Residential (1650 27th Street); Residential (1750 27th Street); Residential (1754 27th Street); Residential (1969 27th Street)
2008	Occupant Unknown (3203 Upper Bay Road); Residential (2474 Seidel Road); Residential (3067 Foster Avenue); Occupant Unknown (3266 Foster Avenue); Residential (3364 Foster Avenue); Residential (3422 Foster Avenue); Residential (1650 27th Street); Residential (1750 27th Street); Residential (1754 27th Street); Residential (1969 27th Street); Occupant Unknown (1971 27th Street)
2013	Residential (3203 Upper Bay Road); Residential (2474 Seidel Road); Residential (3012 Seidel Road); Occupant Unknown (3466 Seidel Road); Residential (3067 Foster Avenue); Occupant Unknown (3266 Foster Avenue); Residential (3364 Foster Avenue); Residential (3422 Foster Avenue); Residential (1650 27th Street); Residential (1750 27th Street); Residential (1754 27th Street); Residential (1758 27th Street); Residential (1969 27th Street); Residential (1971 27th Street)

Based on the city directory review, no environmentally sensitive listings were identified for the adjacent property addresses.

Copies of reviewed city directories are included in Appendix B.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from EDR on May 13, 2015. The following observations were noted to be depicted on the subject property and adjacent properties during the topographic map review:

Date: 1947	
Subject Property:	Depicted with multiple small structures along the perimeter of the property and portions of a slough and railroad tracks in the southern portion
North:	Depicted with several small structures across a road
South:	Depicted with several small structures across a road
East:	Depicted with several small structures
West:	Depicted with several small structures across a road

Date: 1951	
Subject Property:	Depicted with a large building, several additional small buildings, roads and a railroad spur in the southern portion
North:	No significant changes depicted
South:	No significant changes depicted
East:	No significant changes depicted
West:	No significant changes depicted

Date:	*1959*
Subject Property:	Depicted with a lumber mill and water tanks in the southern portion
North:	No significant changes depicted
South:	No significant changes depicted
East:	No significant changes depicted
West:	No significant changes depicted

Date:	*1972*
Subject Property:	Depicted with a an expansion to the lumber mill and several additional small structures in the northern portion
North:	No significant changes depicted
South:	No significant changes depicted
East:	No significant changes depicted
West:	No significant changes depicted

Copies of reviewed topographic maps are included in Appendix B.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 Health Department

Regulatory Agency Data	
Name of Agency:	Humboldt County Environmental Health Department (HCEHD)
Point of Contact:	Norm Crawford
Agency Address:	100 H Street, Eureka, California
Agency Phone Number:	(707) 445-6215
Date of Contact:	May 19, 2015
Method of Communication:	In Person/Email

Summary of Communication:

According to records reviewed, the subject property currently has an open cleanup case related to former operations at the Simpson Redwood Company property located in the southern portion of the subject property. That portion of the property was occupied by the Simpson Redwood Company (Simpson) as a lumber mill and plywood manufacturer from 1951 until 1989. Prior to sale of the property, Simpson entered into a Voluntary Cleanup Agreement (VCA) with the California Department of Toxic Substances Control (DTSC) during February 1997 to assess potential environmental liability and cleanup any impacts that existed. Simpson engaged EnviroNet Consulting (EnviroNet) to perform a thorough environmental assessment of the property in 1997 which was completed in September 1997 and revealed multiple areas of the property with potentially significant impacts to soil and groundwater. The findings identified two former 5,000-gallon gasoline USTs, one 10,000-gallon diesel UST, and one 500-gallon unidentified UST which had been closed in place by filling with sand and concrete during 1985 and 1987 with oversight from the HCEHD as well as a groundwater hotspot containing a small plume of volatile organic compounds (VOCs) in the southeastern corner of the property and multiple other areas of concern related to the former manufacturing and maintenance operations at the property. As a result, EnviroNet recommended development and implementation of a remedial action workplan (RAP).

A RAP was developed and approved by the DTSC in November 1997 and remedial actions commenced which included excavation and offsite disposal of approximately 8,600 cubic yards of soil as well as extraction and treatment of approximately 1.2 million gallons of groundwater. The DTSC certified that the remedial actions sufficiently addressed onsite contamination in February 1999 with the caveat that groundwater monitoring continue for the small VOC plume in the southeastern potion of the property to monitor the natural attenuation of those impacts. Groundwater monitoring continued in that area until 2013 which demonstrated a continued downward trend in concentrations of contaminants of concern (COCs). In September 2013 an agreement with Simpson's consultant, SHN Consulting Engineers and Geologists, Inc. (SHN), was reached with the Regional Water Quality Control Board (RWQCB) and the DTSC to halt semi-annual groundwater monitoring with two additional events to take place in 2015 and review of the regulatory status for the case set for 2016.

The former use, cleanup activities and ongoing groundwater monitoring at the subject property represent a REC. However, based on the certified remedial actions that were undertaken, the regulatory oversight and identification of the responsible party with ongoing participation, as well as the downward trending concentrations of COCs in the only remaining area of the property under investigation, no additional investigation is recommended at this time.

Additionally, the subject property is regulated by the HCEHD for storage, use and generation of hazardous materials including pesticides, fungicides, herbicides, gasoline, diesel and waste oil and antifreeze. The most recent inspection of the property was conducted in June 2014 and revealed minor violations related to accuracy of chemical inventory and labeling of hazardous wastes. The inspector additionally directed The Sun Valley Group to discontinue use of the wash rack near the maintenance shop until an oil/water separator was installed in the area. Records further indicated that a monitoring report from 2003 indicated the presence of the fungicide chlorothalonil in surface water at concentrations as high as 1.6 microgram per liter (µg/L) and in an agricultural supply well at a concentration of 0.64 µg/L. No additional reports of impacts to surface water or groundwater from agricultural chemical use were found and the most recent data from surface water samples collected in the retention pond on the western central portion of the property revealed no detectable concentrations of pesticides in surface water. Based on the good condition of hazardous materials storage systems as well as the lack of significant violations or documented releases and the recent surface water data, the onsite storage and use of hazardous materials does not represent a significant environmental concern at this time.

A copy of pertinent documents is included in Appendix B.

4.1.2 Fire Department

Regulatory Agency Data	
Name of Agency:	Arcata Fire Protection District (AFPD)
Point of Contact:	Staff
Agency Address:	631 9th Street, Arcata, California
Agency Phone Number:	(707) 825-2000
Date of Contact:	May 19, 2015
Method of Communication:	Telephone
Summary of Communication:	No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the AFPD.

4.1.3 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	North Coast Unified Air Quality Management District (NCUAQMD)
Point of Contact:	Erin Squire
Agency Address:	707 L Street, Eureka, California
Agency Phone Number:	(707) 443-3093
Date of Contact:	May 19, 2015
Method of Communication:	Email/Telephone
Summary of Communication:	According to records reviewed, the subject property has been permitted to perform agricultural burns from 2004 through 2014 with regulation under smoke management plans. Additionally, the NCUAQMD received a notification in April 2007 for demolition activities related to removal of 1,600 square feet of asbestos containing roofing materials. Further, the subject property has a permit to operate (PTO) one incinerator for the disposal of untreated paper, cardboard and approved wood waste which was issued in

Regulatory Agency Data	
	October 2007. No violations were reported. Based on the nature of onsite operations covered by the NCUAQMD regulation, these records do not represent a significant environmental concern.

4.1.4 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	Regional Water Quality Control Board (RWQCB)
Point of Contact:	GeoTracker and Craig Hunt
Agency Address:	5550 Skylane Boulevard, Suite A, Santa Rosa, California
Agency Phone Number:	(510) 622-2300
Date of Contact:	May 19, 2015
Method of Communication:	Online/Email
Summary of Communication:	According to records reviewed, the subject property currently has an ongoing groundwater monitoring program related to the cleanup case for the former Simpson Redwood Company operations on the southern portion of the property, as previously discussed in Section 4.1.1. Additionally, the subject property was listed as a land disposal site (LDS) but no documentation was provided. Partner contacted Mr. Craig Hunt of the RWQCB who confirmed that the LDS listing was an error and the GeoTracker case listing has since been removed.

4.1.5 Department of Toxic Substances Control

Regulatory Agency Data	
Name of Agency:	California Department of Toxic Substances Control (DTSC)
Point of Contact:	EnviroStor
Agency Address:	1001 I Street, Sacramento
Agency Phone Number:	(800) 728-6942
Date of Contact:	May 19, 2015
Method of Communication:	Online
Summary of Communication:	According to records reviewed, the subject property currently has an ongoing groundwater monitoring program overseen by the DTSC related to the cleanup case for the former Simpson Redwood Company operations on the southern portion of the property, as previously discussed in Section 4.1.1.

4.1.6 Building/Planning Department

Regulatory Agency Data	
Name of Agency:	Humboldt Planning & Building Department (HPBD)
Point of Contact:	Counter Staff
Agency Address:	3015 H Street, Eureka, California
Agency Phone Number:	(707) 445-7245
Date of Contact:	May 19, 2015
Method of Communication:	Faxed Request/In Person

Regulatory Agency Data	
Summary of Communication:	At the time of Partner's visit to the HPBD and as of the date of this report, records were not yet available for review.

4.1.7 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Division of Oil, Gas and Geothermal Resources (DOGGR)
Point of Contact:	Well Finder
Agency Address:	801 K Street, Sacramento, California
Agency Phone Number:	(916) 445-9686
Date of Contact:	May 19, 2015
Method of Communication:	Online
Summary of Communication:	According to DOGGR maps online, no oil or gas wells are located on the subject property.

4.1.8 Assessor's Office

Regulatory Agency Data	
Name of Agency:	Humboldt County Assessor (HCA)
Point of Contact:	Website
Agency Address:	825 5th Street, Eureka, California
Agency Phone Number:	(707) 445-7663
Date of Contact:	May 19, 2015
Method of Communication:	Online
Summary of Communication:	According to records reviewed, the subject property is identified by APNs 505-151-003, 505-151-004, 505-151-005, 505-161-009, 506-131-011, 506-131-014, 506-131-015, 506-131-016, 506-231-004, 506-231-005, 506-231-010, 506-231-011, 506-241-016, 507-181-007, 506-231-009, 507-162-003, 506-241-003, 507-203-056, 507-162-013, 507-162-014 and 507-181-016.

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by EDR. Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Radius Report Data				
Database	**Search Radius (mile)**	**Subject Property**	**Adjacent Properties**	**Sites of Concern**
Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	N	N	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	--	--
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site	0.50	N	N	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	**Y**	N	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	**Y**	N	N
State/Tribal Spills	0.50	**Y**	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
EDR MGP	1.00	N	N	N
EDR US Hist Auto Station	0.25	N	N	N
EDR US Hist Cleaners	0.25	N	N	N
On-ASTM/AAI Databases	Varies	**Y**	**Y**	N

4.2.2 Subject Property Listings

The subject property was identified in the VCP; EnviroStor Database; Notify 65; SLIC; LDS; AST; HIST UST; CA FID UST; SWEEPS UST; and CUPA Listings databases in the regulatory database report, as further discussed below:

- The subject property, identified as Simpson Redwood Co, Sun Valley Bulb Farms, Sun Valley Floral Farms 3160 Upper Bay Road, Sun Valley Floral Farms – Arcata Division and, Arcata Remanufacturing and Simpson Timber Company Arcata at 1780 27th Street, 3160 Upper Bay Road and 3315 Foster Avenue is listed as a voluntary cleanup site with ongoing groundwater monitoring overseen by the DTSC, as previously discussed in Section 4.1.1. The subject property was additionally identified in the Notify 65 database, a listing of Proposition 65 reports regarding hazardous substances, but no relevant details are provided. Further, the subject property is identified as being equipped with ASTs totaling 33,875-gallons, some of which were previously removed, including one 10,000-gallon diesel UST, two 5,000-gallon gasoline UST and one 500-gallon gasoline UST which were closed in place in the 1980s, as previously discussed in Section

4.1.1. Finally, the subject property is listed as a land disposal site which is inaccurate and the result of an error which was formerly posted on the RWQCB's GeoTracker database, as previously discussed in Section 4.1.4. As previously discussed, the cleanup activities at the former Simpson Redwood Company property represents a REC. However, based on the regulatory status of the subject property with local agencies, the observed onsite conditions, and recent analytical data of surface and groundwater, these listing are not considered significant environmental concerns at this time

4.2.3 Adjacent Property Listings

An adjacent property to the north was identified in the CA FID UST and SWEEPS UST databases in the regulatory database report, as discussed below:

- The property, identified as Trout, Elmer B. at 3665 Spear Avenue and located adjacent to the north of the subject property, is identified as being equipped with one 550-gallon leaded gasoline UST. The status of the tank was not reported but releases or violations were found. Based on the overall small quantity, lack of an identified release, relative distance to the subject property and low permeability of the soil types in the vicinity, this listing is not expected to represent a significant environmental concern and it is unlikely that further regulatory file review for this site would alter the findings of this assessment.

An adjacent property to the south was identified in the CUPA Listings database in the regulatory database report, as discussed below:

- The property, identified as Bar M Organic Dairy and 3364 Foster Avenue and adjacent to the south of the subject property, is identified as being regulated by the HCEHD as an agricultural small quantity generator of hazardous waste and as having a hazardous materials business plan. No violations or releases are reported. Based on the small quantities, lack of identified releases and the direction of groundwater flow in the vicinity, this listing is not expected to represent a significant environmental concern and it is unlikely that further regulatory file review for this site would alter the findings of this assessment.

An adjacent property to the south was identified in the HIST UST database in the regulatory database report, as discussed below:

- The property, identified as Robert Graham at 3466 Seidel Road and adjacent to the west of the subject property, is listed as having been formerly equipped with one 300-gallon UST which was installed in 1945 and contained regular product. No releases were reported. Based on the overall small quantity, lack of an identified release, relative distance to the subject property buildings and low permeability of the soil types in the vicinity, this listing is not expected to represent a significant environmental concern and it is unlikely that further regulatory file review for this site would alter the findings of this assessment.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

4.2.4 Sites of Concern Listings

No sites of concern are identified in the regulatory database report.

4.2.5 Orphan Listings

Three orphan listings are identified in the regulatory database report. The property subject property is identified as Arcata Remanufacturing on Foster Road, as discussed in Section 4.2.2.

A copy of the regulatory database report is included as Appendix C.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional.* Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- al Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from The Sun Valley Group, Inc. (User of this report).

User Responsibilities

Item	Provided By User	Not Provided By User	Discussed Below	Does Not Apply
Environmental Pre-Survey Questionnaire			X	
Title Records, Environmental Liens, and AULs			X	
Specialized Knowledge			X	
Actual Knowledge			X	
Valuation Reduction for Environmental Issues			X	
Identification of Key Site Manager	**Section 5.1.3**			
Reason for Performing Phase I ESA	**Section 1.1**			
Prior Environmental Reports		X		
Other		X		

PARTNER

5.1 Interviews

5.1.1 Interview with Owner

Mr. Dennis Workman, subject property owner representative, was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

5.1.2 Interview with Report User

Mr. Dennis Workman, report user representative, is also the subject property owner representative, as previously discussed.

5.1.3 Interview with Key Site Manager

Mr. Dennis Workman, key site manager, is also the subject property owner and report user representative, as previously discussed.

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

5.1.5 Interview with Others

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and AULs

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment.

5.2.2 Specialized Knowledge

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

5.2.3 Actual Knowledge of the User

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

5.2.5 *Commonly Known or Reasonably Ascertainable Information*

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 *Previous Reports and Other Provided Documentation*

No previous reports or other pertinent documentation was provided to Partner for review during the course of this assessment.

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	David Gerhardstein
Site Assessment Conducted On:	May 27, 2015

The table below provides the subject property personnel interviewed during the field reconnaissance:

Site Visit Personnel for 3160 Upper Bay Road (Subject Property)			
Name	**Title/Role**	**Contact Number**	**Site Walk* Yes/No**
Dennis Workman	Key Site Manager	(707) 825-5722	Yes

** Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property*

Environmental concerns were identified during the onsite reconnaissance related to current and former USTs and ASTs, the storage, use, and generation of hazardous substances, and indications of subsurface investigations, as further discussed in Sections 6.1 and 6.2.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed of in commercial dumpsters. An independent solid waste disposal contractor, Arcata Garbage Company, removes solid waste from the subject property. No evidence of illegal dumping of solid waste was observed during the Partner site reconnaissance.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges from the subject property are directed to an onsite septic system, as further discussed in Section 6.1.7.

6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily by absorption into unpaved surfaces and direction to the retention pond located in the western central portion of the property.

The subject property appears to be a designated wetland area, based on information obtained from the United States Fish & Wildlife Service; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property.

6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas/propane provided by Pacific Gas & Electric and Sequoia Gas Company. The mechanical systems are comprised of split systems for the office buildings, large condensers for the cold storage and natural gas

and propane boiler systems for the greenhouses and hoop houses. Hot water is provided by individual natural gas hot water heater and large industrial boiler units.

6.1.5 Wells and Cisterns

The subject property is equipped with 11 agricultural supply wells. Several groundwater monitoring wells were observed in the southeastern portion of the subject property related to the ongoing groundwater monitoring program as previously discussed in Section 4.1.1.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of the septic systems. No industrial or agricultural wastewater is directed to the septic systems.

6.1.7 Septic Systems

Two septic systems were reported to be present on the subject property.

6.1.8 Additional Site Observations

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

Partner identified hazardous substances used, stored, and/or generated on the subject property as noted in the following table:

Hazardous Substances and/or Petroleum Products Noted Onsite

Substance	Container Size	Location	Nature of Use	Disposal Method
Diesel	2x1,000-gallon, 1x550-gallon, 6x250-gallon and 1x50-gallon ASTs	Throughout	Equipment and backup generator fuel	N/A
Gasoline	1x1,000-gallon and 1x550-gallon ASTs	Fueling areas	Vehicle fuel	N/A
Liquefied propane	1x30,000-gallon, 1x500-gallon and 2x100-gallon ASTs	Throughout	Backup boiler and forklift fuel	N/A
Motor oil	2x120-gallon ASTs	Maintenance shop	Vehicle maintenance	N/A
Mineral spirits	5-gallon cans	Maintenance shop	Vehicle maintenance	N/A
Waste oil	55-gallon drums	Maintenance shop	Vehicle maintenance	Transported offsite by Asbury Environmental
Waste antifreeze	55-gallon drums	Maintenance shop	Vehicle maintenance	Transported offsite by Asbury Environmental
Waste oil filters	55-gallon drum	Maintenance shop	Vehicle maintenance	Transported offsite by Asbury Environmental

Hazardous Substances and/or Petroleum Products Noted Onsite				
Substance	**Container Size**	**Location**	**Nature of Use**	**Disposal Method**
Waste mineral spirits	5-gallon cans	Maintenance shop	Vehicle maintenance	Transported offsite by Asbury Environmental
Agricultural chemicals (pesticides, herbicides, fungicides, fertilizers and soil conditioners)	Various bags, plastic drums/containers and mixing tanks	Storage and mixing rooms	Flower production	Excess applied to crops

The materials were found to be properly labeled and stored at the time of the assessment with no signs of leaks, stains, or spills. Secondary containment is provided for the ASTs with the exception of the propane tanks and generators. Based on the nature of use, overall small quantities observed, presence of secondary containment, and lack of significant violations on-file with local agencies, these materials are not expected to represent a significant environmental concern.

Additionally, small quantities of general maintenance supplies were found to be properly labeled and stored at the time of the assessment with no signs of leaks, stains, or spills. The storage and use of maintenance supplies does not appear to pose a significant threat to the environmental integrity of the subject property at this time.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of current or former USTs was observed during the site reconnaissance.

Partner observed one 30,000-gallon propane AST; two 1,000-gallon diesel ASTs; one 1,000-gallon gasoline AST; one 550-gallon diesel AST; one 550-gallon gasoline AST; one 500-gallon propane AST; six 250-gallon diesel ASTs; two 120-gallon motor oil ASTs; two 100-gallon propane ASTs; and one 50-gallon diesel fire pump AST. The ASTs are located throughout the subject property. With the exception of the propane tanks and 250-gallon diesel generators, all ASTs are equipped with secondary containment. No staining, leaks or spills were noted in the vicinity of the ASTs, and no releases were identified in regulatory agency research.

6.2.3 Evidence of Releases

No spills, stains or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into

which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – *"Non-PCB;"* 2) 50 ppm-500 ppm – *"PCB-Contaminated;"* and, 3) Greater than 500 ppm – *"PCB-Containing."* The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Two pad-mounted transformers were observed on the subject property. The transformers are not labeled indicating PCB content. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

No other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps and Clarifiers

Partner observed the following drains, sumps, and/or clarifiers located on the subject property:

Drains, Sumps, and Clarifiers Observed Onsite	
	Sumps
Number Observed:	Three
Location:	Equipment wash shed, dip tank room, chemical storage room
Point of Discharge:	N/A
Sealed/Bermed:	Yes

The sumps in the equipment wash shed and chemical storage room are pumped out as needed and applied to crops and fields. The sump in the dip tank area is pumped back into the dip tank as needed.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 *Asbestos-Containing Materials (ACMs)*

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be *presumed* to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1981 and have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property buildings were constructed as early as 1951. Partner has conducted a limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property. The objective of this visual survey was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

Suspect ACMs

Suspect ACM	Location	Friable Yes/No	Physical Condition
Drywall Systems	Throughout Building Interiors	No	Good
Floor Tiles	Throughout Building Interiors	No	Good
Floor Tile Mastic	Throughout Building Interiors	No	Good
Roofing materials	Throughout Building Interiors	Yes	Good

The limited visual survey consisted of noting observable materials (materials which were readily accessible and visible during the course of the site reconnaissance) that are commonly known to potentially contain asbestos. This activity was not designed to discover all sources of suspect ACM, PACM, or asbestos at the site; or to comply with any regulations and/or laws relative to planned disturbance of building materials such as renovation or demolition, or any other regulatory purpose. Rather, it is intended to give the User an indication if significant (significant due to quantity, accessibility, or condition) potential sources of ACM or PACM are present at the subject property. Additional sampling, assessment, and evaluation will be warranted for any other use.

According to the US EPA, ACM and PACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to any disturbance of the construction materials within this facility, a comprehensive ACM survey is recommended.

6.3.2 *Lead-Based Paint (LBP)*

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint

should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property buildings (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated.

Actual material samples would need to be collected in order to determine if LBP is present.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

EPA Radon Zones

EPA Zones	Average Predicted Radon Levels	Potential
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 3. Based upon the radon zone classification, radon is not considered to be a significant environmental concern.

6.3.4 Lead in Drinking Water

According to onsite observations and information provided by the property owner, water for the subject property is provided by onsite groundwater wells and from the Humboldt Bay Municipal Water District. The sources of public water for the Humboldt Bay Municipal Water District are public groundwater wells located in the bed of the Mad River to the northeast of the City of Arcata. According to the 2013 Annual Water Quality Report, water supplied to the subject property is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g. in the form of very high

humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g. ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property buildings for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment.

6.4 Adjacent Property Reconnaissance

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises. No items of environmental concern were identified on the adjacent properties during the site assessment, including hazardous substances, petroleum products, ASTs, USTs, evidence of releases, PCBs, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or any other potential environmental hazards.

7.0 FINDINGS AND CONCLUSIONS

Findings

A *REC* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- The southern portion of the subject property was formerly occupied by the Simpson Redwood Company (Simpson) as a lumber mill and plywood manufacturer from 1951 until 1989. Prior to sale of the property, Simpson entered into a VCA with the DTSC during February 1997 to assess potential environmental liability and cleanup any impacts that existed. Simpson engaged EnviroNet to perform a thorough environmental assessment of the property in 1997 which was completed in September 1997 and revealed multiple areas of the property with potentially significant impacts to soil and groundwater. The findings identified two former 5,000-gallon gasoline USTs, one 10,000-gallon diesel UST, and one 500-gallon unidentified UST which had been closed in place by filling with sand and concrete during 1985 and 1987 with oversight from the HCEHD as well as a groundwater hotspot containing a small plume of VOCs in the southeastern corner of the property and multiple other areas of concern related to the former manufacturing and maintenance operations at the property. As a result, EnviroNet recommended development and implementation of an RAP.

  A RAP was developed and approved by the DTSC in November 1997. Remedial actions commenced which included excavation and offsite disposal of approximately 8,600 cubic yards of soil as well as extraction and treatment of approximately 1.2 million gallons of groundwater. The DTSC issued a certification in February 1999 which stated that the completed remedial actions sufficiently addressed onsite contamination with the exception of the small VOC plume in groundwater in the southeastern portion of the property. Groundwater monitoring was required to continue in that area in compliance with the 1998 Operations and Maintenance Plan implemented to monitor the natural attenuation of those impacts. Groundwater monitoring continued until 2013 which demonstrated a continued downward trend in concentrations of COCs. In September 2013 an agreement with Simpson's consultant, SHN Consulting Engineers and Geologists, Inc. (SHN), was reached with the RWQCB and DTSC to halt semi-annual groundwater monitoring with two additional events to take place in 2015 and review of the regulatory status for the case set for 2016.

  As a result of the open VCA case with ongoing groundwater monitoring at the subject property, the former use, cleanup activities and ongoing monitoring program at the subject property represent a *REC*. However, based on the certified remedial actions that were undertaken, the regulatory oversight and identification of the responsible party with ongoing participation, as well as the downward trending concentrations of COCs in the only remaining area of the property under investigation, no additional investigation is recommended at this time.

A *CREC* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *HREC* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify historical recognized environmental conditions during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The subject property has been used for agricultural purposes since at least 1969 with agricultural chemicals such as pesticides, fungicides, herbicides and fertilizers in frequent use throughout the subject property. Based on the continued use of the subject property for agricultural purposes and the proper handing and usage of these materials to prevent potential releases, the historical and continued agricultural usage of the subject property should not represent a significant environmental concern. Should the property use change however, additional investigation may be warranted to determine the potential for agricultural chemicals to have accumulated in the subsurface.
- Three concrete sumps, in the areas of the fungicide dip tank, chemical storage room and equipment were observed at the subject property. The sumps are used to catch and accumulate runoff from fungicide dipping operations, spills during mixing and formulation of agricultural chemicals and wash/rinse water from cleaning field applicator equipment. Occasionally these features have been known to crack or otherwise degrade to the point where materials can be released to the subsurface. All three sumps appeared to be in good condition at the time of partner's visit and are not expected to represent a significant environmental concern at this time.
- The subject property is equipped with one 30,000-gallon propane AST; two 1,000-gallon diesel ASTs; one 1,000-gallon gasoline AST; one 550-gallon diesel AST; one 550-gallon gasoline AST; one 500-gallon propane AST; six 250-gallon diesel ASTs; two 120-gallon motor oil ASTs; two 100-gallon propane ASTs; and one 50-gallon diesel fire pump AST. The ASTs are located throughout the subject property. With the exception of the propane tanks and 250-gallon diesel generators, all ASTs are equipped with secondary containment. No staining, leaks or spills were noted in the vicinity of the ASTs, and no releases were identified in regulatory agency research. Based on the

good condition of equipment and lack of a release, these tanks are not expected to represent a significant environmental concern at this time.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 3160 Upper Bay Road in the City of Arcata, Humboldt County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- The groundwater monitoring in the southeastern portion of the subject property should be continued in line with the DTSC Operations and Maintenance plan.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 3160 Upper Bay Road in the City of Arcata, Humboldt County, California in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

David Gerhardstein
Environmental Professional

Reviewed By:

Steve Kovach
Senior Author

9.0 REFERENCES

Reference Documents

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13.

Environmental Data Resources, Aerial Photograph Decade Package, Certified Sanborn Map Report, City Directory Abstract, Historical Topographic Map Report, Radius Report, May 2015

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via internet, May 2015

United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, accessed via the internet, May 2015

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, May 2015

United States Fish & Wildlife Service, Wetlands Mapper, accessed via internet, May 2015

FIGURES

1 SITE LOCATION MAP

2 SITE PLAN

3 TOPOGRAPHIC MAP

PARTNER



FIGURE 1: SITE LOCATION MAP
Project No. 15-139484.1

Drawing Not To Scale

N

PARTNER

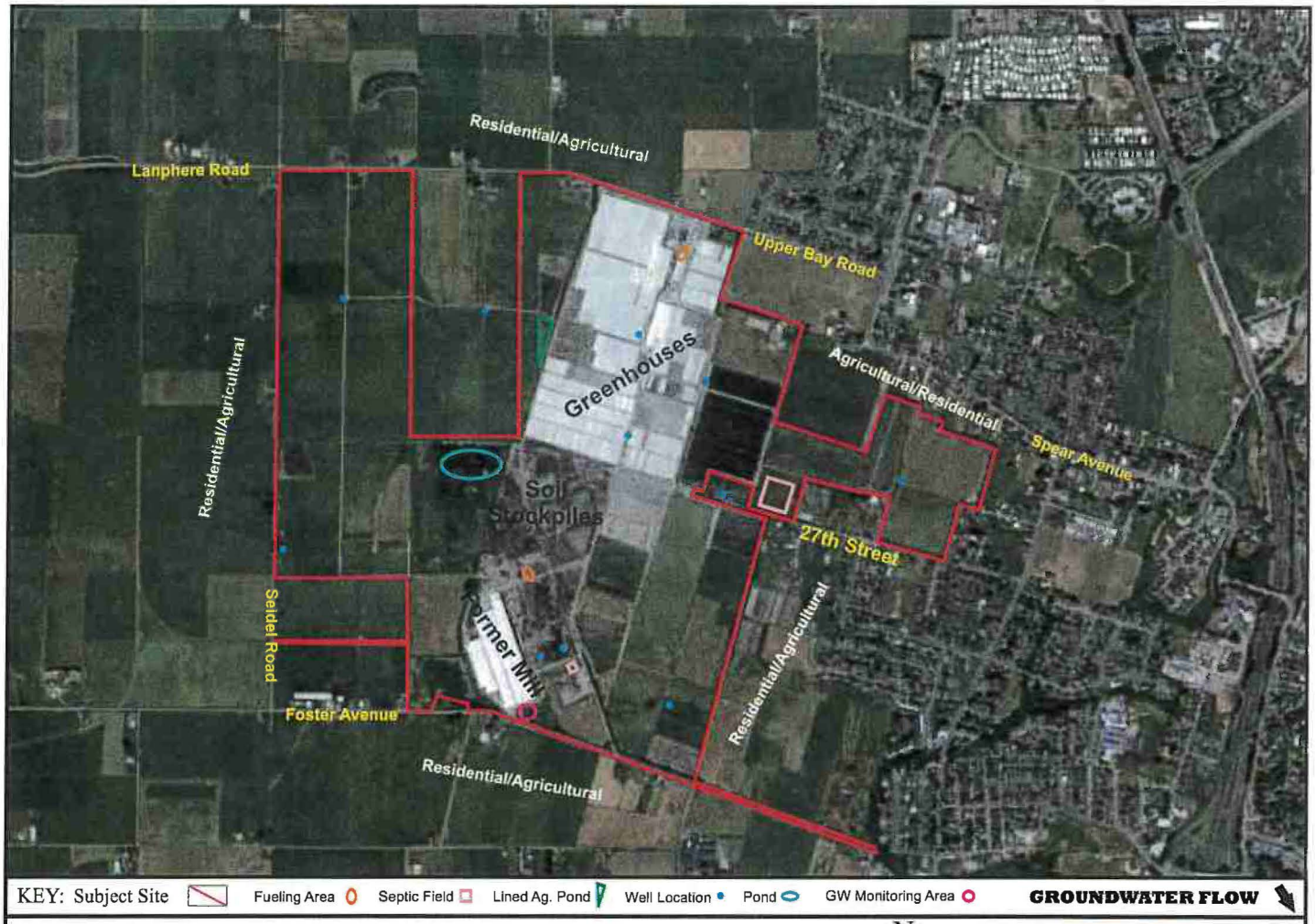
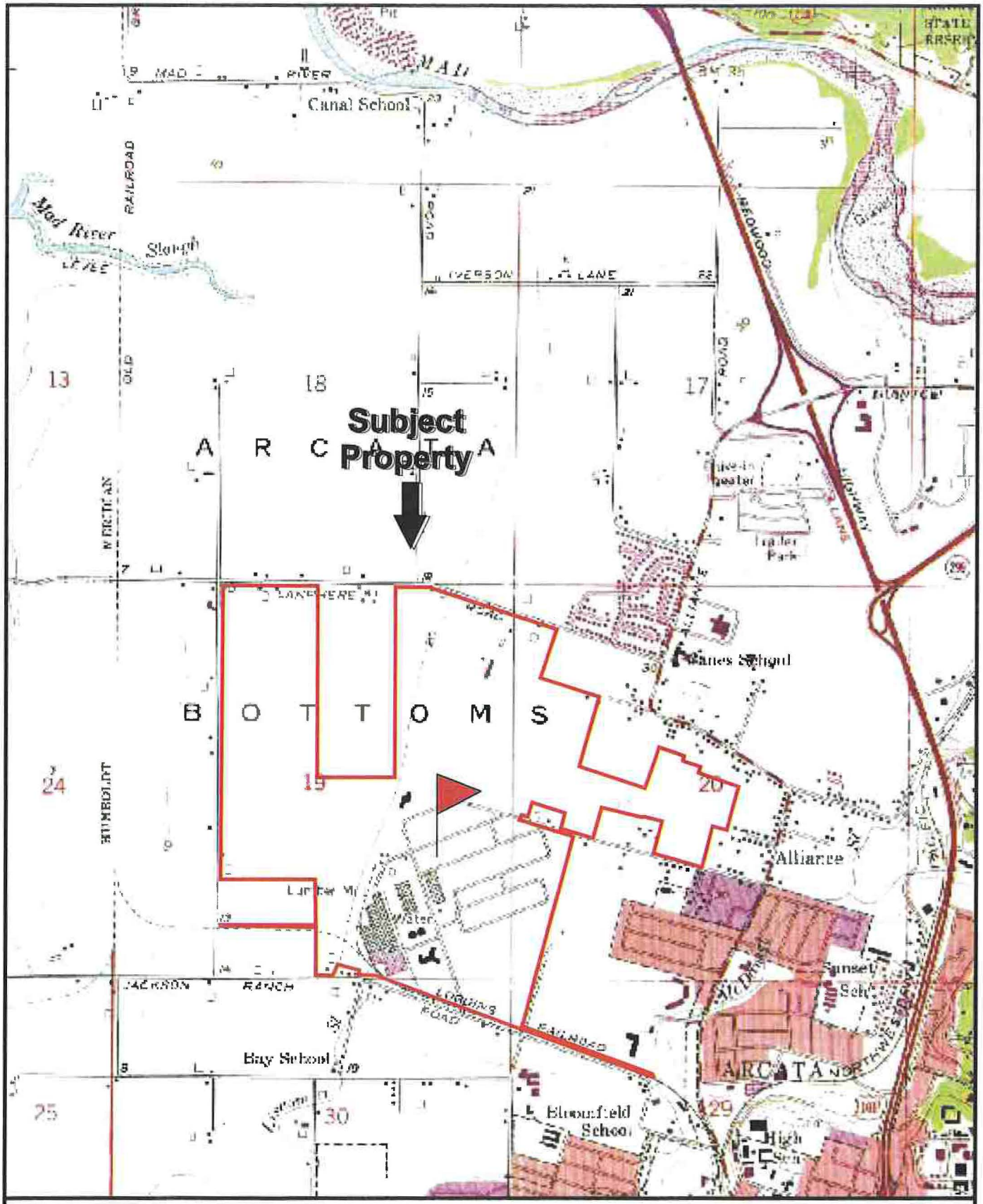


FIGURE 3: SITE PLAN
Project No. 15-139484.1

Drawing Not To Scale

N

PARTNER



USGS 7.5 Minute *Arcata North, California* Quadrangle — Created: 1959/Revised: 1972

FIGURE 3: TOPOGRAPHIC MAP

Project No. 15-139484.1

N

PARTNER

APPENDIX A: SITE PHOTOGRAPHS

PARTNER



1. View of the northern fueling area near the main office



2. View of a soil steaming area



3. View of the fungicide dip tank



4. View inside the fungicide dip tank



5. View of the dip tank sump



6. View inside a greenhouse



7. View of a boiler system



8. View of a fire cabinet in a maintenance area



9. View of condensers for the cold rooms



10. View of a bulb processing and packaging area



11. View of the main office building



12. View in a chemical storage room



13. View of a mixing station in the chemical storage room



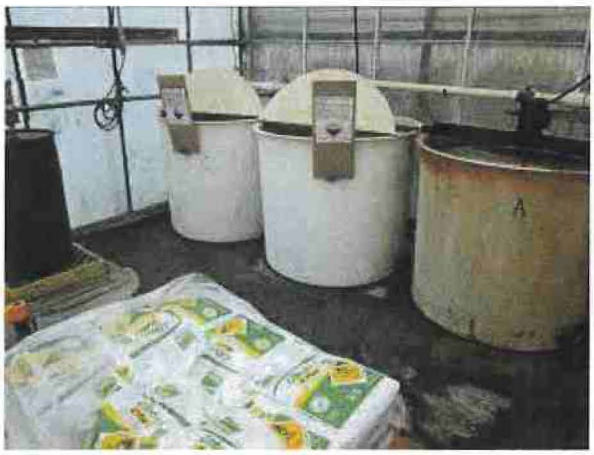
14. View of a sump in the chemical storage room



15. View inside a warehouse



16. View of fertilizers and soil conditioners in a mixing room



17. View of mixing tanks in the mixing room



18. Additional view of tanks in the mixing room



19. View of a well in the greenhouse area



20. View in another greenhouse



21. View of the lined agricultural water pond



22. View of the 30,000-gallon propane tank and a smaller propane tank



23. View of a drainage canal



24. View of the storm water pond



25. View of the southern fueling area and secondary containment



26. View of the vehicle maintenance area



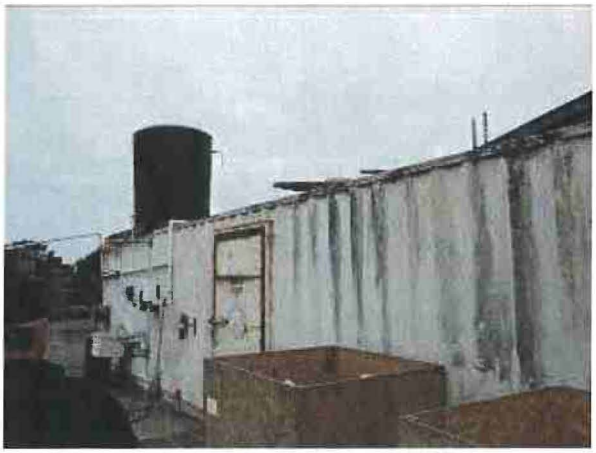
27. View of the equipment wash shed



28. View of the équipment wash shed sump



29. View inside a maintenance area



30. View of a chemical storage shed



31. View inside the chemical storage shed



32. Additional view inside the chemical storage shed



33. View of the motor oil ASTs



34. View of the former mill building from the west



35. View inside the former mill building



36. View of a diesel generator



37. View of a fire water tank



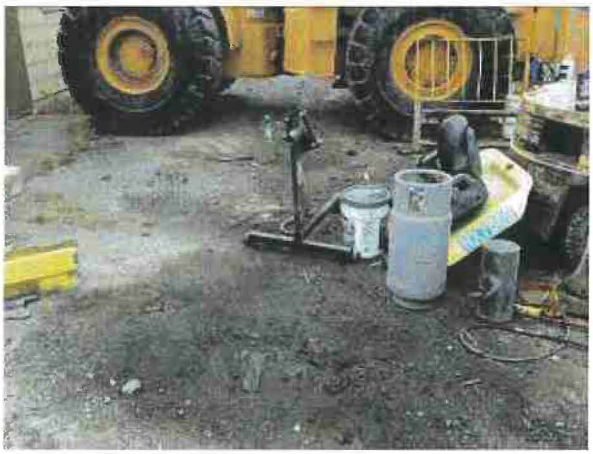
38. View of a backup diesel fire pump



39. View of a storage area inside the former mill building



40. View of a monitoring well to the southeast of the former mill building



41. View of some de minimis staining in the forklift maintenance area



42. View of hoophouses



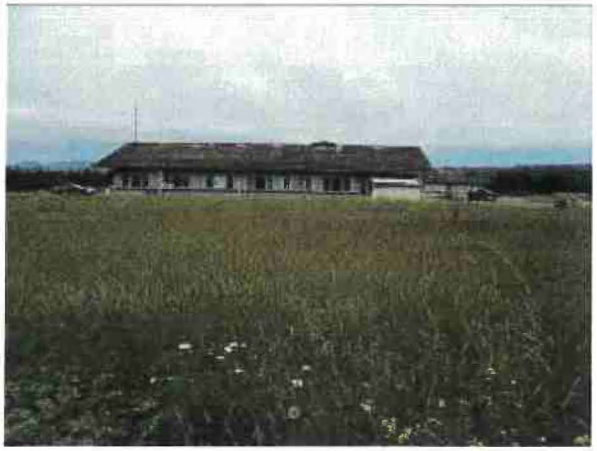
43. View of a road down the center of the subject property



44. View of the 100-gallon propane tanks by the vehicle maintenance shop



45. View of a hay field to the south of 27th Street



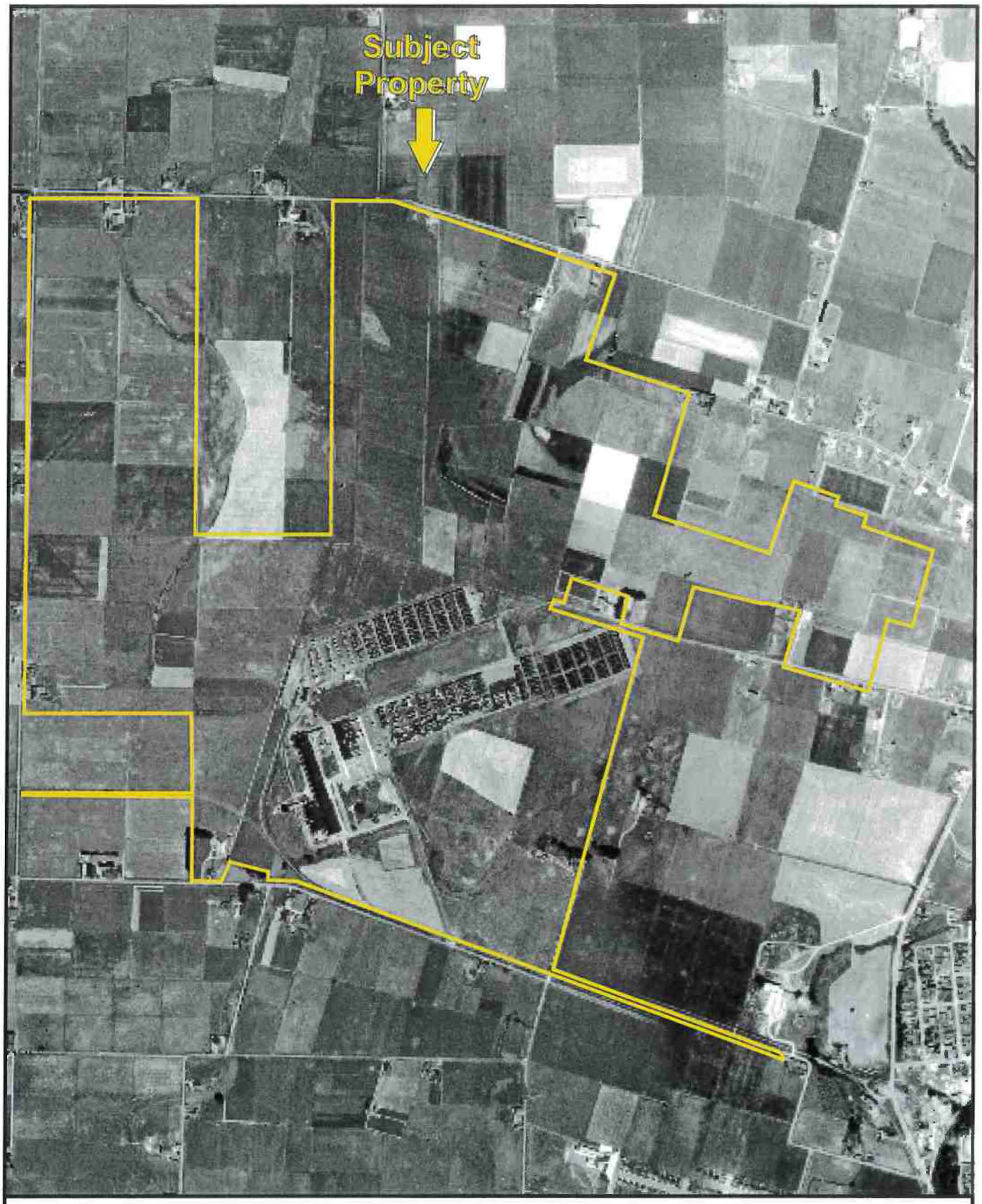
46. View of the offices to the east of the former mill building



47. View of waste storage in the vehicle maintenance shop

APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

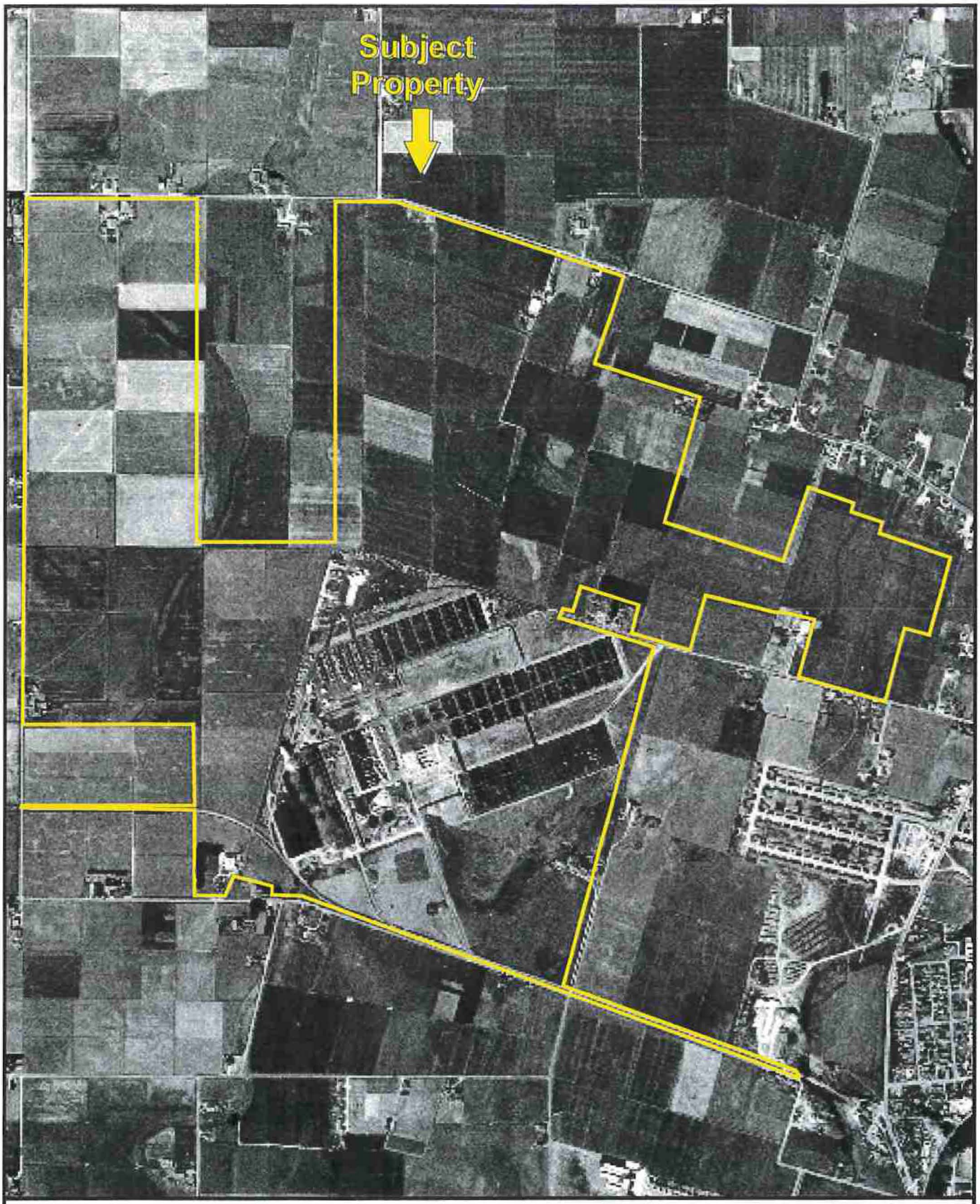
PARTNER



Date: 1954

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

PARTNER

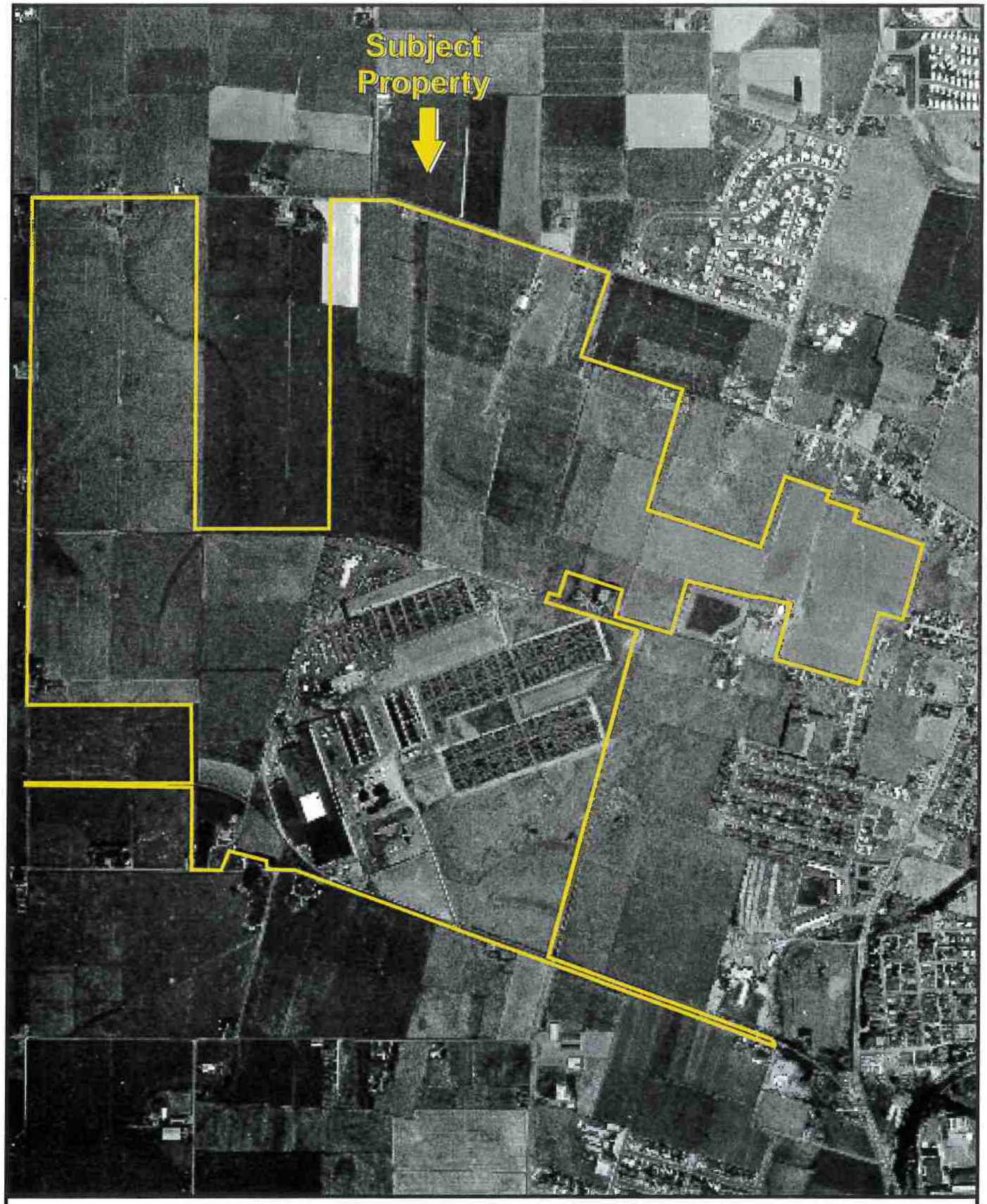


Date: 1956

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 15-139484.1

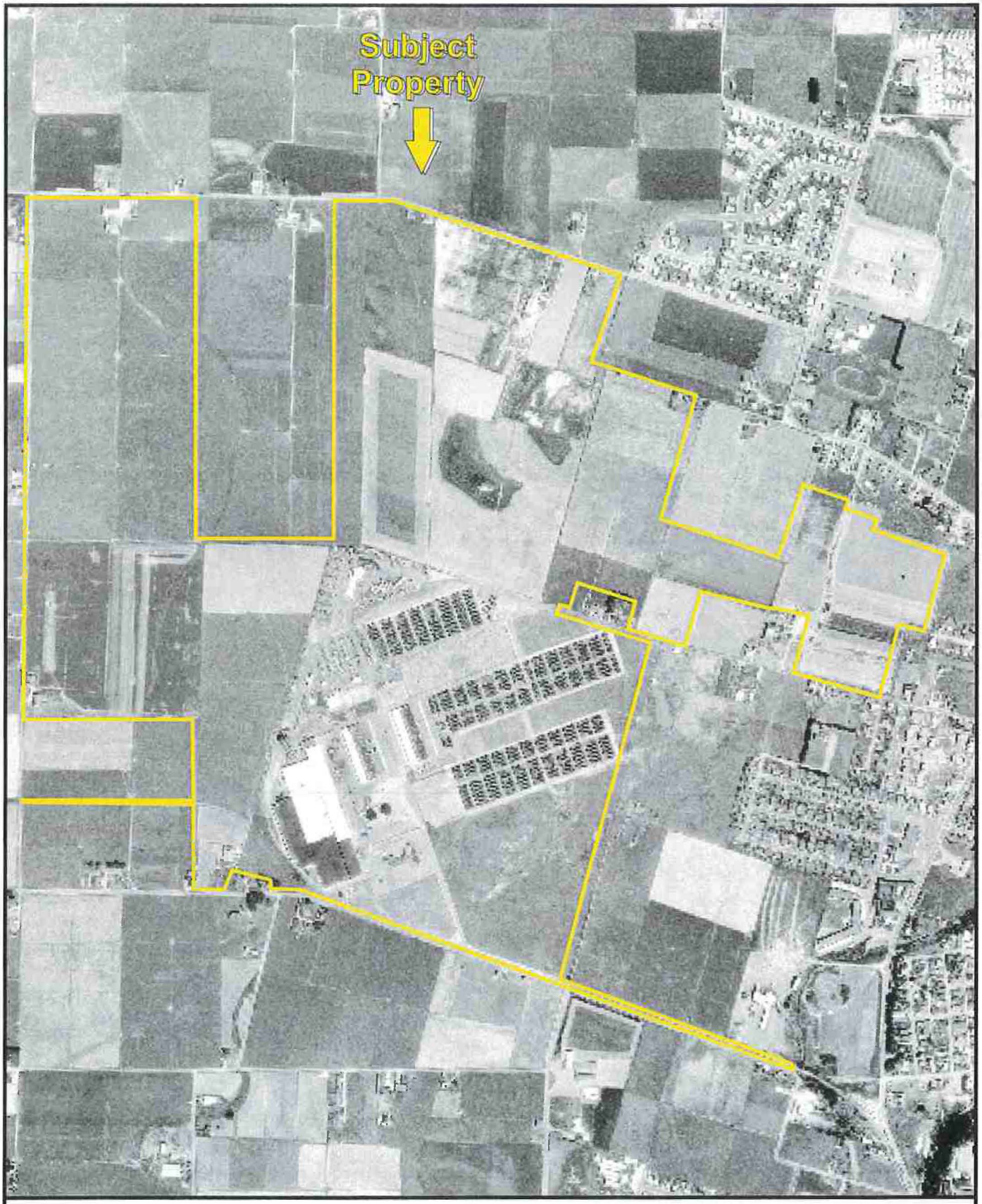
PARTNER



Date: 1969

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

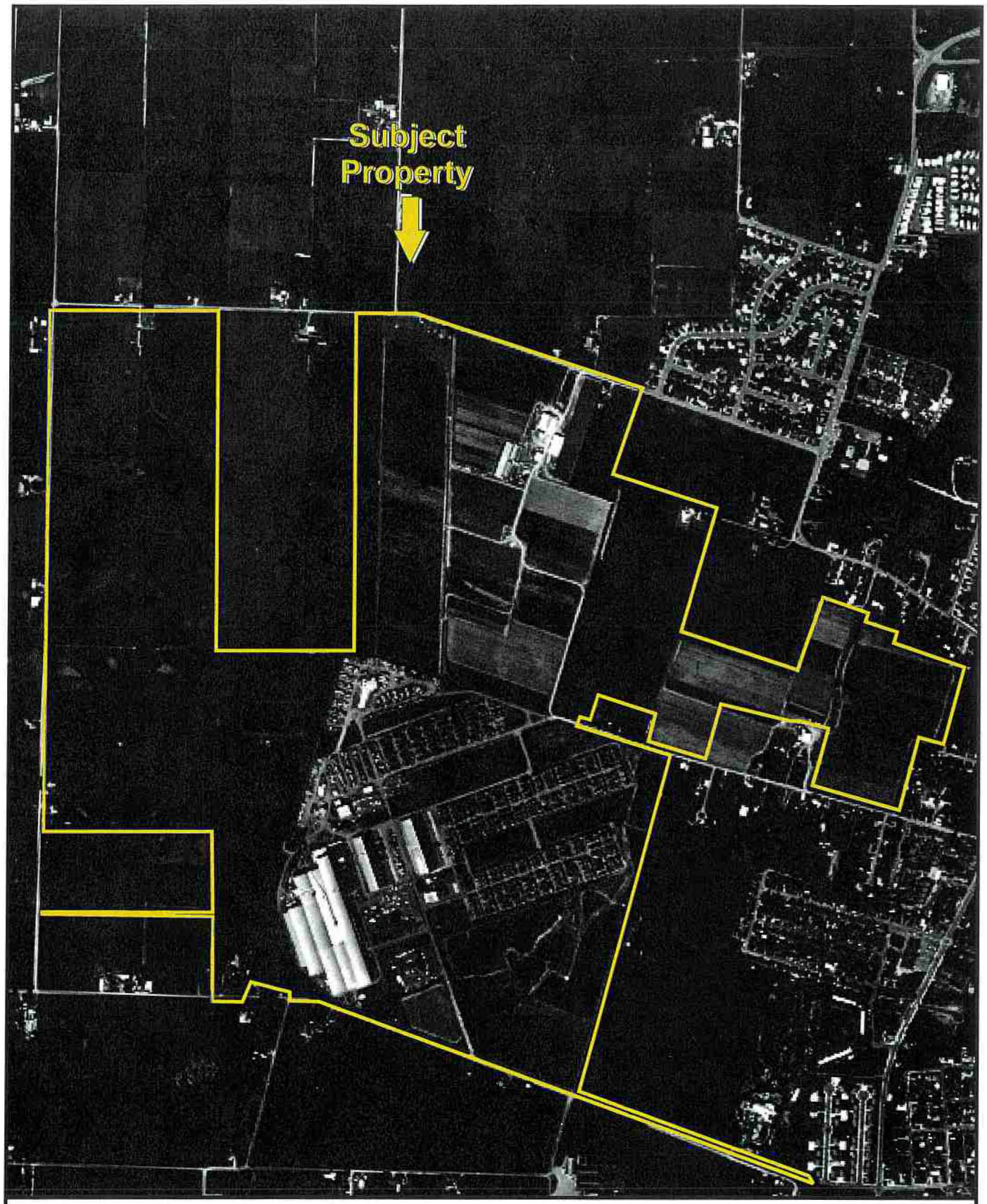
PARTNER



Date: 1972

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

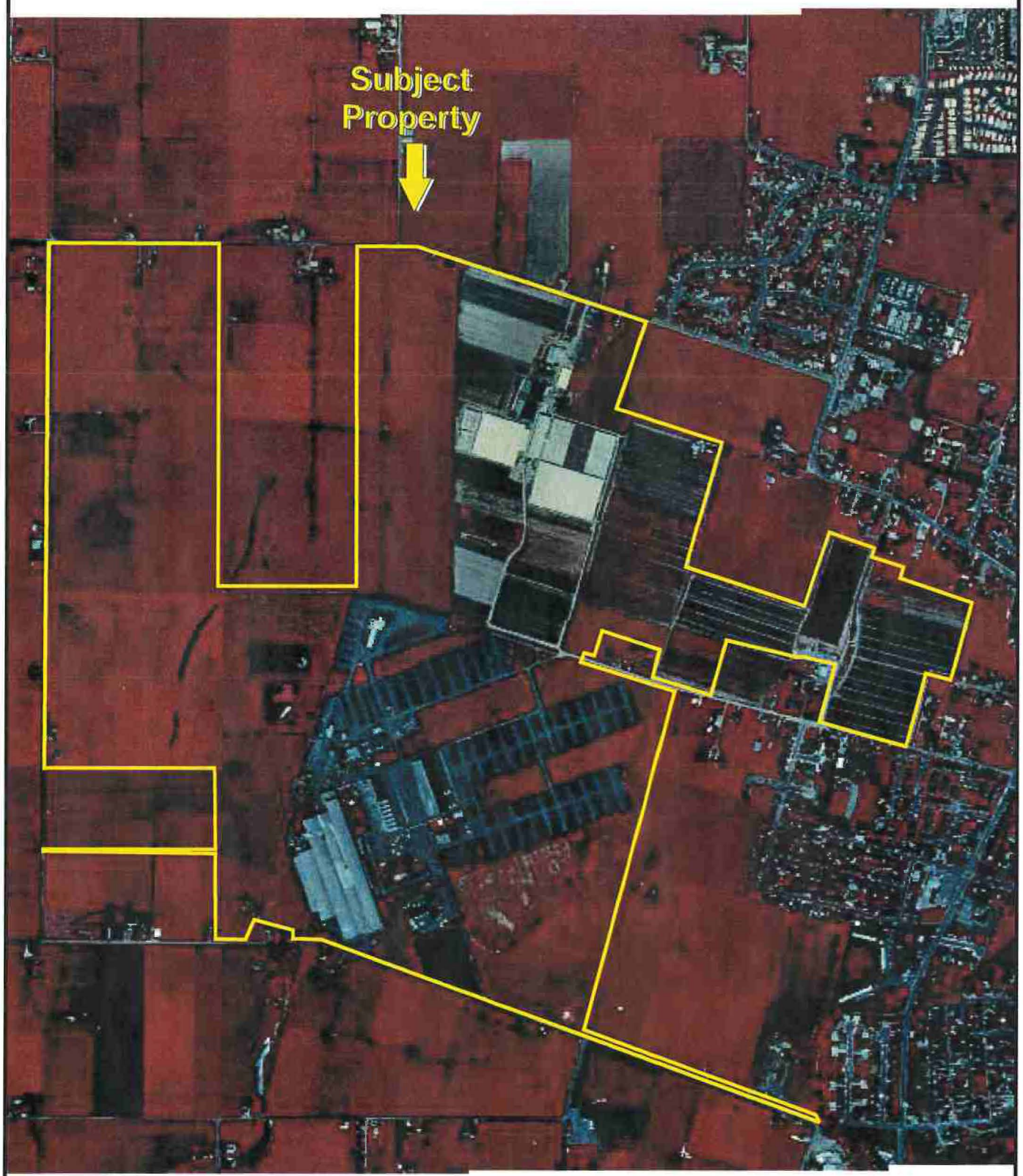
PARTNER



Date: 1982

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

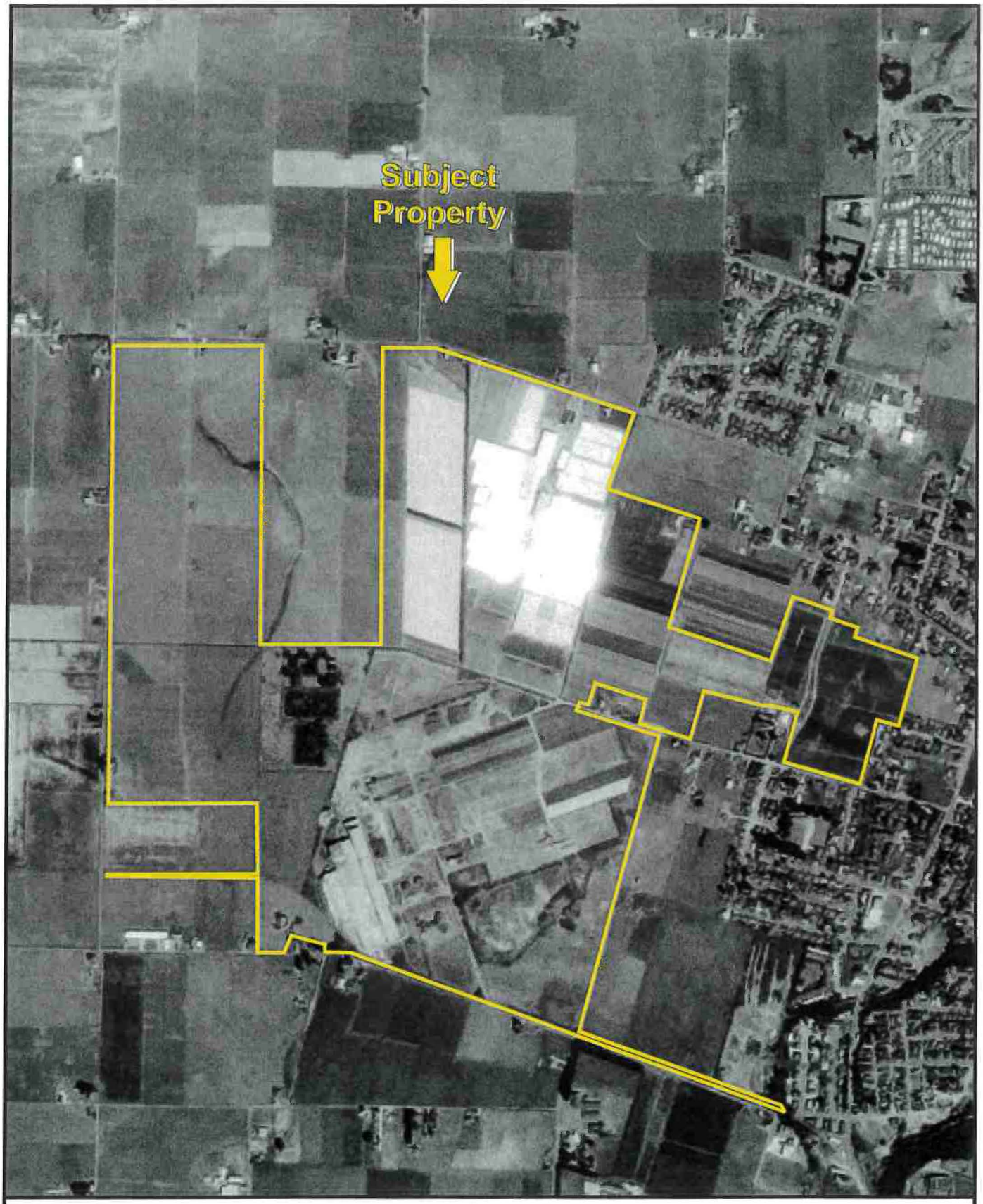
PARTNER



Date: 1989

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

PARTNER

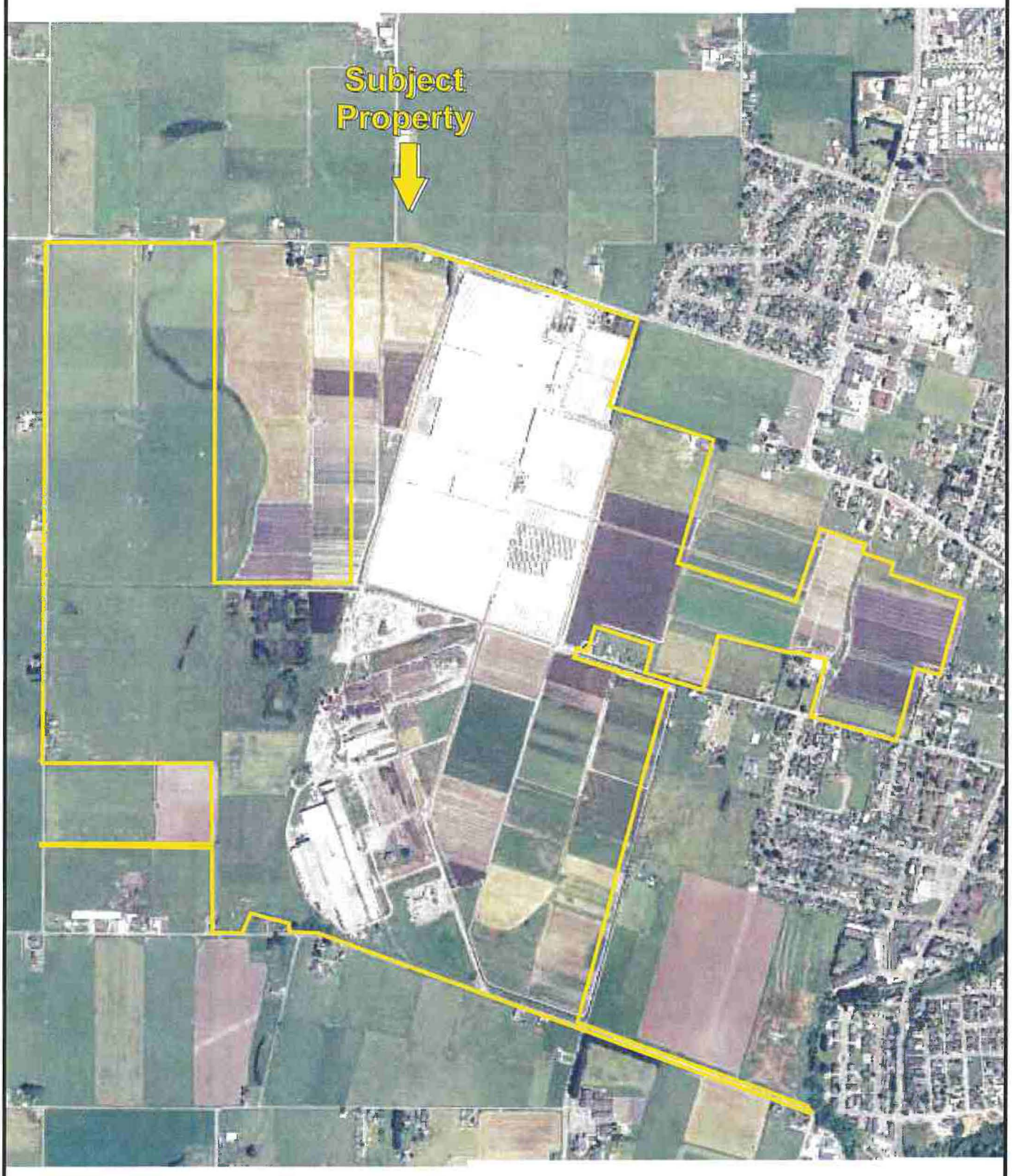


Date: 1998

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 15-139484.1

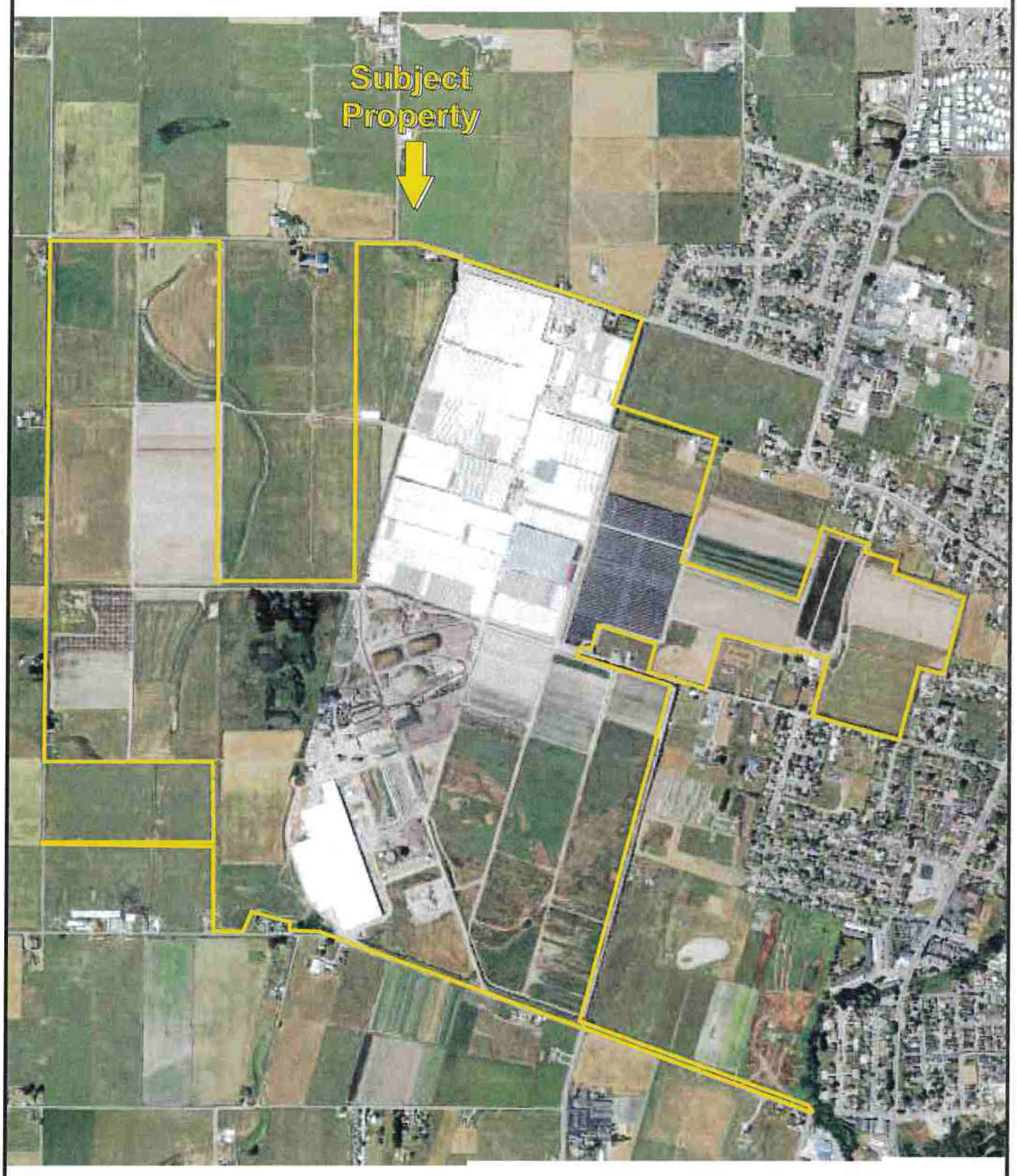
PARTNER



Date: 2005

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

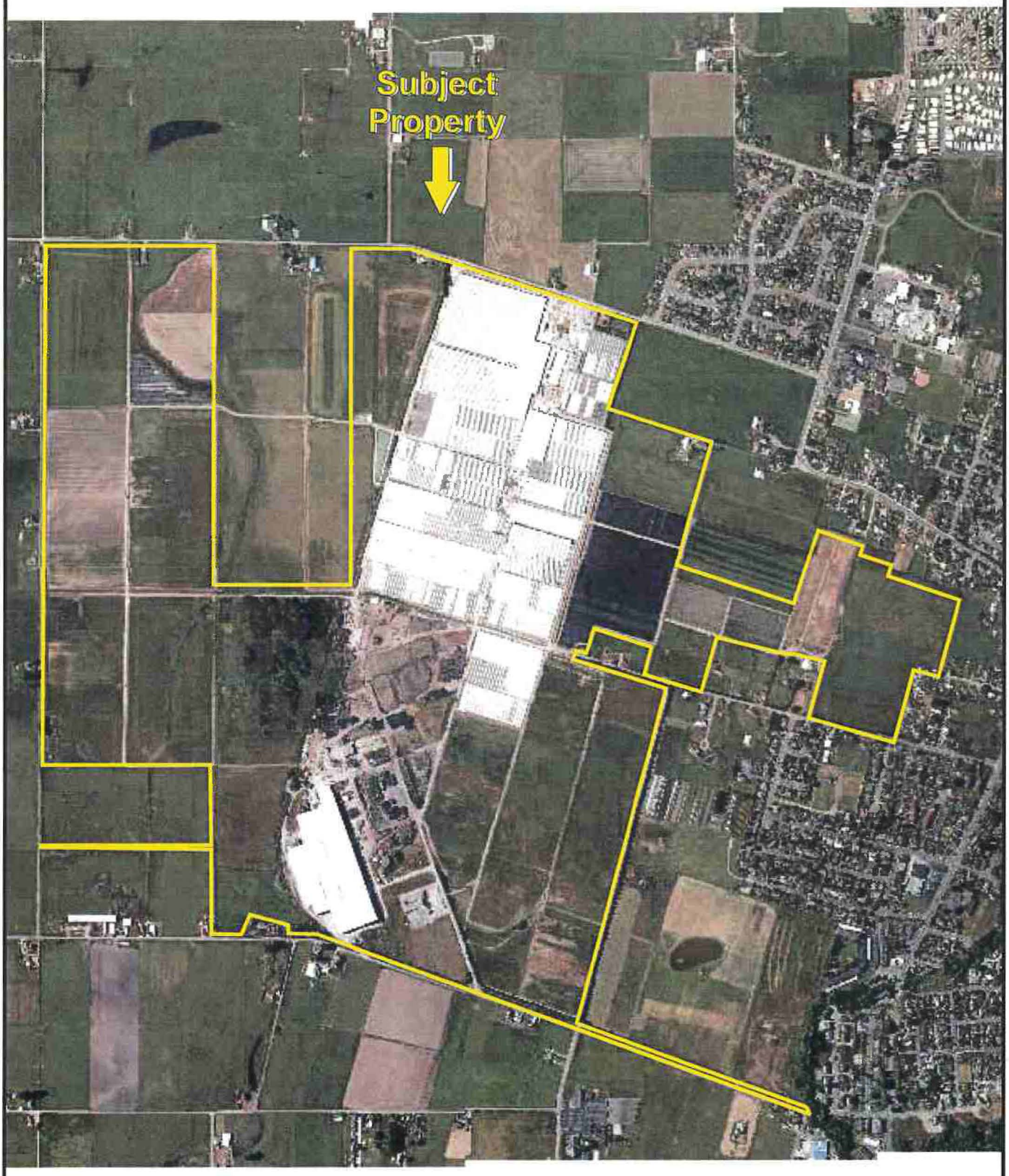
PARTNER



Date: 2009

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

PARTNER

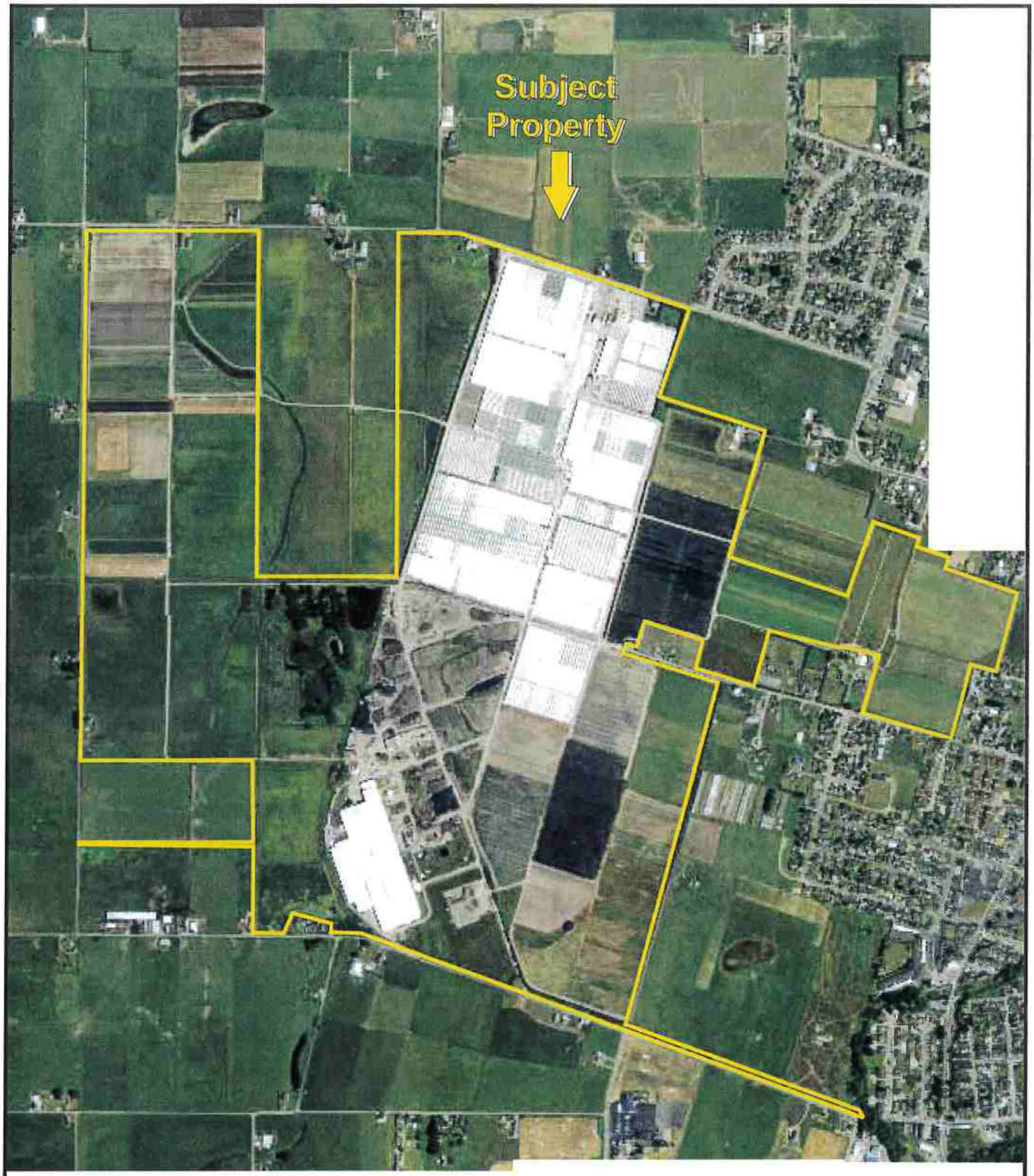


Date: 2010

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 15-139484.1

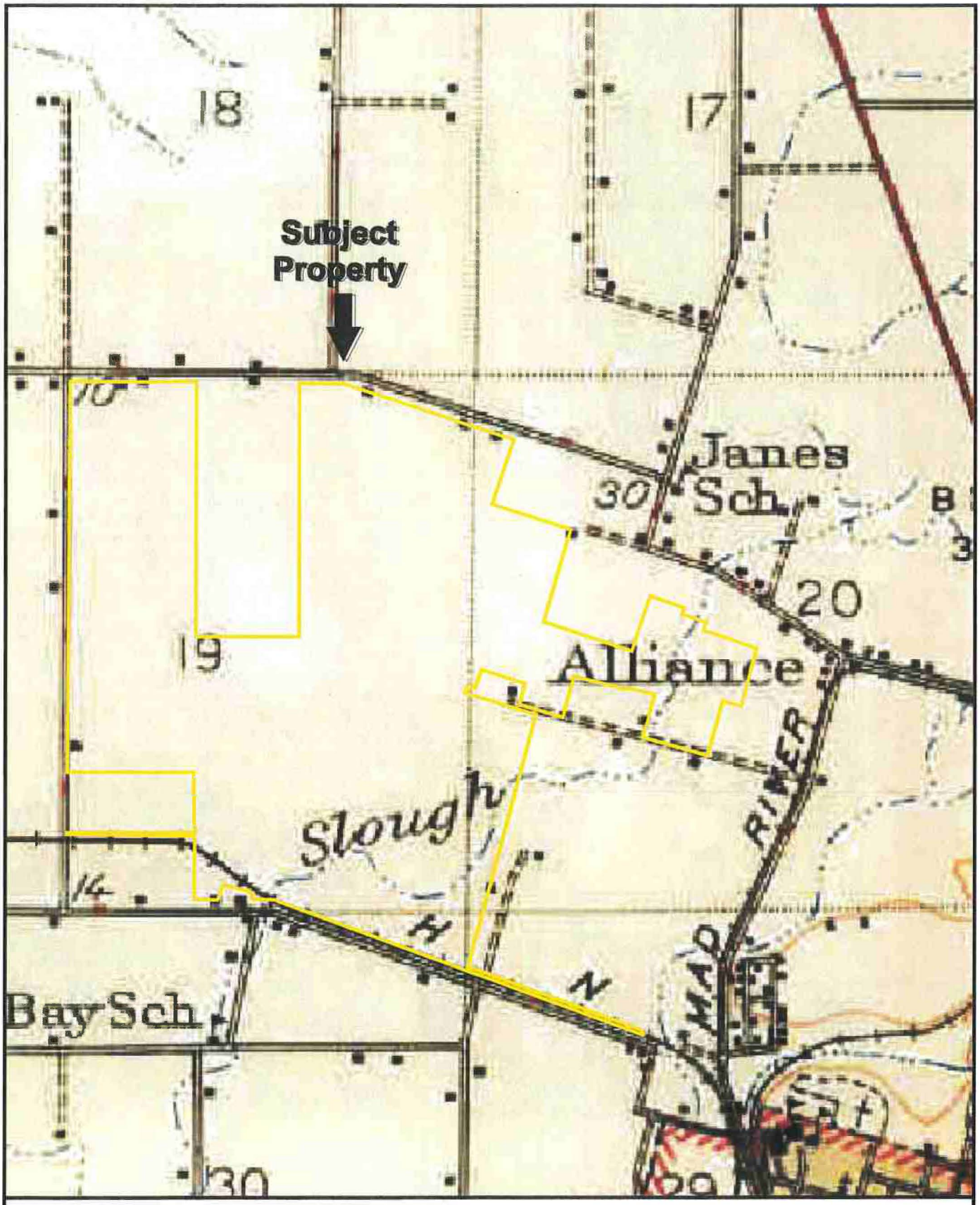
PARTNER



Date: 2012

APPENDIX B: AERIAL PHOTOGRAPHS
Project No. 15-139484.1

PARTNER

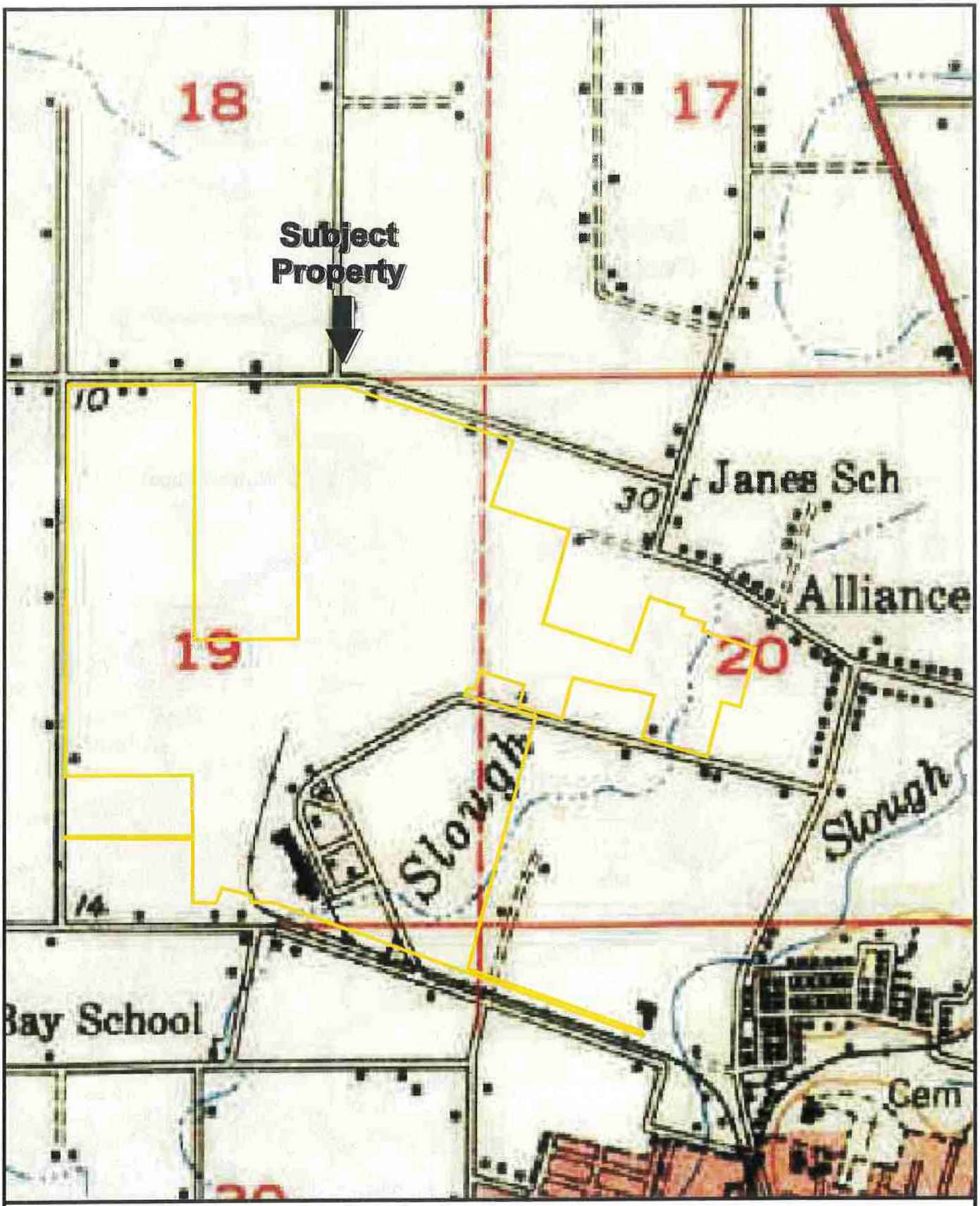


USGS 15 Minute *Eureka, California* Quadrangle — Created: 1947

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 15-139484.1

PARTNER



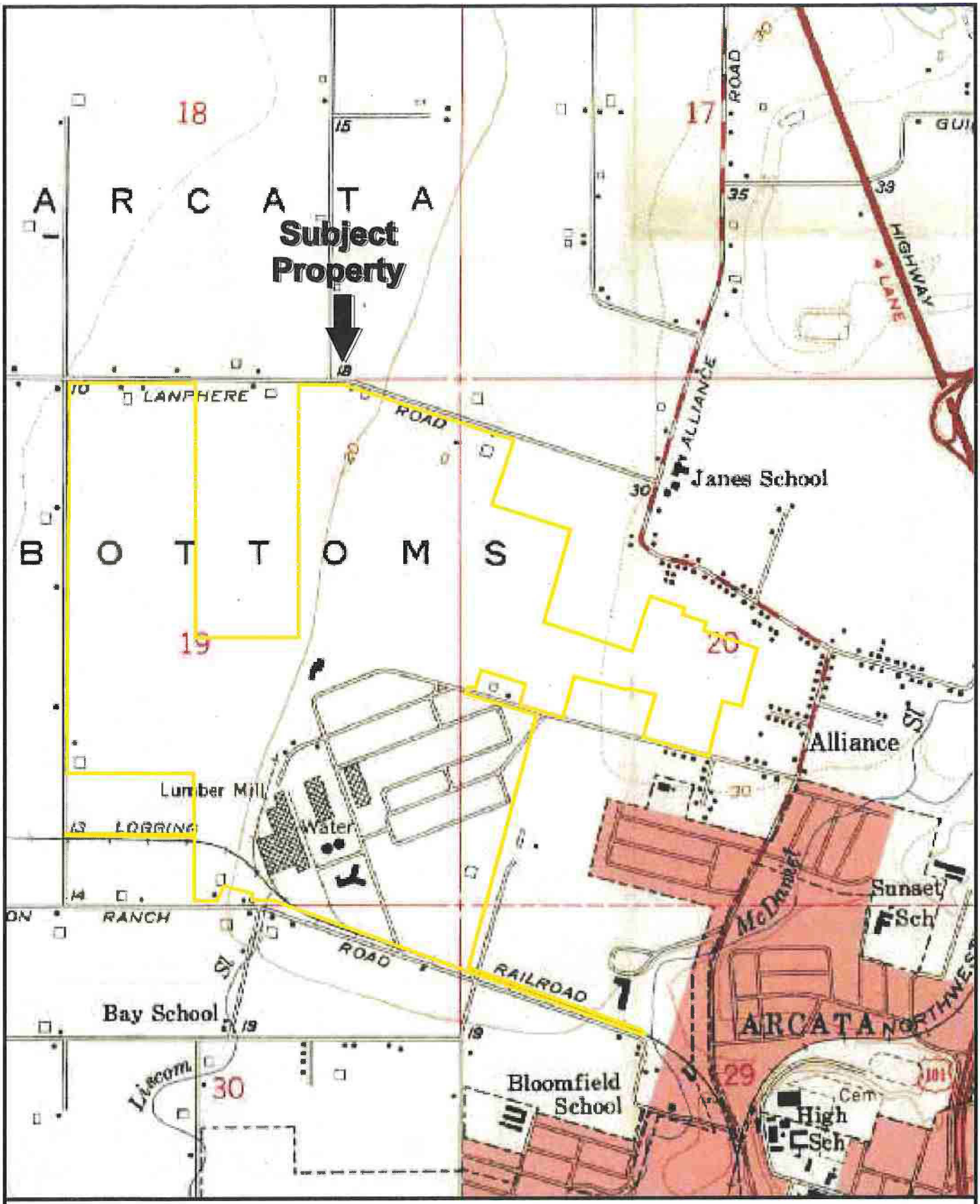
USGS 15 Minute *Eureka, California* Quadrangle

Created: 1951

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 15-139484.1

PARTNER

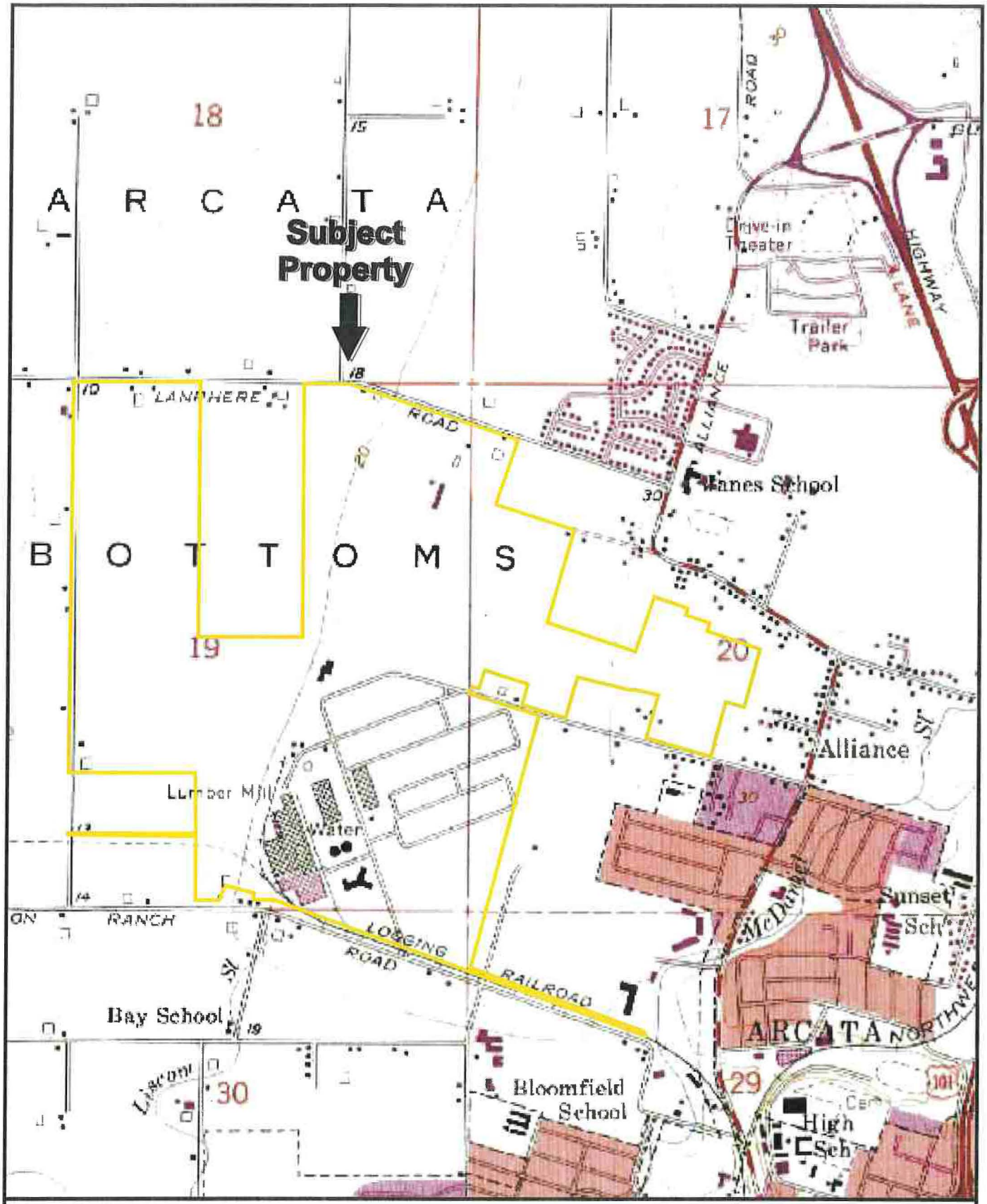


USGS 7.5 Minute *Arcata North, California* Quadrangle — Created: 1959

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 15-139484.1

PARTNER



USGS 7.5 Minute *Arcata North, California* Quadrangle — Created: 1959/Revised: 1972

APPENDIX B: HISTORIC TOPOGRAPHIC MAPS

Project No. 15-139484.1

PARTNER

Arcata Properties
3318 Foster Avenue, 2725 Simpson Mill Road, 4044 L
Arcata, CA 95521

Inquiry Number: 4293018.6
May 22, 2015

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2015 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☑	Cole Information Services
2008	☑	☑	Cole Information Services
2003	☑	☑	Cole Information Services
1999	☑	☑	Cole Information Services
1995	☑	☑	Cole Information Services
1992	☑	☑	Cole Information Services
1982	☑	☑	Polk's City Directory
1977	☑	☑	Polk's City Directory
1973	☑	☑	Polk's City Directory
1968	☑	☑	Polk's City Directory
1963	☑	☑	Polk's City Directory
1958	☑	☑	Polk's City Directory

RECORD SOURCES

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

FINDINGS

TARGET PROPERTY STREET

3318 Foster Avenue, 2725 Simpson Mill Road, 4044 L
Arcata, CA 95521

Year	*CD Image*	*Source*
FOSTER AVE		
2013	pg A2	Cole Information Services
2008	pg A6	Cole Information Services
2003	pg A10	Cole Information Services
1999	pg A16	Cole Information Services
1995	pg A20	Cole Information Services
1992	pg A24	Cole Information Services
1982	pg A28	Polk's City Directory
1977	pg A31	Polk's City Directory
1973	pg A34	Polk's City Directory
1973	pg A35	Polk's City Directory
1968	pg A38	Polk's City Directory
1963	pg A42	Polk's City Directory
1958	pg A47	Polk's City Directory
1958	pg A48	Polk's City Directory

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
27TH ST			
2013	pg. A1	Cole Information Services	
2008	pg. A5	Cole Information Services	
2003	pg. A9	Cole Information Services	
1999	pg. A15	Cole Information Services	
1995	pg. A19	Cole Information Services	
1992	pg. A23	Cole Information Services	
1982	pg. A27	Polk's City Directory	
1977	pg. A30	Polk's City Directory	
1973	pg. A33	Polk's City Directory	
1968	pg. A37	Polk's City Directory	
1963	pg. A41	Polk's City Directory	
1958	pg. A45	Polk's City Directory	
1958	pg. A46	Polk's City Directory	
LANPHERE RD			
2013	-	Cole Information Services	Target and Adjoining not listed in Source
2008	-	Cole Information Services	Target and Adjoining not listed in Source
2003	pg. A12	Cole Information Services	
1999	-	Cole Information Services	Target and Adjoining not listed in Source
1995	-	Cole Information Services	Target and Adjoining not listed in Source
1992	-	Cole Information Services	Target and Adjoining not listed in Source
1982	-	Polk's City Directory	Street not listed in Source
1977	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1963	-	Polk's City Directory	Street not listed in Source
1958	-	Polk's City Directory	Street not listed in Source
SEIDEL RD			
2013	pg. A3	Cole Information Services	
2008	pg. A7	Cole Information Services	

FINDINGS

Year	*CD Image*	*Source*	
2003	pg. A13	Cole Information Services	
1999	pg. A17	Cole Information Services	
1995	pg. A21	Cole Information Services	
1992	pg. A25	Cole Information Services	
1982	-	Polk's City Directory	Street not listed in Source
1977	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1963	-	Polk's City Directory	Street not listed in Source
1958	-	Polk's City Directory	Street not listed in Source

SIMPSON MILL RD

2013	-	Cole Information Services	Street not listed in Source
2008	-	Cole Information Services	Street not listed in Source
2003	-	Cole Information Services	Street not listed in Source
1999	-	Cole Information Services	Street not listed in Source
1995	-	Cole Information Services	Street not listed in Source
1992	-	Cole Information Services	Street not listed in Source
1982	-	Polk's City Directory	Street not listed in Source
1977	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1963	-	Polk's City Directory	Street not listed in Source
1958	-	Polk's City Directory	Street not listed in Source

UPPER BAY RD

2013	pg. A4	Cole Information Services
2008	pg. A8	Cole Information Services
2003	pg. A14	Cole Information Services
1999	pg. A18	Cole Information Services
1995	pg. A22	Cole Information Services
1992	pg. A26	Cole Information Services
1982	pg. A29	Polk's City Directory
1977	pg. A32	Polk's City Directory
1973	pg. A36	Polk's City Directory
1968	pg. A39	Polk's City Directory

FINDINGS

Year	CD Image	Source	
1968	pg. A40	Polk's City Directory	
1963	pg. A43	Polk's City Directory	
1963	pg. A44	Polk's City Directory	
1958	-	Polk's City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	Cole Information Services

27TH ST 2013

1630	DAENG KHOUPRADIT
	OCCUPANT UNKNOWN
1632	JEFFREY EDWARDS
1636	OCCUPANT UNKNOWN
1646	OLEN FOWLER
1650	ERICA HAINES
1666	JOAQUIN HALE
1670	ROBERT SABOT
1673	MARY BOBILLOT
1674	OCCUPANT UNKNOWN
1690	PUC KINGERY
1700	JEREMY HARRIS
	MARK JENSON
	STEVEN PFEIFFER
1701	STACEY ISAACS
1741	MARGARET FRIEND
1750	JOE MACIEL
1754	ROBERT WALLIS
1758	PEDRO FURTADO
1778	DOUG DOBECKI
1800	ANDREW HOOPER
	C BRADY
	JESSICA BROWNLEE
	OCCUPANT UNKNOWN
	VANESSA SOMOHANO
1827	DAVID MOHRMANN
1875	HARRY JONES
1883	KEVIN MOSER
1886	ERIC LUND
1963	ANNIE STARWASZ
1969	ANDREW BUNNELL
1971	JAMES COTTON
1975	LEONOR MENDONCA
1977	TONI TROTTIER
1987	RENEE SORENSON
2440	JOHN BULLWINKEL

Target Street	Cross Street	Source
✓	-	Cole Information Services

FOSTER AVE 2013

1382	NICHOLAS ARTAIZ
1386	OCCUPANT UNKNOWN
1390	HILL BONNY
1396	SARAH KIEFER
1398	JESSIE GROESCHEN
1404	BRANDON SCOTT-JONES
	CIERA CAVANAUGH
	MICHAEL BOGER
	RACHAEL RIVKIN
1538	LEE ORLIKOFF
1540	KATIE CARR
	OCCUPANT UNKNOWN
1550	RICHARD DAVIS
1609	CODY DAWSON
	JON STINSON
	MOLLIE BLAHAUSZ
	NANCY VOLHEIM
1633	MICHELLE GLEDHILL
1641	ALICIA MARTINEZ
1660	ALISON KIRSKEN
	BRANDON DOCKINGS
	MICHAEL STANOWSKI
1665	AMANDA ERIBEZ
	BRENT WALLACE
	JOSH BALLANCE
	LORETTA MILLER
1983	DON NIELSEN
2665	DARREN GHISETTI
2700	CARLSON WIRELESS TECHNOLOGIES INC
3067	LANCE AVILA
3125	OCCUPANT UNKNOWN
3212	RAMONA FAIR
3266	TIFFANY WILDHARBER
3318	ABC INDOOR RV STORAGE LLC
	ARCATA LAND CO LLC
	SIERRA MADRE MUSHROOMS INC
3364	JOHN MASON
3422	JACK MASON
3805	DANIEL COHEN
4203	TIMOTHY SALLADY

Target Street	Cross Street	Source
-	✓	Cole Information Services

SEIDEL RD 2013

2353	GEORGIA COTTONE
2474	KAREN JANDEBEUR
2535	TIMOTHY DAVIS
3012	MICHELLE TAYLOR
3466	OCCUPANT UNKNOWN
3830	OCCUPANT UNKNOWN
4000	JOSE HOMEM
4002	OCCUPANT UNKNOWN
4003	OCCUPANT UNKNOWN

Target Street	Cross Street	Source
-	✓	Cole Information Services

UPPER BAY RD 2013

1963	MALORIE MCCURDY
1969	SARAH CALDWELL
1975	KRISTOPHER JUHL
1981	OCCUPANT UNKNOWN
1987	ALAN LILES
1993	JEFFRY BRANCA
1999	SETH WILSON
2021	BENJAMIN DUFF
2027	LARRY BEDNAR
2035	HELEN PEARSON
2039	ERNEST REAL
2045	GILBERT LEVY
2049	JOHN VAYO
3160	SUN VALLEY FLORAL FARMS INC
3203	MOLLY SIMAS
3326	DENNIS WORKMAN

Target Street	Cross Street	Source
-	✓	Cole Information Services

27TH ST 2008

1630	MICHELLE DAGGETT
1632	JEFFREY EDWARDS
1636	EPPERLY CONSTRUCTION
	JOHN EPPERLY
	JOHN EPPERY
1650	ERICA HAINES
1655	MARSHALL JONES
1666	JOAQUIN HALE
1670	BRENDA WILLIAMS
	ROBERT SABOT
1673	MARY BOBILLOT
1674	THERESA NEHER
1700	ERIC VIELKE
	HOLLY PITTS
	JEREMY HARRIS
	LYLA TAYLOR
1701	STACEY ISAACS
1737	T SELSER
1750	JOE MACIEL
1754	ROBERT WALLIS
1758	PEDRO FURTADO
1778	OCCUPANT UNKNOWN
1800	ANDREW HOOPER
	C BRADY
	EVAN BOWEN
	KERRY MCKEE
	OCCUPANT UNKNOWN
1827	DAVID MOHRMANN
1883	DORLINDA MOSER
1886	ERIC LUND
1969	ANDREW BUNNELL
1971	OCCUPANT UNKNOWN
1975	LEONOR MENDONCA
1987	OCCUPANT UNKNOWN
2440	MARGIE BULLWINKEL

Target Street	Cross Street	Source
✓	-	Cole Information Services

FOSTER AVE 2008

1382	ALISSA FOGG
	OCCUPANT UNKNOWN
1386	MICHAEL HEIDRICK
1390	MICHAEL HEIDRICK
1396	OCCUPANT UNKNOWN
1398	JESSIE GROESCHEN
1404	DEE GRAHAM
	ELIZABETH MEYER
	MICHAEL ELKINS
	TARA MURPHY
1538	ARCATA INTERFAITH GOSPEL CHOIR
	LEE ORLIKOFF
1540	JILLIAN GAYHERT
	OCCUPANT UNKNOWN
1550	RICHARD DAVIS
1609	ASHLEE SISKE
	DAVID ORPHAL
	LAUREN LAMET
	PETER AW-YANG
	SCOTT SEMMELINK
1633	BRITTANY DOSS
	C CHATTON
	CLARENCE TAYLOR
	MICHELLE GLEDHILL
1641	KARA HOCHNER
	KAY BALL
	MATTHEW KOELLING
1660	MICHAEL STANOWSKI
	TIFFANY NEWTON
	VALERIE EURS
1665	BLAIR WALLACE
	CARLITA FOSS
	JENNIFER HERMAN
	KEVIN RAIMEY
	RACHEL NELSON
	WILLIAM HOBSON
1983	DON NIELSEN
2665	PETER CIOTTI
3067	LANCE AVILA
	LARRY SHIELD
3125	OCCUPANT UNKNOWN
3212	RAMONA FAIR
3318	ARCATA LAND CO LLC SUN FLOWER
	OCCUPANT UNKNOWN
	SUN VALLEY FLORAL FARMS
3364	JOHN MASON
3422	BAR M
	JACK MASON
3805	BRUCE BRADY
4203	TIMOTHY SALLADY

Target Street	Cross Street	Source
-	✓	Cole Information Services

SEIDEL RD 2008

2474	KAREN JANDEBEUR
2535	OCCUPANT UNKNOWN
3012	OCCUPANT UNKNOWN
3466	LUZ BARRAGAN
4000	JOSE HOMEM
4002	MADALENA HOMEM
4003	MARC DANIELS

Target Street	Cross Street	Source
-	✓	Cole Information Services

UPPER BAY RD 2008

1963	SCOTT FERRIMAN
1969	LIAM CALDWELL
1975	STEWART WILSON
1981	GEORGE CABALZAR
1987	OCCUPANT UNKNOWN
1993	JEFFRY BRANCA
1999	SETH WILSON
2021	BENJAMIN DUFF
2027	LARRY BEDNAR
2035	OCCUPANT UNKNOWN
2039	ERNEST REAL
2045	OCCUPANT UNKNOWN
2049	JOHN VAYO
2076	OCCUPANT UNKNOWN
3160	SUN VALLEY FLORAL FARMS
3203	OCCUPANT UNKNOWN
3326	DENNIS WORKMAN

Target Street	Cross Street	Source
-	✓	Cole Information Services

27TH ST 2003

1630	ALEX BROLEY
1632	JEFFREY EDWARDS
1636	JOHN EPPERLY
	OCCUPANT UNKNOWN
1646	ANI LANCASTER
1650	KENNETH COMBS
1655	GINA GIMELLI
1664	OCCUPANT UNKNOWN
1666	ERIK BROWN
1673	MARY BOBILLOT
1674	DEBORAH STEIN
1700	CARL PFEIFFER
	JOHN KESTER
	MARC JOHNSON
1737	JOHN ELDER
1741	LOUIE SIMAS
1750	JOE MACIEL
1754	ROBERT WALLIS
1758	PEDRO FURTADO
1778	VIRGINIA WYCHE
1780	OCCUPANT UNKNOWN
1800	EVAN BOWEN
1827	DAVID MOHRMANN
1875	CLARA HILL
1883	DORLINDA MOSER
1886	OCCUPANT UNKNOWN
1963	CHRISTINE ELLICOTT
1969	ANDREW BUNNELL
1975	JOSE MENDONCA
1977	DAWN BERRY
1987	DAWN BARTLETTE

Target Street	Cross Street	Source
✓	-	Cole Information Services

FOSTER AVE 2003

1382	OCCUPANT UNKNOWN
1386	MICHAEL HEIDRICK
	OUTSIDE LANE PRINT SHOP
1390	OCCUPANT UNKNOWN
1396	JENIFER RUYLE
1398	OCCUPANT UNKNOWN
1404	DAVID HENDERSON
	E KILEY
	MATTHEW SHORTHOUSE
1538	JAMES HURWITZ
1540	AMBER POPP
	DAVID FULKERSON
1550	OCCUPANT UNKNOWN
1609	CRYSTAL HENSON
	DAVID DOLANRABIDEAU
	DAVID YOUDELL
	GREGORY MALL
	MICHAEL BARKER
	MORGAN WATTS
	S EBBERT
	SCOTT SEMMELINK
1633	AARON LUMAE
	HEIDI WYATT
	IMELDA GONZALES
	JASON HARDIN
	L NUNEZ
	SCOTT KOENIG
1641	ALEXANDRA SALAZAR
	ELISABETH OLIVER
	MATTHEW ECKHARDT
	SARA HOLCOMB
1660	CHRISTINA LASTRA
	MICHAEL STANOWSKI
	VALERIE EURS
1665	KAREN SHOEMAKER
	KEEGAN FINLEY
	KEVIN RAIMEY
	LEAH MCALPIN
	LORI KLEINHEKSEL
1983	DON NIELSEN
2665	OCCUPANT UNKNOWN
3067	ANGELA FLYNN
	LANCE AVILA
	OCCUPANT UNKNOWN
3125	OCCUPANT UNKNOWN
3212	RAMONA FAIR
3266	OCCUPANT UNKNOWN
3318	ARCATA LAND CO
	SUN VALLEY FLORAL FARMS PRSNL
3364	JOHN MASON

FOSTER AVE 2003 (Cont'd)

3422	JACK MASON
	JOHN MASON
3805	BRUCE BRADY
4203	TIMOTHY SALLADY

Target Street	Cross Street	Source
-	✓	Cole Information Services

LANPHERE RD 2003

1	JANET DEMELLO

Target Street	Cross Street	Source
-	✓	Cole Information Services

SEIDEL RD 2003

2353	OCCUPANT UNKNOWN
2474	KAREN JANDEBEUR
2535	OCCUPANT UNKNOWN
3830	OCCUPANT UNKNOWN
4002	MADALENA HOMEM
4003	JOSE HOMEN
	MARC DANIELS

Target Street	Cross Street	Source
-	✓	Cole Information Services

UPPER BAY RD 2003

1963	SCOTT FERRIMAN
1969	OCCUPANT UNKNOWN
1975	ARTHUR MACHADO
1981	GEORGE CABALZAR
1993	JEFFRY BRANCA
1999	SET WILSON
2021	BENJAMIN DUFF
2027	LARRY BEDNAR
2035	IAN MION
2039	ERNEST REAL
2045	IDA SNYDER
2049	DAPHNE VAUGHN
2076	OCCUPANT UNKNOWN
3160	SUN VALLEY FLORAL FARMS
3203	OCCUPANT UNKNOWN
3326	OCCUPANT UNKNOWN
3626	DENNIS WORKMAN

Target Street	Cross Street	Source
-	✓	Cole Information Services

27TH ST 1999

1630	MICHELLE DAGGETT
1632	JEFFREY EDWARDS
	OCCUPANT UNKNOWN
1636	JOHN EPPERLY
	OCCUPANT UNKNOWN
1646	OCCUPANT UNKNOWN
	OLEN FOWLER
1650	ERICA HAINES
1655	MARSHALL JONES
	OCCUPANT UNKNOWN
1666	JOAQUIN HALE
	OCCUPANT UNKNOWN
1670	BRENDA WILLIAMS
	DWIGHT VANDERPAS
	OCCUPANT UNKNOWN
	ROBERT SABOT
1673	MARY BOBILLOT
1674	AKASH PATEL
	ROBERT COFFREN
1700	ERIC VIELKE
	JEFFREY MARSZAL
	JEREMY HARRIS
	LYLA TAYLOR
1701	OCCUPANT UNKNOWN
	STACEY ISAACS
1737	T SELSER
1741	DEBORAH KRUG
1750	JOE MACIEL
1754	ROBERT WALLIS
1758	PEDRO FURTADO
1780	OCCUPANT UNKNOWN
1800	ANDREW HOOPER
	CARSON BRADY
	KERRY MCKEE
1827	OCCUPANT UNKNOWN
	ROBIN RETHERFORD
1883	DORLINDA MOSER
1886	ERIC LUND
1963	ANNIE STARWASZ
1969	ANDREW BUNNELL
1975	LEONOR MENDONCA
1977	DAWN BERRY
1987	OCCUPANT UNKNOWN
2440	MARGIE BULLWINKEL

Target Street	Cross Street	Source
✓	-	Cole Information Services

FOSTER AVE 1999

1382	ALISSA FOGG
1386	MICHAEL HEIDRICK
	OUTSIDE LANE PRINT SHOP THE
1390	MICHAEL HEIDRICK
1398	JESSIE GROESCHEN
	OCCUPANT UNKNOWN
1404	PATRICK PHILLIPS
1538	LEE ORLIKOFF
	OCCUPANT UNKNOWN
1540	NEIL HARRIS
1550	OCCUPANT UNKNOWN
	RICHARD DAVIS
1609	ASHLEE SISKE
	RACHEL HAUFE
	SCOTT SEMMELINK
	TARA NUTH
1633	C CHATTON
	CLARENCE TAYLOR
	DAVID MARCHINIAK
	JAKE HANNAN
	K COLEMAN
	M COWAN
	MARK FERRO
	MICHELLE GLEDHILL
	TRACY MATHEWS
1641	JAMIE HAYNES
	MATTHEW KOELLING
1660	ALISON KIRSKEN
	MICHAEL STANOWSKI
	VALERIE EURS
1665	BLAIR WALLACE
	DAVID MCBROOME
	JENNIFER HERMAN
	KEVIN RAIMEY
	RACHEL NELSON
	WILLIAM HOBSON
1983	DON NIELSEN
2665	B HOLLISTER
3067	LANCE AVILA
3125	OCCUPANT UNKNOWN
3212	RAMONA FAIR
3266	OCCUPANT UNKNOWN
3318	NORTHCOAST ENVIRONMENTAL CONSTRUCTION
3364	JOHN MASON
3422	JACK MASON
3805	DANIEL COHEN
4203	TIMOTHY SALLADY

Target Street	Cross Street	Source
-	✓	Cole Information Services

SEIDEL RD 1999

2474	KAREN JANDEBEUR
2535	VALERIE FOSTER
3012	MICHAEL LORENZEN
4002	MADALENA HOMEM
4003	JOSE HOMEM

Target Street	Cross Street	Source
-	✓	Cole Information Services

UPPER BAY RD 1999

1963	SCOTT FERRIMAN
1969	LIAM CALDWELL
1975	OCCUPANT UNKNOWN
	STEWART WILSON
1981	GEORGE CABALZAR
1987	HUGH LILES
1993	JEFFRY BRANCA
1999	SETH WILSON
2021	BENJAMIN DUFF
2027	LARRY BEDNAR
2039	ERNEST REAL
2045	OCCUPANT UNKNOWN
2049	JOHN VAYO
	OCCUPANT UNKNOWN
3160	SUN VALLEY FLORAL FARMS MAIN OFFICE
	SUN VALLEY FLORAL FARMS PERSONNEL OFFICE
3326	DENNIS WORKMAN

Target Street	Cross Street	Source
-	✓	Cole Information Services

27TH ST 1995

1630	KOKE, NANCY
1636	EPPELY, DOUG
	EPPERLY, DOUGLAS
1646	JACQUES, FRANK
1650	OCCUPANT UNKNOWNN
1655	LIGHT FANTASTIC
	OCCUPANT UNKNOWNN
1664	RILLING, NORMAN
1666	TOMS, JIM
1670	BROWNELL, RANDAL D
1673	BOBILLOT, MARY J
1674	FREW, GARY
1700	ENGELKE, MICHAEL H
	PFEIFFER, CARL A SR
	PHEIFFER, CARL
1701	OCCUPANT UNKNOWNN
1741	SIMAS, LOUIE
1750	MACIEL, JOE
1754	OCCUPANT UNKNOWNN
1758	FURTADO, PEDRO
1778	DOBECKI, DOUGLAS A
1800	OCCUPANT UNKNOWNN
1827	MOHRMANN, DAVID C
1883	MOSER, ALBERT L
1963	AVELAR, FRED L
1969	DAMME, ANITA J
1971	AVELAR, M L
1975	MENDONCA, JOSE
1987	HORNSTEIN, JOHN H

Target Street	Cross Street	Source
✓	-	Cole Information Services

FOSTER AVE 1995

0	DAVIS, AUDREY M
1386	STMARIE, JOHN T
1390	OCCUPANT UNKNOWNN
1396	KOMAROMI, J
1404	DANIELLO, EMILY
	GLENN, BILLY
	MCDONALD, GUTHRIE
	MILLER, DAVID S
	PEZZOLO, TONY
1538	OCCUPANT UNKNOWNN
1540	BREWSTER, KEVIN
	MARTIN, KAREN
1550	WARD, RICHARD
1609	BRITOS, JOSEPH
	HASPER, SCOTT
	JOHNSON, TERRY
	SCHAEFFER, WILLIAM
	WILLIS, K
1633	COLEMAN, TONIA A
	LEBECK, K
	STIRNLEY, MATT
1641	ECK, JAMES S
1665	SORENSEN, JOAN
	WASILCHIN, TOM
1983	NIELSEN, DON
2665	TAYLOR, JAMES A
3067	OCCUPANT UNKNOWNN
3085	MARSHALL, JEREMY
3125	AVILA, LANCE
3212	OCCUPANT UNKNOWNN
3266	SALLADY, TIMOTHY
3364	MASON, JOHN
3422	MASON, JACK
3805	DAY, MARY S
4203	SALLADY, EDWARD B

Target Street	Cross Street	Source
-	✓	Cole Information Services

SEIDEL RD 1995

3830	BALLEW, JASON
4000	HOMEM, JOSE L JR
4002	OCCUPANT UNKNOWNN

Target Street	Cross Street	Source
-	✓	Cole Information Services

UPPER BAY RD 1995

1963	HAGAN, KENNETH
1969	ODELL, THARON E
1975	MACHADO, ARTHUR S
1981	CABALZAR, GEORGE
1987	VOGEL, ROBERT H
1993	BRANCA, JEFFRY A
1999	KANDUS, RICHARD
2021	DUFF, B
	NEEBE, JANET
2027	BEDNAR, LARRY
2035	STEWART, SCOTT
2039	OCCUPANT UNKNOWNN
2045	BEAL, BRENDA U
2049	OCCUPANT UNKNOWNN
2076	BREWER, BEN
3160	SUN VALLEY FLORAL FARMS

Target Street	Cross Street	Source
-	✓	Cole Information Services

27TH ST 1992

1630	COKE, GABRIEL
1636	EPPERLY, DOUGLAS
1646	JACQUES, FRANK
1655	LIGHT FANTASTIC
	TRACY, JOSEPH
1664	FORD, HOWARD
	HOWARDS BODY SHOP
1666	TOMS, JIM
1673	BOBILLOT, MARY J
1674	POHL, J
1701	COSTELLO, JULIE
1741	SIMAS, LOUIE
1750	MACIEL, JOE
1758	FURTADO, PEDRO
1780	SUN VALLEY FARMS
1800	BRUNNER, ERIC
	HANS, WILLIAM
	PLOUGH & THE STARS
	PLOW & STARS INN
1971	AVELAR, M L
1975	MENDONCA, JOSE
17001	PFEIFFER, CARL A SR

Target Street	Cross Street	Source
✓	-	Cole Information Services

FOSTER AVE 1992

0	DAVIS, AUDREY M
	SIMPSON TIMBER CO
1386	STMARIE, JOHN T
1404	BURNETT, TIMOTHY D
	PATERSON, IAN
	RUSSELL, LISA
	SCHMITT, DIXON C
1540	DOMINGS, MARC
	MARTIN, KAREN
1550	DAVIS, RICK
1609	DONOHO, GAVIN
	GUSS, BECCA
1633	LUNDIN, THOMAS
1641	PAMBIANCO, DAN
	SHERBURNE, JASON A
1660	FIELD, GREGORY D
	LAMB, JAMES
1665	CARNICELLI, TERI
	SIMPSON, RAYMEAL
	WASILCHIN, TOM
1983	NIELSEN, DON
3067	AVILA, JOHNNIE
3125	HIBBARD, C J
3266	SALLADY, TIMOTHY
3364	MASON, JOHN
3422	MASON, JACK
	WYMORE, IVAN
4203	SALLADY, EDWARD B

Target Street	Cross Street	Source
-	✓	Cole Information Services

SEIDEL RD 1992

3466	RAMIREZ, GUSTAVO M
3830	BALLEW, JASON
4000	HOMEM, JOSE L JR
4002	PONTONI, AL

Target Street	Cross Street	Source
-	✓	Cole Information Services

UPPER BAY RD 1992

1975	MACHADO, ARTHUR S
1981	CABALZAR, GEORGE
1987	VOGEL, ROBERT H
1993	BRANCA, JEFFRY A
2021	DUFF, B
	NEEBE, J
2027	BEDNAR, LARRY
2035	STEWART, SCOTT
2045	BEAL, BRENDA U
2049	SEERY, MARILYN L
2076	THOMPSON, SHELLEY
3160	FARLEY, TRACY J
	SUN VLY BULB FARMS
3203	HILKER, E J

27TH ST 1982

AAMCO TRANSMISSIONS
LICENSED DEALER
World's Largest Transmission Specialists
1607 5th Street Eureka, Calif. 95501

19TH ST—Contd
3105★Consoli Mark
3122 Monroe Thos H Jr ◎
3157 Portee Louie E 442-2523
3158 Robison Leonard J ◎ 443-7607
3164 Harper Brent E ◎ 442-0460

66

23D ST —FROM MC FARLAN ST EAST

ZIP CODE 95501
2367 Benamor High School 445-9687
DEAN ST INTERSECTS
2379 Planned Parenthood Assn Of Humboldt educ & media info 445-2018
2405 Vacant
2408 Clemens Morrin O ◎ 443-5396
2430 Blackburn Walter K ◎ 442-8062
HARDY DR INTERSECTS

74

24TH ST (ARCATA)—FROM 2404 PACIFIC CT EAST

ZIP CODE 95521
475★Stanley Tim
540 Vacant
544 Vacant
546★Lanphear David W 822-9349
548 No Return
550 Tipple Joel C 822-1106
552 Vacant
554 Vacant
556★Hamilton John B 822-0928
560 Tate Hector V ◎ 822-2689

74

26TH ST (ARCATA)—FROM FRONTAGE RD EAST

ZIP CODE 95521
PACIFIC AV INTERSECTS
G ST INTERSECTS

82

27TH ST (ARCATA)—FROM ALLIANCE RD WEST 1 NORTH OF STROMBERG AV

ZIP CODE 95521
1630 Davis S G 822-6215
1636 Smith Kiel 822-7364
1636½★Epperly John
1650 Meng John A 822-1696
1655 Peters Martin ◎ 822-3505
1660 Westwood Trailer & Body Repair 822-4108
1664 Ford Howard 822-8532
1666 Toms Jim 822-4732
1670 Boltzen Donald
1673 Rael Dennis 822-3373
1674 Sabot Robt 822-5584
1700 Apartments.
1 Pfeiffer Carl A ◎ 822-3510
2★Nagel Colleen
3★Bradford Elmer
4★Swanson Carl
1701 Shelit Dana M 822-8179
1737 Simas Louie ◎ 822-2678
1750 Maciel Joe ◎ 822-4249
1778 Vacant
1780 Sun Valley Bulb Farms Inc 822-4420
1800a Czarnecki James B 822-5215
1800b Leberman Helen ◎ 822-5772
1875 Duran Sheri 826-1675
1883 Moser Albert L ◎ 822-4511
1886 Bernardi Gino G ◎ 822-4270
1963 Avelar Fred
1969★Tomer Randy ◎
1975 Vacant
2440★Bullwinkel Robt E ◎ 822-8179
1971 Avelar Mary Mrs 822-0296
1987★Wethey Jack 822-6703

74

28TH ST (ARCATA)—FROM 2780 G ST NORTH

ZIP CODE 95521

82

29TH ST (ARCATA)—FROM 2889 ALLIANCE RD WEST

ZIP CODE 95521
1620★Laughlin Thos
1633 Williams Forrest E Jr ◎ 822-4325
1634 Horton Roy D Rev ◎ 822-4131
1635★Martin Tony 822-8280
1665 Gallacci Eug A ◎ 822-3898
1672 Silveira Maria P Mrs 822-8825
1680 Battilocchi Alf 822-1193
1687★Dessaider Loyce ◎ 822-1206
1688 Williams Jackie
1694 Trimm Kelsie 822-2648
1698 No Return
1705 Nicholson Gerald M ◎ 822-0125

82

30TH ST (ARCATA)—FROM 3018 ALLIANCE RD EAST

ZIP CODE 95521
1250 Steinruck Eug D 822-4007
1260 Douglas Michl 822-3348
1312 Hankes Dorothy Mrs ◎ 822-2143
1312½★Claunch Don

92

A AVENUE (MC KINLEYVILLE)—FROM 2056 PARK RD SOUTH

ZIP CODE 95521
1736 Hall Clyde J ◎ 839-1377
1758 Clinton Charles E ◎ 839-2163
1762★Markwell Sarah
1770 Alexander Bob 839-2066
1788★Moon Wayne 839-2154
1790 Vacant
1ST RD INTERSECTS
1821 Adams Charles M ◎ 839-1397
1864★Phillips Walter D 839-4706
1867 Hatfield Wm A ◎ 839-3090
1872 No Return
1876 Thornton Roseann 839-3791
1887 House Danl ◎ 839-3318
1894★Moe John
2D RD INTERSECTS
1905 Levine Linda 839-0264
1911★Tankersley R 839-3706
1919 Yarbrough Kenneth 839-0577
1922 Duning Richd A 839-2500

600 F Street, Suite 12A, Union Town Square, Arcata
& OTHER BUSINESS MACHINES
LEASING AVAILABLE
826-0563

1049 Littlefield James H ◎ 725-2345
1098 Illes Paul F ◎ 725-2114
1099 Lenardo Frank G ◎ 725-2357
KENMAR RD INTERSECTS
ROSS HILL RD BEGINS

82

FOSTER AV (ARCATA)—FROM END OF EASTERN AV WEST 1 SOUTH OF CENTER AV

ZIP CODE 95521
1382 Phillips Jim L ◎ 822-2394
1386★Doyka Mimi 826-0855
1390 Vacant
1396 Escano Dustin R 822-0761
1404 Foster Avenue Apartments
1 Vacant
2 Montgomery Ricky G 822-7135
3 Mauzey D 822-3427
4★Brittain Billy 822-3814
5 Nannery Kathleen
6 Vacant
7 No Return
8 Vacant
1538 Lingerfelt Millard V ◎ 822-0738
1540 Haight David A ◎

68

FRANK ST —FROM 3914 GLENWOOD AV SOUTH

ZIP CODE 95501
2303 Sudori Lois Mrs ◎ 442-4402
2316 Schmidt Earl 445-1556
2320 Retzloff Mitzi L Mrs ◎ 442-3174

Target Street	Cross Street	Source
-	✓	Polk's City Directory

UPPER BAY RD 1982

14TH ST INTERSECTS
15TH ST INTERSECTS
16TH ST INTERSECTS
E 17TH ST INTERSECTS
1700 First Baptist Church 822-0367

81

UPPER BAY RD (ARCATA)—FROM 3018 JANES RD WEST

ZIP CODE 95521
1963 Backman Sally Mrs ◎ 822-1946
1969★Odell Tharon
1975 Machado Arth S 822-3448
1981 Cabalzar Geo A ◎ 822-3385
1987 Dick Willis K ◎ 822-8626
1993★Macari Steve 822-7134
1999 Rothman Rande H
2021★Brooks Howard D 826-0326
2027 Trimeloni Brad D ◎ 822-8234
2035 Benjamin Geo R ◎
2039 Real Ernest F ◎ 822-5402
2045 Beal Brenda U ◎ 822-4029
2049★Seery Marilyn L ◎ 822-8612

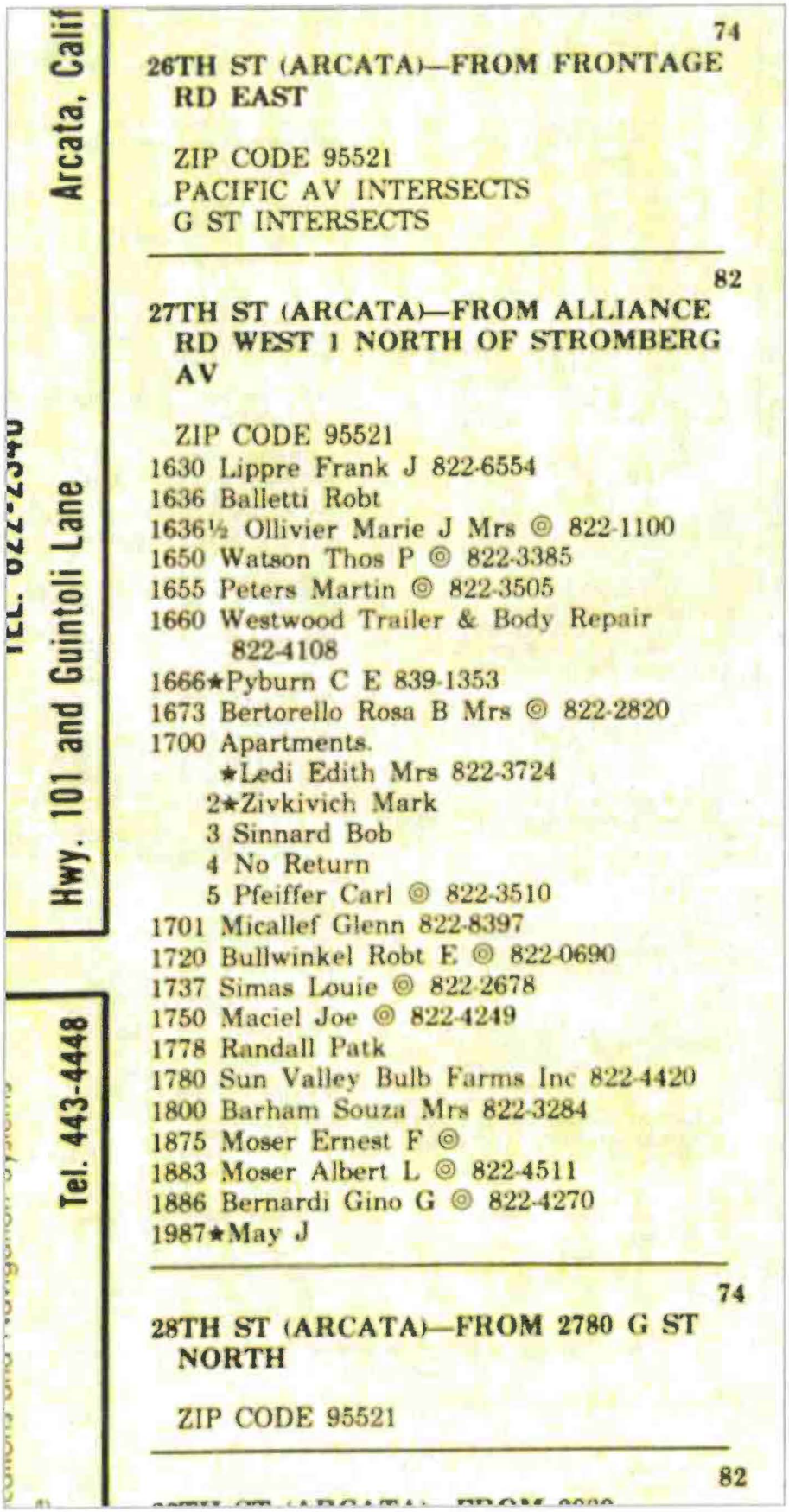
15

UTAH ST —FROM SOUTH AV SOUTH 1 EAST OF NEVADA ST

ZIP CODE 95501

Target Street	Cross Street	Source
-	✓	Polk's City Directory

27TH ST 1977



74

26TH ST (ARCATA)—FROM FRONTAGE RD EAST

ZIP CODE 95521
PACIFIC AV INTERSECTS
G ST INTERSECTS

82

27TH ST (ARCATA)—FROM ALLIANCE RD WEST 1 NORTH OF STROMBERG AV

ZIP CODE 95521
1630 Lippre Frank J 822-6554
1636 Balletti Robt
1636½ Ollivier Marie J Mrs ◎ 822-1100
1650 Watson Thos P ◎ 822-3385
1655 Peters Martin ◎ 822-3505
1660 Westwood Trailer & Body Repair 822-4108
1666★Pyburn C E 839-1353
1673 Bertorello Rosa B Mrs ◎ 822-2820
1700 Apartments.
★Ledi Edith Mrs 822-3724
2★Zivkivich Mark
3 Sinnard Bob
4 No Return
5 Pfeiffer Carl ◎ 822-3510
1701 Micallef Glenn 822-8397
1720 Bullwinkel Robt E ◎ 822-0690
1737 Simas Louie ◎ 822-2678
1750 Maciel Joe ◎ 822-4249
1778 Randall Patk
1780 Sun Valley Bulb Farms Inc 822-4420
1800 Barham Souza Mrs 822-3284
1875 Moser Ernest F ◎
1883 Moser Albert L ◎ 822-4511
1886 Bernardi Gino G ◎ 822-4270
1987★May J

74

28TH ST (ARCATA)—FROM 2780 G ST NORTH

ZIP CODE 95521

82

Target Street	Cross Street	Source
✓	-	Polk's City Directory

FOSTER AVE 1977

√ QUALITY √ SERVICE √ COURTESY
7th & G STS., EUREKA 95501 442-1741

S FORTUNA BLVD (F)—Contd
2★Hays Mark
3 Jones Walt
4 Dinnell Vernon
5★Brower Cheryl
6 Stinson T J
7 Salas Martin 725-3522
8 Vacant
9 Floyd Harold 725-5695
10 Grummert Winona
558 Derryberry James T 725-3416
569 Mays & Townsend Auto Sales 725-3611
572 Blake Dale 725-3103
580 Electric Motor Works 725-4346
591 Debets & Associates Realtors 725-4456
592 Fortuna Truck Repair truck repr 725-3769
611 Sleepy Motel 725-3845
Quillen Rollen L ◎
2D ST INTERSECTS
629 Allen Howard S ◎ 725-2617
635 Krenz Cecil D
650 Fortuna Nursery & Landscaping 725-2131
659 Vacant
664 Cotter's Cafe 725-4241
664a Cotter Melvin D ◎
679 Scribner Gay A ◎ 725-4184
682 Whitchurch Geo W ◎ 725-2778
684 Whitchurch Ed
706 Stark Jim R 725-5968
728 S & H Garage 725-4673
736 Christiansen Alan S 725-3770
754 Iversen Glen S 725-4042
776 Waters Richd L ◎
786★Edgmon E R ◎
796 Barnes Beverly 725-5205
822 B & E Garage auto dlr & repr 725-4117
900 Warehouse
903 Stien Gloria
910 Hillard W A Elder
910½★Williams Dale
927 Vacant
Coleman Dennis H 725-5902
957 Miller Roger
999a Laizure Robt C ◎ 725-2813
999b Frazier Michl
999c Vacant
1049 Littlefield James H ◎ 725-2345
1098★Illes Paul F ◎ 725-2114
1099 Lenardo Frank G ◎ 725-2357

82

FOSTER AV (ARCATA)—FROM END OF EASTERN AV WEST 1 SOUTH OF CENTER AV

ZIP CODE 95521
1382 Phillips Jim L ◎ 822-2394
1382½★Streiff Robt
1386★Hanna Tim 822-6438
1390 Bock Gary
1396★O'Donnell Dan 822-1968
1398★Mc Bride Jim
1404 Foster Avenue Apartments
1 Channell R A
2 Myers C
3 Douscheuce Mark
4★Kerker Bill
5 Newport Charles 822-3747
6 Ashodian Judy
7 Hansen James
8 Smith Robt
1538 Lingerfelt Millard V ◎ 822-0738
1540 Samuels Carl V ◎ 822-4514

68

FRANK ST —FROM 3914 GLENWOOD AV SOUTH

ZIP CODE 95501
2303 Sudori Lois Mrs ◎ 442-4402
2316 Schmidt Earl 445-1556
2320 Retzloff Mitzi L Mrs ◎ 442-6172
2333 Hale Phyllis I ◎ 442-1988
2356 Tuel E S
2370 Anderson Carl 443-8812
PENNSYLVANIA AV INTERSECTS
2407 Pollock Wm H 445-2448
2410 Wahlund John E Jr ◎ 443-1527
2412 Skipper G Dee ◎ 443-9451
2424 Stoffer Kenneth M ◎ 443-9972
2425 Pearson Helen L Mrs ◎ 442-6533
2435 Wright Geo L 443-6482
2440 Wittwer J Roy ◎
2447 Beckman Valmer ◎ 442-6352
2450 Wilson Paul A ◎ 442-1895

78

FREDRICK AV (ARCATA)—FROM 2149 HAEGER AV NORTH

ZIP CODE 95521
2034 No Return
2041 Graham Edw ◎ 822-3496
2042 Scott Wallace
2049 Alders Sylvia ◎ 822-2167
2050 Harris Richd ◎ 822-6464
2057 Resendes Vasco ◎ 822-5424
2058 Smith Richd J ◎ 822-6767
2066 Vacant
2101 Nicholson David 822-1937
2102 Short Wendell ◎ 822-5205
2109 Pimentel Sylvester ◎ 822-6677
2110 Creek Larry
2117 Mc Guffey James R ◎ 822-3537
2118 Edwards Allen
2125 Pialorsi Angelo ◎ 822-1308
2126 Litza Edmond ◎ 822-2692
2133 Smith Ron ◎ 822-5780
2134 Sells Wayne L ◎ 822-2352
2142 Jensen Lorna
2150 Brimble James A ◎ 822-5220
2158 Hendricks Herbert W ◎ 822-3991

amn Sales, Service and Supplies (707) 822
1905 Heindon Road, Arcata, Calif. (95521)
COAST Eureka, Ca.
ANY DRAINAGE FAILURE TEL. 445-0571
2103 3d St., P.O. Box 1326
SEWER-DRAIN SERVICE
Angelo's PIZZA PARLOR
"FOOD AND FUN FOR THE ENTIRE FAMILY"
Free Private Party Room For Celebrations and Gatherings
OPEN DAILY 11:00 A.M. - ORDERS TO GO
215 West 7th Street Eureka 95501 443-3262
575 H Street Arcata 95521 822-3172
McKinleyville Shopping Center 95521 839-3611



1183 Palmquist Peter E ◎ 822-3857
12TH ST INTERSECTS
1266 Thurber Dan M ◎ 822-4165
13TH ST INTERSECTS
14TH ST INTERSECTS
15TH ST INTERSECTS
16TH ST INTERSECTS
E 17TH ST INTERSECTS
1700 First Baptist Church 822-0367

81

UPPER BAY RD (ARCATA)—FROM 3018 JANES RD WEST

ZIP CODE 95521
1963 Backman Axel O ◎ 822-1946
1969 O'Dell Tharon E 822-5895
1975★Machado Arth 822-3448
1981 Warlick Chester M Jr ◎
1987 Dick Lynn 822-8626
1993 Daniels Hollis V 822-2617
1999 Davis Cary E 822-5536
2021★Mc Clard David 822-0101
2027★Moore Merle A 822-8266
2035 Benjamin Geo R ◎ 822-3228
2039 Real Ernest F ◎ 822-5402
2045 Beal Brenda U ◎ 822-4029
2049 No Return

15

UTAH ST —FROM SOUTH AV SOUTH 1 EAST OF NEVADA ST

ZIP CODE 95501
3356 Murdock Frank ◎ 442-5039
3376★Freeman Gary ◎
3380 Pettersen C B ◎ 442-7498
GIBSON AV INTERSECTS
3406 Daiute Monte H ◎
3426 Denlinger Delmar A ◎ 442-3932

PACIFIC AV INTERSECTS
725★Ernst Rodney 822-0691
730★Cherin Pat L
731★Wennerberg Kim
G ST INTERSECTS

82

27TH ST —FROM ALLIANCE RD WEST 1 NORTH OF STROMBERG AV

ZIP CODE 95521
1630 Lippre Frank J 822-3706
1636 No Return
1636½ Ollivier Marie Mrs ◎ 822-1100
1650 Watson Thos P ◎ 822-3385
1655 Peters Martin ◎ 822-3505
1660 Westwood Trailer & Body Repair 822-4108
1666★Mortiz Michl K
1673 Bertorello Rosa Mrs ◎ 822-2820
1700 Apartments
1★Strawns Robt
2★Curtis Brad
3 Simmard Bob
4 Freeman Kenneth
5 Pfeiffer Carl ◎ 822-3510
1701★Thomas James
1720 Bullwinkel Robt E ◎ 822-0690
1737 Simas Louie ◎ 822-2678
1750 Maciel Joe ◎ 822-4249
1800 Barham James W
1875 Moser Ernest F ◎
1883 Moser Albert L ◎ 822-4511
1886 Bernardi Gino ◎ 822-4270

74

28TH ST —FROM 2780 G ST NORTH

ZIP CODE 95521
790 Apartments
1 Sauer Barbara
2★Cleary David

Eureka 95501
30 W. Wabash Av.
442-5954

Target Street	Cross Street	Source
✓	-	Polk's City Directory

FOSTER AVE 1973

74

FOREST AV —FROM N HWY 101 EAST 1 NORTH OF RIDGE RD

74

ZIP CODE 95521
416 Stevens John A ◎
474★Rowe John
476 Blanchard Harley R ◎ 822-4296
482 Johnson Fred L ◎ 822-2009
490 Vacant
LAKE WAY INTERSECTS
495★Comet Delbert E ◎ 822-1279
504 Johnson Jewell B Mrs ◎ 822-5077
508★Belt Allan J 822-8159

82

FOSTER AV —FROM END OF EASTERN AV WEST 1 SOUTH OF CENTER AV

ZIP CODE 95521
1382 Phillips Jim L ◎ 822-2394
★Scott Wm L
1386 Dobie Paul B 822-2239
1390 Larsen Donald G
1396★Petrat Steve 822-2324

Phone 443-4505

Target Street	Cross Street	Source
✓	-	Polk's City Directory

FOSTER AVE 1973

Eureka

PHONE 443-0837

FOSTER AV (A)—Contd

1404 Foster Avenue Apartments
1 Vacant
2★Meyer Stephen R 822-6458
3 No Return
4 No Return
5★Morgan Marilyn
6★Olsen Chris O
7 No Return
8★Rapp Ronald 822-5880
1538 Lingerfelt Millard V ◎ 822-0738
1540 Samuels Carl V ◎ 822-4514

78

FREDRICK AV —FROM 2149 HAEGER AV NORTH

ZIP CODE 95521
2042 Vacant (2042-2102)
2050 Vacant
2058 Vacant
2066 Vacant
2102 Vacant
2158 Hendricks Herbert W ◎ 822-3991

Sanders Robt

16TH ST INTERSECTS

1640 Anderson Gregory M ◎ 822-4226
1650 Nave Fred 822-3267

E 17TH ST INTERSECTS

1700 First Baptist Church 822-0367

82

UPPER BAY RD —FROM 3018 JANES RD WEST

ZIP CODE 95521

1963 Backman Axel ◎ 822-1946
1969 Ball Fred M ◎ 822-3285
1975 Klingensmith Ed L 822-0409
1981 Warlick Chester M Jr ◎
1987 Bankson Roy E ◎ 822-3078
1993 Vacant
1999 Friend Robt
2021 Iversen Kathrina Mrs ◎ 822-0117
2027 Mc Clain A Dan 822-0326
2035 Benjamin Geo R ◎ 822-3228
2039 Real Ernest F ◎ 822-5402
2045 Isaak David 822-6720
2049 No Return

74

VALLEY EAST BLVD —FROM VALLEY WEST BLVD EAST THEN NORTH

ZIP CODE 95521

4700 International Woodworkers Am A F L-C I O Loc 3-98 839-3812
4766 Apartments
R★Parker Merle L 822-0822

Target Street	Cross Street	Source
-	✓	Polk's City Directory

27TH ST 1968

730 STAPP LA VERNA MRS 822-1445
731 JOHNSON VIRGINIA MRS
---G INTERSECTS

82

27TH ST -FROM ALLIANCE RD WEST 1
NORTH OF STROMBERG AV

---ZIP CODE 95521
1636 ELLIOTT CAROLINE
1636½ OLLIVIER ELOI D • 822-1100
HERRIOTT CAROLYN T 822-5846
1650 WATSON THOS P • 822-3385
1655 PETERS MARTIN • 822-3505
1660 WESTWOOD TRAILER & BODY
REPAIR 822-4108
1666 VACANT
1673 BERTORELLO GUISEPPE •
822-2820
1700 APARTMENTS.
1 DEATHERIDGE CHARLES S
822-1378
2 SOUSA JOSE 822-5732
3 SIMMARD BOB
4 WOLFE ROBT E
5 PFEIFFER CARL A •
1701 COOK AUG
1737 SIMAS LOUIE • 822-2678
1800 SOUZA JOE C • 822-3284
MANNING JERRY C 822-3061
1883 MOSER ALBERT L • 822-4511
1886 BERNARDI GINO • 822-4270

74

28TH ST -FROM 2780 G NORTH

---ZIP CODE 95521
790 APARTMENTS
REAR NO RETURN
2 MATHENY KEITH O 822-6910

Target Street	Cross Street	Source
✓	-	Polk's City Directory

FOSTER AVE 1968

504 JOHNSON JEWELL B MRS •
822-5077
508 POFF HIRAM M • 822-1638

82

FOSTER AV -FROM END OF EASTERN AV
WEST 1 SOUTH OF CENTER

---ZIP CODE 95521
1382 PHILLIPS JIM L • 822-2394
1386 BERONIO DAVID 822-2200
1396 GOMEZ JOE C
1398 ELLSMORE PHILLIP C 822-6898
1404 FOSTER AVENUE APARTMENTS
1 GAIER STEPH W 822-5779
2 VAN SLEET ROBT 822-6980
3 THIPPS STEVE 822-5500
4 ZARAMSKAS STANLEY 822-6895
5 WARNSLEY LARRY 822-5584
6 MANSFIELD PAMELA
7 EGGERT JEFFREY
8 JOHNSON ROSS
1405 CADRA MARBRY MRS 822-4904
1538 STRETCH TOM W • 822-4748
1540 SAMUELS CARL C • 822-4514

76

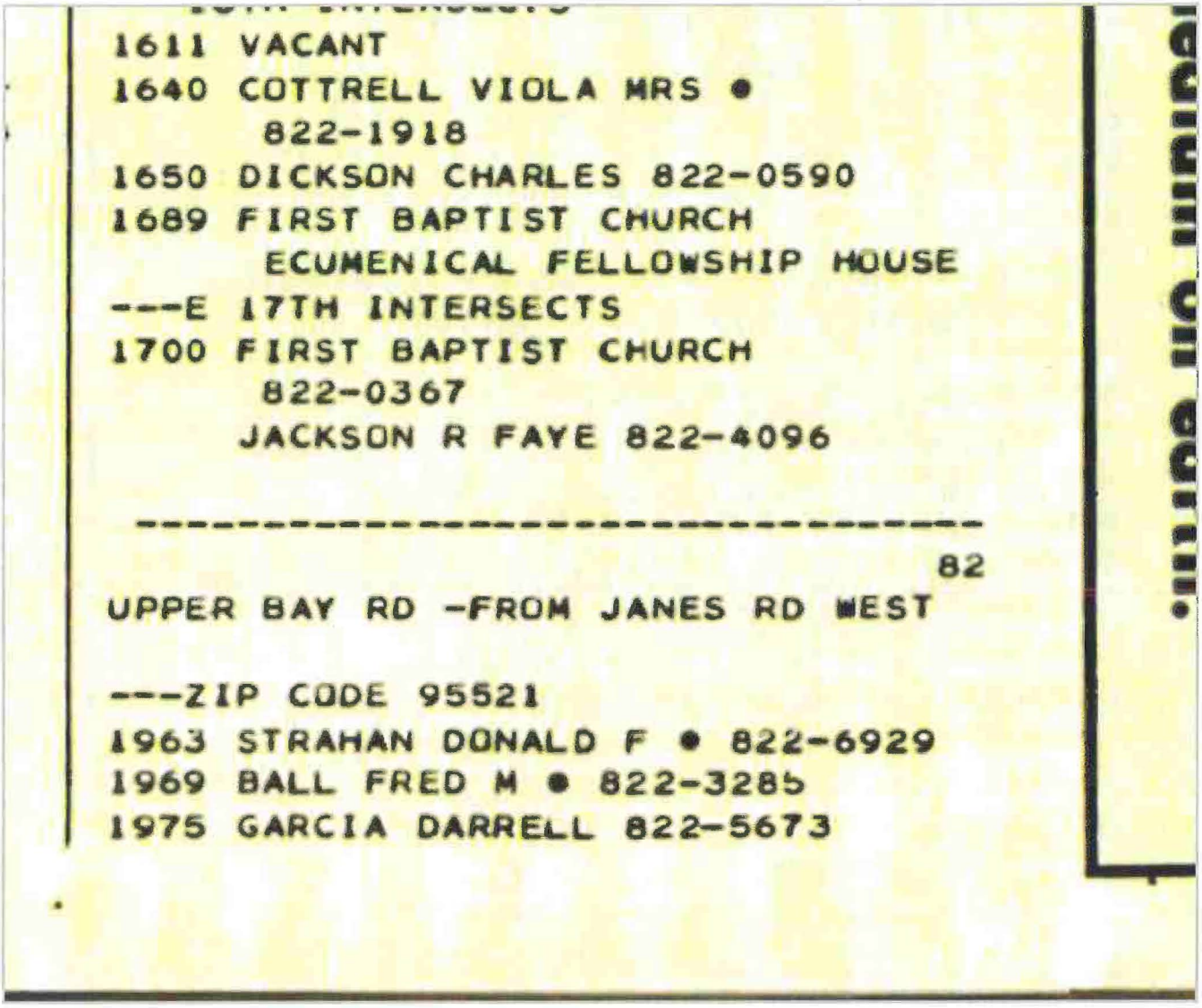
FRONT ST -FROM D WEST, 3 SOUTH OF
ED

76

G STREET -FROM FRONT NORTH, 1
WEST OF E

Target Street	Cross Street	Source
-	✓	Polk's City Directory

UPPER BAY RD 1968



1611 VACANT
1640 COTTRELL VIOLA MRS •
822-1918
1650 DICKSON CHARLES 822-0590
1689 FIRST BAPTIST CHURCH
ECUMENICAL FELLOWSHIP HOUSE
---E 17TH INTERSECTS
1700 FIRST BAPTIST CHURCH
822-0367
JACKSON R FAYE 822-4096

82

UPPER BAY RD -FROM JANES RD WEST

---ZIP CODE 95521
1963 STRAHAN DONALD F • 822-6929
1969 BALL FRED M • 822-3285
1975 GARCIA DARRELL 822-5673

ARTIST SUPPLIES

F. A. MATTHE

WHOLESALE Since 1

Paints - Wallpaper - Artist's Su

520 F Street Eureka

UPPER BAY RD—Contd

1981 WARLICK CHESTER M JR •
1987 BANKSON ROY • 822-3078
1993 LANGEBERG ESTHER M MRS •
1999 GIPSON DON 822-3938
2021 CAREY DUANE D • 822-1823
2027 MOSS AHMED H • 822-4069
2035 BENJAMIN ETHEL C MRS • 822-3228
2039 REAL ERNEST
2045 EWART PHILIP J • 822-2084

78

VILLA WAY -FROM 11TH NORTH 1 WEST OF AUSTIN WAY

---ZIP CODE 95521

1110 RING KENNETH G • 822-1119
1115 MEUCCI DARIO • 822-3147
1120 GRAVES OSSMAN P • 822-0716
1130 MORANDA EARL L •
1131 SOULIGNY EUG W • 822-3519

Target Street	Cross Street	Source
-	✓	Polk's City Directory

27TH ST 1963

G INTERSECTS

82

27TH (A) -FROM ALLIANCE RD W, 1 N OF STROMBERG AV

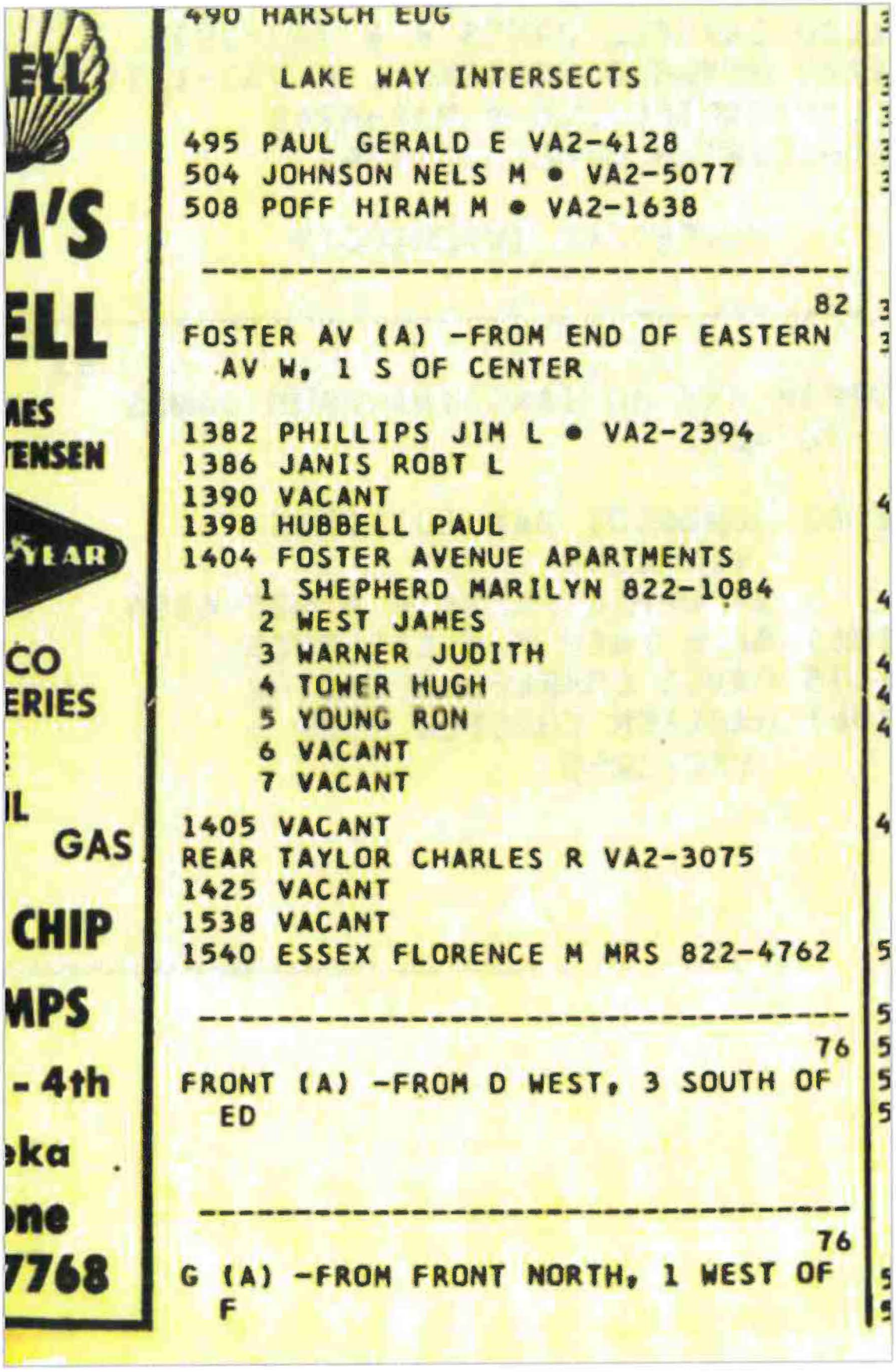
1630 BERTOLINI BRUNA MRS •
VA2-4015
1636 WILSON TOM E 822-3184
1636½ OLLIVIER ELOI D • VA2-1100
THORNHILL GILBERT VA2-5029
1650 WATSON THOS P • VA2-3385
1655 PETERS MARTIN • VA2-3505
1660 WESTWOOD BODY SHOP VA2-4108
1666 REYNIER JOS J • 822-4389
1673 BERTORELLO GUISEPPE •
VA2-2820
1700 APARTMENTS.
1 PFEIFFER CARL A • VA2-3510
2 DLOUHY ALVIN E VA2-3174
3 SIMMARD BOB
4 VACANT
5 MURPHY CHARLES
1701 VACANT
1737 SIMAS LOUIE • VA2-2678
1800 MANNING JERRY C 822-3061
1883 MOSER ALBERT L VA2-4511
1886 BERNARDI GINO VA2-4270

74

28TH (A) -FROM 2780 G NORTH

Target Street	Cross Street	Source
✓	-	Polk's City Directory

FOSTER AVE 1963



490 HARSCH EUG

LAKE WAY INTERSECTS

495 PAUL GERALD E VA2-4128
504 JOHNSON NELS M • VA2-5077
508 POFF HIRAM M • VA2-1638

82

FOSTER AV (A) -FROM END OF EASTERN AV W, 1 S OF CENTER

1382 PHILLIPS JIM L • VA2-2394
1386 JANIS ROBT L
1390 VACANT
1398 HUBBELL PAUL
1404 FOSTER AVENUE APARTMENTS
1 SHEPHERD MARILYN 822-1084
2 WEST JAMES
3 WARNER JUDITH
4 TOWER HUGH
5 YOUNG RON
6 VACANT
7 VACANT
1405 VACANT
REAR TAYLOR CHARLES R VA2-3075
1425 VACANT
1538 VACANT
1540 ESSEX FLORENCE M MRS 822-4762

76

FRONT (A) -FROM D WEST, 3 SOUTH OF ED

76

G (A) -FROM FRONT NORTH, 1 WEST OF F

Target Street	Cross Street	Source
-	✓	Polk's City Directory

UPPER BAY RD 1963

1180 CARVELL JAMES R • VA2-3039
1181 HAYWOOD KENNETH L • VA2-1179
1190 MACIEL JOE • VA2-4249
1191 SMITH OTHO 822-4044

HAEGER AV INTERSECTS

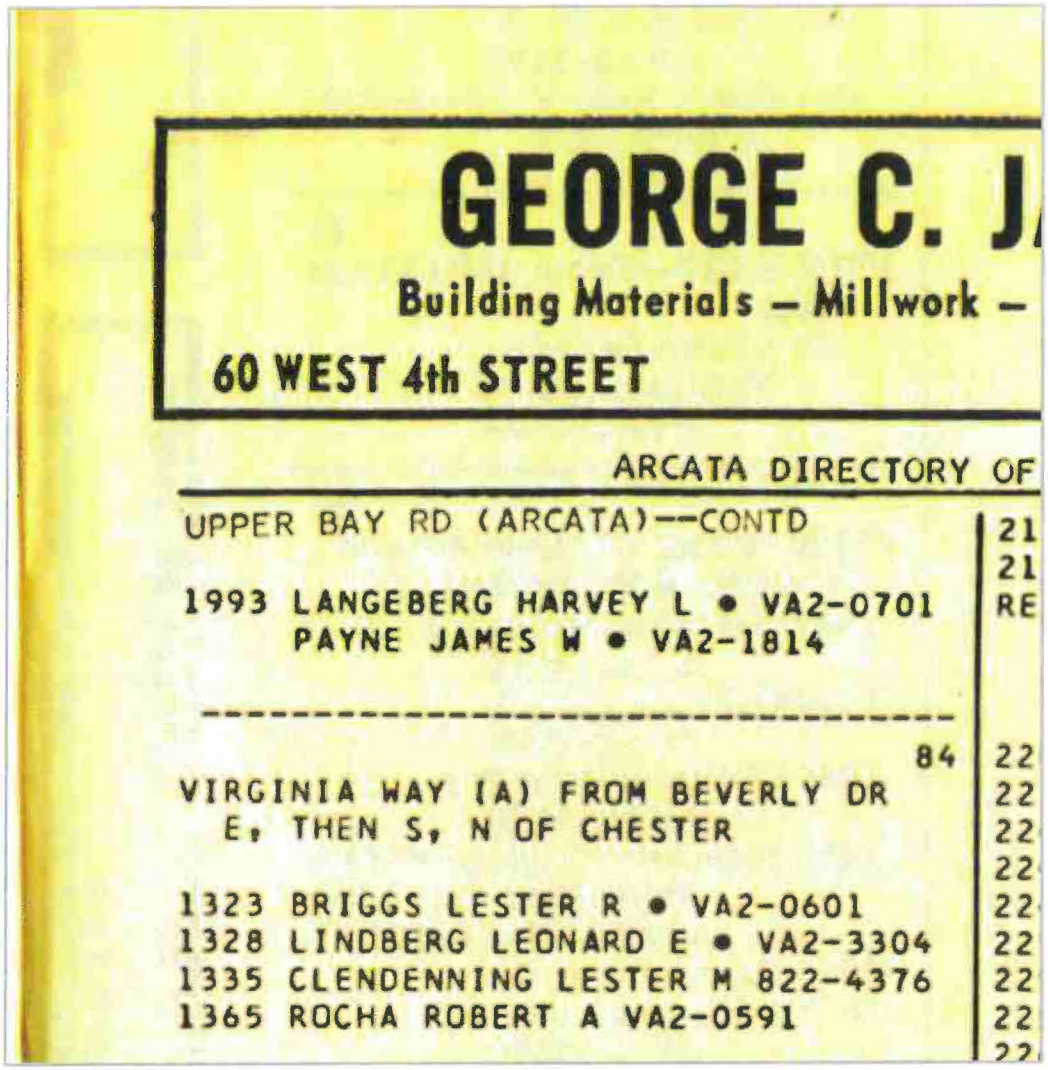
82

UPPER BAY RD (ARCATA)-FROM JANES RD WEST

1963 HUMBOLDT BAY BUILDERS
VA2-1555
STROMBERG KENT E • 822-4054
1969 BALL FRED M • 822-3285
1975 DAVIS CHARLES 822-2602
1981 WARLICK CHESTER M JR •
VA2-1260

Target Street	Cross Street	Source
-	✓	Polk's City Directory

UPPER BAY RD 1963



GEORGE C. J

Building Materials – Millwork –

60 WEST 4th STREET

ARCATA DIRECTORY OF

UPPER BAY RD (ARCATA)--CONTD

1993 LANGEBERG HARVEY L • VA2-0701
PAYNE JAMES W • VA2-1814

84

VIRGINIA WAY (A) FROM BEVERLY DR E, THEN S, N OF CHESTER

1323 BRIGGS LESTER R • VA2-0601
1328 LINDBERG LEONARD E • VA2-3304
1335 CLENDENNING LESTER M 822-4376
1365 ROCHA ROBERT A VA2-0591

Target Street	Cross Street	Source
-	✓	Polk's City Directory

27TH ST 1958

921 Church Robt W
ΔVA2-2136
931 Hertz Robt V ΔVA2-0667
J intersects

74

19TH EAST—From 1884 Union east
39 Brown DeLyle
Milligan Lyle W
ΔVA2-3793

82

27TH—From Alliance rd west, 1 north of Stromberg av
1630 Bertolini Bruner ◎
ΔVA2-4015
1636 Ollivier Chas L
ΔVA2-2702
1636½ Ollivier Eloi D ◎
ΔVA2-1100
1650 Westwood Village Body & Paint Shop auto body reprs ΔVA2-4108
1666 Reynier Joe ◎
1673 Bertorello Joe ◎
ΔVA2-2820
1700 **Apartments**
1 Pfiffer Carl A ◎
ΔVA2-3510
2 Vacant
3 Brazeal Leslie
4 Ramos Carl Mrs
5 Cahill Michl J ΔVA2-0231
Street continued
1701 No return
1720 Vacant
1737 Simas Louie ◎ ΔVA2-2678
1800 Kitchen Luther W
ΔVA2-2396
Thomas Chas K
ΔVA2-2825

UN
Henderson and E Streets Eureka Telephone HI Ilside 3-2771
Your Marshall Wells Store
S & H Green Stamps

Target Street	Cross Street	Source
-	✓	Polk's City Directory

27TH ST 1958

NORTHERN MARI
FRANK BRE
SPORTING GOODS – JOHNS
COMMERCIAL FISHERMEN'S SU
2nd and E Streets Eureka

27TH—Contd

1883 Moser Albert L
ΔVA2-4511

74

A—From 10th north, continuation of Prospect

1063 Adams Irene A Mrs
ΔVA2-3565

1089 Knapp Frank J ΔVA2-3600

11th intersects

1124 Rohrbach Wilbert ◎

1340 Church of the Nazarene

Target Street	Cross Street	Source
✓	-	Polk's City Directory

FOSTER AVE 1958

270 Downing Wesley W
279 Brookins Lee H ◎
ΔVA2-3723
279½ Vacant
280 Biondini Jos A ◎

82

FOSTER AV (Sunset Addn)—
From end of Eastern av west, 1 south of Center

1385 Phillips Jim ◎
ΔVA2-2394
1386 Ames Richd C
ΔVA2-2869
1390 Riu David E
1396 Vacant
1398 Le Var Vincent ◎
ΔVA2-0478

Western av intersects

1404 **Lima Apartments**
1 Jennings Ernest L
2 Larsen Donald G
3 Vacant
4 Vacant
5 Giacomini Helen C Mrs
6 Rice Martin L
7 Vacant
8 Vacant

Street continued

1405 Taylor Edna C Mrs ◎
ΔVA2-3075
1425 Speier's Mach Shop
ΔVA2-2844
1520 Vacant
1540 Samuels Carl V ◎
ΔVA2-0644

E A PERSON OR FIRM

Target Street	Cross Street	Source
✓	-	Polk's City Directory

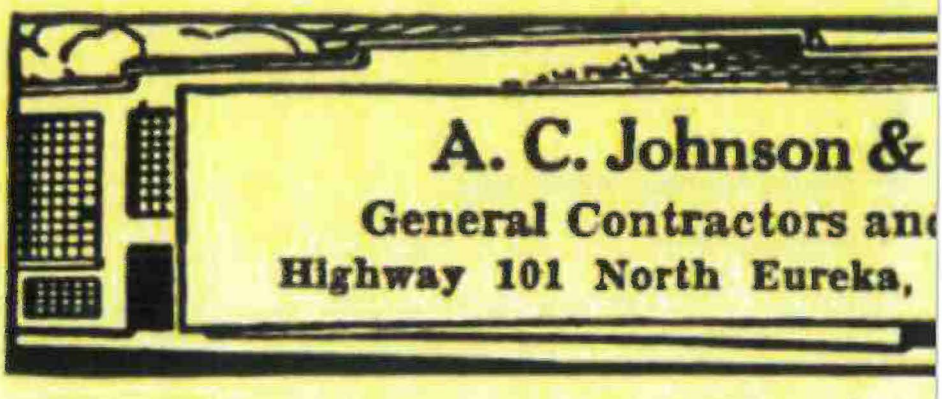
FOSTER AVE 1958

BAIL BONDS

call any time for

RAY GENUNG

HIllside 2-5796



A. C. Johnson &
General Contractors an
Highway 101 North Eureka,

76
FRONT—From D west, 3 south of 3d

74
FRONTAGE ROAD—From Arcata blvd to Granite av parallel to Redwood hwy

2010 R K Ta Motel
ΔVA2-3872
2150 Jansen's Store gro
ΔVA2-1074
2350 Bim's Drive-In restr

Arcata Properties
3318 Foster Avenue, 2725 Simpson Mill Road, 4044 L
Arcata, CA 95521

Inquiry Number: 4293018.3
May 13, 2015

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

5/13/15

Site Name:
Arcata Properties
3318 Foster Avenue, 2725
Arcata, CA 95521

Client Name:
Partner Engineering and
2154 Torrance Blvd, Suite 200
Torrance, CA 90501-0000

EDR Inquiry # 4293018.3

Contact: Brett Nielsen

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Partner Engineering and Science, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: Arcata Properties
Address: 3318 Foster Avenue, 2725 Simpson Mill Road,
City, State, Zip: Arcata, CA 95521
Cross Street:
P.O. # NA
Project: 15-139484.1
Certification # B85E-434E-81D6

Sanborn® Library search results
Certification # B85E-434E-81D6

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Partner Engineering and Science, Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2015 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EnviroNet

CONSULTING

REPORT OF INVESTIGATION
(REVISED)

FOR THE

Former Simpson Timber Company Remanufacturing Plant Site
Located at:

3315 Foster Avenue
Arcata, California
APN: 506-231-05, 506-231-02,
506-231-01, 505-151-04,
505-151-03, 505-181-07

AND

The Simpson Common Paymaster Company

APN: 505-151-05, 506-131-11
506-231-04, 506-241-16
505-161-09, 505-161-10,
505-161-29

Project Number 7102.1

EnviroNet Consulting
3601 Regional Parkway, Suite A
Santa Rosa, California 95403

Date Prepared:
July 31, 1997

Date Revised:
September 12, 1997

REPORT OF INVESTIGATION
(REVISED)

FOR THE

Former Simpson Timber Company Remanufacturing Plant:
Located at:
3315 Foster Avenue
Arcata, California
APN: 506-231-05; 506-231-02
506-231-01; 505-151-04
505-151-03; 505-181-07

AND

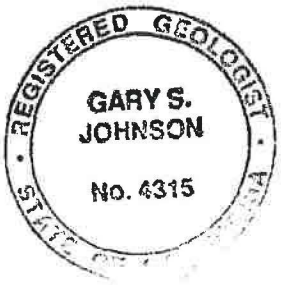
The Simpson Common Paymaster Company

APN: 505-151-05, 506-131-11
506-231-04, 506-241-16
505-161-09, 505-161-10,
505-161-29

Prepared by:

EnviroNet Consulting
3601 Regional Parkway, Suite A
Santa Rosa, California 95403

Date Prepared: July 31, 1997
Date Revised: September 12, 1997



Gary S. Johnson
Registered Geologist #4315

Registration Expires February 28, 1998

TABLE OF CONTENTS

		Page
Table of Contents		iii
List of Appendices		v
Glossary of Terms		ix
	EXECUTIVE SUMMARY	1
1.0	INTRODUCTION	5
	1.1 Purpose	5
	1.2 Scope of Work	5
2.0	SITE DESCRIPTION	6
3.0	BACKGROUND	7
4.0	ENVIRONMENTAL SETTING	9
	4.1. Factors Related to Soil Pathways	9
	4.2. Factors Related to Water Pathways	10
	4.2.1. Groundwater Pathways	10
	4.2.2. Surface Water Pathways	10
	4.3. Factors Related to Air Pathways	11
5.0	AREAS EXAMINED, INVESTIGATED, AND SAMPLED WITH RESULTS	12
	5.1 Previously Closed In-Place Underground Fuel Storage Tanks	12
	5.2 Previous Transformer areas	14
	5.3 Former Boiler Blowdown and Overflow Ponds	15
	5.4 Former Steam Cleaning/Wash Rack Area (Including Ditch)	16
	5.5 Fork Lift Maintenance Building	17
	5.6 Above Ground Fuel Storage Tanks and Concrete Vault	18
	5.7 Former Teepee Burner Area	21
	5.8 Evaporation Ponds	22
	5.9 Former Kilns	22
	5.10 Existing Dry Kiln Building	22

5.11 Pasture Area 22
5.12 Mound Areas 24
5.13 Debris Disposal Area 24
5.14 Agricultural Use Areas 27
5.15 Former Used Glue Vault Area 27
5.16 Southern Lunch Room Area 28
5.17 Former Dip Tank Area 36
5.18 Former and Current Septic Systems 38
5.19 Drains and Drop Inlets 39
5.20 Former Paint Line and Finger Joint Area 40
5.21 Railroad Spur 40
5.22 Vault 47 40
5.23 Excavated Soil 41
5.24 Extracted Groundwater 42

6.0 BASELINE RISK ASSESSMENT 43

6.1 Contaminants Identified at the Site 43
6.2 Exposure Assessment 44
6.3 Toxicity Assessment 46
6.4 Risk Characterization 46

7.0 CONCLUSIONS AND RECOMMENDATIONS 48

7.1. Summary and Conclusions 48
7.2. Recommendations for Further Action 48

APPENDICES
(SUPPORTING DOCUMENTATION)

APPENDIX A - PLATES:

Plate 1:	Site Location Map
Plate 2:	Site Plan
Plate 3:	UST, Transformer, and Steam Cleaning Areas
Plate 4:	Bunker "C" AGT Area
Plate 5:	Diesel AGT Area
Plate 6:	Former Dip Tank Area
Plate 7:	Former South Lunch Room Area
Plate 7A:	Former South Lunch Room Area - Small Pits
Plate 7B:	Contour Map - cis-1,2-Dichloroethene - Upper Water
Plate 7C:	Contour Map - cis-1,2-Dichloroethene - Lower Water
Plate 7D:	Contour Map - PCP - Upper Water
Plate 7E:	Contour Map - PCP - Lower Water
Plate 7F:	Contour Map - BETX - Upper Water
Plate 7G:	Contour Map - BETX - Lower Water
Plate 7H:	Contour Map - 8260 Other - Upper Water
Plate 7I:	Contour Map - 8260 Other - Lower Water
Plate 7J:	Paint Hole Area Excavation Sample Locations - North Pit
Plate 7K:	Paint Hole Area Excavation Sample Locations - South Pit
Plate 8:	Paint Room Area
Plate 9:	North-South Cross Section - South Lunch Room Area
Plate 10:	East West Cross Section - South Lunch Room Area
Plate 11:	Stockpile Locations - Main Building
Plate 12:	Partial Site Plan - Debris Disposal Area

APPENDIX B- BORING LOGS
(IN JULY 31, 1997 REPORT ONLY)

Boring Logs B1 through B8
Boring Logs DTB-1 through DTB-12
Boring Logs DSA B-1 through DSA B-4
Boring Log LLB-1
Boring Logs PRB-1 through PRB-3
Boring Log LFB-1
Boring Logs LRB-1 through LRB-99

APPENDIX C - ANALYTICAL RESULT TABLES

(TABLES 1 THROUGH 27 IN JULY 31, 1997 REPORT ONLY)

Key to Chemical Names

Table A: PRGs and MCLs for Chemicals of Concern

Table 1: Closed In-Place UST Soil Results - January 7, 1997

Table 2: Closed In-Place UST Water Results - January 7, 1997

Table 3: 500 Gallon Storage Tank Soil Sample Results

Table 4: Former Transformer Area Soil and Water Results

Table 5: Overflow and Blowdown Ponds Soil and Water Results - January 8, 1997

Table 6: Confirmation Soil Sample Results - Drainage Ditch North of Steam Cleaning/Wash Rack Area

Table 7: Confirmation Soil and Groundwater Sample Results - AGT-1 Investigation

Table 8: Confirmation Soil and Groundwater Sample Results - AGT-2 Investigation

Table 9: Teepee Burner Area Initial and Confirmation Soil Sample Results

Table 10: Evaporation Pond Water Sample Results

Table 11A: Debris disposal Area Trench Soil Sample Results - February 17-18, 1997

Table 11B: Debris disposal Area Surface Soil Sample Results - EPA Methods 8015, 8260, & 8270 - June 10, 1997

Table 12A: Pasture Area Soil Sample Results from Borings

Table 12B: Pasture Area Groundwater Sample Results from Borings

Table 12C: Debris disposal Area Boring Soil and Water Sample Results

Table 13: Discolored Soil Area Surface Soil Sample Results - February 26, 1997

Table 14A: Lunch Room Boring Soil Results - EPA Method 8260 (10 pages)

Table 14B: Lunch Room Boring Soil Results - EPA Method 8270 (8 pages)

Table 14C: Lunch Room Boring Soil Results - Metals

Table 14D: Lunch Room Boring Groundwater Results - Metals

Table 15A: Lunch Room Boring Groundwater Results - EPA Method 8260 (11 pages)

Table 15B: Lunch Room Boring Groundwater Results - EPA Method 8270 (14 pages)

Table 16A: Lunch Room Shallow Exploratory Pit Soil Results - EPA Method 8260

Table 16B:	Lunch Room Shallow Exploratory Pit Soil Results - EPA Method 8270
Table 16C:	LRB3 Pit Soil Results - EPA Methods 8260 & 8270
Table 17A:	Lunch Room Shallow Exploratory Pit Groundwater Results - EPA Method 8260
Table 17B:	Lunch Room Shallow Exploratory Pit Groundwater Results - EPA Method 8270
Table 18:	Lunch Room Excavation Soil Results - EPA Methods 8260 & 8270 (4 pages)
Table 19A:	Lunch Room Excavation Groundwater Sample Results - EPA Methods 8260 & 8270 (2 pages)
Table 19B:	Lunch Room Excavation Groundwater Sample Results from Tanks - EPA Methods 8260 & 8270 - Samples Collected 3/20/97
Table 19C:	Excavation Water Sample Results - Water Characteristics
Table 20:	Pipe Trench Soil and Water Results - EPA Methods 8260 & 8270 - April 26, 1997 and June 11, 1997
Table 21A:	Dip Tank Area Soil Results - EPA Method 8260
Table 21B:	Dip Tank Area Soil Results - EPA Method 8270 (2 pages)
Table 22A:	Dip Tank Area Groundwater Results - EPA Methods 8260 & 8270 (2 pages)
Table 22B:	Dip Tank Pit Soil and Groundwater Sample Results - EPA Methods 8260 & 8270
Table 23A:	Septic System Leach Line Area Soil Sample Results
Table 23B:	Septic System Leach Line Area Groundwater Sample Results
Table 24A:	Drop Inlet Soil Sample Results
Table 24B:	Drop Inlet Soil and Water Sample Results
Table 25A:	Paint Room Boring Groundwater Results - EPA Method 8260 - April 9, 1997
Table 25B:	Paint Room Boring Groundwater Results - EPA Method 8270 - April 9, 1997
Table 26A:	Paint Room Boring Soil Results - EPA Method 8260 - April 9, 1997
Table 26B:	Paint Room Boring Soil Results - EPA Method 8270 - April 9, 1997
Table 27:	Stockpile Soil Sample Results - EPA Methods 8260 & 8270 (2 pages)

APPENDIX D - ANALYTICAL REPORTS - INVESTIGATIONS
(IN JULY 31, 1997 REPORT ONLY)

Volume 1 - Analytical Reports Dated January 14, 1997 through February 28, 1997
Volume 2 - Analytical Reports Dated March 1, 1997 through March 12, 1997
Volume 3 - Analytical Reports Dated March 13, 1997 through March 21, 1997
Volume 4 - Analytical Reports Dated March 24, 1997
Volume 5 - Analytical Reports Dated March 25, 1997 through March 26, 1997
Volume 6 - Analytical Reports Dated April 2, 1997 through April 5, 1997
Volume 7 - Analytical Reports Dated April 9, 1997 through April 11, 1997
Volume 8 - Analytical Reports Dated April 13, 1997
Volume 9 - Analytical Reports Dated April 15, 1997 through April 16, 1997
Volume 10 - Analytical Reports Dated April 16, 1997
Volume 11 - Analytical Reports Dated April 30, 1997 through May 28, 1997
Volume 12 - Analytical Reports Dated June 20, 1997 through July 1, 1997
Volume 13 - Analytical Reports Dated July 1, 1997
Volume 14 - Analytical Reports Dated July 3, 1997
Volume 15 - Analytical Reports Dated July 3, 1997 through July 7, 1997
Volume 16 - Analytical Reports Dated July 7, 1997

APPENDIX E - ANALYTICAL REPORTS - EXTRACTED AND DISPOSED GROUNDWATER
(IN JULY 31, 1997 REPORT ONLY)

Volume 1 - Analytical Reports Dated April 1, 1997 through May 22, 1997
Volume 2 - Analytical Reports Dated May 28, 1997 through June 10, 1997
Volume 3 - Analytical Reports Dated June 11, 1997 through June 30, 1997
Volume 4 - Analytical Reports Dated July 1, 1997 through July 14, 1997

APPENDIX F - GOVERNMENT AGENCY RECORDS REVIEW REPORT
(IN JULY 31, 1997 REPORT ONLY)

APPENDIX G - REGULATORY DOCUMENTS

GLOSSARY OF TERMS
ABBREVIATIONS and ACRONYMS

AGT	Above Ground Storage Tank
ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
CAL/EPA	California Environmental Protection Agency
CEG	Certified Engineering Geologist
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation & Liability Act
cy	cubic yards
DRAW	Draft Removal Action Work Plan
DTSC	Department of Toxic Substance Control
HBMWD	Humboldt Bay Municipal Water District
HCDEH	Humboldt County Department of Environmental Health
ug/L	Micrograms per liter (ppb)
mg/kg	Milligrams per kilogram (ppm)
mg/L	Milligrams per liter (ppm)
NCCCOB	Northern California Coastal Cleanup Operations Branch
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NCRWQCB	North Coast Regional Water Quality Control Board
ND	Not Detected
NPDES	National Pollution Discharge Elimination System
OSWER	Office of Solid Waste and Emergency Response
PCBs	Polychlorinated Biphenyls
PCP	Pentachlorophenol
ppb	Parts per billion
ppm	Parts per million
PRG	Preliminary Remediation Goal
QA/QC	Quality assurance/quality control
RAP	Remedial Action Plan
RAW	Removal Action Work Plan
RG	Registered Geologist
SARA	Superfund Amendments & Reauthorization Act
STLC	Soluble Threshold Limit Concentration
TBC	To be considered
TCLP	Toxicity Characteristic Leaching Procedure
TTLC	Total Threshold Limit Concentration
USEPA	United States Environmental Protection Agency
USGS	United States Geological Services
UST	Underground Storage Tank
WDR	Waste Discharge Requirement
8260	EPA Analytical Method for Volatile Organics
8270	EPA Analytical Method for Semivolatile Organics

EXECUTIVE SUMMARY

The Arcata Remanufacturing Plant of Simpson Redwood Company, doing business as Simpson Timber Company (Simpson) was built at the 3315 Foster Avenue location (Site) in Arcata between 1951 and 1959. The railroad spur into the Site was constructed during this time and is currently owned by the Simpson Common Paymaster Company. Prior to construction of the plant facilities and railroad spur, the land was agricultural. The plant was operated from 1952 until its closure in June of 1989. The majority of the equipment was removed from the plant and sold in 1990 and 1991. The plant was used to process rough sawn boards into finished lumber and siding. The adjoining railroad spur has been in continuous use to this date for shipping of processed materials. Since the closure of the plant, the railroad spur has been used as a shipping point for other Simpson Timber lumber products which are trucked to the Site.

Simpson put the property up for sale in June of 1989. Up until 1996, several environmental assessments of the property were made due to possible property transfer to others. Simpson contracted with EnviroNet Consulting (EnviroNet) to complete a thorough environmental assessment for the purposes of a recent possible property transfer and the environmental assessment was conducted primarily during the first half of 1997.

Initial review of the Site and its history identified 22 potential areas of investigation which were:

1) Previously closed in-place underground fuel storage tanks (USTs)
2) Former transformer areas
3) Former boiler blowdown and overflow ponds
4) Former steam cleaning/wash rack area (including ditch)
5) Fork lift maintenance building
6) Above-ground fuel storage tanks (AGTs) and Concrete Vault
7) Former teepee burner area
8) Evaporation ponds
9) Former kilns
10) Existing dry kiln building
11) Pasture area
12) Mound areas
13) Debris disposal area
14) Agricultural use areas
15) Former used glue vault area
16) Southern lunch room area
17) Former dip tank area
18) Former and current septic systems
19) Storm drains and drop inlets

20) Former paint line and finger joint area
21) Railroad Spur
22) Car loading area

One additional area was investigated in response to sample results from a water sample collected by the local water district from a vault (Vault 47) on the Site. Due to a suspect detection of contaminants, a limited investigation was conducted in and around the vault in June of 1997. No contaminants or any subsurface pathways into the vault were found.

The car loading area, the former and current dry kiln buildings, much of the herbicide application activity, and the previous transformer areas were investigated and/or remediated during prior Site investigations. Several of these areas were sampled and/or examined to verify the results of the prior investigations. Based on the results obtained during the prior investigations and the observations made and data collected during the EnviroNet investigation, none of these areas or activities are of environmental concern.

EnviroNet's investigation of the remaining areas of environmental concern found evidence of a release to the environment at seven locations. They were 1) the ditch near the wash rack/steam cleaning area; 2) the teepee burner area; 3) the 20,000 gallon diesel above ground storage tank location; 4) the 20,000 gallon Bunker "C" above ground tank location; 5) the former dip tank area; 6) the debris disposal area; and 7) the former southern lunch room area.

Contaminated soil found while investigating all seven of these areas has been removed and stockpiled separately in the main building. During the course of the investigation, contaminated soil was removed to non-detect levels from ditch near the wash rack/steam cleaning area, from the teepee burner area and from the areas of the two AGTs. In addition, initial investigation did not reveal the presence of significant levels of contamination in the debris disposal area.

The remainder and the majority of the investigation then focused on the former dip tank and southern lunch room areas. In the former dip tank and the southern lunch room areas, traces of material believed to have been placed in the southern lunch room area were detected in groundwater samples.

The investigation proceeded in phases. First soil borings and sample analyses were performed. Since an ex-employee identified the general area as the location where paint residue was placed, the next phase, consisting of digging small pits, was implemented to locate the paint residue. The paint residue was not found so large pits were excavated and finally the dried paint residue was located along the access road at the south end of the main building. All soil excavated to this time was sampled and analyzed and found to be non-hazardous and mostly non-detect.

The large excavation in the southern lunch room area was undertaken to locate the area where paint residue was deposited, which was believed to be the source of the groundwater contamination detected during the investigation and to search for areas where containers may have been emptied. The large excavation was undertaken because neither the source of groundwater contamination nor possible buried containers were found by either drilling or by the digging of small pits. The excavation eventually extended from the fence on the south side of the main building at the Site to the access driveway along the south end of the main building. The paint residue was finally found near the former southern lunch room location and very near the current access driveway at the south end of the main building. No buried containers were found during the excavation.

The drilling and sampling defined both the lateral and vertical extent of the material which has impacted groundwater in the southern lunch room area. Most of the soil and groundwater samples with elevated levels of contaminants were collected either in the area where paint residue was placed or in close proximity to it. An area estimated at 150 feet by 150 feet off-site of the Simpson property has detectable levels of solvents in groundwater at an average concentration of 20 ug/L. A soil impact was found to be only in the immediate vicinity of the area where paint residue was disposed.

Most of the source area containing dried paint residue was removed during the investigation of the area. In addition, most of the previously existing impacted groundwater appears to have been removed during pit dewatering activities which were required to prevent the pit from collapsing. A small area of dried paint still remains in the soil and elevated levels of paint materials are detectable in groundwater from around the perimeter of the source of contamination. The area where paint residue was placed on the south side of the main building appears to be the source of groundwater contamination detected in shallow pits and borings in its vicinity. Additional removal activity is required to remove the source of soil and groundwater contamination from this area of the Site.

On July 7, 1997 dried paint and paint cans were found buried in a small portion of the debris disposal area. It is unknown whether the paint was dry at the time of its placement in the debris disposal area. All further activities related to the investigation and clean-up of the debris disposal area were halted on July 7, 1997 pending submission and approval of a work plan to remediate and further investigate this area. The debris disposal area requires additional investigation to determine if an impact has occurred due to paint material and paint cans recently discovered in the area. If an impact has occurred, the investigation would be continued to determine the lateral and vertical extent of contamination.

No soil contamination was detected off-site. The level of groundwater contamination detected off-site is in the parts per billion range.

It is recommended that a Removal Action Work Plan (RAW) be prepared and submitted to the Department of Toxic Substances Control (DTSC) for approval pursuant to the Health and Safety Code Section 25356.1(h) to address any remaining chemicals in soil and groundwater.

1.0 INTRODUCTION

1.1 Purpose

The Simpson Timber Company Arcata Remanufacturing Plant located west of Arcata, California (Plate 1, Appendix A) operated from 1952 to 1989. Prior to construction of the plant facilities and railroad spur, which began in 1951, the land was apparently used for both cattle grazing and crop production. Site construction and improvement continued through 1959. Plant operations included the use of fuel petroleum hydrocarbons, paints, solvents, and Woodlife, a commercial product that contained approximately 3% to 5% pentachlorophenol (PCP). In addition, both past and current pesticide use occurred on portions of the Site. Simpson put the property up for sale in June of 1989. Simpson contracted with EnviroNet to conduct an environmental assessment in early 1997. The purpose of this assessment was to determine if past practices resulted in the release or threatened release of the hazardous materials used on-site which now pose a threat to the public health or the environment.

1.2 Scope of Work

The scope of work consisted of several tasks. The initial task was to determine the areas where contamination could occur. This was achieved by reviewing past Site records and documents related to operational practices and by interviewing past and current employees familiar with site operations.

Once the areas were identified where releases to the environment may have occurred, those areas were examined and evaluated. It was determined, based on the initial examination and evaluation, that additional investigation was required in most of these areas to verify that each area was now free of environmental concerns. Most areas were investigated through a program of surface and subsurface soil sampling to determine if contaminants were present which could pose a threat to the public health or the environment. Several areas were identified where soil was contaminated and groundwater may have been impacted. The extent of contamination in most of those areas was delineated by use of a backhoe or excavator to determine the lateral and vertical extent of contamination. Confirmation samples were collected to verify that the extent of contamination had been fully delineated and to determine whether or not a groundwater impact had occurred. During the course of the investigation to delineate the extent of soil contamination, any contaminated soils which were excavated were removed from the area.

2.0 SITE DESCRIPTION

The Site is bordered on the south by Foster Avenue and then primarily pasture land to Arcata Bay; residential and agricultural land on the west, and east; and with Sun Valley Farms (flower grower-distributer) on the north-northeastern side. The Site is approximately eight miles north of Eureka, California in Humboldt County. The main Site contact person is Mr. Fred Jacobson who can be contacted at: Simpson Timber Company, Redwood Division, P. O. Box 68, Korbel, California 95550-0068, (707) 668-4526. The land is currently zoned industrial and agricultural exclusive.

A Site location map (Plate 1, Appendix A) shows the general location of the Site relative to its surrounding area. Major highways and other significant features are identified. Plate 2 (Appendix A) shows all significant Site features. All areas of environmental concern are either shown on Plate 2 or are shown on detail maps which are also included in Appendix A.

3.0 SITE BACKGROUND

The Site was constructed on agricultural land beginning in 1951 and continuing through 1959. Imported fill (gravel) was used along with native soils to reconfigure the Site to suit the construction and desired surface drainage. The Site was used to process rough sawn boards into finished dimensional lumber and siding from 1952 through 1989.

The processing of the lumber included the on-site painting, staining, and preservation of some of the lumber beginning in 1961. A dip tank was operated at the Site from 1961 through 1965 at the southwest end of the main building. The product Woodlife, consisting of 3% to 5% PCP as the active ingredient and mineral spirits as the carrier, was use to treat lumber. A paint line was placed in service in 1966 in the south end of the main building and operated more or less continuously until 1969. The paint line use continued sporadically until 1972 after which it was no longer used. Lead based, oil based paint, wood stains consisting of mineral spirits and pigment, and mineral spirit solvents were the primary chemicals and products used on the paint line. It is believed that methyl ethyl ketone (mek) and chlorinated solvents were obtained locally and used as cleaners in this process.

Most of the operations on the Site ceased in 1987; however, limited Site activity continued until June 30, 1989. The plant equipment was sold in 1989. Since 1991, the Site has been used as a shipping point for lumber processed at other facilities.

In December 1996 a potential purchaser of the property contracted with EnviroNet to perform an environmental review of the Site. The review was limited to collecting soil classification data as well as confirmation data on the closure of a former polychlorinated biphenyls (PCBs) impacted area and several closed in-place underground storage tanks (USTs). The environmental review was initially to confirm recommendations made in a May 1995 Phase I Environmental Site Assessment performed by SHN Consulting Engineers & Geologists (SHN) of Eureka, California. The Phase I was performed for the City of Arcata which had contemplated purchasing the Site.

In addition, EnviroNet reviewed a government agency records file report for the Site which is enclosed in Appendix F. The report indicated that a release of petroleum hydrocarbons had occurred at the Eel River Sawmill, located at 2000 Foster Avenue; and a Proposition 65 Notification for pesticides had been made by Sun Valley Floral Farms, located at 3160 Upper Bay Road. Neither of these two off-site releases, due to their distance from the Site and the limited nature of the releases, have the potential of impacting the Site.

The vicinity of the Site was examined in conjunction with the government agency file review and no off-site sources of contamination were identified which pose a threat to the soil and/or groundwater beneath the Site. In addition, an on-site source area was identified for each area of impacted soil and/or groundwater.

In January 1997, Simpson Timber Company hired EnviroNet to conduct a full environmental investigation and evaluation of the Site. The results of the investigation and evaluation are presented in this Report of Investigation which is being submitted to the DTSC pursuant to a Voluntary Cleanup Agreement between Simpson and the DTSC.

4.0 ENVIRONMENTAL SETTING

The Site is within "the Bottoms" which is an uplifted coastal plain area which is just a few feet above sea level. The Site is characterized by a low permeability cap of soil of variable thickness consisting of clay and/or silt which was identified as being anywhere from a few feet to in excess of 20 feet thick throughout the Site. Beneath the lower permeability surface soil, zones of both sand and gravel were detected with highly permeable gravel layers in excess of ten feet thick being encountered in some portions of the Site.

The gravel layers contain well rounded gravel ranging in size from pea gravel up to cobbles in excess of four inches in diameter. The gravel was either deposited in a very active river bed or in an active near shore environment. Based on the location of the Site near the Mad River to the north and the Pacific Ocean to the west, either scenario is possible.

The gravel layers are typically saturated with groundwater, although the shallowest gravel layers may become dewatered during the summer due to the pumping activities of the nearby farmers and ranchers.

Surface water flows seasonally in shallow streams and sloughs on both the east and west sides of the Site. Surface water flows to the south where it eventually empties into Arcata Bay, located less than two miles to the south of the Site. A small finger of Arcata Bay is present to the west of the Site at a distance less than two miles from the Site. The finger of the Bay to the west is very shallow and is more akin to marsh land. Shallow groundwater is expected to mimic the surface water in its flow direction. It was noted on several occasions during the spring that shallow pits would fill with water during high tide but could easily be mechanically pumped dry during low tide, thus indicating that groundwater flow beneath the Site is inhibited by ocean water during high tide conditions.

The Site contains two water supply wells, one located near the north end of the main building, and one located north of the main office building. One domestic well was identified at a house on Foster Avenue just to the west of the Site. One agricultural well located approximately 1/4 mile south of the Site was identified and sampled. It is anticipated that other water supply wells are present throughout the general area of the Site. Domestic water supplies in the area are either from wells or from the Humboldt Bay Municipal Water District which has a major pipeline that traverses the southern portion of the Site.

4.1 Factors Related to Soil Pathways

The thickness of the uppermost clay and silt layer (low permeability layer) at any location at the Site has a strong influence on the possible transport of contaminants in the subsurface. A boring drilled

on the west side of the Site (LLB-1, Plate 2) encountered clay from the surface to a depth exceeding 20 feet (See Boring Log, Appendix B). Contaminants leaked in this area would tend to absorb into the clay and not migrate any appreciable distance.

Very little if any clay and silt were encountered at the surface in one or two borings (LRB-77 and LRB-79) drilled on the south side of the Site in the southern lunch room area (Plate 2, #4a and Plate 7, Appendix A). It is not clear whether the clay and silt were removed and replaced with permeable baserock during plant construction or if the clay and silt layer was not deposited in this area. As an example, boring LRB-77, drilled just south of the main building (Plate 7, Appendix A) encountered gravel from the surface to a depth of 18 feet (See Boring Log, Appendix B). The gravel has high permeability and typically contained groundwater. Both the sand and gravel contain sufficient water and have sufficient permeability to be considered aquifer zones. Contaminants released in this area would have nothing to inhibit their vertical migration to groundwater.

Free groundwater was noted as shallow as three feet bgs and as deep as ten feet bgs during drilling. Water levels in the main excavation in the southern lunch room area had dropped several feet by July of 1997, presumably due to lack of rain and increased well pumping for agricultural purposes.

4.2 Factors Related to Water Pathways

4.2.1 Groundwater Pathways

The primary factors affecting groundwater at the Site are the thickness of the clay and silt soil at the surface and the amount of gravel present below the clay and silt layer. Numerous areas of gravel were identified during the investigation which would provide very little resistance to flow. Groundwater is anticipated to flow toward Arcata Bay to the south and the groundwater gradient is anticipated to be affected by high and low tides. Based on the investigation conducted to date, only the shallow water-bearing zone from approximately 6 to 25 feet bgs has been impacted. The soil samples collected from the clay beneath the shallow water-bearing zone indicate that contamination has not migrated to deeper water-bearing zones.

4.2.2 Surface Water Pathways

Surface water drains from the Site into sloughs and small surface drainages both to the east and west of the Site which flow to the south and then into Arcata Bay. The closest surface water to any source area of contamination is the Liscom Slough which is located approximately 300 to 400 feet west-southwest of the area was paint residue was disposed of near the former southern lunch room. Liscom Slough contains water seasonally and is dry most of the summer until the rainy season.

4.3 Factors related to Air Pathways

The Site is on flat land with an elevation 20 to 25 feet above sea level. There are no surface impediments related to air pathways at the Site other than the buildings which alter the wind paths due to their height. The prevailing wind appeared to be from north to south during the winter and spring.

All of the contamination observed at the Site during this investigation was detected either in soil or in groundwater. The contaminants are generally not airborne. Contaminated soil has been temporarily placed inside the main building. Contaminated groundwater which was collected from the excavated area to the south of the building, was filtered through activated carbon prior to discharge at the Eureka Sewage Treatment facility. Airborne transport of contaminants does not appear to be a problem at this Site.

Staff of the local Air Pollution Control District also visited the Site and indicated that Site investigation activity was in compliance with Air Pollution Control District guidelines and requirements. A copy of the letter documenting the Site visit is included in Appendix G.

5.0 AREAS EXAMINED, INVESTIGATED, AND SAMPLED WITH RESULTS

5.1 Previously Closed In-Place Underground Fuel Storage Tanks

There are three former USTs which have been closed in-place at the Site. The Humboldt County Department of Environmental Health (HCDEH) records indicate that precision tightness tests were conducted in 1987 on the two 5,000 gallon gasoline USTs (Plate 2, #18 and Plate 3, Appendix A), and the one 10,000 gallon diesel UST (Plate 2, #17 and Plate 3, Appendix A). The records show that all three tanks passed the tightness tests. There was no mention of piping tests or fuel dispensing area testing. No soil tests were required by the HCDEH in 1987, and the tanks were subsequently triple rinsed and filled with concrete slurry in 1987 and the closure permit was finaled on December 9, 1987. In 1995 SHN found a final record of closure for the tanks in the HCDEH file. A copy of the finalized permit from Humboldt-Del Norte County to close one 10,000 gallon and two 5,000 gallon capacity USTs is enclosed in Appendix G. A 500 gallon UST (Plate 2, location #5a) is also reported as closed in-place with concrete and sand in 1985. This UST could not be located and may have been subsequently removed.

Three soil borings were drilled on January 7, 1997 to investigate the two 5,000 gallon closed in-place gasoline USTs. The three borings (B-1, B-2, and B-3) were located on the north, west, and south sides of the concrete pad over the two closed in-place 5,000 gallon USTs, respectively (Plate 3, Appendix A). The borings were drilled through asphalt, approximately one foot from the edge of the concrete slab. Below the asphalt was gray baserock fill consisting of well graded gravel which contained a perched water zone at about one foot below ground surface (bgs). Odor and elevated photoionization detector (PID) readings were noted in the baserock just beneath the asphalt in boring B-1. The baserock extended to a depth of 2.5 feet bgs in B-1, 5.5 feet bgs in B-2, and 9.0 feet bgs in B-3. Sheen and a faint odor were noted along the baserock/clay contact in boring B-3 at 9.0 feet bgs. An attempt to sample the baserock/clay contact in boring B-2 was not successful (See Boring Logs, Appendix B). Mr. Brent Whitener of HCDEH was on-site to observe some of the drilling and abandonment of the borings during this drilling event.

Below the baserock was dark brown sandy silty clay. The top surface of the clay apparently formed a confining layer for the water perched in the baserock in boring B-1. A dark gray sandy clayey silt layer was encountered in borings B-2 and B-3 at a depth of 11 to 12 feet. Borings B-2 and B-3 were drilled to 13 feet bgs and did not encounter the bottom of the silt layer. No odors, elevated PID readings or sheen were noted from the soil samples collected from the native silty clay or silt layers. Gasoline, benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected in the samples collected from the three borings (Table 1, Appendix C, analytical reports included in Appendix D, Volume 1).

A grab groundwater sample (B2-WU) was collected from the water just beneath the asphalt in boring B-2. This sample was analyzed for gasoline and BTEX and contained traces of gasoline (0.099 mg/L) and ethylbenzene (0.00074 mg/L) (Table 2, Appendix C, analytical report included in Appendix D, Volume 1). A Hydropunch® groundwater sample was collected from boring B-2 at 13.0 to 15.0 feet bgs. The Hydropunch® sample was collected by drilling a second boring approximately two feet away from the original boring. The second boring was drilled to the top of the water level (in the native soil) as determined in the first boring, the sampler was driven two feet into the clay and then the sampler cover was pulled up two feet to expose a temporary well screen. The groundwater sample was collected using a clean stainless steel bailer which was lowered into the sampler. This method collects a discreet interval groundwater sample of the top of the water, to collect potential floating hydrocarbons, and avoids cross contamination with the upper perched water within the baserock. The sampler was left in boring B-2 overnight in order to collect enough water for a sample. A Hydropunch® sample was attempted in boring B-1, but this location did not yield water to the sampler, presumably due to the low permeability of the clay. This sample was analyzed for BTEX and gasoline. No contamination was detected in the Hydropunch® water sample (B2-WL) from boring B-2 (Table 2, Appendix C, analytical reports included in Appendix D, Volume 1).

A 10,000 gallon diesel UST (Plate 2, #17) was previously closed in-place by filling with concrete slurry. The area of the 10,000 gallon diesel UST was investigated on January 7, 1997 with the drilling of borings B4 and B6 at the locations shown on Plate 3 (Appendix A). The borings indicated a lithology of surface asphalt underlain by baserock and then clay (See Boring Logs, Appendix B).

Odor and sheen were noted in the baserock and water from just below the asphalt. The odor and sheen are attributed to placement of the asphalt during construction of the plant Site. The analytical results confirmed the visual observations, as petroleum hydrocarbons were detected in the soil and water samples from just beneath the asphalt in borings B1, B2, and B4, while soil and water samples from the level of the USTs were non-detect for petroleum hydrocarbons (Tables 1 and 2, Appendix C, analytical reports included in Appendix D, Volume 1). Mr. Derek Whitworth of the DTSC was on-site on January 7, 1997 to observe the initial investigation activities. In addition, a representative of the HCDEH visited the Site to determine permit compliance for the drilling of the borings. The area where odor and sheen were observed just below the asphalt was also excavated and sampled on January 17, 1997. Shallow soil samples continued to indicate the presence of diesel and motor oil (See analytical report, Appendix D, Volume 1 for samples Diesel UST-CON1, -CON2, and -CON3). Total petroleum hydrocarbon (diesel range) was detected in the three samples ranging from 6.2 to 39 mg/kg and total petroleum hydrocarbon (motor oil range) was detected in only one sample at a level j of 55 mg/kg which is just above the detection limit of 50 mg/kg. Visual observations indicated that the petroleum hydrocarbons were confined to the baserock layer just beneath the asphalt.

The area of the 500 gallon UST, which was said to be closed in place, was examined and a depression was observed on January 10, 1997 (Plate 2, #5a). The area of the depression was excavated to a depth of 2.5 feet on January 16, 1997 and no abandoned tank was found in the area of the depression. EnviroNet concluded that the UST may have been removed. A soil sample collected at a depth of 2.5 feet in the area identified as the previous location of the UST was non-detect for petroleum hydrocarbons, and a stockpile believed to be from the depression was subsequently sampled and was also non-detect for petroleum hydrocarbons (Table 3, Appendix C, and analytical report, Appendix D, Volume 1).

The analytical reports for these and all subsequent analyses summarized in this report are presented in Appendix D, Volumes 1 through 16 and Appendix E, Volumes 1 through 4.

Based on the information gathered during the investigation of the closed in place USTs, no significant release to the environment occurred from the USTs and no additional investigation related to the USTs is warranted.

5.2 Former Transformer Areas

According to existing documentation, the former transformer areas were previously remediated to non-detect levels (Plate 2, #2f and #20). No closure document could be located; however, a letter from the North Coast Regional Water Quality Control Board (NCRWQCB) dated February 2, 1994 (Appendix G) indicates that cleanup of PCBs associated with a substation that served the facility was successfully completed in 1993. EnviroNet drilled boring B-5 on January 7, 1997 through the former transformer area near the wash rack (Plate 2, #20 and Plate 3, Appendix A) to confirm that no PCBs were present. Samples from borings B-4 and B-6, drilled near the former 10,000 gallon diesel, closed in-place UST which is very near the former exterior transformer area (Plate 3, Appendix A) were also analyzed for PCBs. No PCBs were detected in either soil or groundwater samples collected and analyzed from these borings (Tables 1, 2, and 4, Appendix C, analytical report included in Appendix D, Volume 1). Boring B-5 encountered clay to total depth (See Boring Logs, Appendix B). Native soil was encountered at two feet bgs under the concrete cap.

Boring B-5 was located 6.5 feet west of an unnamed PVC pipe which is located in the center of the concrete cap over the former transformer area. The total depth of the PVC pipe is approximately 9.5 feet. Based on the lithology encountered in boring B-5 (See Boring Log, Appendix B), the PVC pipe is entirely within a clay unit. A water sample (W-1) was collected from the PVC pipe on December 20, 1996. The sample was non-detect for petroleum hydrocarbons and PCBs. It was also non-detect for metals except for 0.035 mg/L zinc (Table 4, Appendix C, analytical report included in Appendix D, Volume 16). Soil samples collected at depths of 5 and 9.5 in boring B-5 feet were non-detect for PCBs (Table 4, Appendix C, analytical report included in Appendix D, Volume 1). A grab

groundwater sample from boring B-5 was also non-detect for PCBs (Table 4, Appendix C, analytical report included in Appendix D, Volume 1). The soil and groundwater analytical results from boring B-5 are summarized in Table 4 (Appendix C). The analytical report is enclosed in Appendix D, Volume 1.

Based on the information gathered during the investigation of the transformer areas and information gathered regarding prior transformer area cleanup activities, no significant release to the environment from the transformers is present and no additional investigation related to the transformer areas is warranted.

5.3 Former Boiler Blowdown and Overflow Ponds

In the vicinity of the former blowdown and overflow ponds, three test pits were excavated and examined on December 20, 1996. This was done as part of an investigation for a potential purchaser of the property. The pits were excavated in fill material with no visible evidence of contamination. Because native soil was not observed, its condition could not be evaluated from the pit examinations.

On January 8, 1997, boring B-7 was drilled nine feet southwest of one test pit to collect soil and groundwater samples to determine whether oil from the compressor placed in the overflow pond had impacted either the soil or the groundwater. The boring was drilled to 14 feet bgs (Plate 5, Appendix A). Pond fill consisting of silty sand was encountered from the surface to 10.5 feet bgs. Groundwater was encountered at approximately six feet bgs (See Boring Log, Appendix B). Elevated PID readings of up to 160 ppm were recorded at 6.5 feet, the readings diminished to 20 ppm by the bottom of the boring.

On January 8, 1997 boring B-8 was drilled in the center of the blowdown pond. This was located eight feet from the test pit excavated in December of 1996 in the blowdown pond. Silty sand fill was encountered to 10.5 feet bgs, the excavation ended at 13.0 feet bgs in native well graded sand (Plate 5, Appendix A). PID readings of 20 and 12 ppm were recorded from fill soil from 7.5 feet bgs and 10.5 feet bgs, respectively (See Boring Log, Appendix B).

The analytical results for the soil and groundwater samples from borings B-7 and B-8 were virtually non-detect for diesel and phenolics with no diesel being detected in soil samples, while 0.053 mg/L diesel was detected in a water sample from B-8. Phenolics were detected in three soil samples from boring B-7 at levels of 10, 3.5, and 1.9 mg/kg respectively and in two soil samples from boring B-8 at levels of 2 and 5 mg/kg, respectively (Table 5, Appendix C, analytical report included in Appendix D, Volume 1). The levels detected for the diesel were not of concern, while the levels of phenolics detected were determined to be a product of the hydrolysis of redwood by hot water which leaches humic acids, which contain phenolics, from the wood. Because the phenolics are created

during natural processes and do not pose any known threat to the environment or to the public health at low concentrations, phenolics are not present at levels of concern. One boring was drilled through the center of the former overflow pond and former blowdown pond. One boring through each pond area was deemed sufficient to determine if a significant impact to either soil or groundwater had occurred from either of these former ponds.

Based on the information gathered during the investigation of the former blowdown and overflow pond areas, no significant release to the environment from the blowdown or overflow ponds is present and no additional investigation or remediation related to the former blowdown or overflow pond areas is warranted.

5.4 Former Steam Cleaning/Wash Rack Area (Including Ditch)

An initial examination of the ditch beneath the former steam cleaning/wash rack area on December 20, 1996 as part of a preliminary Site inspection revealed the presence of discolored, oily soil. The source of the oily material was apparently the steam cleaning and wash rack process itself. In addition, some used oil from the fork lift maintenance building may have entered the ditch.

Investigation of the former steam cleaning/wash rack area began on January 11, 1997. The vegetation in the ditch was removed beginning at the wash rack and progressing easterly. Oily soil appeared to extend from the wash rack to approximately 35 feet east of the wash rack. The soils were placed within a bermed area in the main building. A dam was built across the ditch at 45 feet east of the wash rack and adjacent to the wash rack, then the water flowing in the ditch was pumped to the drop inlet to the west (Plate 3, Appendix A) to enable the investigation to continue.

This investigation covered an area with an average ditch width of ten feet and extended from the wash rack 45 feet east and 100 feet to the west (Plate 3). All visible evidence of contamination was removed to determine the extent of contamination after which confirmation samples were collected at the locations shown on Plate 3. One area (CON-2), which contained 30 mg/kg diesel and 230 mg/kg motor oil (Table 6, Appendix C, analytical report included in Appendix D, Volume 1),was further investigated at an additional sample (Ditch-CON) collected at the same location (CON-2 location, Plate 3)) was non-detect for diesel and motor oil (Table 6, Appendix C). Sample CON-4 contained 0.42 mg/kg PCBs while all other samples were non-detect for PCBs (Table 6, Appendix C, analytical report included in Appendix D, Volume 1). Soil was removed from the ditch until all subjective evidence of contamination was gone at which point confirmation soil samples were collected at an interval of one sample approximately every 20 feet. This was deemed sufficient to indicate that the extent of contamination had been defined.

The Preliminary Remediation Goal (PRG) established by the U.S. EPA for PCBs in soil is 0.066 mg/kg. All confirmation results for soil samples collected in the transformer area were non-detect. PCBs were detected in only one sample (COC-4) which contained 0.42 mg/kg PCBs which is above the PRG for PCBs. However, it is below the 1 mg/kg soil action level established by the U.S. EPA for residential scenarios in their guidance document, "Guidance on Remedial Actions for Superfund Sites with PCB Contamination" [EPA/540/G-80/007] and in OSWER Directive No. 83555.4-01FS (August 1990).

The soil removed from the ditch during the investigation was temporarily placed in a separate, plastic lined stockpile in the main building. Petroleum hydrocarbon degrading bacteria were added to the soil. The stockpile will be sampled and analyzed for petroleum hydrocarbons and PCBs to determine if the soil is suitable to be recycled and used on the Site as an inert material after approval of the RAW.

After completing the investigation of the former steam cleaning/wash rack area and ditch, there appears to be no residual soil contamination.

5.5 Fork Lift Maintenance Building

Borings B-1 and B-3 were drilled adjacent to the fork lift maintenance building as part of the investigation of the former 5,000 gallon USTs (Plate 3, Appendix A). Soil samples from the borings were analyzed for gasoline and BTEX. The two borings were drilled down-gradient of the building. No visible evidence of contamination from the fork lift maintenance building was observed in the borings. The combination of the analytical results from soil samples, the visual appearance of the soil samples, combined with the visual appearance of the area around the building were deemed sufficient to indicate that no major release of contaminants into the environment had occurred from this area.

All surface drainage from the area flows to an open ditch through a culvert that daylights across the railroad tracks from the fork lift building (Plates 2 and 3, Appendix A). Soil and water samples were taken at the outlet and no contaminants were found. The drainage ditch goes underground and eventually combines with the drainage system. Both the drainage ditch and the drop inlet near the fork lift building discharge into an open surface drainage through a culvert (Plate 2). The culvert discharge point was sampled for a broad range of contaminants, none of which were detected (Samples D-3-S and D-3-W, Table 24A, analytical report included in Appendix D, Volume 16). This activity is further discussed in Section 5.19.

Based on the information gathered during investigations in the immediate vicinity of the fork lift maintenance building, there is no evidence of a significant release to the environment from the fork

lift maintenance building. Any surface release at this location would have traveled into the ditch which was investigated as part of the steam cleaning/wash rack area and ditch investigation activities. No additional investigations related to the fork lift maintenance building are warranted.

5.6 Above-Ground Fuel Storage Tanks and Concrete Vault

Two steel, 20,000 gallon AGTs were removed from the property in January of 1997. One AGT contained diesel fuel and was located near the former blowdown ponds (Plate 2, #6b, and Plate 5, Appendix A). It is referred to in the text as AGT-1. The second 20,000 gallon AGT located near the northeast portion of the main building (Plate 2, #6a, and Plate 4, Appendix A) contained Bunker "C" fuel oil. It is referred to in the text as AGT-2. It was noted during removal that the soil was stained with petroleum hydrocarbons around the fill pipes for both tanks. Removal of the two AGTs was conducted at the request of Simpson. It is our understanding that no permits were required to remove these tanks.

The two steel 20,000 gallon tanks were emptied, triple rinsed, and cut up in January of 1997. The pieces were removed prior to the investigation.

AGT-1

Eight wood pilings of approximately one-foot diameter remained under the former base of AGT-1. Investigation of the extent of impacted soil began on January 13, 1997. The extent of contaminated soil was determined by excavation. The limits of contamination were approximately 25 by 30 feet to a depth of 10 feet bgs. The excavated soils were placed in clay lined bermed cells on the asphalt in the main building.

Please note that the above ground tanks use the abbreviation AGT, while samples collected from AGT locations are identified by the abbreviation AST which stands for above ground storage tank.

Further investigation to determine the extent of contamination at the AGT-1 location continued in January 1997. Six test pits were subsequently dug around the perimeter of the excavation to determine if the area of investigation needed to be extended. Sample results were all non-detect for petroleum hydrocarbons (Analytical reports enclosed in Appendix D, Volume 13). All small pit soil and groundwater appeared to be clean based on visual observations. Confirmation soil samples were also collected from the bottom of the main area of investigation, which was under water. The soil from the bottom of the main area of investigation was a gray sandy gravel to a well graded sand. These included bottom soil samples AST1-CON1 through AST1-CON5. The maximum contaminant level detected in soil was 540 mg/kg diesel; a water sample (AST1-Water) from the

main area of investigation contained 230 mg/L diesel (Table 7, Appendix C, analytical reports included in Appendix D, Volumes 1 and 13).

Due to the detection of diesel in one sample at a level of 540 mg/kg, investigation of the AGT-1 area continued on January 24, 1997. The long-reach excavator was used to reach into the center of the main area of investigation and remove the loose odorous sand. Bottom soil confirmation samples AST1-CON6 through AST1-CON11 and sidewall soil confirmation samples AST1-SW1 through AST1-SW4 were collected on January 24, 1997 AST1-CON6 was a retest after deepening the main area of investigation around the AST1-3 and AST1-4 locations. The results were generally non-detect for diesel and motor oil with 720 mg/kg diesel being detected in one confirmation soil sample (AST1-CON10). Additional soil was excavated and another sample of the same area (AST1-CON11) was non-detect for diesel. Table 7 (Appendix C, analytical report included in Appendix D, Volumes 1 and 13) presents the AST1-CON series sample results. Final dimensions of the area of investigation were roughly 50 feet by 40 feet by 12 feet.

In February, 1997 a water sample from the main area of investigation was tested by an on-site laboratory (Mobile One) for TPH-g (gasoline), TPH-d (diesel), and TPH-mo (motor oil). TPH-d was detected at 3.9 mg/L (Table 7 in Appendix C, analytical report included in Appendix D, Volume 1). Approximately 40,000 gallons of water were pumped from the main area of investigation into two 21,000 gallon capacity Baker tanks. A water sample was subsequently collected from each Baker tank and analyzed. The samples were non-detect for TPH-g, TPH-d, and TPH-mo (Table 7, Appendix C, analytical report enclosed in Appendix D, Volume 1) After discussing the non-detect results with the DTSC, the contents of both Baker tanks were discharged into the on-site evaporation ponds.

Based on the size of the excavation, a sufficient number of samples were collected to demonstrate that the source of contamination had been removed. Confirmation samples of both soil and groundwater indicated that no significant soil contamination remained in the area of the former diesel AGT during the investigation of the extent of impacted soil (Table 7, Appendix C and analytical report, Appendix D, Volumes 1 and 13).

The soil from the AGT-1 investigation area was temporarily placed in a separate, plastic lined stockpile in the main building. The stockpile will be sampled and analyzed to determine if the soil is suitable for reuse on the Site as an inert material.

AGT-2

The 20,000 gallon steel Bunker "C" AGT (AGT-2) was removed in January of 1997 and it appeared that gravelly oil-soaked soil extended under the clay berm surrounding the tank's former location.

The clay berm was moved into the main building and used to construct clay-bermed temporary placement cells for the soil. The pit created during the investigation was not dewatered while digging. A water sample from the area of investigation was analyzed for petroleum hydrocarbons. TPH-d was detected at 1.1 mg/L while TPH-mo was non-detect (Table 8, Appendix C, analytical report enclosed in Appendix D, Volume 13). The area of investigation was expanded to determine the limits of all impacted soil as indicated by stain, sheen, odor and/or elevated PID readings. When it appeared that clean soil had been reached, confirmation soil samples were collected. Confirmation soil sampling began on January 17, 1997 with collection of soil samples AST2-CON1, AST2-CON2, AST2-CON3, AST2-CON4, and AST2-CON5 which were non-detect for TPH-d and TPH-mo (Table 8, Appendix C, and analytical report included in Appendix D, Volume 1). Based on the size of the excavation, a sufficient number of samples were collected to demonstrate that the source of contamination had been removed.

In January of 1997, holes were cut through the concrete slab of the former boiler house to confirm that impacted soil/groundwater did not extend under the concrete slab (Plate 4, Appendix A). The samples were collected from approximately four feet bgs, no odor or sheen was noted in the soil. Samples AST2-CON6 and AST2-CON10 through and adjacent to the concrete slab were non-detect for diesel and motor oil as were the remaining three confirmation soil samples, AST2-CON7 through AST2-CON9 (Table 8, Appendix C and analytical report, Appendix D, Volume 13).

Based on the observations and analytical results, only the top four feet of soil beneath the Bunker "C" tank appeared to be impacted by petroleum hydrocarbons.

The soil from the AGT-2 investigation area was temporarily placed in a separate, plastic lined stockpile in the main building. The stockpile will be sampled and analyzed to determine if the soil is suitable for reuse on the Site as an inert material.

In January of 1997 the water which was in the area of investigation was pumped into two 21,000 gallon Baker Tanks and an 8,000 gallon steel, skid-mounted tank. Following almost complete dewatering of the area of investigation, it was filled with "river run backfill" which was pushed into place using a D-7 bulldozer. For dewatering approximately 48,000 gallons of water were pumped out of the area of investigation into the two 21,000 gallon Baker tanks and the 8,000 tank. In February, 1997 one water sample was collected from each of the Baker tanks and analyzed for petroleum hydrocarbons. Both samples were non-detect for TPH-g, TPH-d, and TPH-mo (analytical report in Appendix D, Volume 1). After discussing the non-detect results with the DTSC, the contents of both Baker tanks were discharged into the on-site evaporation ponds. The water in the 8,000 gallon tank was not sampled because it was dispensed on the stockpiles from the AGT areas of investigation. Based on the lack of volatility of Bunker "C", one sample from each Baker tank

was deemed adequate to demonstrate that the water in the tanks was not impacted and that the groundwater in the vicinity of the AGT had not been impacted.

Concrete Vault

The area around the concrete vault (Plate 2, #15), which contained two gasoline storage tanks of either 5,000 or 10,000 gallon capacity, was examined and no areas of surface staining or other evidence of leakage from the vault were noted. Because there was no evidence of any releases to the environment, no further investigation was conducted in this area. The tanks were removed from the concrete vault approximately seven years ago.

Based on the information gathered during the investigation of the AGT areas, no further investigation is warranted in these areas.

5.7 Former Teepee Burner Area

Soil sample S-1 was collected from the Teepee Burner area in December, 1996 and analyzed for TPH-g, BTEX, MTBE, TPH-d and TPH-mo. The sample was analyzed for petroleum hydrocarbons due to past possible use of these substances for weed control. TPH-d of 7 mg/kg and TPH-mo of 160 mg/kg were detected in the sample (Table 9, Appendix C, and analytical report included in Appendix D, Volume 16).

Further investigation of the Teepee Burner area (Plate 2, #19) as performed in January, 1997. Approximately one foot of the surface soil was removed. Three soil samples (S1-CON1, S1-CON2 and S1-CON3) were then collected. Based on the prior detection of TPH-d and TPH-mo, the samples were analyzed on-site by Mobile One Laboratories for TPH-d and TPH-mo which were non-detect (Table 9, Appendix C, analytical reports in Appendix D, Volume 13). The Teepee Burner area is small and three samples were deemed sufficient to demonstrate that additional contaminated soil was not present. Due to the removal of only one foot of material, the area was left as is after removal was completed. The sample analysis reports are enclosed in Appendix D.

The soil from the Teepee Burner area was placed in a separate, plastic lined stockpile in the main building. The stockpile will be sampled and analyzed to determine if the levels of contamination in the soil would allow the soil to be recycled and used on the Site as an inert material.

Based on the information gathered during the investigation of the Teepee Burner area, no further investigation is required in this area.

5.8 Evaporation Ponds

A water sample was collected from the main evaporation pond on January 28, 1997. EnviroNet evaluated the past Site use and the volatility of the substances used at the Site. Based on that evaluation, the sample was analyzed for diesel, motor oil, gasoline, BTEX, formaldehyde, and five metals (Pb, CR, CD, Ni, and Zn) and was non-detect for all analytes tested (except for zinc which was present at a level of 0.024 mg/L (Table 10, Appendix C, the analytical report is enclosed in Appendix D, Volume 1).

The water sample collected from the main evaporation pond did not indicate the presence of any analytes tested at levels of concern. Pond sediment was not tested. Based on the information gathered during the investigation of the evaporation pond area, no evidence of a release to the environment was observed, therefore further investigation is not warranted in this area. In order to verify the preliminary sample results, sediment sampling from the bottom of the pond will be conducted after the RAW is approved.

5.9 Former Kilns

No areas of concern were noted relative to the former kilns. These structures were demolished between late 1990 and early 1991. Asbestos was present in roofing material which was removed and disposed of under manifest at the local landfill (Appendix G). No local permits were required for this activity. Asbestos was previously removed from these areas during an abatement process . The existing literature for the Site indicates that small pieces of asbestos may have remained in the former kiln areas. A visual inspection of these areas did not reveal any evidence of contamination or of residual asbestos. No further investigation is warranted for these areas.

5.10 Existing Dry Kiln Building

No areas of concern were noted relative to the existing dry kiln building (Plate 2 #7). Asbestos was previously removed from this building during an abatement process. No local permits were required for this activity. The existing literature for the Site indicates that small pieces of asbestos may have remained in the area of the existing dry kiln building. A visual inspection of this area did not reveal any evidence of contamination or of residual asbestos. No further investigation is warranted for these areas.

5.11 Pasture Area

The pasture area located primarily in the southeast portion of the Site (Plate 2, Field) consists of relatively flat pasture land with isolated patches of blackberry brush. The pasture includes a small

slough (Liscom Slough, Plate 2) which transects the pasture. A small, steel culvert is located at the eastern end of the slough where the access road crosses the slough into the pasture.

The slough transects the pasture from east to west and flow is toward the west. The slough area was investigated on February 26 through February 28, 1997 by drilling four exploratory borings (DSA B-1 through DSA B-4, Plate 2).

Exploratory borings were drilled near the slough to further define subsurface lithology and assess soil and groundwater conditions in the vicinity of the slough. The lithology in the area consisted of sand with variable silt and clay content to total depth (See Boring Logs DSA B-1 through DSA B-4, Appendix B). Acetone was detected at 0.012 mg/kg in one soil sample, while naphthalene was detected in three of four soil samples and in the laboratory blank at the same general level (Tables 12A and 12B, Appendix C, and analytical report included in Appendix D, Volume 2). The traces of chemicals detected were below levels of concern.

In February, 1997 two areas of discolored vegetation were observed near the slough in the western portion of the pasture and were investigated. Near surface soil samples were collected from the two discolored areas (DSA-1 and DSA-2, not plotted on any plate) and one area (GSA-1, not plotted on any plate) which was not discolored. The samples were collected by removing the surface grass and root zone soil using a backhoe after which a brass soil tube was pushed into the soil at a depth of 0.5 feet bgs. No contamination was detected in these samples (Table 13, Appendix C, analytical report included in Appendix D, Volume 2).

Two exploratory borings (DSA B-1 and DSA B-2, Plate 2) were drilled in the areas of discolored vegetation adjacent to the surface sample locations, where cows commonly lay. The borings were drilled to further define subsurface lithology and assess soil and groundwater conditions beneath the discolored areas. Boring DSA B-3 was drilled in an area of the pasture near the slough (Plate 2) where discoloration was not observed. The locations of the borings are shown on Plate 2. The results from all the samples collected from the pasture area were generally non-detect for the analytes tested except for traces of naphthalene which may have been an introduced contaminant as it was also detected in the laboratory blank (Tables 12A and 12B, Appendix C, analytical report enclosed in Appendix D, Volume 2). One boring (DSA B-4, Plate 2) was also drilled near the slough just to the west of the debris disposal area and near a culvert. Samples from this boring were also free of contamination. Four boring locations in the pasture area around the slough were deemed sufficient to demonstrate that a significant impact to soil or groundwater had not occurred. Based on past Site use, analysis for volatile and semi-volatile organics and pesticides was selected as the most appropriate analytical set to determine if any local impact to soil or groundwater had occurred.

The lithology encountered in the borings in the pasture area is dominated by sand and is shown on the boring logs (See Boring Logs, Appendix B).

Based on the information gathered during the investigation of the pasture area, no further investigation is required in this area.

5.12 Mound Areas

Four separate mounded areas were observed during a drive through of the Site. These areas were targeted for examination to determine soil types as requested by a potential purchaser of the property. The mound examination was conducted on February 19 and February 20, 1997. The examination included excavation and backfill of nine exploratory trenches.

Observations made during the excavation of each mound and examination results of samples collected were recorded on daily reports which indicated that each mound consisted of top soil. It appears that the mounds may have been created when the Site was initially graded and paved.

All mounds were composed of top soil with no visible evidence of any contamination or debris.

Based on the information gathered during the examination of the mound areas, they are composed of top soil suitable for agricultural use. No further examination was requested.

5.13 Debris Disposal Area

A Site inspection was performed on February 14, 1997 during which non-soil related disposal material (wood, and construction debris such as asphalt and concrete pieces) was observed in the debris disposal area (Plate 2, Appendix A).

An aerial photograph of the Site taken in 1979 shows an area of disturbed soil at the location of the debris disposal area. The photograph also shows that a portion of the western part of the pasture was apparently used for storage. Due to the small scale of the photograph, interpretation of the type of debris present or what was stored in the pasture was not possible. No evidence of disposal activities elsewhere on-site were visible on this photograph. Photographs of the Site taken in 1954, 1958, circa 1962, and 1981 were also reviewed. Evidence that disposal activities occurred at other locations on the Site was not visible on any of the photographs.

The debris disposal area is located on the north side of the pasture near a fence with gated access nearby (Plate 2). The ground surface in this area is irregular and some debris is visible at ground surface. Investigation of the debris disposal area was conducted between February 14 and February 28, 1997 and again in June of 1997. The investigation included visual surface mapping of debris, excavation and backfill of nineteen exploratory trenches, drilling two exploratory borings, collection of debris, soil, and groundwater samples, and performing a land survey of the debris disposal area.

Nineteen exploratory trenches (EP-1 through EP-19, Plate 12) were excavated to collect data regarding the type and extent of the debris in the debris disposal area.

Each trench was excavated to the bottom of the debris, if encountered, or to a minimum depth of two to three feet bgs in areas where no debris was observed. A summary of observations made during trenching is presented in the table on the next page.

Soil samples were collected based on observations made in the field (i.e. visible or suspected contamination) and for confirmation of clean areas. The sample results indicated the presence of traces of petroleum hydrocarbons as motor oil in the soil at the location of the buried oil filters in the debris disposal area. Elevated lead and zinc levels were detected in samples EP15 and EP16 (Plate 12, Table 11A, Appendix C, analytical reports in Appendix D, Volume 4). The areas with elevated levels of motor oil and metals were segregated and are currently stockpiled on-site pending off-haul for disposal. The elevated levels of metals are attributed to metals disposed of in the debris disposal area. The majority of the debris in the debris disposal area was subsequently filtered out of the soil and is also currently stockpiled on the asphalt on the south air-dry lot pending off-haul for disposal.

A decision was made to remove all the solid debris from the debris disposal area by filtering the material through a screen. Soil was to be saved, while all oversized material was to be filtered out for subsequent off-site disposal. Early on in the filtering process approximately six empty containers were found. Based on the material dried on the containers, they apparently contained tar, perhaps for patching roofs, etc. Two surface soil samples were subsequently collected and analyzed from the container location in the debris disposal area on June 10, 1997. Low levels of motor oil and traces of solvents were detected (Table 11B, Appendix C; analytical report in Appendix D, Volume 12). A boring was also drilled in the debris disposal area on June 12, 1997 after the analytical results were received from the two surface samples. The boring, LFB-1 (Plates 2 and 12), was drilled at the identified location where the containers were found and sampled to a depth of 14 feet. Traces of petroleum hydrocarbons as diesel and motor oil were detected in soil (Table 12C, Appendix C; analytical report in Appendix D, Volume 16). No evidence of contamination was detected while drilling the boring.

On July 7, 1997 during the continued screening of the debris disposal area to remove solid debris, dried paint and paint cans were discovered. It could not be immediately ascertained whether the paint and paint cans were dry at the time of their placement in the debris disposal area, nor was it possible to determine if the paint and paint cans were placed into a hole or if they were merely placed on the ground. All debris disposal area screening activity was halted to prevent any mixing of the soil from the identified area of paint and paint cans with the soil previously screened from the other solid debris in the debris disposal area. Remediation, of this area will be discussed in the RAW and then implemented when the RAW has been approved.

One exploratory boring (DSA B-4) was drilled in February, 1997 near the culvert at the end of the slough, just southwest of the debris disposal area in the presumed down gradient direction from the debris disposal area (Plate 2). Soil and groundwater samples were collected during drilling to assess whether soil and groundwater had been impacted by debris disposal activities. The location of the boring is shown on Plate 2. The samples were tested for EPA 8260 and EPA 8270 compounds and were virtually non-detect for the analytes tested (Tables 12A and 12B, Appendix C, analytical reports in Appendix D, Volume 2). Naphthalene was detected in the soil sample at 0.0085 mg/kg; however, it was also detected in the laboratory blank, while 4-Methylphenol was detected in the water at 0.0034 mg/L which is less than the detection limit for this chemical.

5.14 Agricultural Use Areas

As previously mentioned, the Site was used for agricultural purposes prior to the building of the plant which began in 1951. In addition, undeveloped portions of the property have been and continue to be used by tenant farmers for crop production and cattle grazing. Herbicides have been sprayed in various areas of the Site for weed control. It is suspected that the discolored areas observed in the pasture land may be due to excessive use of fertilizer or herbicides or cattle urine. Surface soil samples collected and analyzed for pesticides and herbicides of the discolored areas (southeastern field) indicate that no residual contamination at levels of concern is present in these areas (Table 13, Appendix C, analytical report enclosed in Appendix D, Volume 2).

Based on the investigations conducted at the Site, no additional investigation regarding previous and current agricultural use areas is warranted.

5.15 Former Used Glue Vault Area

The former used glue vault area was located adjacent to the former southern lunch room (Plate 2, #4a and #2h). Examination of the area began on February, 1997 when a hole was dug adjacent to the southern lunch room building. A soil sample was collected from a depth of five feet and a water sample was also collected. The soil sample (BLDG 4A PW#1) was analyzed for EPA 8270

compounds while the water sample (BLDG 4A #1@4.5') was analyzed for both EPA 8240 and 8270 compounds. None were detected. Subsequent investigation of the area revealed that neither the shallow, low permeability soil nor water in the shallow soil had been impacted.

5.16 Southern Lunch Room Area

Depositions of former employees and eye witness information claimed that paint residue and solvents had been placed in the vicinity of the southern lunch room (Plate 2, #4a and Plates 7 and 7A). The southern lunch room was actually constructed at the Site after use of the paint residue area had ceased. Information gathered at the time indicated that the top of the paint residue was only a few feet below the surface and it was located somewhere between the main building and the fence to the south. Paint, solvents, and perhaps Woodlife, a commercial product that contains approximately 3 to 5% PCP and was used for a very limited time as an additive to paint, may have been placed in the area.

Examination of the area began on February 23, 1997 beginning with the drilling of boring LRB-1 (Lunch Room Boring 1). Five borings were drilled and sampled in the general area of the southern lunch room (LRB-1 through LRB-5) by the end of February, 1997 (Plate 7). Significant soil and groundwater contamination were detected in boring LRB-3. The main contaminants detected in LRB-3 were ethylbenzene, toluene, xylenes, and total petroleum hydrocarbons identified as gasoline but probably mineral spirits. Other solvents were also detected in the samples from LRB-3 (Tables 14A and 14B and Table 15A and 15B, Appendix C, analytical reports enclosed in Appendix D, Volumes 1, 2, and 3). Mr. Brent Whitener of HCDEH was on-site on February 24, 1997 and February 25, 1997 to observe the drilling and abandonment of borings.

The former southern lunch room was demolished and removed from the area in early March of 1997. The lunch room was removed due to differential settling of the floor presumably due to construction of the building on poorly compacted material.

Based on the detection of contamination in boring LRB-3, this area was subsequently investigated by excavation to determine the source of contamination. The contamination around LRB-3 appeared to be somewhat localized as there was no additional evidence of contamination spreading out laterally from the LRB-3 location. The only thing of note encountered in this exploratory excavation was the fire suppression pipeline which was present approximately five feet bgs. Five soil samples were collected from this exploratory excavation on March 18, 1997 and analyzed. The results indicated only low levels of analytes (Table 16C, Appendix C, and analytical reports enclosed in Appendix D, Volumes 4 and 6).

Shallow Exploratory Pits

Due to the presumed shallow depth of the top of the dried paint residue, ten shallow exploratory pits were dug with a backhoe throughout the area in question on March 1, 1997 (Plate 7A, Appendix A). Both soil and groundwater samples were collected from the shallow pits. No significant soil contamination was detected or visually observed (Tables 16A and 16B, Appendix C, analytical reports enclosed in Appendix D, Volume 2). Groundwater contamination was detected in pits LRP-5, LRP-8, and LRP-10 (Tables 17A and 17B, Appendix C, analytical reports enclosed in Appendix D, Volume 2). Shallow water was pumped from these three pits into tanks. The tank water was subsequently filtered through activated carbon and then hauled to the Eureka Sewage Treatment facility for disposal (see Appendix G for disposal permit). Two shallow pits (M4AT1 and M4AT2) were excavated in the southern lunch room area in a mound of dirt on February 20, 1997 and no PCP or TCP was detected (Table 16B, Appendix C, and analytical report included in Appendix D, Volume 2). These two pits were located just east of the southern lunch room and south of the driveway. Theor locations are not shown on any plate.

The pit at the LRP-8 location was adjacent to the fire suppression pipeline (Plates 7 and 7A) and may have been impacted either by migration of contaminants along the pipeline or by a localized spill. This excavation was left open. The LRP-8 pit was dewatered several times until the water recharging into the pit was free of contaminants. It was then backfilled.

Boring Investigation

On March 11, 1997 a boring program was initiated to find the source of the contamination and define the extent of groundwater contamination. In an effort to identify the source of the groundwater contamination detected in the shallow pits and previous borings, 28 additional borings (LRB-6 through LRB-33) were drilled and sampled between March 11, 1997 and March 18, 1997. Soil samples were collected from the borings from the approximate location of the top of the shallow water-bearing zone and of the clay/silt aquitard which occurs at a depth of roughly 22 to 27 feet bgs. A grab groundwater sample was typically collected from each boring as soon as sufficient free water was present in the boring to sample. After the shallow water sample was collected, the boring was extended to the gravel zone just above the clay/silt aquitard where a Hydropunch® was pushed into the gravel and then pulled back to expose the screen. A water sample was then collected. In at least two instances, a deep water sample was also collected through the Hydropunch® from a water bearing zone beneath the clay/silt aquitard. Soil and groundwater samples collected in this area were analyzed for volatile organics to identify solvents, chlorinated solvents, and other paint products, and for semi-volatile organics to identify PCP and any other associated wood preservative products.

There is generally no lithologic separation between the shallow, grab water sample and the deeper water sample other than the shallow lithology is dominated by sand while the slightly deeper lithology is dominated by gravel. A source of groundwater contamination was not found during this drilling program. HCDEH personnel also inspected the Site pursuant to issued drilling permits on March 17, 1997.

Additional borings (LRB-34 through LRB-60) were drilled during the week of April 7, 1997. During the week of June 9, 1997 borings LRB-61 through LRB-99 were drilled. Mr. Brent Whitener of the HCDEH was on-site on April 7, 1997 and April 10, 1997 to observe the drilling and abandonment of borings. Derek Whitworth, Steve Cimperman, and Mike Kenning of the DTSC visited the Site on April 7, 1997 and again on May 6, 1997 to determine the Site status and to provide regulatory oversight.

The analytical results from the borings indicated that no detectable soil contamination was present except in the immediate vicinity of the former southern lunch room (Plates 2 and 7, Appendix A and Tables 14A, 14B, 15A, and 15B, Appendix C, analytical reports in Appendix D, Volumes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, and 15). Traces of groundwater contamination were detected in the samples collected in the vicinity of and generally to the south (down-gradient) of the former southern lunch room location (Tables 14A, 14B, 15A, and 15B, Appendix C, analytical reports enclosed in Appendix D, Volumes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, and 15). Traces of groundwater contamination were detected on the south side of Foster Avenue (Plate 7, Appendix A and Tables 14A, 14B, 15A and 15B, Appendix C, and analytical reports included in Appendix D, Volumes 8, 9, 10, 12, 13, and 14). No PCP has been detected off-site except in one sample from one boring (LRB-54) on the south side of Foster Avenue. PCP was detected at a level of 1 ug/L in one sample from boring LRB-54 (Table 15B, Appendix C, analytical report enclosed in Appendix D, Volume 9). The value detected is at the detection limit of 1 ug/L and may therefore not be scientifically reliable.

No PCP was detected in groundwater in an additional boring (LRB-71, Plate 7 and Table 15B, Appendix C, analytical report in Appendix D, Volume 12) subsequently drilled in the same area as boring LRB-54. Four soil samples (LRB-10-5', LRB-10-9', LRB-10-26', and LRB-11-3') were analyzed for pH and Total Organic Carbon. The pH ranged from 6.6 to 7.0 while the Total Organic Carbon content ranged from 2,500 to 5,500 mg/kg. These results are not presented in a table (analytical report included in Appendix D, Volume 3). These numbers indicate that sufficient organic carbon is present in the soil to bind up trace levels of PCP released at the Site.

One soil sample was collected from each of four borings (LRB-85, LRB-87, LRB-98, and LRB-99, Plate 7, Appendix A and boring logs, Appendix B) of a thin orange layer of soil encountered at approximately nine feet bgs and analyzed for metals. Metals were detected in the four samples

within background ranges (Table 14C, Appendix C, and analytical report enclosed in Appendix D, Volumes 13 and 15). The same orange layer was observed in the excavation sidewalls in the vicinity of the former southern lunch room location. Groundwater samples were also collected from water in contact with the orange layer and analyzed for metals. All results were either non-detect or within background ranges for metals in groundwater (Table 14D, Appendix C, and analytical report enclosed in Appendix D, Volumes 13 and 15).

Based on the boring program, little or no soil contamination was detected outside the immediate vicinity of the dried paint residue.

The drilling indicated very similar lithology throughout the area with a typical surface layer of silt and clay underlain by silty sand, sand, and gravel until an aquitard of silt and clay is encountered at depths generally ranging from 22 to 27 feet (See Boring Logs, Appendix B). North-south (A-A') (Plate 9, Appendix A) and east-west (B-B') (Plate 10, Appendix A) cross sections through the area indicate the variability in the sand and gravel content of the permeable units, but the rather homogeneous nature of the lithology in the southern lunch room area when comparing high permeability with low permeability layers. The lithology generally consists of approximately five feet of low permeability material at the surface, underlain by approximately 15 feet of high permeability material, which in turn is underlain by low permeability material. The low permeability material starting at 22 to 27 feet bgs was found to be at least 12 feet thick in places where it was penetrated in the southern lunch room area (See Boring Logs LRB-66 and LRB-69, Appendix B). HCDEH personnel also inspected the Site pursuant to issued drilling permits on June 6, 1997, June 9, 1997, and June 10, 1997.

The clay and silt layer is present beneath the entire southern lunch room area at depths ranging from approximately 22 to 27 feet bgs. Numerous soil samples have been collected from this low permeability layer (Tables 14A and 14B, Appendix C, analytical reports enclosed in Appendix D, Volumes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, and 15) which demonstrate that this layer has prevented any vertical migration of contaminants.

The groundwater contamination present has been broken down into four groups which are: 1) cis-1,2-Dichloroethene, 2) PCP, 3) benzene, ethylbenzene, toluene and xylenes (BETX), and 4) other 8260 compounds. In addition, groundwater sampling from the borings was designed to sample both the upper and lower portions of the shallow water-bearing zone. The four groups of contaminants for both the upper and lower water portions of the shallow water-bearing zone are contoured on Plates 7B through 7I. The contouring shows higher concentrations over a larger area in the lower portion of the aquifer. In most portions of the southern lunch room area, the lower portion of the aquifer contains more gravel, while the upper portion of the aquifer is typically dominated by sand (Plates 9 and 10, Appendix A, and Boring Logs, Appendix B). The gravel has higher permeability

than the sand which therefore allows for a more rapid spread of the contaminants in the gravel than in the sand.

Investigation by Excavation

By March 20, 1997 over 30 borings had been drilled and no source of contamination had been identified. A decision was made to locate the source of the groundwater contamination by additional excavation. Excavation started at the southern fence and proceeded to the north based on depositions and third-person accounts that paint had been deposited in the area during the 1960s. This paint residue was considered to be the most likely source of the groundwater contamination. Excavation continued away from the fence and no source of contamination was found. By the end of March, 1997 three separate excavations existed, one in the vicinity of LRB-3, one adjacent to the fence to the south, and one west of the paint storage building at the LRP-8 location (Plates 2, 7, and 7A). Again, no source of contamination had been found. Soil samples from the bottom and sidewalls of the pits were sampled on March 18, 1997 and March 19, 1997. Soil and groundwater samples collected in this area were analyzed for volatile organics to identify solvents, chlorinated solvents, and other paint products. The samples were analyzed for semi-volatile organics to identify PCP and any other associated wood preservative products. In addition, soil and groundwater samples collected from an orange colored layer were analyzed for metals. Traces of solvents and some PCP were detected in the samples (Table 18, Appendix C, analytical reports are enclosed in Appendix D, Volumes 4, 5, and 6). All soil excavated was non-hazardous and was stored separately in the main building. Derek Whitworth and Steve Cimperman of the DTSC visited the Site on March 27, 1997 to determine the Site status and to witness the search for containers and the location where paint residue was placed at the south end of the Site.

Since the initial investigation to date had not determined the location of the source of contamination, a former Simpson employee, Mr. Kirby, was invited to the Site on April 1, 1997 to assist in identifying the exact location of the source of contamination. Mr. Kirby indicated that to the best of his knowledge no drums had been disposed on the Site. Mr. Kirby indicated that the dried paint residue was located at the end of the asphalt; however, the asphalt had been extended since his employment, and he was not sure of the exact location. Mr. Kirby felt that the former dried paint residue was deposited closer to the main building than the current southern excavation. Mr. Kirby further indicated that a wood platform used to set drums on before they were emptied would be found adjacent to the dried paint residue area.

The excavation was shifted further to the north and the dried paint residue location was subsequently found along with the wood platform Mr. Kirby discussed. The paint residue was situated generally over and adjacent to the main fire suppression pipeline which ran through the area (Plate 7, Appendix A). A portion of the pipeline was removed and the excavation was continued to

determine the lateral extent of the paint residue which appears to be the source of groundwater contamination. The majority of the paint residue (source of groundwater contamination) was removed during the investigation phase to determine the extent of the impact. By this time the LRB-3 excavation, the south excavation along the fence, and the north excavation in search of the source area of contamination had been combined into one pit (Plate 7) as the investigation had expanded.

A total of approximately 3,000 cubic yards of soil was excavated from the area and was placed in separate stockpiles in the main building. The soil containing dried paint residue and its immediate vicinity was stockpiled separately.

After the paint residue location was found, four soil samples were collected on April 26, 1997 (B1-N, SW1-N, SW1A-N, SW2-W, Plate 7J) at depths of four to six feet bgs near the paint material . The samples showed very little impact to the soil from the paint at this depth (Table 18, Appendix C and analytical report enclosed in Appendix D, Volume 11). Two soil samples were collected (PAINT WOOD LAYER, PAINT SOIL, Plate 7J) of the obvious paint material on April 27, 1997 and analyzed. The two samples contained elevated levels of solvents and PCP (Table 18, Appendix C and analytical report in Appendix D, Volume 11). Five additional bottom and sidewall soil samples (B2-N, SW3-N, B3-E, B4-SE, SW4-S, Plate 7J) were collected on this day which again showed very little impact to shallow soil but a significant impact to soil from the 10 to 12 foot depth. The source of the groundwater contamination had been located. The analytical results are summarized in Table 18 (Appendix C). The analytical reports are enclosed in Appendix D, Volume 11. It appeared at this time as if most of the source of groundwater contamination had been removed during the investigation with only a small area of paint residue remaining.

Four additional soil samples (EX-B-N-4, EX-B-N-5, EX-SW-N-5, EX-SW-N-6) were collected from the location after the water pipeline had been removed. The four soil samples were collected on May 1, 1997 after removal of all visible paint residue. Again, detectable levels of solvents and PCP were detected in the bottom soil samples, while the sidewall soil samples were virtually free of solvent and paint contamination (Table 18, Appendix C, analytical report included in Appendix D, Volume 11). A small area of residual paint was subsequently noted after a portion of the sidewall collapsed into the excavation. An attempt was made to remove this residual paint; however, it became evident that it was another subcell of the initially located paint residue.

A work plan to continue the investigation of the source area of groundwater contamination was submitted to the DTSC and approved by letter dated May 27, 1997 (Appendix G) which was subsequently amended by letter dated June 6, 1997 (Appendix G). The investigation of the extent of the source of groundwater contamination resumed and the excavation was extended to the access driveway to the north. On May 30, 1997 one sample of the actual paint (RED LAYER-10', Plate 7J), one sample of a red stained sand (RED SAND-10', Plate 7J), one excavation sample of the water

flowing out of the source area of contamination (GW-X, Plate 7J), three excavation sidewall samples (SW-10-6', SW-11-6', and SW-12-6', Plate 7J) and five excavation bottom samples (SW-10-12', SW-11-12', SW-12-12', SW-13-12', and SW-14-12', Plate 7J) were collected. The sample results continued to show very little impact to the shallow surface soils, with the significant impact confined to the deeper soil and groundwater in contact with or very near the location of the paint residue (Tables 18, 19A and 19B in Appendix C, analytical report in Appendix D, Volume 14). Sample locations for the north portion of the excavation are shown on Plate 7J and south sample locations are shown on Plate 7K.

During the excavation periodic groundwater sampling was performed. Analysis consistently showed detection of solvents, primarily in the north excavation. Final samples from the west excavation were clean (Table 19A, Appendix C, analytical report enclosed in Appendix D, Volumes 4, 5, 11, 12, 14, and 15).

Derek Whitworth of the DTSC visited the Site on May 30, 1997 to determine the Site status and to provide on-site regulatory oversight.

Water was pumped from the main excavation into Baker tanks which were initially sampled on March 20, 1997 (Table 19B, Appendix C, and analytical report in Appendix D, Volume 5). The results indicated that filtration of the water would be required before disposal to meet the Eureka Sewage Treatment facility requirements.

Water samples were collected from the north and south excavations on May 9, 1997 to determine the overall quality of the water disregarding any associated groundwater contamination. All water parameters were within normal ranges for good quality groundwater (Table 19C, Appendix C and analytical report enclosed in Appendix D, Volume 11).

Water removed from the excavation was passed through an activated carbon filtration system, analyzed, and then disposed of at the Eureka Sewage Treatment facility after the facility manager reviewed the laboratory reports. If the analytical results did not meet the Eureka Sewage Treatment facility requirements, the water was reprocessed and analyzed again until it was acceptable for disposal. The total amount of groundwater filtered and transported to the Eureka Sewage Treatment facility from the source area of groundwater contamination is in excess of 1,000,000 gallons of water as of June 30, 1997.

Based on all evidence at hand, the paint residue was placed in the sand and gravel beneath the thin layer of silt and clay which caps most of the Site. The sand and gravel have very little ability to absorb contaminants and primarily act as a support structure through which groundwater migrates.

Based on the thorough investigation of the Site, it appears that the contaminants were and currently are being released from the area of paint residue into the shallow groundwater. The contamination appears to be confined to the shallow groundwater between the surface silt and clay layer and the low permeability aquitard at 22 to 27 feet bgs. Groundwater samples were collected from beneath the aquitard in two borings (LRB-66 and LRB-69) with the samples being non-detect for all analytes tested. Current pit dimensions are roughly 150 feet in the north-south direction by roughly 70 feet in the east-west direction by roughly 12 feet deep (Plate 7).

Fire Suppression Pipeline Sampling

Samples were collected around the fire suppression pipeline due to the hypothesis that contamination may have migrated along the pipeline to the east and west of the paint residue. Three soil samples (PIP, PIP2, PIP-North) were collected from just above the fire suppression pipeline in the vicinity of the paint residue on April 26, 1997 (not shown on any plate) and five additional soil samples (Pipetrench-1 through Pipetrench-5) and one water sample (Pipetrench-1) were subsequently collected (Plate 7). The samples were analyzed for EPA 8260 and 8270 compounds. No EPA 8270 compounds were detected, while traces of EPA 8260 compounds were detected (Table 20, Appendix C). The analytical reports are included in Appendix D, Volumes 11, 12, and 13. Soil and groundwater samples collected in this area were analyzed for volatile organics to identify solvents, chlorinated solvents, and other paint products, and for semi-volatile organics to identify PCP and any other associated wood preservative products. The samples were collected from backhoe and excavator dug pits adjacent to the pipeline and at a minimum spacing achievable with the equipment

.

Evidence of odor and a non-rusted pipe indicated that contamination may have passed along the pipeline to the west of the source area of groundwater contamination in the past. In addition, the soil on top of and around the pipeline to the east of the excavation was low permeability silt and clay. The soil on top of the pipeline to the west of the excavation was high permeability sand and gravel. It appears that the permeability of the material placed around the pipeline may have been the determining factor whether there was contaminant flow along the outside of the pipeline.

Off-Site Domestic and Agricultural Wells

An agricultural well (Well Arcata) in the pasture south of the Site was sampled on March 21, 1997. Only chloroform was detected in the water sample at a level of 1.0 ug/L. The source of the chloroform is believed to be a chlorination system which was observed between the well and the sample collection point. Chloroform is commonly detected in water wells and drinking water supplies as it is a breakdown product observed after water has been chlorinated. Chloroform has not been identified elsewhere during the investigation on Site. The analytical report is enclosed in Appendix D, Volumes 5 and 11.

A residence is located immediately to the west of the Site on the north side of Foster Avenue. On May 20, 1997 the domestic well was sampled at the residence and analyzed for EPA 8260 and 8270 compounds. The sample, identified simply as House, was non-detect for all analytes. The analytical report is enclosed in Appendix D, Volume 11.

Reports and Results on the Former Southern Lunch Room Area

Interim reports on the southern lunch room area investigation were submitted to the DTSC on May 8, 1997, May 12, 1997, May 13, 1997, and May 22, 1997. The May 8, 1997 document summarized soil sampling data; the May 12, 1997 document described the carbon filtration of the excavation water; the May 13, 1997 document was a work plan for additional soil investigation and additional groundwater dewatering; the May 22, 1997 document was a work plan to drill additional borings and to conduct pit sampling. These four documents were acknowledged and concurred with by the DTSC by letter dated May 27, 1997.

Maximum contaminant levels (MCLs) represent levels of contaminants in water which shall not be exceeded in drinking water supplied to the public. MCLs have not been established for the majority of the analytes detected in the groundwater in the southern lunch room area. Examples of compounds or groups of compounds for which MCLs have not been established are gasoline, kerosene, acetone, and naphthalene. The areas where chemicals were detected at levels exceeding the MCLs were generally confined to the immediate vicinity of the source area and have been largely removed during the investigation.

Two compounds have been detected at levels equal to or exceeding their MCLs off-site south of Foster Avenue. PCP, with an MCL of 1 ug/L, was detected in a groundwater sample from off-site boring LRB-54 at a level of 1 ug/L which was at the detection limit of 1 ug/L PCP. A subsequent boring (LRB-71) drilled just to the south of LRB-54 (Plate 7) contained no detectable PCP. The compound cis-1,2-Dichloroethene has an MCL of 6 ug/L which was equaled or exceeded in groundwater samples collected and analyzed from off-site borings LRB-54 (7.3 ug/L), LRB-55 (26 ug/L), LRB-56 (50 ug/L), LRB-69 (6.0 ug/L) and LRB-71 (21 ug/L) (Plate 7). The groundwater contamination will be addressed in the RAW.

5.17 Former Dip Tank Area

Information available at the beginning of the investigation identified a location inside the main building as the former above ground dip tank location where wood was treated with Woodlife . The active ingredient in Woodlife was PCP (3 to 5 percent), while the remainder of the product was mineral spirits. Solvents were reportedly used to clean the equipment in this area. (Plate 2, #24 enclosed, and Plate 6, Appendix A). Investigation in the area began on February 24, 1997 with the

drilling of soil borings from which both soil and groundwater samples were collected and analyzed. Boring DTB-1 was drilled outside the main building, while the remainder of the borings in the former dip tank area were drilled inside the main building (Plate 6, Appendix A). The lithology in the vicinity of the former dip tank area consists of silty sand to well graded sand to a depth of approximately 17 feet underlain by gravels with variable silt, sand and clay content. The clay layer which acts as an aquitard was encountered at depths of approximately 21 to 22 feet. Mr. Mark Piros of the DTSC was on-site on February 25, 1997 to conduct a Site inspection and to provide regulatory guidance on the drilling and other investigation activities. Mr. Derek Whitworth of the DTSC was present on February 28, 1997 to provide similar guidance.

As previously stated, Mr. Kirby, a retired Simpson Timber Company employee who worked in the dip tank and painting areas at the plant in the 1960s, visited the Site on April 1, 1997. Mr. Kirby identified the exact area where the dip tank formerly sat above ground on a concrete pad, which still exists. The dip tank had a drip pan collection system to prevent the Woodlife product from dripping onto the asphalt and concrete in the main building. Mr. Kirby also marked an area where the containers of product were kept near the dip tank (Excavation B, Plate 6, Appendix A).

A total of twelve borings were eventually drilled in the former dip tank area. The borings were drilled between February 24, 1997 and June 13, 1997. All of the borings were completed in the same general lithology and all were drilled down until the aquitard was encountered (See Boring Logs DTB-1 through DTB-12, Appendix B). Soil and groundwater samples collected in this area were analyzed for volatile organics to identify solvents, chlorinated solvents, and other paint products, and for semi-volatile organics to identify PCP and any other associated wood preservative products.

Traces of naphthalene and acetone were detected in soil samples from three of the 12 borings, with the highest detection being 0.023 mg/kg naphthalene (Tables 21A and 21B, Appendix C, analytical reports included in Appendix D, Volumes 1, 2, 3, 4, 6, 7, and 12). Naphthalene was also detected in the laboratory blank and therefore is probably not present at detectable levels in the soil in this area. PCP was detected in the water samples from DTB-3, DTB-9, and DTB-10 (Table 22A, Appendix C, analytical reports included in Appendix D, Volumes 1, 2, 3, 4, 6, 7, and 12).

The general areas where PCP was found in the groundwater were excavated to a depth of roughly eight feet to determine if any residual soil contamination from the dip tank process was present. No visual or other evidence of soil contamination was observed in these areas when they were excavated (Excavations A and B, Plate 6, Appendix A). Groundwater was pumped out of Excavation A to maintain its stability. The excavation was subsequently backfilled with concrete because no other non-permeable backfill material was available locally at that time. Excavation B was also dewatered to stabilize the pit. The water extracted from the pits was passed through an activated carbon filtration system, analyzed, and then disposed at the Eureka Sewage Treatment facility.

Water samples were periodically collected from the pits to determine the levels of contamination present, before being pumped into tanks for carbon filtration and disposal. The first pit sample (DT-PW) was collected on March 17, 1997 and contained 0.63 mg/L PCP. The next pit sample (PB-Pit-N) was collected on March 20, 1997 and was non-detect for EPA 8260 and 8270 analytes. Additional samples were collected on March 24, 1997 which were non-detect for all analytes tested. Based on information obtained from Mr. Kirby on April 1, 1997, a third small pit was excavated at a location where containers had been kept. The pits were sampled on April 3, 1997 and the samples (PR-Pit-South and PR-Pit-North) were non-detect for EPA 8260 and 8270 compounds. Pit water was sampled on May 14, 1997, June 6, 1997 and June 13, 1997 and traces of solvents were detected in the water from the samples (Ash Pit) collected in June of 1997 at a maximum level of 0.0065 mg/L (Table 22B, Appendix C, analytical reports included in Appendix D, Volumes 4, 5, 6, 7, 11, 12, and 15).

A soil sample (PR-S-12.0') collected from the third dip tank pit location on April 27, 1997 was non-detect for 8270 compounds with a detection of 0.0054 mg/kg xylenes (Table 22B, Appendix C, analytical report enclosed in Appendix D, Volume 11).

Investigations indicate that no detectable PCPs are in soil, that an isolated groundwater impact was detected in the former dip tank area which may have been removed during the investigation activities, and that no PCP contamination is detected in the presumed down gradient direction (south) from the former dip tank area (DTB-11 boring water samples). All small pits and excavations in the former above-ground dip tank area have now been backfilled and compacted with low permeability material.

The soil from the small excavations in this area was placed in a separate, plastic lined stockpile on pavement in the main building.

5.18 Former and Current Septic Systems

Three septic systems operated at the Site, one to the north of the administration building, one to the northwest of the main building (Plate 2, #27, two locations) and one historic septic system located to the west of the administration building (Plate 2, #25). The septic systems to the north and west of the administration building serviced this building which consists of office space and meeting rooms. The system to the west was abandoned. The system to the north is operational. Information gathered during this project indicated that no hazardous chemicals or other materials were ever stored in the main office building, therefore, the possibility of such chemicals being introduced into the septic system which service the main office building either in the past or present did not warrant an investigation. Based on the activity which occurred in this building (office work) no investigation of these two septic systems was conducted.

The septic system which serviced the main plant building was considered to have possibly been impacted by improper disposal of materials due to its use to service the main building and other work buildings. The septic system area was investigated on February 28, 1997 with the drilling of one boring in the leachfield area (LLB-1, Plate 2) and the excavation of one small pit (LLP1) on March 10, 1997. The boring was drilled to a depth of 21.5 feet and encountered clay from the surface to total depth (See Boring Log, Appendix B). Soil and groundwater samples collected in this area were analyzed for volatile organics to identify solvents, chlorinated solvents, and other paint products, and for semi-volatile organics to identify PCP and any other associated wood preservative products which were used in the main building. No other chemicals which could threaten soil or groundwater were indicated to have been used in the main building. The analytical results from the boring samples were non-detect for EPA 8260 and 8270 compounds (Tables 23A and 23B, Appendix C, analytical reports included in Appendix D, Volumes 2 and 3). The small pit was excavated within ten feet of LLB-1 and contained 0.0083 mg/kg naphthalene in the soil, while a water sample collected from the pit was non-detect for EPA 8260 and 8270 compounds. The level of naphthalene detected in soil is not of concern as it does not pose a threat to the public health at this level and no groundwater impact has occurred.

5.19 Storm Drains and Drop Inlets

Sediment sample D-3-S and a storm water discharge water sample (D-3-W) were collected on December 20, 1996, from a location two feet beyond the end of the two concrete storm drain culverts located to the southwest of the shipping shed (Plate 2, #11). The sample analytical results were non-detect for analytes of concern (Table 24A, Appendix C, analytical reports included in Appendix D, Volume 16).

Sediment sample GRDO-1-1.5' was collected on February 21, 1997 and contained detectable levels of TPH-d and TPH-mo (Table 24B, Appendix C, and analytical report enclosed in Appendix D, Volume 2).

Sediment sample DRO2-1-1.5' was collected on February 27, 1997 from the end of the four foot diameter culvert located west of the finger joint area of the main building (Plate 2, #2a). Due to the detection of contaminants in the sample (both diesel and motor oil were detected), this location was deepened to 3.5 feet bgs on March 6, 1997 after which confirmation sample GRDO2-2-3.5' was collected. The compound 2-Butanone, at a level of 0.018 mg/kg was the only compound detected in this sample (Table 24B, Appendix C, and analytical report, Appendix D, Volume 2); however, the confirmation sample was analyzed for EPA Method 8260 and 8270 constituents only. This area will be resampled and if necessary remediated during the implementation of the RAW.

In general, these samples were collected from accessible areas and analyzed for those compounds and chemicals which were identified upstream of the drop inlets. The samples were analyzed for TPH-g, TPH-d, TPH-mo, BTEX, EPA 8260 compounds and EPA 8270 compounds as appropriate for the location of the drop inlet in relation to source areas of identified contamination.

5.20 Former Paint Line and Finger Joint Area

During his visit on April 1, 1997, Mr. Kirby, the former Simpson employee, indicated the exact location of the former paint line and finger joint area. The location was roughly 200 feet east of the dip tank area inside the main building (Plate 8, Appendix A). Three borings were drilled in this location on April 9, 1997. Soil and groundwater samples collected in this area were analyzed for volatile organics to identify solvents, chlorinated solvents, and other paint products, and for semi-volatile organics to identify PCP and any other associated wood preservative products. Three borings were generally sufficient to surround the area of concern. No significant contamination was detected in these borings, although PCP was indicated in two samples from the upper water at the method detection limit of 1 μg/L (Tables 25A and 25B, Appendix C, analytical reports included in Appendix D, Volume 9). No significant soil contamination was detected in the samples from this location (Tables 26A and 26B, Appendix C, analytical reports included in Appendix D, Volume 9).

5.21 Railroad Spur

The railroad spur leading into and through a portion of the Site is owned by the Simpson Common Paymaster Company. An examination of government agency files did not reveal any known releases or spills to the environment related to the railroad spur or on the railroad spur property. Visual examination of the railroad tracks at the Site revealed the presence of railroad ties with no other evidence of any release of any environmental concern. Railroad ties may leave creosote residue in soil. Numerous soil borings were drilled between the railroad tracks on the south side of the Site as part of the investigation of the source area of groundwater contamination (Plate 7). No contamination attributable to the railroad tracks or the rail spur was either observed or detected in any soil or groundwater samples collected from borings drilled through or near the railroad tracks.

5.22 Vault 47

On May 19, 1997 the Humboldt Bay Municipal Water District (HBMWD) collected a water sample from inside the vault (Vault 47) just to the south of the administration building (Plate 2, #1) at the Site. The analysis indicated the presence of 0.46 ug/L PCP. A concern was raised that PCP contaminated groundwater might be entering the vault and pose a threat to either the water in the pipeline or to HBMWD employees working on the pipeline. A backhoe was mobilized to the Vault 47 area on June 11, 1997 to excavate down to the pipeline and collect water samples on the outside

of the pipeline to determine if PCP contaminated groundwater had migrated along the pipeline to the vault. An excavation was made on west side of the vault and native silt and clay soil was encountered to a depth of eight feet bgs, well below the bottom of the vault. Groundwater was not present, nor was there any visible evidence of any past groundwater in the area.

The vault itself was also closely examined and only two possible water entry points into the vault were observed. Those were by rainwater entering through the top of the vault or by percolation of water through a man made seam in the vault located approximately three feet below the top of the vault. A water sample was collected from the bottom of the vault (Vault 47 - Water) and analyzed for 8260 and 8270 constituents and no analytes were detected (analytical report included in Appendix D, Volumes 12 and 15). A soil sample (Vault 47 - South - 0.5 feet) was collected from the same depth as the seam on the south side of the vault. The sample was also analyzed for 8260 and 8270 components and no analytes were detected in this sample (analytical report included in Appendix D, Volumes 12 and 15). The seam was exposed to the air on the other sides of the vault and did not appear to be a possible entry point into the vault except by rain water.

Based on the information gathered, the initial detection of PCP is suspect due to the result being near the detection limit for the analytical method conducted. The subsequent investigation indicated that there are no identified pathways, other than rain water or possible surface migration for water to enter the vault. There is no visible or analytical evidence to indicate that contaminants can migrate in groundwater from other areas of the Site into the vault.

5.23 Excavated Soil

Soil was excavated and stockpiled from several areas during the Site investigation activities. Those areas include the two 20,000 gallon AGTs, the ditch adjacent to the wash rack area, the dip tank area, and the southern lunch room area. Soil from each of these areas has been segregated into individual stockpiles. Samples have been periodically collected and analyzed from the various stockpiles to determine the levels of contamination present (analytical reports enclosed in Appendix D, Volumes 1, 2, 3, 4, 6, and 7). In addition, soil from the southern lunch room area has been further segregated based on the presence or absence of obvious paint material (Plate 11).

Stockpile samples have been collected and analyzed from the soil removed from the southern lunch room area. The stockpiles were last sampled on June 13, 1997 when 30 soil samples were collected from 23 different stockpiles (Plate 11). Of the 30 samples collected, 22 samples from 15 different stockpiles were either non-detect or contained detectable analytes at concentrations below levels of concern (see Table 27, Appendix C, analytical reports included in Appendix D, Volume 16). The eight stockpiles identified as RR-11, CLO-2, COL-12, COL-14, COL-22, COL-34, COL-35, and C-2 (Plate 11) contained analytes at detectable levels, primarily PCP (Table 27, Appendix C, and

enclosed analytical reports, Appendix D, Volume 16). Based on sampling and investigation conducted to date, soil from the source area of groundwater contamination is typically non-detect for contaminants, except for soil containing obvious paint.

Characterization of all stockpiled soil will be performed after approval of the RAW. Each stockpile will be tested for the analytes detected in the area of the stockpile's origin.

5.24 Extracted Groundwater

Groundwater was extracted from the two AGT locations, from the dip tank area pit, and from the southern lunch room area. The water was pumped into tanks. The water from the two 20,000 gallon AGT locations was pumped into four Baker tanks and one 8,000 gallon tank. The water in the Baker tanks was sampled and found to be non-detect for petroleum hydrocarbons at which point it was disposed in the on-site evaporation ponds after informing DTSC. The water in the 8,000 gallon tank was placed on the bermed and lined with plastic petroleum hydrocarbon contaminated soil stockpiles.

Water from the southern lunch room excavation and from the dip tank pits was collected and analyzed on several occasions. The pit water sampling results are summarized in Tables 19A and 19B (Appendix C). PCP was detected in groundwater from the pit samples. After dewatering the pits in the dip tank room, the water samples collected from the pit were non-detect for PCP and other analytes tested. The levels of contaminants detected in groundwater in the southern lunch room area were initially much higher and showed a continuing declining trend as the groundwater was extracted, filtered, and then disposed under permit at the Eureka Sewage Treatment facility. However, each time another section of the southern lunch room area was exposed, the levels of analytes detected in the groundwater in the main pit would show a significant increase (Table 19A, Appendix C, analytical reports enclosed in Appendix D, Volumes 4, 5, 11, 12, 14, and 15).

Water extracted from the southern lunch room area and former above ground dip tank pits was processed through activated carbon filtration systems and then disposed of at the Eureka Sewage Treatment facility. No water was delivered to the facility until the facility had received analytical reports indicating the water was acceptable for discharge under the facility discharge limits established by the State of California for the facility. Copies of the analytical reports for the extracted and disposed of water are enclosed in Appendix E.

The Chain-of-Custody forms for sample numbers 274589, 768-6-2, 1961-5-31, and 1835-5-31 were left out of the July 31, 1997 report and are included in this revised report for reference in revised Appendix E. Please note in addition that the Chain-of-Custody form for Invoice #7934a report is with the Chain-of-Custody for Invoice #7934 report.

6.0 BASELINE RISK ASSESSMENT

This risk assessment will evaluate the potential threat to human health and the environment in the absence of any remedial action at the Site. The risk assessment provides a basis for determining the need for remedial action and the justification for performing any remedial actions(s) at the Site.

6.1 Contaminants Identified at the Site

Several different environmental contaminants have been investigated and detected at the Site. Contamination in the form of heavy hydrocarbons in the motor oil range have been detected in the ditch next to the steam cleaning and wash rack area, beneath a former 20,000 gallon AGT, in the teepee burner area, in the debris disposal area, and in drop inlet sediments. The motor oil in all of these areas appeared to be confined to soil.

Petroleum hydrocarbons as diesel have been detected at the Site in samples collected from just beneath the asphalt, in the ditch next to the wash rack and steam cleaning area, in the teepee burner area, from beneath a 20,000 gallon AGT, and in the debris disposal area. As with the heavier hydrocarbons, the diesel contamination appears to have been confined to the soil with little or no groundwater impact.

Phenolics were detected in soil at levels less than 10 mg/kg in the blowdown and overflow pond areas.

Solvents and thinners have been detected at low levels in soil samples collected from the debris disposal area and in both soil and water samples collected from the southern lunch room area to the south of the main building. The solvents acetone and cis-1,2-Dichloroethene, due to their mobility, have been selected as indicator chemicals for solvents in the southern lunch room area.

The chemical PCP has been detected at trace levels in both soil and groundwater in the former above ground dip tank area and in the southern lunch room area where paint, solvents, and possibly Woodlife were placed. In addition, PCP was detected in groundwater at the detection limit in the paint room/finger joint area.

PCBs were detected in one sample at 0.42 mg/kg in the drainage ditch.

The laboratory results form the soil and groundwater samples for these chemicals were evaluated to determine if chemicals were present at concentrations that may be of toxicological concern. In general, chemical levels in soil were compared against U.S. EPA Region IX PRGs or background levels for the chemical. No PRGs have been established for diesel or motor oil; however, these

chemicals are typically not naturally present in shallow soil and any detection is considered to be a release to the environment. The toxicity of long-term exposure to diesel or motor oil has not been established. A separate level was established for PCBs based on the rationale presented below. Chemical levels in groundwater were compared to the lower of Federal and State maximum contaminant levels (MCLs). If concentrations were less than the MCL or PRG, then that chemical was not considered further. See Table A (Appendix C) for these values. Based on this evaluation, the contaminants identified at the Site are diesel, motor oil, PCBs, phenolics, solvents, chlorinated solvents, and PCP. The diesel, motor oil, and phenolics are confined to soil, while the solvents, chlorinated solvents, and PCP have been detected in both soil and groundwater.

The applicable ARAR for PCBs can be found in 40 CFR 761 (Fed. Regist. 59:61788), the Toxic Substances Control Act 40 CFR 761 Subpart G, the National Oceanic and Atmospheric Administration Screening Guidelines (HAZMAT Report 94-8) and in OSWER Directive No. 93555.4-01FS (August 1990). Values there range from less than or equal to 1 ppm at the soil surface to less than or equal to 10 ppm at depths greater than 10 inches to specifications for excavation and replacement with clean soils to total PCB concentrations of less than 1 ppm. The residential soil action level specified by the U.S. EPA OSWER is 1 ppm. The U.S. EPA Region IX preliminary remedial goal for PCBs is 0.06 ppm. A U.S. EPA guidance document "Guidance on Remedial Actions for Superfund Sites with PCB Contamination" [EPA/540/G-80/007] recommends a soil action level for residential land use of 1 ppm which corresponds to a 10^{-5} risk level. The U.S. EPA risk assessment includes basic standard exposure assumptions for residential scenarios (ingestion, inhalation, and dermal contact) consistent with U.S. EPA's Risk Assessment Guidance. U.S. EPA stated that some of the assumptions used may be overly conservative on a site-specific basis. For example, in calculating the inhalation pathway, the assessment assumed that someone is on the site 24 hours a day for 30 years.

6.2 Exposure Assessment

The investigation conducted at the Site indicated the presence of TPH-mo under the asphalt at several locations. It is believed that this material was used in preparation of the asphalted areas when the asphalt placed at the Site. The motor oil range hydrocarbons beneath the asphalt do not volatilize to any extent and therefore do not provide a pathway for exposure through the air. TPH-mo was detected in soil beneath the former location of a 20,000 gallon AGT used to store Bunker "C" fuel oil. TPH-mo was detected in the ditch next to the steam cleaning and wash rack area. No odor was detected nor did air monitoring results indicate any air born exposure from the motor oil range petroleum hydrocarbons. Water samples collected from both surface water and groundwater indicate no water impact from motor oil range petroleum hydrocarbons at the Site. TPH-mo has been detected almost exclusively in soil at the Site. Exposure pathways in soil occur when the soil

is excavated or otherwise removed from below the ground surface. Exposure pathways would exist under these circumstances.

The investigation conducted at the Site indicated the presence of TPH-d under the asphalt at several locations. It is believed that petroleum hydrocarbons as diesel represent the lighter fraction of material placed on the baserock in preparation for asphalting when the asphalt placed at the Site. The diesel range petroleum hydrocarbons beneath the asphalt do not volatilize to any extent and therefore do not provide a pathway for exposure through the air unless there is significant soil disturbance. In addition, TPH-d was detected in soil beneath the former location of a 20,000 gallon AGT and in the debris disposal area. TPH-d has been detected primarily in soil at the Site. Exposure pathways in soil would occur when the soil is excavated or otherwise removed from below the ground surface. Exposure pathways would exist under these circumstances.

Phenolics were detected at the Site in the overflow and blowdown ponds. The phenolic compounds are an artifact and result from the interaction of wood and hot water. The phenolics were detected at levels ranging from non-detect to 10 mg/kg (Table 5). Phenolics were not detected in groundwater so the only identified exposure pathway would be contact with soil.

Wood coating products (chemicals, paints, and solvents) have been detected at the south end of the Site. Investigations performed to date indicate that these materials were found beneath a surface layer of either impermeable asphalt and concrete or a low permeability layer of clay and silt or a combination of both. Air monitoring revealed that the only time any exposure occurred by air was during excavation of soil in contaminated area.

The PCP, solvents, and other used paint products detected have different solubility in water. The dried paint residue was either initially placed in groundwater, was mobilized into groundwater due to downward percolation by rainwater, or subsequently came into contact with groundwater as the water table rose during the rainy season. These materials have impacted the groundwater in the shallow water aquifer which occurs at the south end of the Site from roughly 10 to 25 feet bgs. Investigation of a silt clay aquitard which is present from roughly 25 to 40 feet bgs and the next aquifer beneath it indicate that the exposure pathway is limited to the shallow water bearing zone from 10 to 25 feet bgs. Wells tapping into the shallow water in the vicinity of the source of groundwater contamination would provide an exposure point to anything or anyone coming in contact with the impacted groundwater through ingestion of the water and possibly inhalation of fumes from the water.

The Site and Site vicinity have been investigated as part of the exposure pathway analysis and no actual exposure points for receptors have been identified. Potential exposure points for receptors

have been identified as including on-site water supply wells and off-site water supply wells to the south and southwest of the Site.

Petroleum hydrocarbons in both the diesel and motor oil range were removed during the course of investigation to either non-detectable levels or to levels where they do not pose a risk to groundwater at the Site or to any off-site areas during the investigation of these materials. This was determined from soil and water samples collected from borings and open excavations. Phenolics were detected at levels in soil which do not pose a risk to groundwater as determined by the non-detect groundwater results from samples collected in the same borings where phenolics were detected in soil. Paint residue, along with solvents and possibly Woodlife were placed at the south end of the Site approximately 25 to 35 years ago. Based on the distribution and concentration of chemicals detected in groundwater, these chemicals spread out from the source of groundwater contamination and reached a point of non-detection at a distance of roughly 200 feet down-gradient from the source of groundwater contamination. Since placement of this material at the Site ceased over 25 years ago, the conclusion is reached that the area of groundwater impact will not increase in size but will actually decrease in size over time since the large majority or all of the source area has been or will be removed. There are no actual or potential receptors within the area which has been impacted. Groundwater monitoring wells will be installed to confirm the results of the drilling program.

6.3 Toxicity Assessment

Petroleum hydrocarbons can be toxic to aquatic organisms at high concentrations and can increase the risk of cancer in human populations. The increase in cancer risk for most petroleum hydrocarbons such as gasoline, diesel, and mineral spirits, has not been determined due to the variation in the chemical composition of these compounds.

Chlorinated solvents, and other solvents used in paints have been detected in groundwater at the site. Long-term exposure to these chemicals has been identified as increasing the cancer risk due to the exposure. Aquatic toxicity might also occur if these chemicals were to enter surface water.

6.4 Risk Characterization

Petroleum hydrocarbons in the motor oil range have been detected at the Site. Many of these materials were purposefully placed as part of Site development (asphalting). Unintentional releases occurred in the wash rack and steam cleaning area, in the debris disposal area, and beneath a 20,000 gallon AGT which held heating fuel. The motor oil range hydrocarbons were removed from the wash rack and steam cleaning area and from beneath the 20,000 gallon AGT to non-detectable levels during the investigation of these areas. Sampling indicates that low levels of motor oil range petroleum hydrocarbons may be present in shallow surface soil in isolated portions of the debris

disposal area. The results of the investigation and the removal activities indicate that there are no significant exposure pathways for this material and there is no remaining significant risk at the Site from motor oil range petroleum hydrocarbons.

Petroleum hydrocarbons in the diesel range have been detected at the Site. Many of these materials were purposefully placed as part of Site development (asphalting). Unintentional releases may have occurred in the wash rack and steam cleaning area, in the debris disposal area, and beneath a 20,000 gallon AGT which held diesel fuel. The diesel range hydrocarbons were removed from the wash rack and steam cleaning area and from beneath the 20,000 gallon AGT to non-detectable levels during the investigation of these areas. Sampling indicates that low levels of diesel range petroleum hydrocarbons may be present in shallow surface soil in isolated portions of the debris disposal area. The results of the investigation and the removal activities indicate that there are no significant exposure pathways for this material and there is no remaining significant risk at the Site from motor oil range petroleum hydrocarbons.

Phenolics resulting from hot water leaching wood, have been detected at the Site, but are at levels determined not to be a threat to either human health or the environment.

Paint residue, which is composed of solids and a carrier solvent , and possibly Woodlife used to protect the wood surface from fungal staining, were placed at the south end of the Site. Investigations to date reveal that there has been no impact beyond the presence of the paint itself from the solid portion of the paint. Various solvents, petroleum hydrocarbons and PCP have been detected in the groundwater at the Site. As the majority of the source area has been or will be removed, groundwater will be the primary exposure pathway. The material was disposed of 25 to 35 years ago. Based on an evaluation of the distribution of contaminants in groundwater , and the subsurface lithology and aquifer permeability, the level of contaminants in groundwater should now begin to decline in concentration as the source area of groundwater contamination has been largely removed and may be completely removed in the near future. Since there are no identified actual or potential receptors within the zone of impacted groundwater or within the area anticipated to be impacted in the foreseeable future, the Site poses little or no threat to human health or the environment which will be confirmed by the installation and sampling of monitoring wells.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary and Conclusions

Numerous areas throughout the Site were identified as having potential environmental problems. All of those areas have been examined during the course of the investigation. All but one of the areas of significant soil contamination have been investigated to the point where the degree of soil contamination is no longer significant or is non-detect.

Groundwater contamination has been detected at several locations; however, dewatering activities associated with existing excavations has eliminated much or all of the detectable groundwater contamination. Residual contaminants at the south end of the main building are still a source of contamination of the groundwater. Groundwater monitoring wells will be installed to confirm this evaluation.

PCP has been detected in soil at the Site at low levels on average well below the PRG for residential areas of 2.5 mg/kg. Two soil samples contained PCP in excess of the residential PRG. Since only low levels of PCP were detected at the Site in soil, it was not deemed necessary to test for dioxins which are created as trace contaminants during the PCP manufacturing process. Since only low levels of PCP have been detected at the site and since dioxins occur in PCP at trace levels, dioxins are not deemed likely to be present at detectable levels at the Site. In addition, dioxins are typically found in soil and not groundwater and groundwater has been demonstrated to be the mode of transport of contaminants in the areas where PCP has been detected.

7.2 Recommendations for Further Action

EnviroNet recommends that the residual contamination be removed and groundwater be monitored. The proposed work can be addressed in a Removal Action Workplan.

The Removal Action Workplan should address removal of the residual soil contamination at the south end of the main building and installation of groundwater monitoring wells to determine the extent of groundwater contamination. The Removal Action Workplan should include a proposal to remove the recently discovered dried paint residue and paint cans in the debris disposal area. Once the obvious paint residue and paint cans have been separated, the area should be investigated to determine if there has been any impact on soil and/or groundwater from the paint residue. Any other contaminants should be removed.

Additional sampling of the evaporation pond area and all stockpiles is also recommended.

APPENDIX A

- PLATES -

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

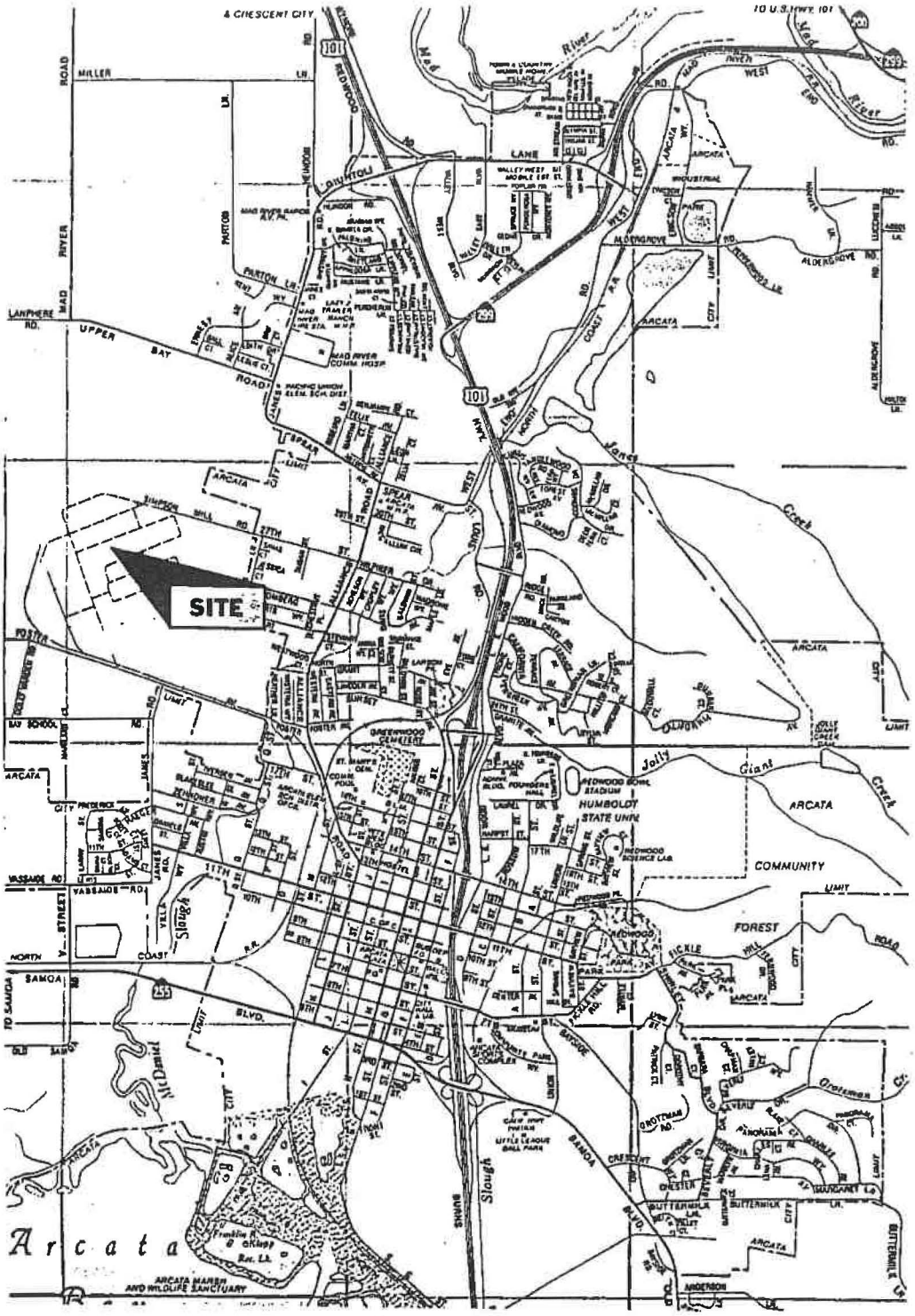
PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

FOR SEPTEMBER 12, 1997

REVISED REPORT



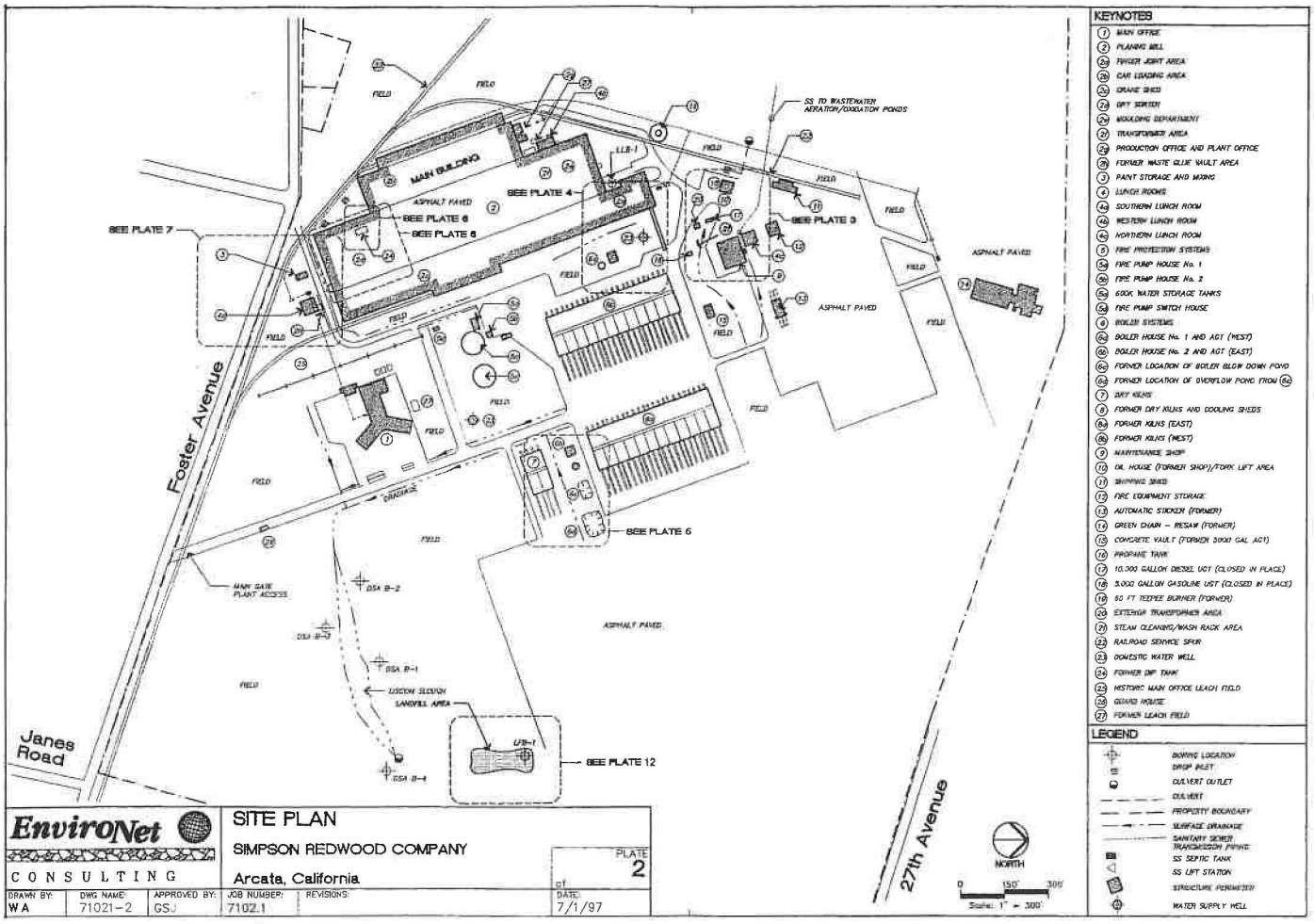
EnviroNet CONSULTING

SITE LOCATION MAP

Simpson Lumber Company
Arcata, California

PLATE 1

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
			7102.1		5/12/97



KEYNOTES

1. MAIN OFFICE
2. PLANING MILL
2a. FINGER JOINT AREA
2b. CAR LOADING AREA
2c. CRANE SHED
2d. DRY SORTER
2e. MOULDING DEPARTMENT
2f. TRANSFORMER AREA
2g. PRODUCTION OFFICE AND PLANT OFFICE
2h. FORMER WASTE GLUE VAULT AREA
3. PAINT STORAGE AND MIXING
4. LUNCH ROOMS
4a. SOUTHERN LUNCH ROOM
4b. WESTERN LUNCH ROOM
4c. NORTHERN LUNCH ROOM
5. FIRE PROTECTION SYSTEMS
5a. FIRE PUMP HOUSE No. 1
5b. FIRE PUMP HOUSE No. 2
5c. 600K WATER STORAGE TANKS
5d. FIRE PUMP SWITCH HOUSE
6. BOILER SYSTEMS
6a. BOILER HOUSE No. 1 AND AGT (WEST)
6b. BOILER HOUSE No. 2 AND AGT (EAST)
6c. FORMER LOCATION OF BOILER BLOW DOWN POND
6d. FORMER LOCATION OF OVERFLOW POND (FROM 6c)
7. DRY KILNS
8. FORMER DRY KILNS AND COOLING SHEDS
8a. FORMER KILNS (EAST)
8b. FORMER KILNS (WEST)
9. MAINTENANCE SHOP
10. OIL HOUSE (FORMER SHOP)/FORK LIFT AREA
11. SHIPPING SHED
12. FIRE EQUIPMENT STORAGE
13. AUTOMATIC STACKER (FORMER)
14. GREEN CHAIN – RESAW (FORMER)
15. CONCRETE VAULT (FORMER 5000 GAL AST)
16. PROPANE TANK
17. 10,000 GALLON DIESEL UST (CLOSED IN PLACE)
18. 5,000 GALLON GASOLINE UST (CLOSED IN PLACE)
19. 60 FT TEEPEE BURNER (FORMER)
20. EXTERIOR TRANSFORMER AREA
21. STEAM CLEANING/WASH RACK AREA
22. RAILROAD SERVICE SPUR
23. DOMESTIC WATER WELL
24. FORMER DIP TANK
25. HISTORIC MAIN OFFICE LEACH FIELD
26. GUARD HOUSE
27. FORMER LEACH FIELD

LEGEND

- BORING LOCATION
- DROP INLET
- CULVERT OUTLET
- CULVERT
- PROPERTY BOUNDARY
- SURFACE DRAINAGE
- SANITARY SEWER TRANSMISSION PIPING
- SS SEPTIC TANK
- SS LIFT STATION
- STRUCTURE PERIMETER
- WATER SUPPLY WELL

EnviroNet CONSULTING

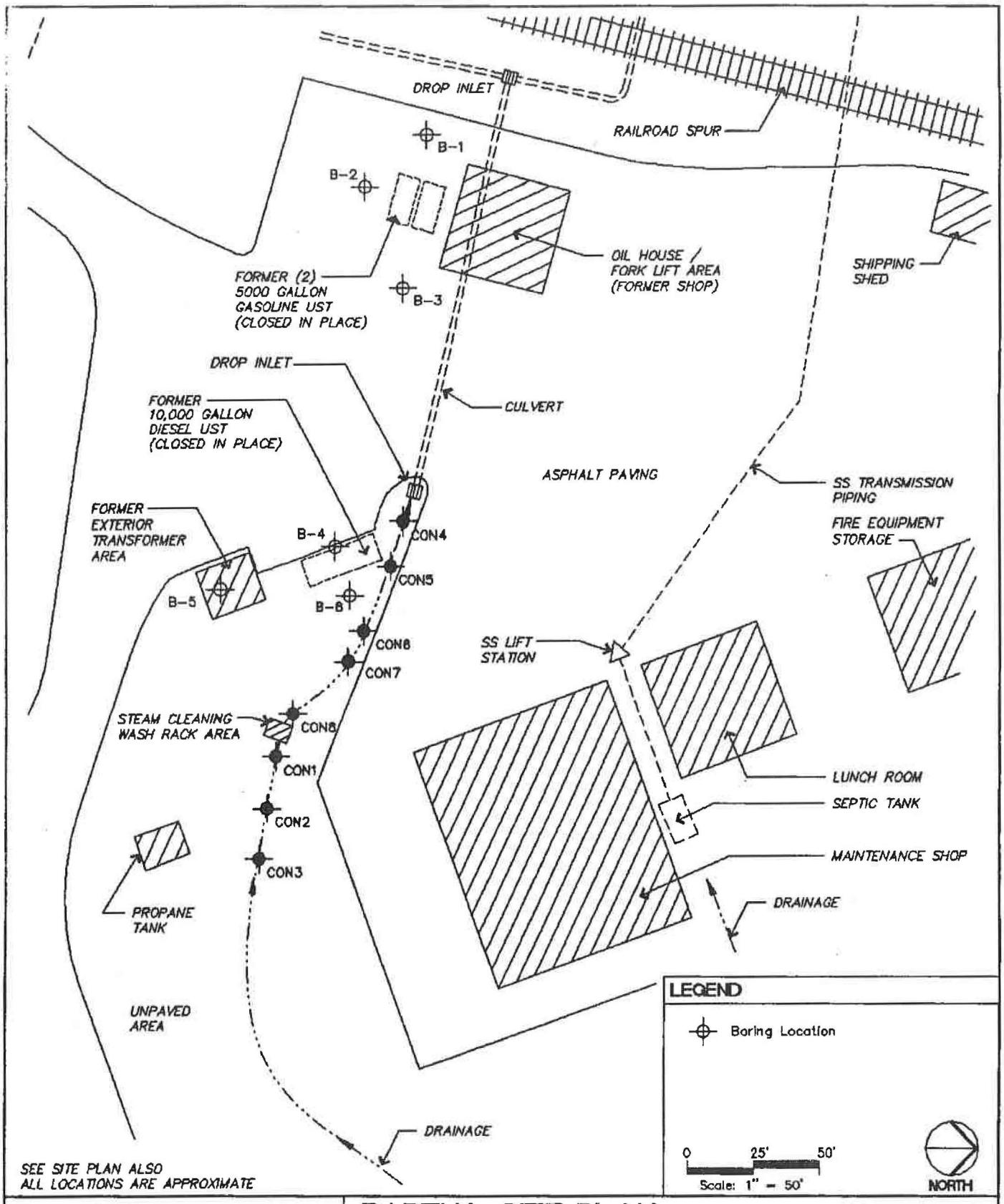
SITE PLAN

SIMPSON REDWOOD COMPANY

Arcata, California

PLATE 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-2	GSJ	7102.1		7/1/97

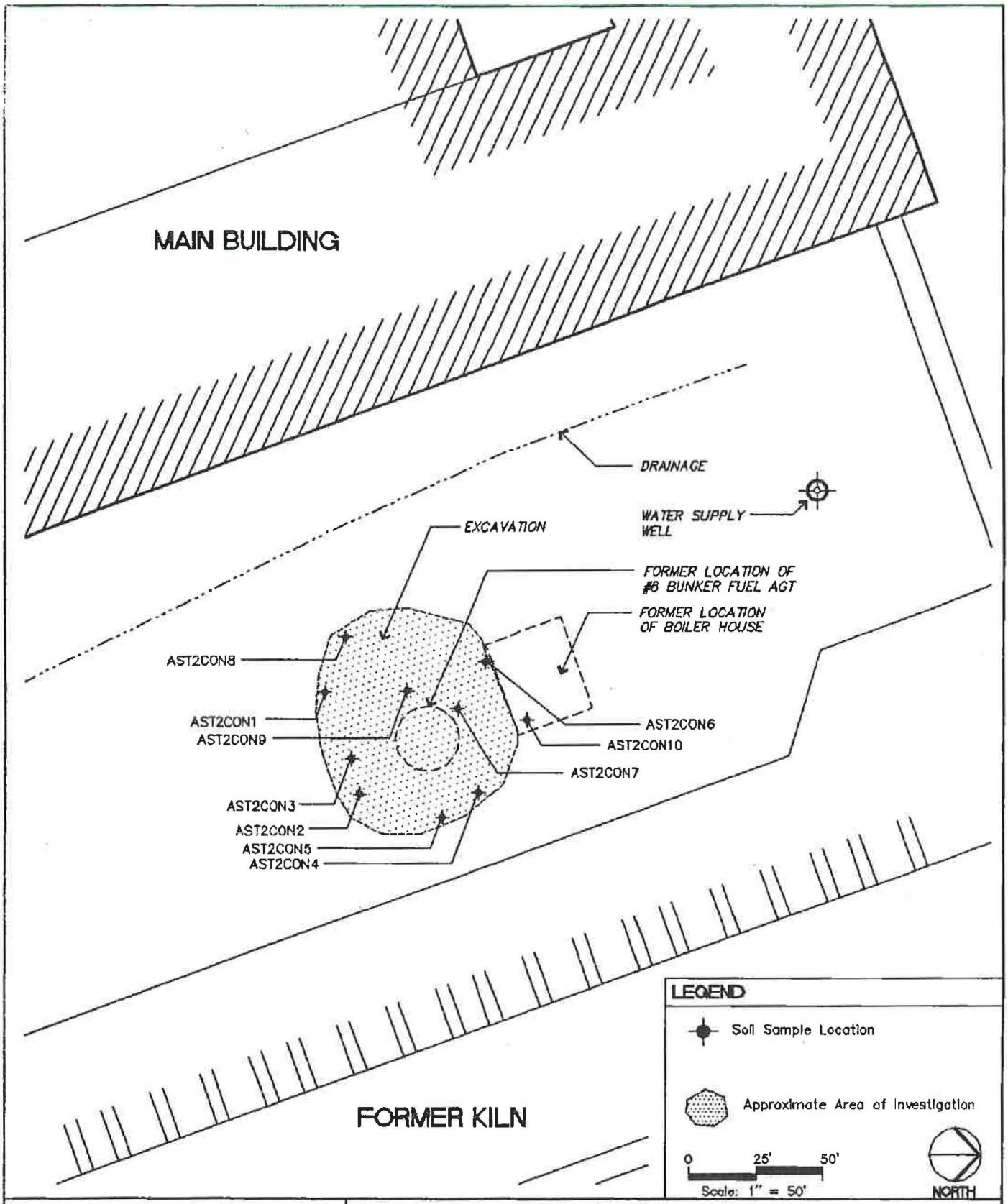


EnviroNet
CONSULTING

PARTIAL SITE PLAN
Boring Locations
Simpson Redwood Company
Arcata, California

PLATE 3

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-3A	GSJ	7102.1		7/24/97



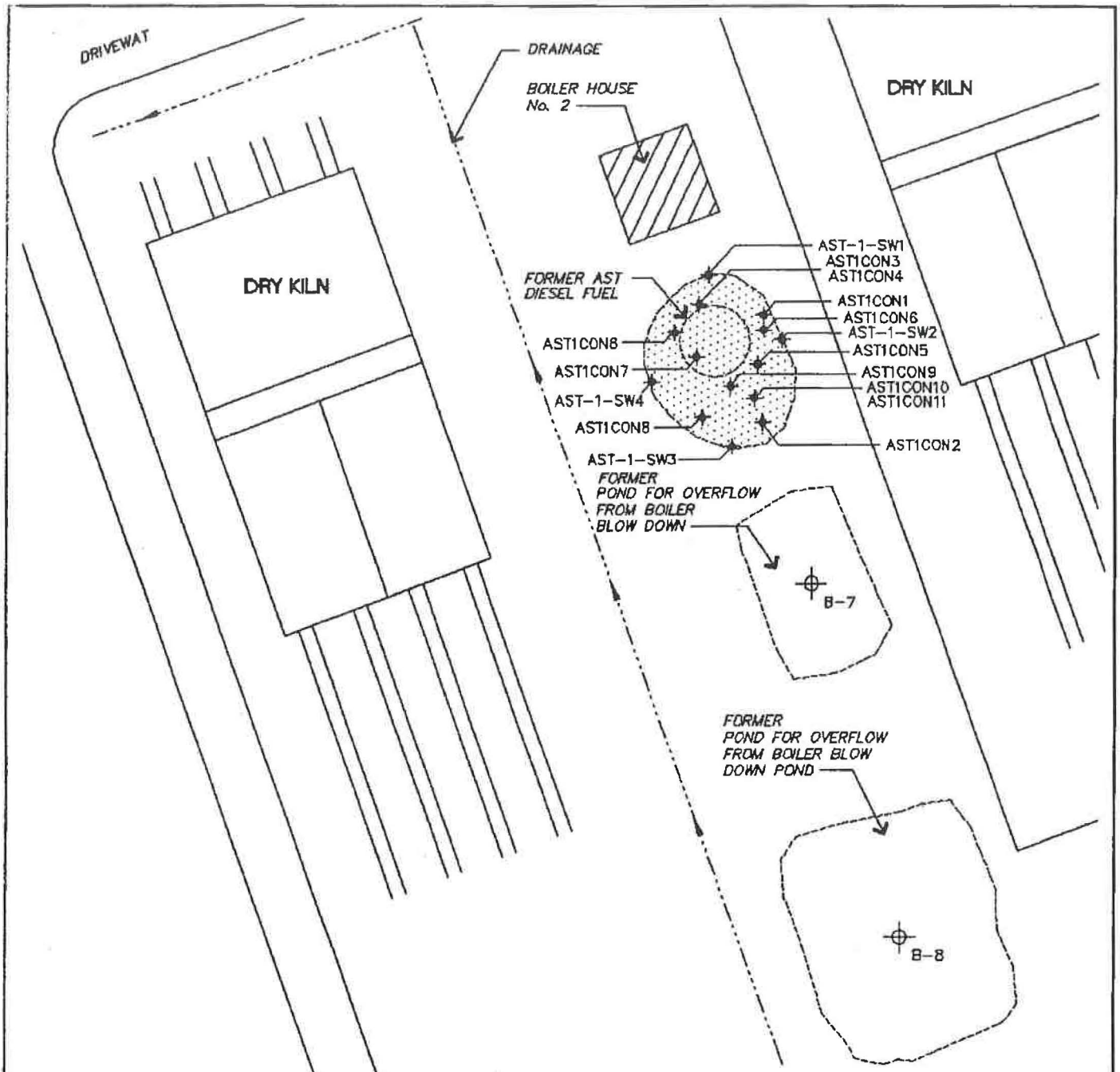
EnviroNet CONSULTING

PARTIAL SITE PLAN

Bunker "C" AGT Area
Simpson Redwood Company
Arcata, California

PLATE 4

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-48	GSJ	7102.1		7/17/97

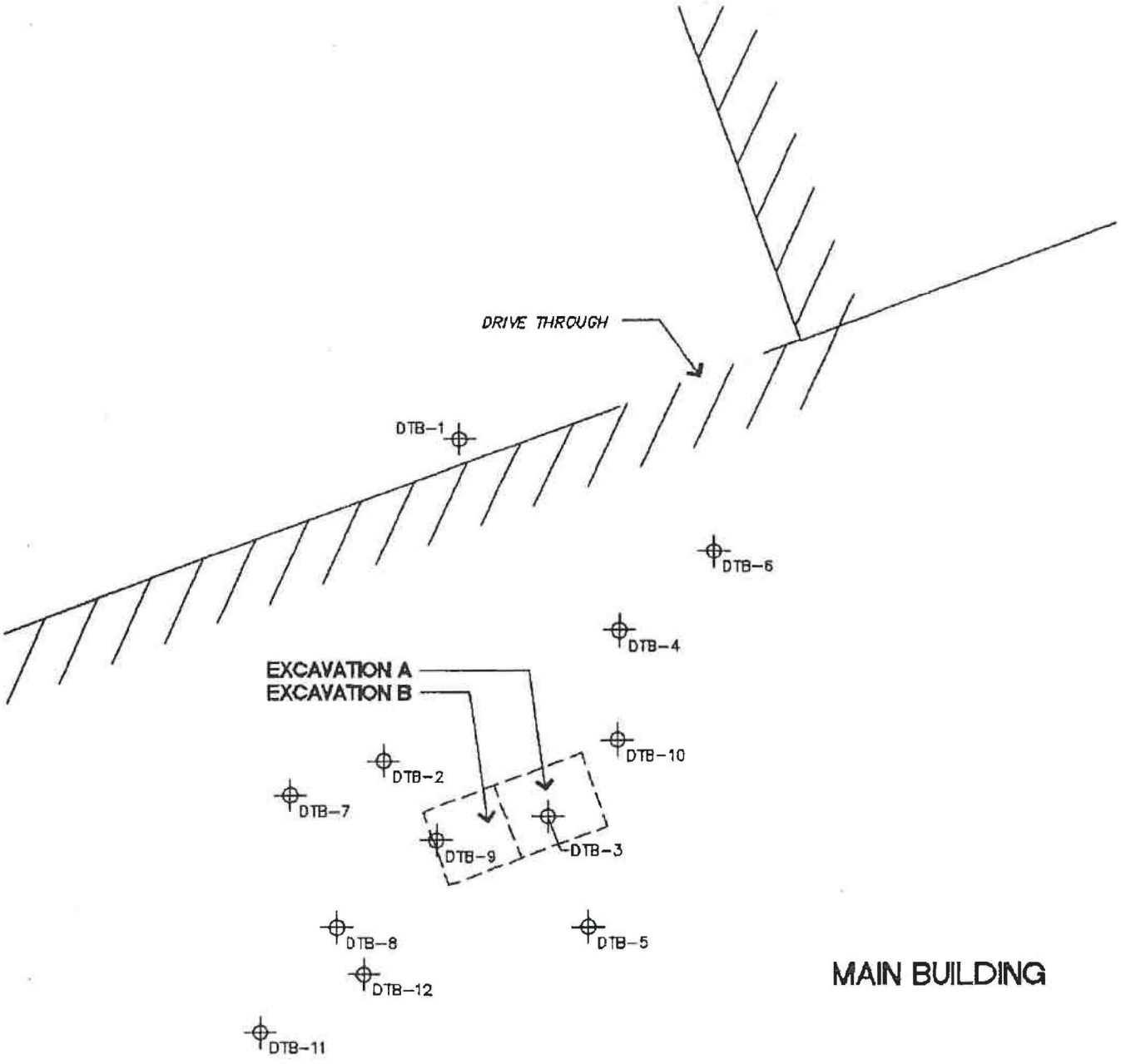


EnviroNet CONSULTING

PARTIAL SITE PLAN
Diesel AGT Area
Simpson Redwood Company
Arcata, California

PLATE 5

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-5C	GSJ	7102.1		7/17/97



LEGEND

Boring Location

10' 20'

Scale: 1" = 20'

NORTH

EnviroNet CONSULTING

PARTIAL SITE PLAN

Boring and Excavation Locations
Simpson Redwood Company
Arcata, California

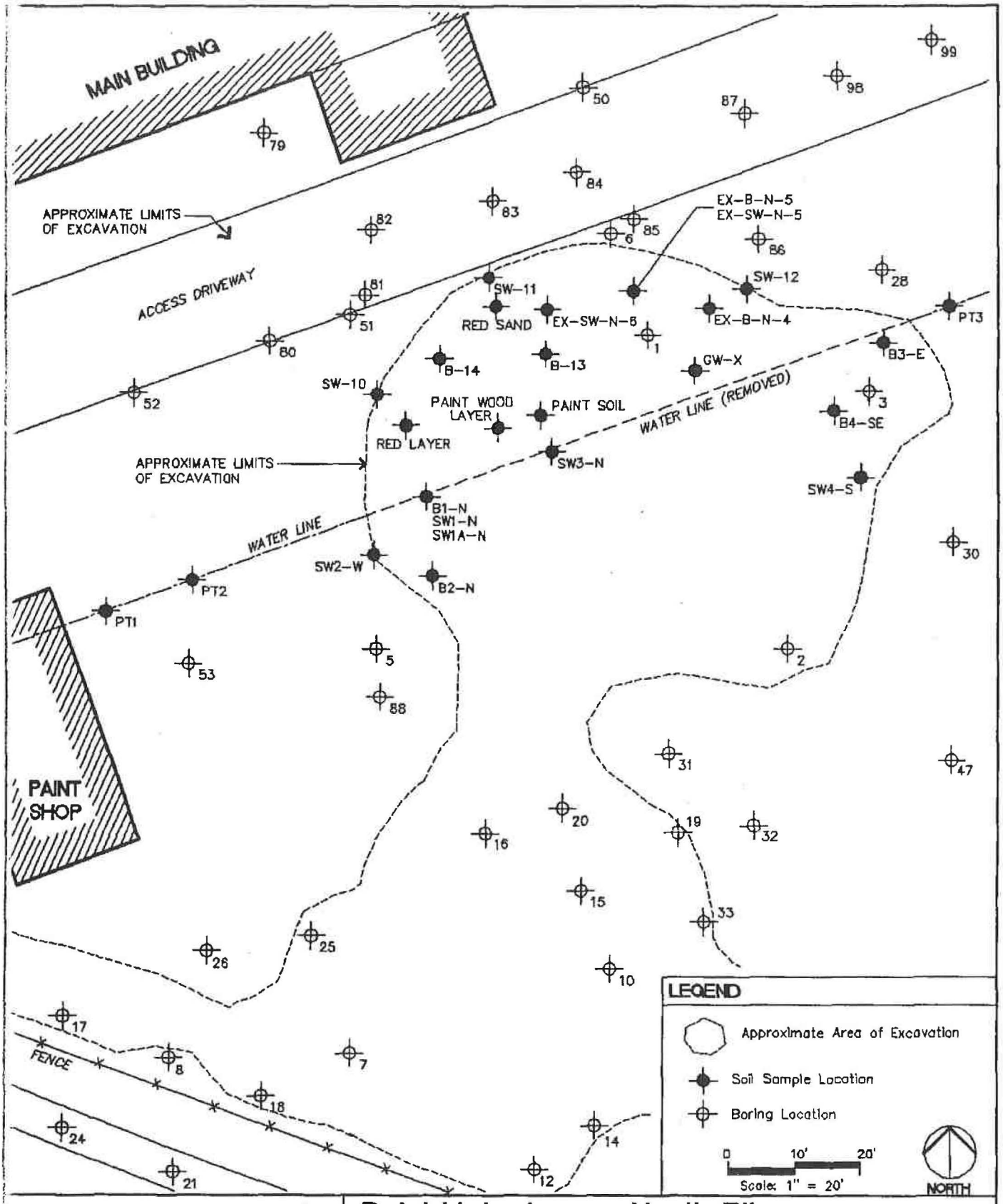
PLATE 6

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-6A	GSJ	7102.1		7/1/97

The following plates are oversize and are not included in the electronic version of this document:

Plate 7: Former South Lunch Room Area
Plate 7A: Former South Lunch Room Area - Small Pits
Plate 7B: Contour Map - cis-1,2-Dichloroethene - Upper Water
Plate 7C: Contour Map - cis-1,2-Dichloroethene - Lower Water
Plate 7D: Contour Map - PCP - Upper Water
Plate 7E: Contour Map - PCP - Lower Water
Plate 7F: Contour Map - BTEX - Upper Water
Plate 7G: Contour Map - BTEX - Lower Water
Plate 7H: Contour Map - 8260 Other - Upper Water
Plate 7I: Contour Map - 8260 Other - Lower Water

If you would like to view these plates, please contact the DTSC Berkeley Regional Central File room [(510)-540-3800] to complete a Public Records Act Request (PRAR).



EnviroNet

CONSULTING

Paint Hole Area - North Pit

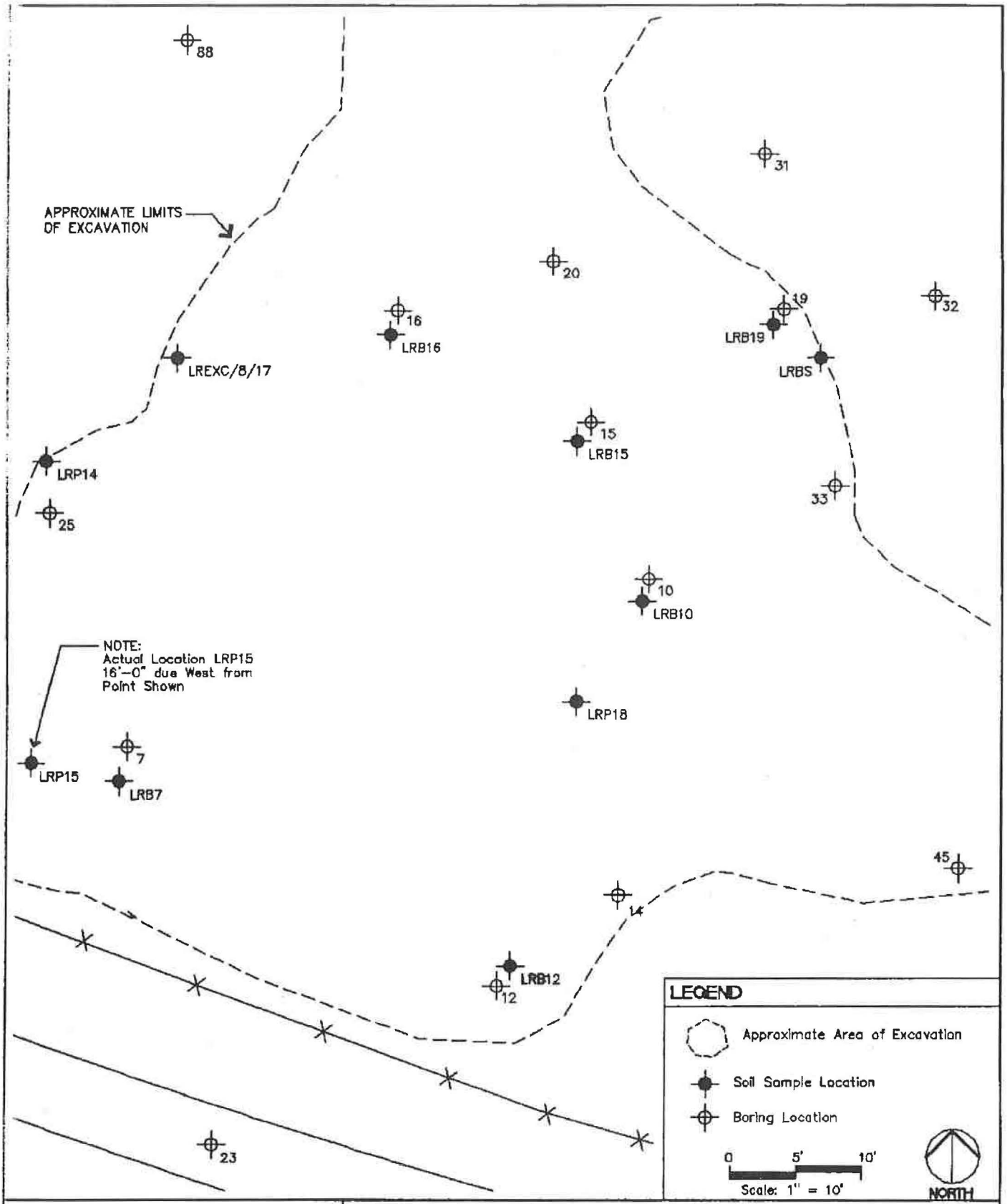
Soil Sample, Boring and Excavation Limits

Simpson Redwood Company

Arcata, California

PLATE 7J

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-7J	GSJ	7102.1		7/15/97



EnviroNet CONSULTING

Paint Hole Area - South Pit

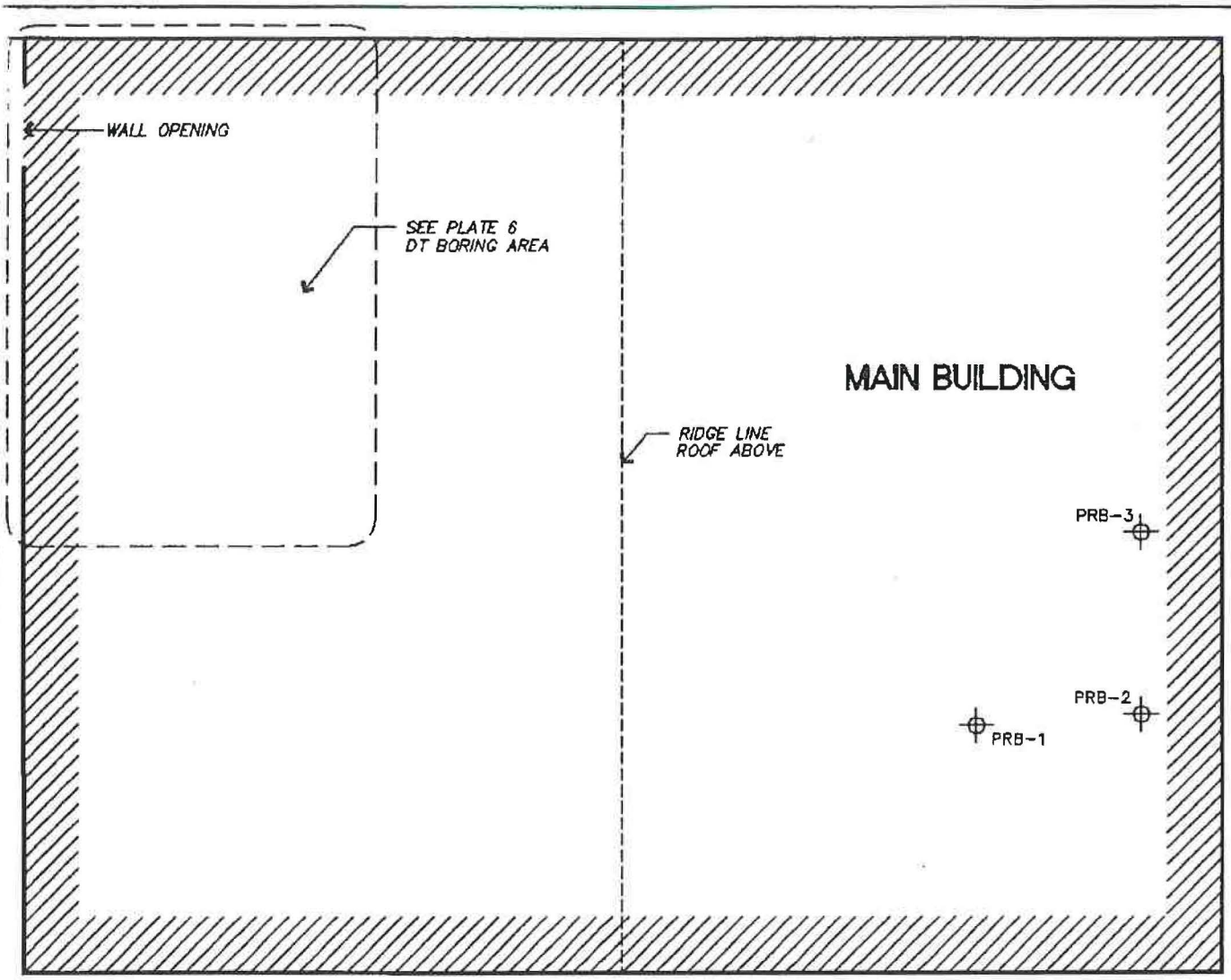
Soil Sample, Boring and Excavation Limits

Simpson Redwood Company

Arcata, California

PLATE 7K

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-7K	GSJ	7102.1		7/17/97



Road

SEE SITE PLAN ALSO

LEGEND

Boring Location

0 15' 30'

Scale: 1" = 30'

NORTH

EnviroNet CONSULTING

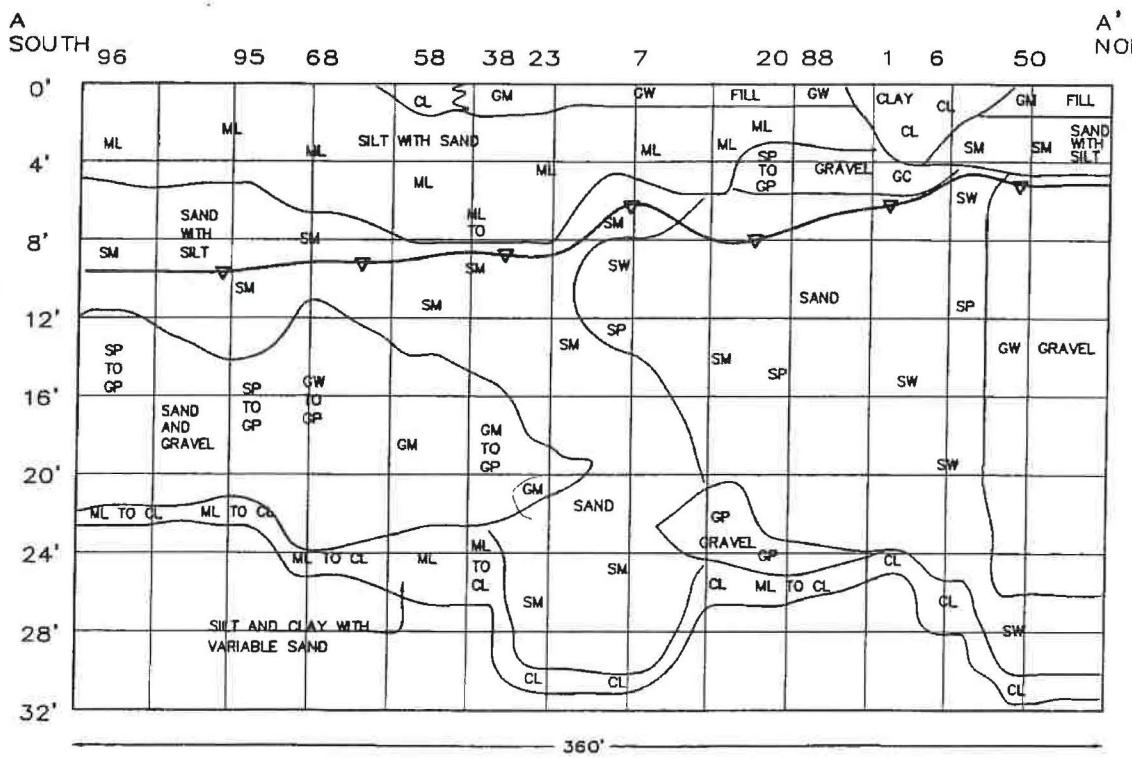
PARTIAL SITE PLAN

Boring Locations
Simpson Redwood Company

Arcata, California

PLATE 8

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-8A	GSJ	7102.1		6/25/97



EnviroNet
CONSULTING

CROSS SECTION A-A'
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

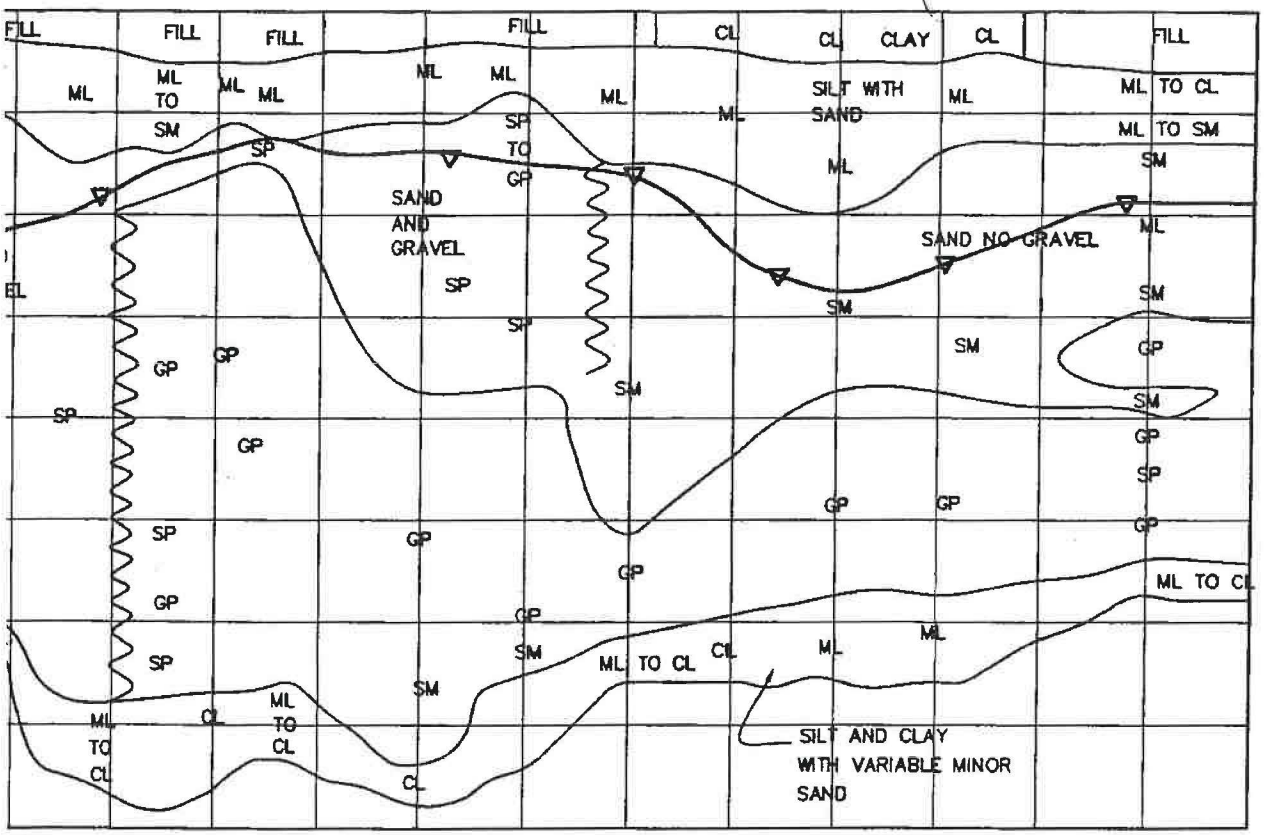
PLATE 9 of

NOTE: Horizontal Scale 1" = 50'

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH/RWC	sl-sect.a	GSJ	7102.1		8-18-97

B'
EAST

'6 74 44 27 26 88 20 32 47 59 90



360'

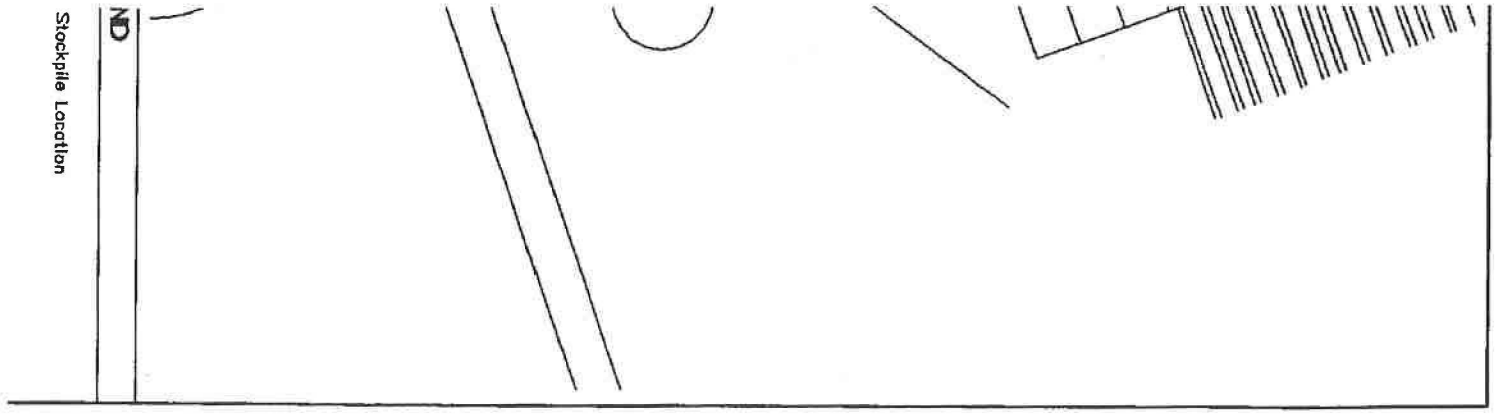
CROSS SECTION B-B'

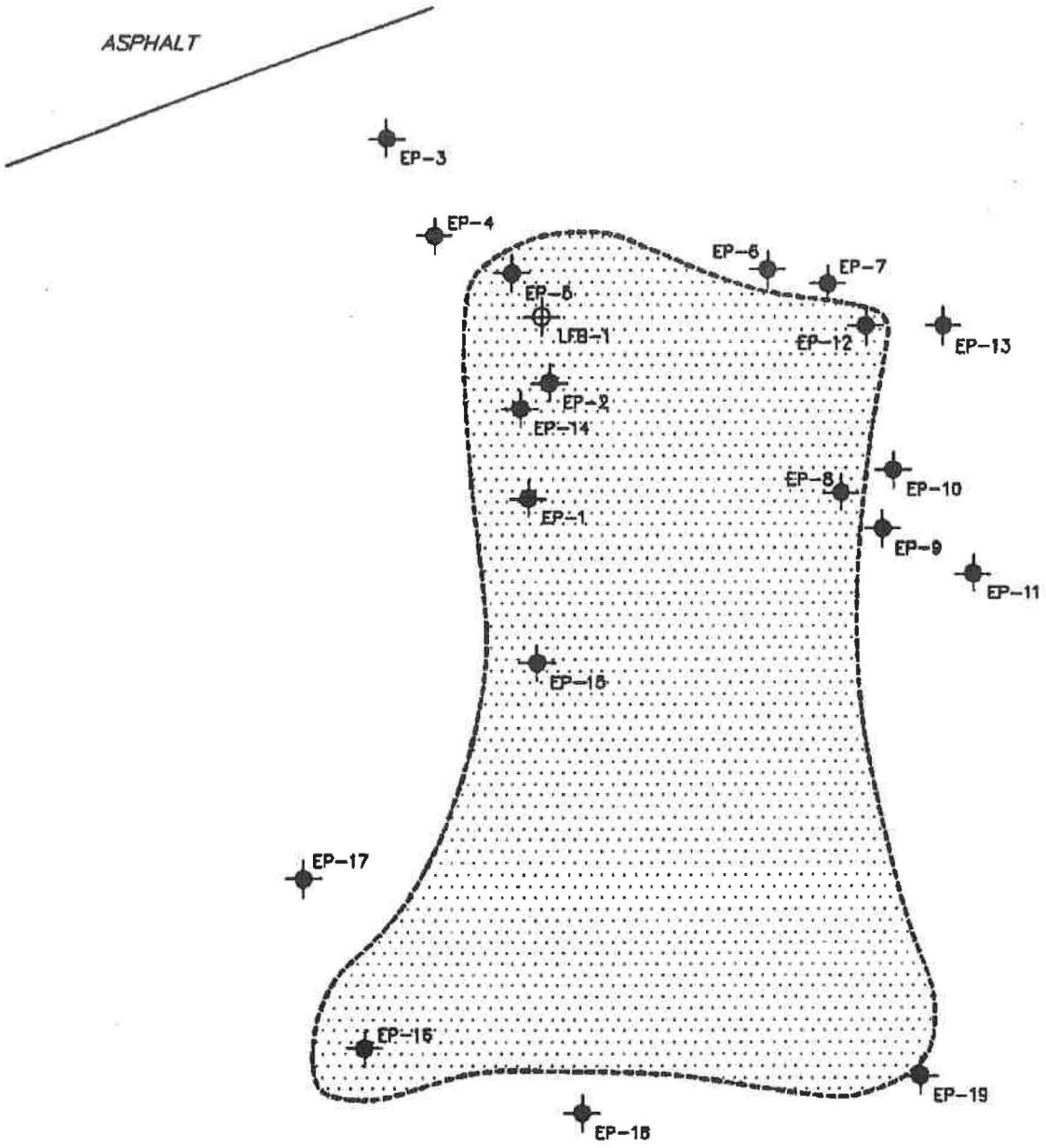
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE 10 of

JOB NUMBER:	REVISIONS:	DATE:
7102.1		8-18-97

NOTE: Horizontal Scale 1" = 50'





LEGEND

- Boring Location
- Trench Location
- Approximate Area of Investigation

0 20' 40'

Scale: 1" = 40'

NORTH

EnviroNet CONSULTING

PARTIAL SITE PLAN

Debris Disposal Area
Simpson Redwood Company
Arcata, California

PLATE 12

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-4C	GSJ	7102.1		8/7/97

APPENDIX B

- BORING LOGS -

INCLUDED IN JULY 31, 1997

REPORT ONLY

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

NOT INCLUDED IN

SEPTEMBER 12, 1997

REVISED REPORT

APPENDIX C

- ANALYTICAL TABLES -

SOIL AND GROUNDWATER SAMPLES

TABLE A ONLY

TABLES 1 THROUGH 27

INCLUDED IN JULY 31, 1997

REPORT ONLY

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

SEPTEMBER 12, 1997

REVISED REPORT

Table A: PRGs and MCLs for Chemicals of Concern

Contaminant	PRG res soil mg/kg	PRG tap water ug/L	MCL drinking water ug/L
Pentachlorophenol	2.5	0.56	1.0
ethylbenzene	230	1300	700
toluene	790	720	150
xylenes	320	1400	1750
cis-1,2-Dichloroethene	31	6.1	6.0
Total Petroleum Hydrocarbons	NE	NE	NE
acetone	2100	610	NE
Polychlorinated biphenyls	0.066	0.0087	0.0005
trans-1,2-Dichloroethene	120	10	78
Naphthalene	240	240	NE

NE = None Established

APPENDIX D

- ANALYTICAL REPORTS -

SOIL AND GROUNDWATER SAMPLES

VOLUMES 1 THROUGH 16

INCLUDED IN JULY 31, 1997

REPORT ONLY

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

NOT INCLUDED IN

SEPTEMBER 12, 1997

REVISED REPORT

APPENDIX E

- ANALYTICAL REPORTS -

BAKER TANK SAMPLES

VOLUMES 1 THROUGH 4

INCLUDED IN JULY 31, 1997

REPORT ONLY

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

ONLY MISSING CHAIN OF CUSTODY FORMS INCLUDED IN

SEPTEMBER 12, 1997

REVISED REPORT

SPARGER TECHNOLOGY, INC.
Analytical Laboratory
3050 Fite Circle, #112 Sacramento, CA 95827
Phone: (916) 362-8947
FAX: (916) 362-0947

CHAIN OF CUSTODY RECORD

C.O.C. No. 10883 (7966)
Page 1 of 1
STAL Invoice Number:

Company: EnviroNet
Phone: (707)546-9461
Project Manager: Linda Mackey
FAX: (707)544-5769

Report Address: (Fax) 544-5769 and 826-2049

Billing Name & Address:

Project Name: Simpson Timber Company
Project/Job#: 7102

Project Location: Arcata
P.O.#:

ANALYSIS REQUEST

REMARKS: 24 hr. No SIM 24-HOUR RUSH

Sampler's Name: Jim Crook

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)
TCLP

NO.	SAMPLE ID	Sampling: Date	Sampling: Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other:	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead	TCLP: RCI	TCLP: 8260	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	Baker Tank 1961-5-31	5/31/97	2p	3		2				X		X												X					X						
2																																			
3																																			
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 5/31/97 Time: 2pm	Date: 6/3/97 Time: 12:00	Date:	Time: Date: Time:

PLEASE READ [illegible]

SPARGER TECHNOLOGY, INC.
Analytical Laboratory
3050 Fite Circle, #112 Sacramento, CA 95827
Phone: (916) 362-8947
FAX: (916) 362-0947

CHAIN OF CUSTODY RECORD

C.O.C. No. 10882 (1865)
Page 1 of 1
STAL Invoice Number:

ANALYSIS REQUEST

Company: EnviroNet
Phone: (707)546-9461
Project Manager: Linda Mackey
FAX: (707)544-5769

REMARKS: NO SHEEN! 24 hr.

Sampler's Name: Jim Crook

Report Address: (Fax) 544-5769 and 826-2049

Billing Name & Address:

Project Name: Simpson Timber Company
Project/Job#: 7102

Project Location: Arcata
P.O.#:

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)
TCLP

NO.	SAMPLE ID	Sampling: Date	Sampling: Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Other: (DIESEL)	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead	TCLP: RCI	TCLP: 8260	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	Baker Tank 1835-551	5/31/97	2pm	3		2				X		X											X					X						
2																																		
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	5/31/97	2pm		6/2/97	12:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

BY FAX SIGNIFIES ACCEPTANCE OF TERMS AND CONDITIONS

Analytical Laboratory A5E

3050 Fite Circle, #112 Sacramento, CA 95827

Phone: (916) 362-8947

FAX: (916) 362-0947

C.O.C. No. 10876 7872

Page 1 of 1 **STAL Invoice Number:**

Company: EnviroNet Phone: (707)546-9461

Project Manager: Linda Mackey FAX: (707)544-5769

Report Address: (Fax) 544-5769 and 826-2049

Billing Name & Address:

Project Name: Simpson Timber Company Project/Job#: 7102

Project Location: Arcata P.O.#:

ANALYSIS REQUEST

REMARKS: 24-HOUR RUSH NO SIM 24

Sampler's Name: Jim Crook

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC) | TCLP

NO.	SAMPLE ID	Sampling: Date	Sampling: Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other:	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 609/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead	TCLP: RCI	TCLP: 8 0 6 2 8	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	768-6-2	6/2/97	2 PM	3		2				X		X												X					X						
2																																			
3																																			
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 6/2/97 Time: 2 PM	Date: 6/3/97 Time: 1300	Date: Time:	Date: Time:

PLEASE READ REVERSE SIDE FOR TERMS AND CONDITIONS

APPENDIX F

GOVERNMENT AGENCY

RECORDS REVIEW REPORT

INCLUDED IN JULY 31, 1997

REPORT ONLY

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

NOT INCLUDED IN

SEPTEMBER 12, 1997

REVISED REPORT

APPENDIX G

- REGULATORY DOCUMENTS -

FROM

REPORT OF INVESTIGATION

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

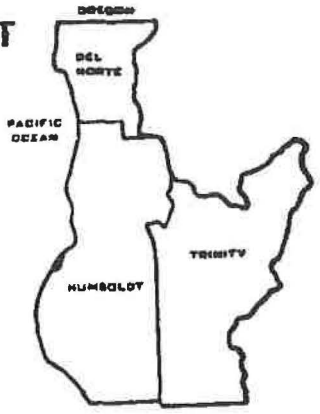
ARCATA, CALIFORNIA

INCLUDED IN

SEPTEMBER 12, 1997

REVISED REPORT ONLY

NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT
2300 Myrtle Avenue, Eureka, CA 95501
Phone (707) 443-3093 Fax (707) 443-3099



August 21, 1997

Michele Shacklett
Environet
3601 Regional Parkway Suite A
Santa Rosa, CA 95403
FAX (707) 544-5769

Subj: Simpson Timber, Foster Road, Arcata

Dear Ms. Shacklett:

As you requested, I am sending this letter to inform you of my inspection findings at the above referenced site.

Our office received a notification for demolition of building #40 (classroom/bathrooms) from Jim Crook of Northcoast Environmental Construction as required by the Asbestos NESHAP (National Emissions Standards for Hazardous Air Pollutants), Title 40, CFR, Part 61. This regulation requires that a the owner or operator of a facility notify the EPA or its designee, in this case, the North Coast Unified Air Quality Management District, of demolitions of industrial structures.

On March 3, 1997, I conducted an inspection of this structure to check for compliance with the Asbestos NESHAP. I did not discover any suspect asbestos containing materials in the structure at the time nor did I discover any other violations of this regulation or other air quality regulations.

If you have any questions, please feel free to call me at (707) 443-3093.

Sincerely,

Tami Pallingston
Air Pollution Inspector

TP: infoltr/pal

RECEIVED 8/27/97

23849

HUMBOLDT-DEL NORTE COUNTY
DEPARTMENT OF PUBLIC HEALTH

RECEIVED APR 29 1987

727 CEDAR STREET
GARBERVILLE, CA. 95440
923-2779

MAIN OFFICE
529 I STREET
EUREKA, CA. 95501
445-6215

909 HWY. 101, NORTH
CRESCENT CITY, CA. 95531
464-7237

FEE 11.50
DATE PAID
PERMIT # (A.P.)

APPLICATION FOR PERMIT TO CLOSE UNDERGROUND
HAZARDOUS MATERIALS STORAGE TANK(S)

LOCATION: ARCATA, CA.
FACILITY NAME: ARCATA REMANUFACTURING PLANT
OWNER/OPERATOR: SIMPSON TIMBER CO. TELEPHONE: 1-707-822-0371
MAILING ADDRESS: P.O. DRAWER V, ARCATA, CA. 95521
CONTRACTOR: SHEPPARD CONSTRUCTION CO. LICENSE#: 290-057 TELEPHONE: 668-545

TANK # 1 DATE INSTALLED UNKNOWN VOLUME 10,000 GAL CONSTRUCTION STEEL MATERIAL STORED DIESEL
TANK # 2 DATE INSTALLED 74 VOLUME 5,000 GAL CONSTRUCTION STEEL MATERIAL STORED UNLEADED
TANK # 3 DATE INSTALLED 74 VOLUME 5,000 GAL COSNTRUCTION STEEL MATERIAL STORED UNLEADED

IF NOT CURRENTLY IN USE, INDICATE LAST DATE USED FOR STORAGE:

PIPING CONSTRUCTION: STEEL
REMAINING PRODUCT TO BE REMOVED BY: SIMPSON OIL

DESCRIBE SOIL/WATER SAMPLING PLAN FROM EXCAVATION (INDICATE LOCATION ON PLOT PLAN)
NO SAMPLING - TANKS UNDER 2' THICK CONCRETE CAP
METHOD OF DETERMINING IF PIPING RUNS ARE CONTAMINATED: SAMPLING PLAN ATTACHED - PRESSURE TESTING BEFORE REMOVAL

SAMPLES WILL BE COLLECTED BY: TIM CURRIE TELEPHONE: 822-0371
SAMPLES WILL BE ANALYZED BY: NORTH COAST LABS TELEPHONE: 822-4649
WHO WILL HAUL TANKS?: N/A DOHS HAULER #: N/A
FINAL TANK(S) DESTINATION: N/A TELEPHONE:

ATTACH A PLOT PLAN DRAWN TO SCALE OF THE PARCEL, TANK(S), PIPING AND STRUCTURES NEAR THE TANK(
TANKS TO BE FILLED WITH MINERAL MATERIAL & EXTERIOR PIPING REMOVED

I HAVE RECEIVED A COPY OF THE UNDERGROUND STORAGE TANK CLOSURE POLICY AND WILL PERFORM THE WORK AS APPROVED IN THIS APPLICATION.

OWNER: Timothy J. Currie, SIMPSON TIMBER CO. DATE: 4/2/87
AGENT: DATE:

FOR OFFICE USE ONLY:

PERMIT APPROVED BY: James W Clark R.E. DATE: EXPIRES:
WORK COMPLETED AS APPROVED: James W Clark R.E. DATE: 4-29-

Rev. 11/86 Underground Storage Tank

Simps - Timber Co.
Arcata Remanufacturing Plant FYI

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION
5550 SKYLANE BLVD. SUITE A
SANTA ROSA, CA 95403
PHONE: (707) 576-2220

Route to FCLR FYI

February 2, 1994

Anna Sparks
Humboldt County Board of Supervisors
825 Fifth Street
Eureka, CA 95501

Dear Ms. Sparks:

Subject: Simpson Timber Company, Arcata Remanufacturing Plant, Arcata, California

During our February 3, 1994 telephone conversation you asked if the Regional Board was aware of any contamination problems at the Simpson Timber Company, Arcata Remanufacturing Plant located in Arcata.

The Arcata Remanufacturing Plant began operations in the late 1950s to process old growth redwood lumber from company sawmills. The plant processed rough sawn boards into finished dimensional lumber and siding for the marketplace. The facility operated continuously until its closure in June of 1989.

In February of 1992, in response to some citizens complaint, I requested information from Simpson regarding the use of wood treatment chemicals at the plant. Pentachlorophenol (5% solution in a product called WoodLife) was used as a wood preservative from approximately 1964 to 1972. Wood products were treated with WoodLife only by special order of the buyer. Routine applications did not occur. The chemical was delivered in 55 gallon drums and applied in a "closed-loop" applicator within an enclosed building on a paved floor. After the wood products were treated, they were stored in a warehouse until shipped off-site by rail car.

In 1987, Simpson Timber Company contracted with SHN Consulting Engineers and Geologists to do a "Post Closure Site Assessment" related to the WoodLife activities. The work included soil borings in areas most likely to detect residual pentachlorophenol and water analysis of on site wells. The results were negative. No pentachlorophenol was detected in the soil borings or the wells.

Cleanup of PCBs associated with a substation that served the facility was successfully completed in 1993.

I hope this answers your questions concerning this facility. If not, please call me at (707) 576-2683.

Sincerely,

William T. Rodriguez
Sanitary Engineering Associate

WTR:lmf/anna1

cc: Jerry Soehnlein, Simpson Timber Company, Third and Franklin, Shelton WA 98584

STATE OF CALIFORNIA—ENVIRONMENTAL PROTECTION AGENCY
PETE WILSON, Governor

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
400 P Street, 4th Floor
P.O. Box 806
Sacramento, CA 95812-0806

October 21, 1992

SIMPSON TIMBER CO
PO BOX 1169
ARCATA, CA 95521

Dear PRESIDENT:

SUBMITTAL OF IMPROPERLY COMPLETED MANIFESTS

The Department of Toxic Substances Control (DTSC) has received improperly completed manifests from your facility. Enclosed please find the certified copies of your original blue manifests. The DTSC is returning these copies to you pursuant to the California Health and Safety Code, Section 25160.5, which states:

> "If any producer required to send a copy of a manifest to the department submits an improperly completed manifest, and the department returns the manifest to the person who completed the manifest, producer shall submit a fee of twenty dollars ($20) to the department to accompany the resubmitted manifest."

These manifests must be corrected and resubmitted along with a check for the amount indicated on the attached Manifest Error Fee/Penalty invoice within 30 days of receipt of this letter.

In addition, an Enforcement Order has been issued for violating the California Health and Safety Code (H&SC), Section 25189.2 and/or Title 22 of the California Code of Regulations by failing to complete fully and accurately the manifests on the attached list. This penalty is separate from the $20 reprocessing fee. All attachments to this Order should be carefully read. They identify your right to an informal conference with the Department, your right to request a formal hearing within 15 days of the issuance of this order, and other rights and procedures involved in this process.

If you wish to participate in the scheduled informal conference as indicated in the enclosed document entitled "Statement to Respondent", you must call and confirm your intentions. This conference will be located at our offices in Sacramento or you may request a telephone conference call if it is not convenient for you to travel to our offices.

In order to comply with the requirements of this Order and State Hazardous Manifesting requirements, you are hereby required to do the following:

1. Correct the attached manifests and resubmit them to the Department of Toxic Substances Control.

2. Submit the appropriate amount for both the Manifest Reprocessing Fee and the Enforcement Order.

3. Return the bottom portion of the Manifest Error Fee/Penalty Invoice with your payment.

4. Complete and sign the enclosed Certificate of Compliance and return.

Please note that all of the above items should be returned in the same envelope for proper processing within 30 days unless you choose to request a hearing on this matter. If you choose to request a hearing, you are required to notify the Department within fifteen days of your receipt of the enclosed Order.

Pursuant to the H&SC, Section 25188, a penalty of up to $25,000 per day may be imposed for failure to comply with this Order. If you have any questions regarding this letter, please contact Mr. Patrick Rodriguez of my staff at (916) 324-1818.

Sincerely,

Kit Davis, Chief
Manifest Enforcement Unit
Surveillance and Enforcement
Department of Toxic Substances Control

Enclosures: Manifests 18
Checklist
Invoice No. C102192009
Docket No. FO 92/93-5-067

cc: Charlene Williams
Branch Chief, Region 2
Department of Toxic Substances Control
2151 Berkeley Way, Annex 9
Berkeley, CA 94704

STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of: Simpson Timber Co. P.O.Box 1169 Arcata, CA 95521 Status: Generator EPA ID # CAD009215138 Respondent	Docket No. FO 92/93-5-067 ENFORCEMENT ORDER Health and Safety Code Section 25187

1. On 10-20-92, the Department of Toxic Substances Control (Department) reviewed Uniform Hazardous Waste Manifests submitted by Respondent.

2. The Department hereby determines that Respondent violated the Hazardous Waste Control Act (Health & Safety Code section 25100 et seq.) and related requirements and assesses a penalty of $1000, as specified on page 2 et seq., Determination of Violations and Penalties.

3. Respondent shall begin to correct the violations immediately. Respondent shall complete corrective action and send a signed Certification of Compliance to the person who issued this Order within 30 days of the date of issuance.

Date of Issuance: October 21, 1992.

Patrick F. Rodriguez
(Signature)

Name and Title: Pat Rodriguez
Associate Hazardous Materials Specialist
Department of Toxic Substances Control

Address: P.O. Box 806
Sacramento, CA 95812-0806

Telephone No: (916) 324-1818

Simpson

Simpson Timber Company
Redwood Division POST OFFICE BOX 68
KORBEL, CALIFORNIA 95550 (707) 822-0371

November 17, 1992

Mr. Pat Rodriguez
Associate Hazardous Materials Specialist
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Dear Mr. Rodriguez

Pursuant to your enforcement order Docket No. FO 92/93-5-067, attached, we have enclosed our check for $1,360.00, covering the full assessment. Even though we paid the full amount assessed, there were two manifest with alleged discrepancies that were either not our responsibility and/or the information submitted was correct and should not have been penalized.

I. MANIFEST NO. 90036593
Simpson Timber Company was not the generator of this waste. Simpson Paper Company was the responsible generator of this waste. You can contact this company at the address listed below:

Simpson Paper Company
P.O. Box 9600
Eureka, California 95502-9600
Attn: Ms. Heather Bartlett

II. MANIFEST NO. 90029513
The manifest assesses penalties for listing inaccurate quantity. However, it is our position that the volumes stated in this manifest were correct and properly listed. The receiving landfill operator also verified that the quantity was accurate.

5 Y	=	5 CU YD
1,200P	=	1,200 POUNDS

To the best of our ability we believe that we have made the corrections which were addressed in your enforcement order referred to above, if however you scrutinize our resubmitted manifests and you find anymore errors, please do not hesitate to contact us.

Yours truly,

Fred A. Jacobson

FAJ/vs

xc: T. Elfers
H. Bartlett
J. Soehnlein

CITY OF EUREKA
531 K Street • Eureka, California 95501-1165

May 12, 1997

Mr. Derek Whitworth
California Department of Toxic Substances Control
700 Heriz Avenue, Suite 200
Berkeley, CA 94710-2737

Dear Mr. Whitworth,

Treated water from the Simpson Timber, Arcata environmental cleanup project is being hauled to the Greater Eureka Area (Elk River) Wastewater Treatment Plant (WWTP) by tanker trucks. The tanker trucks are permitted through North Coast Environmental Construction (Holding Tank Sewer Use Permit Numbers 14-95 A,B,C &D) and through Humboldt Bay Forest Products (Holding Tank Sewer Use Permit Number 10-93). The permitted haulers are required to comply with the City of Eureka Holding Tank Sewer Use Permit Conditions and Restrictions.

Mr. Jim Crook of North Coast Environmental Construction is the project manager. Mr. Crook is responsible for complying with the City's requirements for the submission of analytical data for each 20,000 gallon Baker storage tank of treated water. Once the analytical reports are received, reviewed, and approved by the Pretreatment Coordinator (or the Utilities Operations Manager), Mr. Crook arranges for the water to be hauled to the WWTP. Thus far, the treated water has met all of the City's requirements for disposal at the WWTP.

Please contact me at (707) 441-4362 or fax (707) 441-4366 if you have any further questions or concerns.

Sincerely,

Tracy Wyhlidko
Pretreatment Coordinator

cc. Mr. David McGinty, Director of Community Services, City of Eureka
Mr. Clay Yerby, Utilities Operations Manager, City of Eureka
Mr. William T. Rodriguez, NCRWQCB
Mr. Jim Crook, Project Manager, North Coast Environmental Construction

CITY OF EUREKA
HOLDING TANK SEWER USE PERMIT
CONDITIONS AND RESTRICTIONS
March 1997

I. This permit is valid for the discharge of wastewater of residential septic tank, or portable toilet origin, or contaminated water (see section E below) into the City's wastewater system. The discharge shall only occur at the Greater Eureka Area Wastewater Treatment Plant at 4301 Hilfiker Lane. The user shall meet the following conditions.

A. The user must have a current Waste truck Operator's License issued by the Humboldt County Department of Public Health.

B. The user must have a current City of Eureka Holding Tank Sewer Use Permit.

C. The quality of the waste to be discharged shall meet the criteria set forth in Sections 5-5.201, 5-5.202, and 5-5.203 of the Eureka Municipal code. (See attached.)

D. For each load to be discharged, the user shall provide a load ticket containing the following information.

1. Truck tank capacity in gallons

2. Origin of the waste material, including the address and phone #

3. Signature of the originator of the waste material; and

4. Signature of the discharger

E. Special conditions for discharge of contaminated water:

1. Notify the City of Eureka Pretreatment Coordinator of the location, origin, and quantity of the contaminated water, the project name, and the project manager(s) involved.

2. The analytical requirements for the contaminated water will be determined on a project specific basis. Analytical testing will typically include BTXE & TPHC-Gasoline, TPHC-Diesel & Motor Oil and/or any additional constituents reasonably expected to be present.

3. Sampling and analytical testing must be performed within 45 days of the submittal of analytical results to the City of Eureka Pretreatment Section for approval. Analytical results must be mailed to the City of Eureka, Pretreatment Coordinator, 531 K Street, Eureka, CA 95501 or faxed to (707) 441-4366.

4. The water sampling is to be performed from the container in which the contaminated water is stored before the water is brought to the WWTP. The acceptability of composite samples will be determined on a project specific basis

CITY OF EUREKA
HOLDING TANK SEWER USE PERMIT
CONDITIONS AND RESTRICTIONS
(CONTINUED)

5. Approval from the Pretreatment Coordinator or the Operations Manager must be given to the waste hauler before any discharge to the treatment plant is allowed.

6. The contaminated water brought into the treatment plant may be tested by the City to assure compliance with the City of Eureka's specific pollutant limitations. The testing will be performed by a state certified laboratory at the waste hauler's expense.

II. The receiving station facilities shall be used only between 8:00 a.m. and 4:00 p.m. during normal treatment plant operating hours.

III. The discharger shall ensure that any spillage is contained within the sloped concrete apron. Spillage shall not be allowed to enter the adjacent valley gutters. In the event that spillage enters the valley gutters, the discharger must notify plant personnel immediately. The discharger is liable to the City for the cost of cleanup resulting from un-contained spillage.

IV. Each discharger shall clean the receiving station after each use.

V. The permit may be voided or the discharger's use of the receiving facilities restricted if, in the opinion of the Director of Utilities, the continued unrestricted use by the discharger would adversely affect treatment plant operation.

VI. User fees shall be determined in accordance with the following schedule:

A. For septic tank dischargers, $48.00 per truck load plus $4.55 per 100 gallons of tank capacity in excess of 500 gallons.

B. For portable toilet dischargers with truck tanks of less than 500 gallons, $14.90 per truck load.

C. For contaminated water, $48.00 per truck load plus $0.205 per 100 gallons of tank capacity in excess of 500 gallons.

VII. Tanks shall only be dumped at the proper receiving facilities located at the Greater Eureka Area Wastewater Treatment Plant, 4301 Hilfiker Lane, Eureka, California.

Eureka Municipal Code

Chapter 5 Title 5 Sewers and Sewage Disposal

Article 2 General Sewer Use Requirements

Sec. 5-5.201 Prohibited Discharge Standards

No person shall discharge any substances directly into a manhole or other opening in a community sewer other than through an approved building sewer unless, upon a written application by the user and the payment of the applicable user charges and fees, the City of Eureka issues a permit for such direct discharges.

No person shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other National, State or local pretreatment standards or requirement. Furthermore, no person may contribute the following substances to the POTW:

A. Pollutants which create a fire or explosive hazard in the municipal wastewater collection and POTW, including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140 degrees F (60 degrees C) using the test methods specified in 40 CFR 261.21.

B. Any wastewater having a pH less than 5.0 or more than 12.5, or otherwise causing corrosive structural damage to the POTW or equipment, or endangering City personnel.

C. Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference, but in no case solids greater than one inch (1") or twenty five and four tenths (25.4 mm) millimeters in any dimension.

D. Any wastewater containing pollutants, including oxygen demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with either the POTW, or any wastewater treatment or sludge process; or which will constitute a hazard to humans or animals.

E. Any wastewater having a temperature greater than 150 degrees F, (65.5 degrees C), or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees F. (40 degrees C).

F. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through.

G. Any pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

H. Any trucked or hauled pollutants, except at discharge points designated by the City of Eureka in accordance with Sec. 5-5.305.

Eureka Municipal Code

Chapter 5 Title 5 Sewers and Sewage Disposal

Article 2 General Sewer Use Requirements

Sec. 5-5.201 Prohibited Discharge Standards (Continued)

I. Any noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance, a hazard to life, or to prevent entry into the sewers for maintenance and repair.

J. Any wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent thereby violating the City of Eureka's NPDES permit. Color (in combination with turbidity) shall not cause the treatment plant effluent to reduce the depth of the compensation point for photosynthetic activity by more then 10 percent from the seasonably established norm for aquatic life.

K. Any wastewater containing any radioactive wastes or isotopes except as specifically approved by the City Manager in compliance with applicable State or Federal regulations.

L. Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted industrial wastewater, unless specifically authorized by the City Manager.

M. Any sludges, screenings, or other residues from the pretreatment of industrial wastes.

N. Any medical wastes, except as specifically authorized by the City Manager in a wastewater discharge permit.

O. Any wastewater causing the treatment plant's effluent to fail a toxicity test.

P. Any wastes containing detergents, surface active agents, or other substances which may cause excessive foaming in the POTW.

Q. Any discharge of fats, oils, or greases of animal or vegetable origin is limited to 100 mg/l.

Wastes prohibited by this section shall not be processed stored in such a manner that they could be discharged to POTW. All floor drains located in process or materials storage areas must discharge to the industrial user's pretreatment facility before connecting with the POTW.

Sec. 5-5.202 Federal Categorical Pretreatment Standards

The national categorical pretreatment standards found at 40 CFR Chapter I, Subchapter N, Parts 405-471 are hereby incorporated.

May 27, 1997

Cal/EPA

Department of Toxic Substances Control

700 Heinz Avenue, Suite 200 Berkeley, CA 94710-2737

Pete Wilson
Governor

James M. Strock
Secretary for Environmental Protection

Mr. David W. Kaney
Simpson Redwood Co.
P. O. Box 1089
Arcata, CA 95518-1089

Dear Mr. Kaney:

SIMPSON REDWOOD CO, FOSTER AVENUE, ARCATA, CALIFORNIA

Subsequent to our letter of May 9, 1997, the Department of Toxic Substances Control (DTSC) has received the following reports and workplans:

* May 8, 1997 letter and report with summary data from soil sampling.
* May 12, 1997 letter describing the carbon filtration of excavation water.
* May 13, 1997 workplan for additional soil investigation and groundwater dewatering.
* May 22, 1997 workplan for additional soil boring and pit sampling.

Following discussions with staff from the Regional Water Quality Control Board, Mr. Fred Jacobsen, your consultants on the project EnviroNet, and your attorney Ms. Rona Sandler, DTSC will allow completion of the additional excavation specified in, and limited to, the proposed scope of work in the May 13, 1997 workplan.

The data indicate that the soils which have already been excavated do not represent a threat to public health. The purpose of this excavation is to remove the source of potential contamination to the groundwater. We understand that this excavation will be completed in less than one day and that the work is covered under your county excavation permit. A DTSC staff person shall be present to observe the excavation.

DTSC finds that it is technically sound to continue implementation of the dewatering plan specified in the scope of work in the May 13, 1997 workplan. This will also serve to stabilize existing excavations and enable completion of the site investigation, specified in the May 22, 1997 workplan. Disposal of the water from the dewatering program will be conducted under the permit granted to the City of Eureka Waste Water Treatment Plant.

A report documenting all the environmental investigations performed at the site since January 1, 1997, shall be submitted to DTSC by July 3, 1997. Before any additional excavations or removal activities are performed Simpson will submit a Removal Action Workplan or a Remedial Action Plan to DTSC.

This letter does not constitute a waiver by DTSC of any of its enforcement authority. Further this letter does not authorize any other removal activities.

If you have any questions or comments, please contact Derek Whitworth at (510) 540-3838.

Sincerely,

Barbara J. Cook, P.E., Chief
Northern California - Coastal
Cleanup Operations Branch

cc:

Mr. Bob Clark
North Coast Air Quality Management District
2300 Myrtle Avenue
Eureka, CA 95501

Ms. Patty Clary
CATS
860 1/2 11th Street
Arcata, CA 95521

Mr. Dennis Kalson
Humboldt County Environmental Health
100 H St., Suite 100
Eureka, CA 95501

Ms. Linda S. Mackey
EnviroNet Consulting
3601 Regional Parkway, Suite A
Santa Rosa, CA 95403

Ms. Rona H. Sandler
Pillsbury, Madison & Sutro
P.O. Box 7880
San Francisco, CA 94120-7880

Ms. Susan Warner
California Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

RECEIVED
6/10/97
7102.1

June 6, 1997

Cal/EPA

Department of Toxic Substances Control

700 Heinz Avenue, Suite 200 Berkeley, CA 94710-2737

Pete Wilson Governor

James M. Strock Secretary for Environmental Protection

Mr. David W. Kaney
Simpson Redwood Co.
P. O. Box 1089
Arcata, CA 95518-1089

Dear Mr. Kaney:

SIMPSON REDWOOD CO, FOSTER AVENUE, ARCATA, CALIFORNIA

Subsequent to our letter of May 27, 1997, the Department of Toxic Substances Control (DTSC) has received comments from the North Coast Regional Water Quality Control Board. The Board would like to see the following changes to the May 22, 1997 workplan for additional sampling. Specially the following items should be incorporated by amendment or addition to the workplan.

1) Samples should be analyzed by both 8260 and 8270 to investigate for the presence of pentachlorophenol.

2) Sampling should be conducted along the water line in the north east direction.

3) Investigations to date have focussed on the horizontal extent of contamination. Effort should be made to determine the vertical extent of contamination. The lower aquifer, i.e. below the clay layer you found at around 17 ft below ground surface, should be sampled and analyzed. The planned offsite borings, located at what is believed to be downgradient from the suspected point source, can be extended to sample the lower aquifer.

If you have any questions or comments, please contact Derek Whitworth at (510) 540-3838.

Sincerely,

Stephen Cimperman P.E., Unit Chief
Northern California - Coastal
Cleanup Operations Branch

k:\simpson\kaney2.ltr

EnviroNet CONSULTING

COPY

March 20, 1998
Project No. 7102.1

Mr. Derek Whitworth, Ph.D., P.E.
California Environmental Protection Agency
Department of Toxic Substances Control, Region 2
Site Mitigation Branch
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2737

Re: Revised Removal Action Work Plan Implementation Report and Results of Initial Groundwater Monitoring for the Former Simpson Remanufacturing Plant, Foster Avenue, Arcata, California

Dear Mr. Whitworth:

EnviroNet Consulting (EnviroNet) is pleased to present this Revised Removal Action Work Plan Implementation Report and the Results of the December 1997 Groundwater Monitoring for the Former Simpson Remanufacturing Plant, at 3315 Foster Avenue in Arcata, California (Plate 1, Appendix A). This report revises the February 13, 1998 Removal Action Work Plan Implementation Report and Results of Initial Groundwater Monitoring for the Former Simpson Remanufacturing Plant, Foster Avenue, Arcata, California. The analytical reports (Appendix D), groundwater sampling forms (Appendix E), and the disposal manifests (Appendix F) are enclosed with the February 13, 1998 report only; however, they are referenced in this revised report. Please refer to the February 13, 1998 report for the Appendix D, E, and F documents.

The remedial action consisted of excavation of paint waste material and impacted soil from the south lunch room area, transport and disposal of contaminated soil, treatment, transport and disposal of groundwater, installation, development, and sampling of four groundwater monitoring wells, and collection of additional soil, surface water, and groundwater samples to complete the site characterization. The work was performed in accordance with EnviroNet's November 13,

1997, Final Removal Action Workplan, Former Simpson Timber Company Remanufacturing Plant Site Located at 3315 Foster Avenue, Arcata, California (Final RAW). The Final RAW was prepared in accordance with current Department of Toxic Substances Control (DTSC) guidance and was submitted to the DTSC for approval pursuant to California Health and Safety Code Section 25356.1(h).

INTRODUCTION

The Arcata Remanufacturing Plant was built on 209 acres of agricultural land between 1951 and 1959 and operated from 1952 until its closure in June of 1989. The plant was a lumber remanufacturing facility, used to process rough sawn boards into finished dimensional lumber and siding. The adjoining railroad spur has been in continuous use to this date for shipping of processed materials.

An investigation was conducted and subsequently focused on approximately 20 locations at the site to determine if past practices at the site had resulted in the release or threatened release of hazardous substances which pose a threat, or potential threat, to human health or the environment.

The initial investigation consisted of drilling, excavation, and sampling to determine the presence of and to delineate the extent of soil and shallow groundwater contamination. Releases were identified at the following locations: 1) a steam cleaning/wash rack area; 2) a teepee burner; 3) two above ground storage tank areas; 3) a dip tank area; 4) a debris disposal area; and, 5) the former south lunch room area (see Plate 2, Appendix A, for the general locations of these areas). Soil excavated during all investigations was placed in the main building prior to characterization and disposal. Dewatering was also necessary in the excavated area south of the main building and to a minor extent in the dip tank area. See EnviroNet Consulting's Report of Investigation for the Former Simpson Remanufacturing Plant Site dated July 31, 1997, the Revised Report of Investigation dated September 12, 1997, and the Final RAW dated November 13, 1997 for additional details.

Limited contamination of soil by petroleum hydrocarbons was found in the steam cleaning/wash rack area, beneath the two above ground fuel storage tanks, and in the teepee burner area. These soils were removed and placed in stockpile cells in the main building. Sample analytical results presented in the July 31, 1997 Report of Investigation and the September 12, 1997 Revised Report of Investigation indicate that virtually no contamination remains in these areas.

Sampling in the dip tank area indicated that no contaminated soil remained in this area. Investigation information was presented in the July 31, 1997 Report of Investigation and the September 12, 1997 Revised Report of Investigation.

After the initial investigation work conducted in the first half of 1997, the only identified remaining area of significant soil or groundwater contamination was found in the vicinity of the former south lunch room. The primary groundwater contaminants detected in this area included pentachlorophenol (PCP), cis-1,2-dichloroethene, benzene, toluene and total xylenes. PCP was the primary contaminant found in soil in this area. Additionally, contaminated soil was found in the debris disposal area, primarily within the debris disposal pile itself.

Although the evaporation pond sediment and sediment in the bottom of several drop outlets were partially characterized during initial investigations, additional samples were collected and analyzed to ensure complete characterization of these areas.

Site Description and Background

Site Location

The former Simpson Remanufacturing Plant is located at 3315 Foster Avenue, Arcata, Humboldt County, California as shown on Plates 1 and 2, enclosed in Appendix A. The site is bordered on the south by Foster Avenue and then primarily pasture land to Arcata Bay; on the west and east by residential and agricultural land, and on the north by Sun Valley Farms (flower grower-distributor). The area is known as "the Bottoms".

Type of Facility and Operational Status

The site was constructed on agricultural land beginning in 1951 with construction continuing through 1959. Imported fill (gravel) was used along with native soils to reconfigure the site to suit the construction and desired surface drainage. From 1952 to 1989 the site was used to process rough sawn boards into finished dimensional lumber and siding. The plant equipment was then sold. Since 1991, the site has been used as a shipping point for lumber processed at other facilities.

Structures/Topography

The currently existing site structures are shown on Plate 2, Appendix A, with details of areas shown on Plates 3 through 8, 12 and 13, enclosed in Appendix A. The entire site is flat and at an elevation of roughly 20 to 25 feet above mean sea level.

Hydrogeology and Geology

The site is within "the Bottoms" which is an uplifted coastal plain area bounded on the south by Arcata Bay, on the north by the Mad River, on the west by a marshy finger of Arcata Bay and then the Pacific Ocean, and on the east by the City of Arcata. The site is characterized by a low permeability cap of soil consisting of clay and/or silt which was identified as being anywhere from

a few feet to in excess of 20 feet thick throughout the site. Beneath the lower permeability surface soil, zones of both sand and gravel were observed with highly permeable gravel layers in excess of ten feet thick in some portions of the site. Plates 9 and 10, Appendix A, present cross sections through the southern portion of the site, while Plate 8, Appendix A, indicates the location of the cross sections. The letter symbols on the cross sections, such as SP, SW, and GM, represent different soil types, and are from the Unified Soils Classification System, a copy of which is included in Appendix B. The numbers along the top of the cross sections correspond to the boring numbers. As an example 96 at the top of Plate 9 is in the approximate location of boring LRB-96 projected onto the cross section line.

The gravel layers contain well rounded gravel ranging in size from pea gravel to cobbles in excess of four inches in diameter. The gravel was either deposited in a very active river bed or in an active near shore environment. Based on the location of the site near the Mad River to the north and the Pacific Ocean to the west, either scenario is possible.

The gravel layers are typically saturated with groundwater, although the shallowest gravel layers may become dewatered due to water table fluctuations. Water table fluctuations during the summer may be partly influenced by pumping activities by nearby farmers and ranchers.

Surface water on and around the site flows seasonally in shallow streams and sloughs on both the east and west sides of the site. It flows generally to the south where it eventually empties into Arcata Bay, located less than two miles to the south of the site. A small finger of Arcata Bay is present to the west of the site at a distance of less than two miles. The finger of the Bay to the west is very shallow and is more akin to being marsh land. Shallow groundwater was generally expected to mimic the surface water in its flow direction but may be affected by nearby pumping and variable subsurface stratigraphy. It was noted on several occasions during the spring that shallow pits would fill with water during high tide but could easily be mechanically pumped dry during low tide, thus indicating that groundwater flow beneath the site is inhibited by ocean water during high tide conditions.

The initial measured groundwater flow direction in the recently installed monitoring wells was due east at a fairly substantial gradient of 0.017 toward an exposed section of Liscom Slough approximately 200 yards away. This was unanticipated and may indicate a more complicated subsurface groundwater flow regime than originally expected. It may also indicate that a portion of the Liscom Slough just to the west of the site is currently acting as a shallow groundwater recharge area.

Surrounding Land Use

The site is bounded by agricultural land used primarily for grazing and some crop production. The parcels are typically either strictly farmland or are occupied by one or more residences. The town of Arcata begins roughly one half to three quarters of a mile to the east of the site.

Sensitive Ecosystems

There are no known sensitive ecosystems in the immediate vicinity of the site. Liscom Slough passes through the site; however, the slough has only seasonal flow with no known sensitive ecosystem. The slough drainage also runs underground for considerable distances beneath the site.

Meteorology

The climate of the area is typically cool, wet winters and mild, windy summers. High temperatures range from 50 to 80 degrees Fahrenheit. Low temperatures range from 20 to 50 degrees Fahrenheit. The average wind speed and direction is 5-15 miles per hour from the west. Rainfall averages 40 inches per year in the Humboldt Bay region with the majority of the rain falling in the winter.

Source, Nature, Extent and Magnitude of Contamination

A preliminary site inspection and limited sampling was conducted in December 1996. Subsequently a series of detailed investigation programs were conducted at approximately 20 locations at the site from January through July 1997. The investigation showed that the site was impacted by petroleum hydrocarbons, solvents, chlorinated solvents, PCP, lead, and zinc. Full details of the investigation are presented in a Report of Investigation (July 31, 1997, revised September 12, 1997) and in the Final RAW dated November 13, 1997. The details of the contamination at six locations where the soil and/or, groundwater were impacted at potential levels of concern are summarized below.

Steam Cleaning/Wash Rack

The location of this area is shown on Plates 2 and 3, Appendix A. This area was impacted by petroleum hydrocarbons (diesel and motor oil) from vehicle cleaning and washing activities. Investigations were conducted by visual inspection and by excavation. Excavation was continued until the extent of contamination was delineated by sampling (Plate 3, Appendix A). Approximately 100 cubic yards of soil were excavated and moved to the main building. The soil is currently stockpiled in cell CP-4 in the main building (Plate 11B, Appendix A). The stockpiled soil was analyzed for hazardous substances and the petroleum hydrocarbon contaminated soil is currently being profiled. After the initial investigation was completed only soils with low levels of petroleum hydrocarbons and PCBs remained in place. The level of PCBs detected was near the PRG for PCBs. Additional sampling was necessary to determine both the level of PCBs and the level of organic

carbon in order to make a determination if the residual PCBs posed a threat to human health or the environment. The initial investigation results were presented in the July 31, 1997 Report of Investigation which was revised on September 12, 1997.

Above Ground Fuel Storage Tanks

The locations of these areas are shown on Plates 2, 4A (bunker C tank location), and 4B (diesel tank location), enclosed in Appendix A. These areas had two 20,000 gallon tanks which were used for storing diesel and bunker C oil. After their removal it was noted that the soil around the pipes appeared to be stained with petroleum products. To determine the extent of contamination, soil was excavated around the areas of contamination. Approximately 200 cubic yards were excavated from a test pit around the former bunker C tank and 1,010 cubic yards from a test pit around the diesel tank. The location of these test pits, and other sampling points are shown on Plates 4A and 4B, enclosed in Appendix A. The soils were moved to the main building where they are currently stockpiled in discrete cells (Cells CP-2, CP-3, COL-28, COL-32, and RR-10, Plate 11B, Appendix A). The stockpiled soil was analyzed for hazardous substances and petroleum hydrocarbons. Based on sampling analytical results presented in the July 31, 1997 Report of Investigation as revised September 12, 1997, no impacted soils remain in place at these two locations.

Teepee Burner

The location of this area is shown on Plates 2 and 5, enclosed in Appendix A. This area was impacted by petroleum products. To determine the extent of contamination, approximately 40 cubic yards of soil with visible contamination were scraped from the soil surface of the Teepee Burner location. The soil was moved to the main building and stored in a discrete cell. The soil was subsequently combined with the soil from the above ground diesel storage tank and is now present in Cell CP-3, Plate 11B, Appendix A). The stockpiled soil was analyzed for hazardous substances and petroleum hydrocarbons. Based on analytical results from samples collected at the locations shown on Plate 5, Appendix A, and presented in the July 31, 1997 Report of Investigation as revised on September 12, 1997, no hazardous substances were detected and no contaminated soils remain in place in the teepee burner area.

Debris Disposal Area

The location of this area is shown on Plates 2 and 6, enclosed in Appendix A. This area contained construction debris and other debris including paint cans, dried paint waste, drums, and oil filters. Elevated levels of lead and zinc were noted in soil at one location. Soil with elevated levels of lead and zinc consisting of approximately 20 cubic yards was segregated and placed in the main building. The portion of the debris pile, consisting of approximately 860 cubic yards, containing the paint containers and paint waste was loaded into trucks and moved inside the main building in September of 1997 to prevent the leaching of possible contaminants into Liscom Slough. Investigations were

conducted by visual inspection for distressed vegetation and soil discoloration, trenching, and by drilling of soil borings. The initial trenching and sampling points are shown on Plate 6, Appendix A. The results of the initial investigation in this area were presented in the July 31, 1997 Report of Investigation as revised on September 12, 1997.

No contamination was detected in any of the groundwater samples collected during drilling. The majority of the debris in the debris disposal area was separated out of the soil stockpiled on the asphalt on the south air-dry lot. The soil and some smaller debris was also stockpiled on the south air-dry lot where it remains today in four stockpiles totaling approximately 2,000 cubic yards. The different types of impacted soil were kept separate. A total of approximately 860 cubic yards of soil and debris were excavated and removed from the area and stored in the main building. The remainder of the debris disposal area was removed to grade and the material was segregated to the extent feasible and stockpiled inside the main building. This soil was subsequently tested and approximately 800 cubic yards of soil (Stockpiles C-3, COL-11, COL-25, and LANDFILL, Plate 11A, Appendix A) were disposed of at Forward Landfill. Analytical results profiling the soil for disposal are summarized in Table 1, Appendix C. Copies of the analytical reports were either submitted in the July, 1997 Report of Investigation or are included in Volumes 1 and 4 of Appendix D. Approximately 60 cubic yards of soil from the debris disposal area remains inside the main building in Cell COL-10, Plate 11B, Appendix A. The stockpiled soil in stockpile COL-10 was analyzed hazardous substances could be detected (Table 2, Appendix C).

No native soil was removed from the debris disposal area. All material removed from this area had been previously deposited in the area during prior disposal activities. The main effort was to remove this material so that it could be properly characterized and then disposed.

Dip Tank

A former employee of the plant identified the prior location of an above ground dip tank which had been used for a short period of time for surface coating of lumber when the plant was operational. A former storage location for containers of coating materials was also identified adjacent to the above ground dip tank. The above ground dip tank location is shown on Plates 2 and 7, Appendix A. The areas were investigated by drilling soil borings and excavating approximately 20 cubic yards of soil at the locations shown on Plate 7, Appendix A. This soil was initially stored in a discrete cell in the main building. The excavation required dewatering. This water was passed though an activated carbon filter, to meet discharge limits, before being sent to the Eureka Sewage Treatment Plant. After being passed through the activated carbon filter, water was shown to be free of contaminants. When there was no evidence of contaminated soil in the trench, the excavation was backfilled with clean fill. Excavated soils were placed in a cell (RR-17) in the main building, sampled and analyzed. No hazardous substances could be detected. Copies of the disposal manifests are enclosed in Appendix F for the soil from the dip tank area and the south lunch room area. Based

on sampling analytical results which were presented in the report of investigation, no impacted soils remain in place.

South Lunch Room

The location of this area is shown on Plates 2 and 8, Appendix A. According to a former employee at the plant, in the 1960s paints and other materials used in wood remanufacturing were released in this area which is to the south of the main building. A lunch room was subsequently built in this area. A very extensive soil boring program was undertaken covering the entire area. The sampling points in this area are shown in Plate 8, Appendix A and the results were presented in the July 31, 1997 Report of Investigation as revised on September 12, 1997. Sampling results showed shallow groundwater contamination by PCP, chlorinated solvents, and other organic chemicals, but did not reveal the source of contamination. To identify the source of the contamination, trenching and excavation were undertaken. In addition, the lunch room was demolished during this period so the underlying soil could be examined. The extent of the excavation and sampling points are shown in Plate 8, Appendix A. Approximately 3,300 cubic yards of soil were excavated from this area during the early investigation.

Soils removed from different locations during the excavation were placed in discrete cells within the main building (Plates 11A and 11B, Appendix A). Since classification would be required prior to disposal or reuse of these soils. Soil samples were collected from the cells for initial characterization purposes and additional samples were collected in early October and early December of 1997 to complete the characterization of the stockpiles. The stockpiled soil was analyzed for hazardous substances and the results are shown in Table 2, Appendix C with supporting data in Volumes 1 and 4 of Appendix D.

In order to maintain the excavation and continue investigations, the pit had to be dewatered. This water was passed though an activated carbon filter, to meet facility discharge limits, before being sent to the Eureka Sewage Treatment Plant for ultimate disposal.

Soil with unacceptably high levels of contaminants was removed from the site and disposed of at Forward Landfill in Manteca, California. Between December 4 and December 9, 1997 approximately 1,950 cubic yards of soil from the south lunch room area (Stockpiles C-2, COL-2, COL-22, COL-29, COL-34, and COL-35, Plate 11A, Appendix A) were disposed of at Forward Landfill under manifest. Soil profile analytical results for disposal are summarized in Table 1, Appendix C. Copies of the analytical reports were either submitted in the July Report of Investigation or are included in Volumes 1 and 4 of Appendix D. Copies of the disposal manifests are enclosed in Appendix F.

The remaining 1,350 cubic yards of soil which consisted mainly of uncontaminated overburden remains stockpiled in cells in the main building. Those cells are C-1, COL-1, NEW COL-3, COL-

12, NEW COL-14, and RR-17, Plate 11B, Appendix A. These cells have been sampled and analyzed and based on the analytical results are proposed to be reused on-site. The stockpiled soils were analyzed for hazardous substances and none were detected (Table 2, Appendix C). Method detection limits are indicated in the analytical reports, Volumes 1, 2, 3, and 4 of Appendix D.

EXCAVATION OF ADDITIONAL SOIL FROM THE SOUTH LUNCH ROOM AREA

An area of additional paint waste was identified near the driveway along the south side of the main building. This area was proposed for excavation in the Final RAW. The excavation of the area occurred on November 7, 8, and 9, 1997 at which time approximately 1,900 cubic yards of soil including a very small area with identified paint waste material were removed. The limits of the excavation were based on odor and visual evidence.

The area excavated extended to a maximum depth of 25 feet and soil with subjective evidence of contamination was removed. After soil with subjective evidence of contamination and paint waste material had been removed, verification soil samples were collected around the general perimeter and bottom of the excavation to document the residual levels of contamination remaining in soil. The verification soil sample locations are shown on Plate 12, Appendix A, and the analytical results from the verification samples are summarized in Table 3, Appendix C. The results indicate that virtually all the soil contamination has been removed from the south lunch room area with no PCP or other semivolatile organic compound being detected in soil and with the maximum of any volatile organic compound detected of 0.151 mg/kg total xylenes (Table 3, Appendix C). A water sample collected from the pit (Pit Water, Table 3, Appendix C) contained detectable levels of PCP at 0.0022 mg/L as the only semivolatile organic compound detected and low levels of volatile organic compounds with total xylenes being the highest at 3.4 mg/L and toluene being the next highest at 0.47 mg/L (Table 3, Appendix C). The MCLs for PCP, benzene, cis-1,2-dichloroethene, ethylbenzene, toluene, total xylenes, and trichloroethene (Table 14, Appendix C) were exceeded in this sample. No MCLs have been established for several other analytes detected in the water sample; however, the results were below the PRG for tap water (Table 14, Appendix C). A copy of the analytical reports for these samples is enclosed in Volume 2 of Appendix D.

Approximately 20 cubic yards of the excavated soil containing obvious paint waste was added to cell C-2, Plate 11A, Appendix C and was subsequently disposed of at Forward Landfill. Approximately 1,880 cubic yards of excavated soil were transported into the main building and stockpiled for characterization in cells NEW COL-16, NEW COL-26, NEW COL-34, NEW COL-36, NEW COL-37, and NEW RR-11 (Plate 11B, Appendix A). The stockpiled soil was analyzed for hazardous substances. Based on the results shown in Table 2 (Appendix C), none of the analytical results exceeded the residential PRG (Table 14, Appendix C). There is therefore no basis for restricting the use of this soil.

Paint waste and associated soil was removed from the south lunch room area as proposed in the Final RAW. Verification soil sampling indicated that the residual soil was virtually free of contaminants. Residual contamination is largely confined to groundwater. The analytical results of a sample of water collected from the excavation in May of 1997 (see July 31, 1997 Report of Investigation, Table 19A, Appendix C) were compared to a water sample collected from the pit in November of 1997 (Table 3, Appendix C). The comparison showed that the sample collected in November, 1997 had much lower levels of contaminants than the May, 1997 sample. For example PCP was detected in May at a maximum level of 0.960 mg/L, while in November it was detected at 0.0022 mg/L; toluene was detected at 86 mg/L in May while it was detected at 0.47 mg/L in November; and ethylbenzene was detected at 19 mg/L in May and only 0.86 mg/L in November (see Table 19A, in July 31, 1997 Report of Investigation and Table 3, Appendix C). There was no highly contaminated soil. The results indicate that highly contaminated water had been removed from the south lunch room area. The pit water was subsequently pumped from the excavation prior to backfill and compaction. The pit water was processed through activated carbon and then disposed.

The analytical results further suggest that the residual contamination is in groundwater and not attached to soil. This is consistent with the subsurface lithology which consists primarily of rounded gravel with coarse sand in the zone of impact. It is also consistent with the analytical results from the newly excavated soil which was virtually free of contaminants.

MONITORING WELLS IN THE VICINITY OF THE SOUTH LUNCH ROOM

Groundwater Monitoring Well Borings

Groundwater monitoring wells MW-1 through MW-4 were installed on December 2 and 3, 1997 at the locations shown on Plate 8, Appendix A. The wells were installed in what was believed to be the down-gradient direction from the dip tank area and the south lunch room area based on surface topography and surface water flow. The wells were designed to provide long term monitoring points for evaluating potential groundwater impacts from past activities in these areas.

All of the wells were drilled using a truck-mounted drill equipped with 9-inch diameter hollow stem augers and were drilled to a depth of 25 feet below ground surface (bgs). Soil from the borings was examined while drilling the borings and no subjective evidence of soil contamination was observed during drilling so soil samples were not collected. In addition, the monitoring wells were installed in the vicinity of soil borings from which soil samples were already collected and analyzed.

Boring logs (lithologic descriptions) were made according to the Unified Soils Classification System. Plates A through D, Appendix B, present the boring logs for monitoring wells MW-1

through MW-4, respectively and continue to show the same lithology detected during the previously completed boring program. The lithology in general consists of a shallow surface layer of silty soil which is underlain by sand and gravel to approximately 20 to 25 feet bgs. The sand and gravel is underlain by a clayey silt to silty clay which apparently acts as an aquitard throughout the south lunch room area.

Groundwater Monitoring Well Construction

The groundwater monitoring wells were constructed using 2-inch diameter Schedule 40 PVC flush-threaded PVC well casings. The well screens were constructed with 0.020-inch diameter slotted screens extending from 5 feet bgs to 25 feet bgs. The filter packs were constructed of #2/12 sand and were placed to one foot above the well screens. Then well seals of bentonite pellets were placed on top of the filter packs and hydrated with clean water. The remainder of the borehole annulus was filled with lean bentonite cement. A locking water-tight plug was attached to the top of each well casing. Each well is protected by a traffic-rated water-tight circular vault set in concrete. The vault lids were installed approximately ½ inch above grade. Plates E through H, Appendix B, present the well construction diagrams for wells MW-1 through MW-4.

Groundwater Monitoring Well Development

The monitoring wells were developed on December 4, 1997, approximately 24 hours after their construction. The wells were surged with a surge block and then purged using a submersible groundwater sampling pump, followed by an additional surging and purging.

Groundwater Monitoring Well Sampling

The wells were allowed to stabilize for at least 24 hours following development before being sampled on December 5, 1997. The depth to groundwater in all of the wells was recorded, then the wells were purged between 5.5 to 6.2 well volumes, until pH, temperature and conductivity of the purged water had stabilized. The wells were allowed to recover to at least 80 percent of their original well volume, then groundwater samples were collected using a separate disposable bailer for each well. The samples were transferred into 40 milliliter VOA vials and one liter amber glass bottles. The sample containers were labeled and stored in a refrigerated cooler and transferred to Legend Analytical Services (Legend) in Santa Rosa, California. Chain-of-Custody documentation of the samples was maintained at all times. Copies of the Groundwater Field Sampling Forms are enclosed in Appendix E.

Water generated during well installation, development and sampling was disposed through the on-site groundwater treatment system. Soil cuttings from the four borings were stockpiled, sampled,

and analyzed for Volatile Organic Compounds and Semivolatile Organic Compounds. The soil sample, labeled "Drill Cuttings" was non-detect for Volatile Organic Compounds and Semivolatile Organic Compounds. Following receipt of non-detect results, the soil cuttings were added to an existing soil stockpile from the south lunch room area inside the Main Building. A copy of the analytical report which includes sample "Drill Cuttings" is enclosed in Volume 3 of Appendix D.

Groundwater Monitoring Well Surveying

The wells were surveyed on December 5, 1997, to determine their elevations within 0.01' relative to Mean Sea Level. Table 4, Appendix C, presents the well elevations along with the groundwater flow direction and gradient information.

Groundwater Flow Direction and Gradient Determination

The groundwater flow direction for December 5, 1997 was calculated as due east at a gradient of 0.017 (Table 4, Appendix C), different to the anticipated southerly groundwater flow direction. The gradient was also higher than anticipated. The groundwater flow direction and gradient will be recalculated during future monitoring events.

Groundwater Sample Analyses

The groundwater samples were analyzed by Legend, which is a California-certified laboratory for the analyses requested. The analytical methods used were Volatile Organic Compounds by EPA Method 8260 and Semivolatile Organic Compounds by EPA Method 8270 (acid fraction components).

Groundwater Sample Analytical Results

The analytical results indicate that no Semivolatile Organic Compounds were detected in the samples from all of the wells and no Volatile Organic Compounds were detected in the samples from wells MW-1 and MW-2. The only Volatile Organic Compounds were in the sample from well MW-3 which contained 0.0015 mg/L of benzene and 0.0079 mg/L of cis-1,2-dichloroethene and the sample from well MW-4 contained 0.004 mg/L of cis-1,2-dichloroethene. A copy of Legend's analytical report is enclosed in Volume 3 of Appendix D. The groundwater sample analytical results are presented on Table 5, Appendix C.

The initial groundwater analytical results from the monitoring wells are in general agreement with the results from the shallow and deep water samples collected during the previous boring program (see July 31, 1997 Report of Investigation). The highest level of PCP detected during the boring

program from any of the borings in the vicinity of the monitoring wells was 0.0014 mg/L, which is in general agreement with the non-detect results (at a detection limit of 0.005 mg/L) from all the monitoring well samples. MW-3 contained detectable benzene and cis-1,2-dichloroethene while the borings drilled in the vicinity of MW-3 all contained cis-1,2-dichloroethene at the same general level. One boring drilled near MW-3 (LRB-71) also contained detectable benzene. All the borings drilled near MW-4 contained cis-1,2-dichloroethene at levels ranging from 0.0027 to 0.0052 mg/L which is consistent with the 0.004 mg/L result obtained from the monitoring well. Finally, the results of the sample from MW-1 are similar to those seen in the samples from nearby borings where analyses were at or below the limits of detection.

Confirming the observations of the boring program, the groundwater in the vicinity of MW-3 and MW-4 contains benzene and cis-1,2-dichloroethene at levels which slightly exceed the maximum contaminant levels (MCLs) for these two chemicals (Table 14, Appendix C). Since the source of these chemicals has now been removed, these levels are anticipated to drop below the MCLs in the near future.

The recently installed monitoring wells will be sampled quarterly for one hydrologic cycle (one year). A quarterly groundwater monitoring report will be completed and submitted after each monitoring event, with this report serving as the first quarterly report. After the one year hydrologic cycle is complete, an annual summary report will be prepared to evaluate the groundwater monitoring program to determine if additional monitoring is required based on trends observed during the first year of quarterly sampling. If increasing or unstable trends are observed, or if high levels of groundwater contamination are detected, the monitoring program will be extended for at least another four quarters.

The groundwater flow direction, for December 5, 1997, was due east. The groundwater flow direction will be evaluated following each quarterly groundwater monitoring. If the groundwater flow direction continues to be toward the east or otherwise indicates that the down-gradient areas are not being monitored after the next quarterly monitoring event, additional monitoring wells will be proposed in the down-gradient direction from the south lunch room area and from the former dip tank area.

ADDITIONAL SOIL, WATER AND GROUNDWATER SAMPLING

Various soil, Hydropunch® groundwater and water samples were collected in order to complete the site characterization, as discussed in the final RAW.

Surface Soil sampling, Boring HP-1 and Collection of Hydropunch® Groundwater Sample in the Debris Disposal Area

After paint cans and dried paint waste were detected in the debris disposal area, surface soil samples were collected at the location of the paint waste and around the paint waste after the soil and debris was removed. Five samples (DP1-1', DP2-1', DP3-1', DP4-1', and SL-Surface) were collected in September of 1997 at the locations shown on Plate 6, Appendix A. The samples did not show semivolatile organics but all contained detectable methylene chloride which is a common component of spray paint. In addition, the sample from the location of the paint (SL-Surface) also contained acetone. Table 6A, Appendix C, summarizes the analytical results and a copy of the analytical report is also enclosed in Volume 2 of Appendix D.

Soil Boring HP-1 was drilled on December 2, 1997, at the location shown on Plate 6, Appendix A. The boring was drilled in the area previously identified as being in the debris disposal area where old paint cans were found. The boring was drilled using a truck-mounted drill equipped with nine-inch diameter hollow stem augers. The boring was drilled until groundwater was first encountered at a depth of 12 feet and then extended slightly. Soil samples were collected from depths of 4.4, 9.5 and 14.5 feet bgs. The boring log for HP-1 is enclosed as Plate I, Appendix B. The auger was removed from the original boring and a second boring was drilled approximately two feet from the original boring. The second boring was drilled to a depth of 12 feet bgs, then a Hydropunch® groundwater sampler was placed in the boring and driven to 16 feet bgs. The sampler's outer cover was retracted to expose a five-foot long temporary well screen, then groundwater sample (HP-1-W) was collected by lowering a stainless steel bailer lowered into the screen. This method of sampling was used to ensure that a water sample from the top of the groundwater was collected.

Soil samples HP-1-4.5 and HP-1-9.5 contained 0.015 milligrams per kilogram (mg/kg) and 0.014 mg/kg of acetone, respectively. The samples were non-detect for other Volatile Organic Compounds. Hydropunch® groundwater sample HP-1-W did not show the presence of Volatile Organic Compounds and Semivolatile Organic Compounds (Table 7, Appendix C). A copy of the analytical report is enclosed in Volume 3 of Appendix D.

Elevated levels of lead and zinc were previously detected in a soil sample from a small area of the debris disposal pile (sample EP 16, Plate 6, Appendix A, of the Final RAW). In this investigation five surface soil samples (sample numbers EP16SS-1 through EP16SS-5, Plate 6, Appendix A) were collected from the area around surface soil sample EP 16. The five samples were collected in stainless steel soil sample tubes and analyzed for lead and zinc. The analytical results (Table 6B, Appendix C) indicate that none of the five soil samples exceeded either 100 mg/kg of lead (25% of the residential PRG) or 250 mg/kg of zinc (approximately 1% of the

residential PRG). Samples EP16SS-1, EP16SS-2, EP16SS-4 and EP16SS-5 exceeded a lead concentration of 50 mg/kg and were analyzed for STLC (Soluble Threshold Limit Concentration) using on-site water collected from a groundwater monitoring well. No leachable lead was found in any of the samples using groundwater from monitoring well MW-1 for extraction (Table 6B, Appendix C). Copies of the analytical reports are enclosed in Volumes 3 and 4 of Appendix D.

Resampling of Soil and Water in the Steam Cleaning/Wash Rack Area

One soil sample (CON-4-R-Soil) was collected from the drainage ditch in the steam cleaning/wash rack area, at the approximate previous location of sample CON-4 (Plate 3, Appendix A) where PCB was previously detected at a level of 0.42 mg/kg. Two samples were also collected of the water in the drainage ditch; sample CON-4-Water-U was collected 20 feet to the east (upstream flow direction) of original sample CON-4's location and sample CON-4-Water-D was collected 20 feet to the west (downstream flow direction) of sample CON-4's location (Plate 3, Appendix A).

The soil and water samples were analyzed for polychlorinated biphenyls (PCB). No PCBs were detected in water samples CON-4-Water-U and CON-4-Water-D. Soil sample CON-4-R-Soil contained 0.043 mg/kg of the PCB Aroclor 1260. CON-4-R-Soil was analyzed for total organic carbon following the detection of Aroclor 1260 and found to contain 7,300 mg/kg of total organic carbon. Table 8, Appendix C presents the CON-4 Series soil and water sample analytical results. A copy of the analytical report is enclosed in Volume 4 of Appendix D.

The analytical results indicate that a trace of PCBs remain in the soil in the banks of the drainage ditch at the steam cleaning/wash rack area. Based on the level of organic carbon in the soil and absence of detectable amounts of PCBs in the water both upstream and downstream of the area of detection, the traces of PCBs remaining are bound up in the soil, probably by the organic carbon. The remaining PCBs are below levels posing a threat to human health or the environment (USEPA OSWER Directive No. 9355. 4-01).

Sampling of Evaporation Pond Sediment

One sample of the sediment in the evaporation pond (sample Evaporation Pond Sediment) was collected using a clean hand auger at the location shown on Plate 13, Appendix A. The sample was collected to document the level, if any, of contaminants which may have partitioned out of the pond water into the pond sediment in the past. The sample was analyzed for TPH-d, TPH-mo, Volatile Organic Compounds, Semivolatile Organic Compounds, CAM 5 metals, PCB, and formaldehyde.

Sample Evaporation Pond Sediment was ND for TPH-d, TPH-mo, Volatile Organic Compounds, Semivolatile Organic Compounds, PCB and formaldehyde, the CAM 5 metal concentrations ranged from non-detect for cadmium to 100 mg/kg of nickel. Table 9, Appendix C presents the Evaporation Pond Sediment Sample analytical results. A copy of the analytical report is enclosed in Volume 4 of Appendix D.

The results of the pond sediment sampling indicated that presence of no contaminants, with metals being the only analytes detected at levels which are considered to be background for those metals in soil. Based on the sample result, there has been no impact to the sediment in the bottom of the pond from any water discharged into the pond.

Resampling of Drop Inlet Soil Near the Southwest Corner of the Main Building

Soil sample locations GRO and DRO (Plate 11B, Appendix A) were resampled on December 5, 1997. These locations had been sampled previously, but the analytical data was incomplete. Sample GRO-1-1.5-R was collected from the bottom of the drainage at the outlet end of the culvert near south end of the Main Building and sample DRO2-2-1.5-R was collected from the drainage at the outlet end of the culvert to the west of the Main Building. These locations can be seen on Plate 2, Appendix A. A clean hand auger was used to auger into the sediment beneath the drainage outlet locations to the same depths as the original sediment samples. The sediment samples were analyzed for TPH-d, TPH-mo, Semivolatile Organic Compounds and Volatile Organic Compounds.

Samples GRO-1-1.5-R and DRO2-2-1.5-R did not indicate the presence of TPH-d, TPH-mo and Semivolatile Organic Compounds. Sample GRO-1-1.5-R contained 180 mg/kg of TPH-mo and 0.022 mg/kg acetone, sample DRO2-2-1.5-R contained 78 mg/kg of TPH-mo and 0.11 mg of acetone and 0.023 mg/kg of 2-butanone. Table 10, Appendix C, presents the Drainage Soil Sample analytical results. A copy of the analytical report is enclosed in Volume 3 of Appendix D.

The analytical results of the sediments from the two drain outlets indicate that low levels of contaminants, primarily in the form of motor oil, are present in the sediment at the culvert outlet points. The use of the site as a lumber mill included the constant use of heavy equipment and large trucks. Minor drips of motor oil from vehicles onto the asphalted surfaces at the site over time would be normal. The presence of traces of these compounds in the sediments where the drains discharge is also to be expected. The levels of motor oil and other contaminants detected do not pose a threat to surface or groundwater and do not pose a threat to human health or the environment at the levels detected. If this sediment is ever removed from the drain and drain outlet areas, it should be disposed of properly.

STOCKPILE DISPOSITION AND STATUS

Stockpiles in the Main Building

A summary of the analytical results provided to the Landfill for the disposal profile of the soil from the south lunch room area and from the debris disposal area is presented in Table 1, Appendix C. Analytical reports of the samples from stockpiles were either submitted in the July 31, 1997 Report of Investigation and the revised Report of Investigation dated September 12, 1997 or are included in this document for reference in Volumes 1 and 4 of Appendix D. The current and former stockpiles, and their approximate volumes and locations are summarized in Table 11, Appendix C.

One hundred and ten truckloads of soil originally stockpiled in the main building were transported to and disposed of as non-hazardous waste at Forward Landfill in Manteca between December 4 and December 9, 1997. Copies of the disposal manifests are enclosed in Appendix F. The weight of the disposed soil was 2,654 tons while its volume was originally estimated at approximately 2,750 cubic yards. Based on the original volume estimates, 800 cubic yards of soil from the debris disposal area (stockpiles C-3, COL-11, COL-25, and LANDFILL) and 1,950 cubic yards of soil and paint waste from the south lunch room area (stockpiles C-2, COL-2, COL-22, COL-29, COL-34, and COL-35) were hauled away.

Soil disposed of at Forward Landfill contained elevated levels of solvents and/or PCP (C-2, C-3, COL-2, COL-22, COL-34, COL-35) and/or visible pieces of paint waste material (COL-11, COL-25, COL-29). The stockpile designated LANDFILL on Plate 11A, Appendix A, was disposed of at Forward Landfill since it contained elevated levels of lead and motor oil (Volume 1 of Appendix D). All stockpiles containing visible paint waste were hauled off and disposed of at Forward Landfill. Before disposal, samples of the paint waste material were collected and analyzed and were shown to contain detectable levels of solvents and PCP (COL-34-6/13/97, Table 1, Appendix C).

Stockpiles on Asphalt Pad

Soil screened from the debris disposal area which was not in contact with paint cans or paint waste, and in which there was no subjective evidence of contamination was transported to the former asphalt wood drying pad immediately to the north where it currently resides in four stockpiles. Each stockpile is estimated to contain approximately 400 cubic yards of soil. Based on visual and odor evidence gathered during the removal of this soil, and based on prior analytical results from the debris disposal area, these four stockpiles were sampled and analyzed for CAM 5 metals, diesel and motor oil for profiling purposes (Table 12, Appendix C). The metals were all within acceptable ranges for residential use with all results being less than the PRG (Table 12, Appendix C). The stockpiles contain low levels of motor oil, not more than 290 mg/kg (Table 12, Appendix C) One

four point composite sample was analyzed for every 400 cubic yards of soil. Two of the composite samples were non-detect for motor oil. The analytical report is included in Volume 4 of Appendix D. Discrete soil samples will be collected for every 50 cubic yards of soil. Soil which is non-detect for motor oil will be left on-site. Soil with detectable motor oil will be moved into the main building for treatment.

All excavated soil which contained petroleum hydrocarbons that was initially placed inside the main building, is still present in the main building either in its original location or at new positions. In some instances former discrete stockpiles of like material were combined.

Soil excavated from the south lunch room area both prior to and in November of 1997 containing no discernable contamination is stockpiled in the main building. Approximately 60 cubic yards of soil from the debris disposal area which appeared to be free of contamination is also currently stockpiled in the main building (Table 11, Appendix C).

Table 11, Appendix C, presents a complete summary of all the stockpiles in the main building, their source, their approximate volume, and their current status, including those which have been transported to Forward Landfill in Manteca. The general locations of the current stockpiles are presented on Plate 11B, Appendix A.

All currently existing stockpiles from the south lunch room area and the debris disposal area have been sampled for hazardous substances, and none of the stockpiles contain significant levels of contaminants. Any soil with detectable but non-hazardous levels of contaminants will be aerated on-site. Soils previously identified as possibly being impacted only by petroleum hydrocarbons are being aerated to facilitate microbial destruction of the hydrocarbons. A complete summary of the analytical results from the stockpiles is included in Tables 1 and 2, Appendix C. Copies of the analytical reports not previously submitted are enclosed in Volumes 1 and 4 of Appendix D.

GROUNDWATER DISPOSAL

Groundwater was extracted from the south lunch room during excavation and for backfilling and compaction of the excavation. In addition, groundwater was extracted from the excavation prior to the final removal activity to prevent the excavation sidewalls from collapse. The extracted water was pumped into Baker tanks, processed through activated carbon as it was pumped into a clean Baker tank, sampled, and then subsequently loaded into tanker trucks and transported to the sewage treatment plant in Eureka for disposal. Since submittal of the Final RAW, approximately 720,000 gallons of water were removed from the excavation, processed, sampled, analyzed and disposed. A summary of the analytical results from the tank water prior to disposal is enclosed

in Table 13, Appendix C. Copies of the analytical reports are enclosed in Volumes 1, 2, 3, and 4 of Appendix D.

CONCLUSIONS AND RECOMMENDATIONS

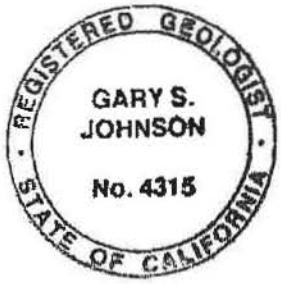
All investigative and remedial activities proposed in the RAW have been completed. All soil with significant levels of contaminants has been excavated. Soil with either no detectable or very low levels of contaminants remains stockpiled on-site in the main building. Soils impacted by petroleum hydrocarbons will continue to be aerated to further reduce concentrations until it is reused on site.

Groundwater in the south lunch room area is now being monitored through four monitoring wells which were located based on a presumed southerly groundwater flow direction. If the groundwater monitoring continues to indicate that down-gradient is to the east, additional monitoring wells may be necessary to collect down-gradient samples. Groundwater monitoring will continue until the data indicates that contaminant levels are declining and are below the MCL. All other areas have been investigated and no additional groundwater investigation in these areas appears warranted.

We trust this provides the information you require. If you have any questions, please call (707) 546-9461.

Sincerely
EnviroNet Consulting





Gary S. Johnson
Registered Geologist No. 4315

Expires February 29, 2000

Enclosures

Appendix A: Plates

Plate 1: Site Location Map
Plate 2: Site Plan
Plate 3: Wash Rack/Steam Cleaning Areas
Plate 4A: Partial Site Plan - Bunker "C" AGT Area
Plate 4B: Partial Site Plan - Diesel AGT Area
Plate 5: Partial Site Plan - Teepee Burner Area
Plate 6: Partial Site Plan - Debris Disposal Area
Plate 7: Partial Site Plan - Boring and Excavation Locations Dip Tank Area
Plate 8: Partial Site Plan - Groundwater Flow Direction and Gradient
Plate 9: Cross Section A-A'
Plate 10: Cross Section B-B'
Plate 10A: Unified Soil Classification System
Plate 11A: Partial Site Plan - Stockpile Locations - Main Building
Plate 11B: Partial Site Plan - Stockpile Locations - Main Building
Plate 12: Partial Site Plan- Paint Hole Area - Excavation and Fill Limits
Plate 13: Partial Site Plan - Evaporation Pond Sediment Sample Location

Appendix B: Boring Logs

Plate A: Soil Boring Log, Well MW-1
Plate B: Soil Boring Log, Well MW-2
Plate C: Soil Boring Log, Well MW-3
Plate D: Soil Boring Log, Well MW-4
Unified Soil Classification System
Plate E: Well Construction Diagram, Well MW-1
Plate F: Well Construction Diagram, Well MW-2
Plate G: Well Construction Diagram, Well MW-3
Plate H: Well Construction Diagram, Well MW-4
Plate I: Soil Boring Log - HP-1

Appendix C: Tables

Table 1: Disposed Stockpile Soil Analytical Results - EPA Methods 8260 and 8270
Table 2: Stockpile Soil Sample Results EPA Methods 8260 and 8270
Table 3: Soil and Water Sample Analytical Results from South Lunch Room Excavation
Table 4: Groundwater Flow Direction and Gradient
Table 5: Groundwater Sample Analytical Results
Table 6A: Surface Soil Analytical Results from Beneath Debris Disposal Pile
Table 6B: EP Series Soil Sample Analytical Results
Table 7: Boring HP-1 Soil and Water Sample Analytical Results
Table 8: CON-4 Series Soil and Water Sample Analytical Results
Table 9 Evaporation Pond Sediment Sample Analytical Results
Table 10: Drainage Outlet Soil Sample Analytical Results - Collected 12/05/97
Table 11: Stockpiled Soil Volume and Source - December, 1997
Table 12: Stockpile Soil Sample Results - TPH-d, TPH-mo, and CAM 5 Metals - Collected 01/15/98
Table 13: Baker Tank Treated Water Results
Table 14: MCLs and PRGs for Chemicals of Detection

Distribution List
Project Number 7102.1

Mr. Fred Jacobson
Simpson Timber Company
P.O. Box 68
Korbel, CA 95550-4586

Mr. Dave Kaney
Simpson Timber Company
5151 Highway 101 North
Eureka, CA 95501

Mr. Joseph Breed
Simpson Timber Company
Legal Department
1201 Third Avenue, Suite 4900
Seattle, Washington 98101-3045

Mr. Michael Steele
Pillsbury, Madison & Sutro
P.O. Box 7880
San Francisco, CA 94120-7880

Ms. Susan Warner
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

Mr. Brian Cox
Humboldt County Division of Environmental Health
100 H Street, Suite 100
Eureka, CA 95501

Mr. Lane DeVries
Sun Valley Floral Farms
3160 Upper Bay Rd.
Arcata, CA 95521

Mr. and Mrs. Avila
1717 Janes Road
Arcata, CA 95521

APPENDIX A

-PLATES-

REMOVAL ACTION WORK PLAN

IMPLEMENTATION REPORT

AND

RESULTS OF INITIAL GROUNDWATER MONITORING

DATED MARCH 20, 1998

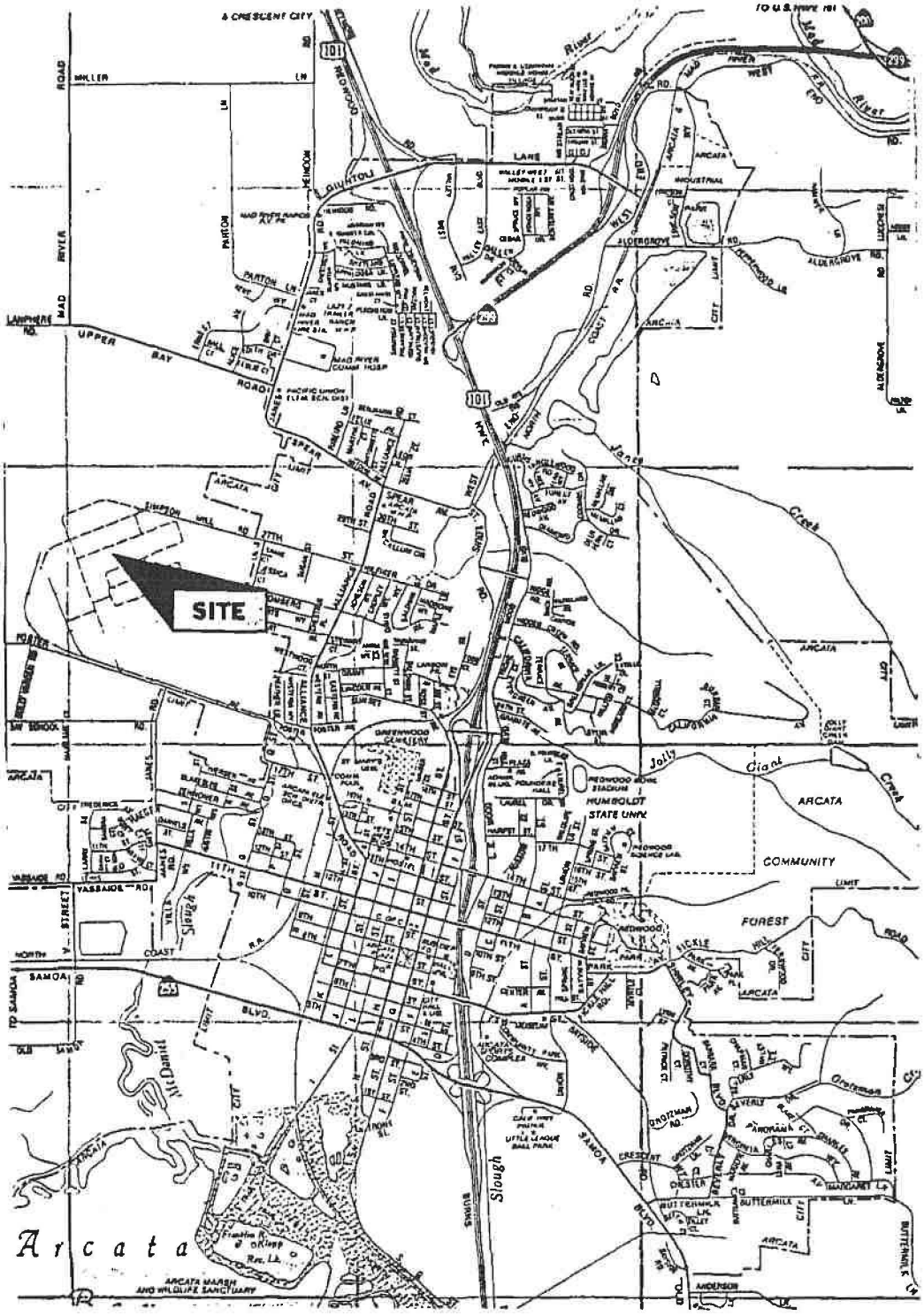
FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA



EnviroNet CONSULTING

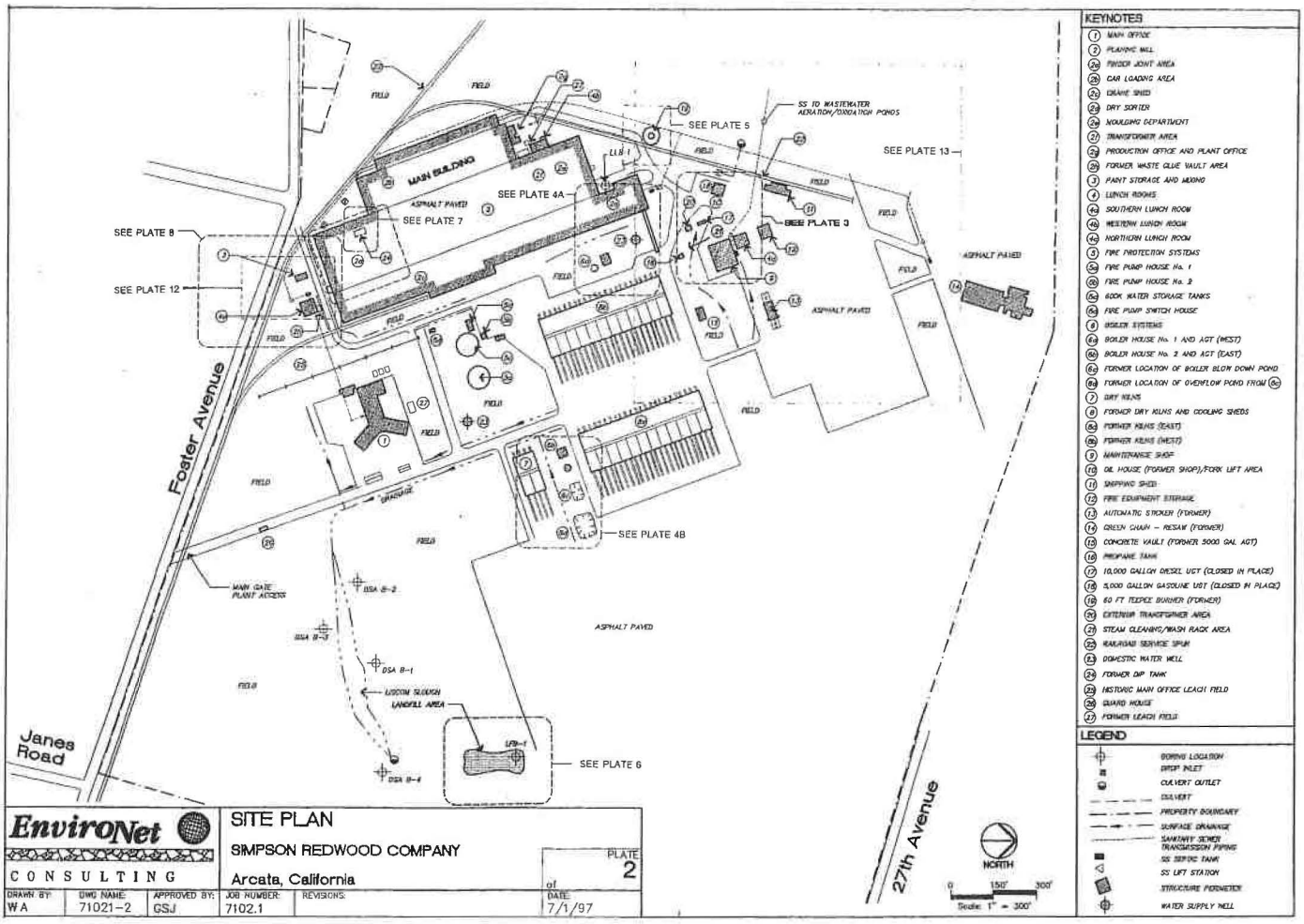
SITE LOCATION MAP

Simpson Redwood Company

Arcata, California

PLATE 1

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-1	GSJ	7102.1		8/7/97



KEYNOTES

1. MAIN OFFICE
2. PLANING MILL
2A. FINGER JOINT AREA
2B. CAR LOADING AREA
2C. CRANE SHED
2D. DRY SORTER
2E. MOULDING DEPARTMENT
2F. TRANSFORMER AREA
2G. PRODUCTION OFFICE AND PLANT OFFICE
2H. FORMER WASTE GLUE VAULT AREA
3. PAINT STORAGE AND MIXING
4. LUNCH ROOMS
4A. SOUTHERN LUNCH ROOM
4B. WESTERN LUNCH ROOM
4C. NORTHERN LUNCH ROOM
5. FIRE PROTECTION SYSTEMS
5A. FIRE PUMP HOUSE No. 1
5B. FIRE PUMP HOUSE No. 2
6A. 600K WATER STORAGE TANKS
6B. FIRE PUMP SWITCH HOUSE
8. BOILER SYSTEMS
8A. BOILER HOUSE No. 1 AND AGT (WEST)
8B. BOILER HOUSE No. 2 AND AGT (EAST)
8C. FORMER LOCATION OF BOILER BLOW DOWN POND
8D. FORMER LOCATION OF OVERFLOW POND FROM 8C
9. DRY KILNS
9A. FORMER DRY KILNS AND COOLING SHEDS
9B. FORMER KILNS (EAST)
9C. FORMER KILNS (WEST)
10. MAINTENANCE SHOP
11. OIL HOUSE (FORMER SHOP)/FORK LIFT AREA
11. SHIPPING SHED
12. FIRE EQUIPMENT STORAGE
13. AUTOMATIC STACKER (FORMER)
14. GREEN CHAIN – RESAW (FORMER)
15. CONCRETE VAULT (FORMER 5000 GAL AGT)
16. PROPANE TANK
17. 10,000 GALLON DIESEL UST (CLOSED IN PLACE)
18. 5,000 GALLON GASOLINE UST (CLOSED IN PLACE)
19. 60 FT TEEPEE BURNER (FORMER)
20. EXTENSION TRANSFORMER AREA
21. STEAM CLEANING/WASH RACK AREA
22. RAILROAD SERVICE SPUR
23. DOMESTIC WATER WELL
24. FORMER DIP TANK
25. HISTORIC MAIN OFFICE LEACH FIELD
26. GUARD HOUSE
27. FORMER LEACH FIELD

LEGEND

- BORING LOCATION
- DROP INLET
- CULVERT OUTLET
- CULVERT
- PROPERTY BOUNDARY
- SURFACE DRAINAGE
- SANITARY SEWER TRANSMISSION PIPING
- SS SEPTIC TANK
- SS LIFT STATION
- STRUCTURE PERIMETER
- WATER SUPPLY WELL

EnviroNet CONSULTING

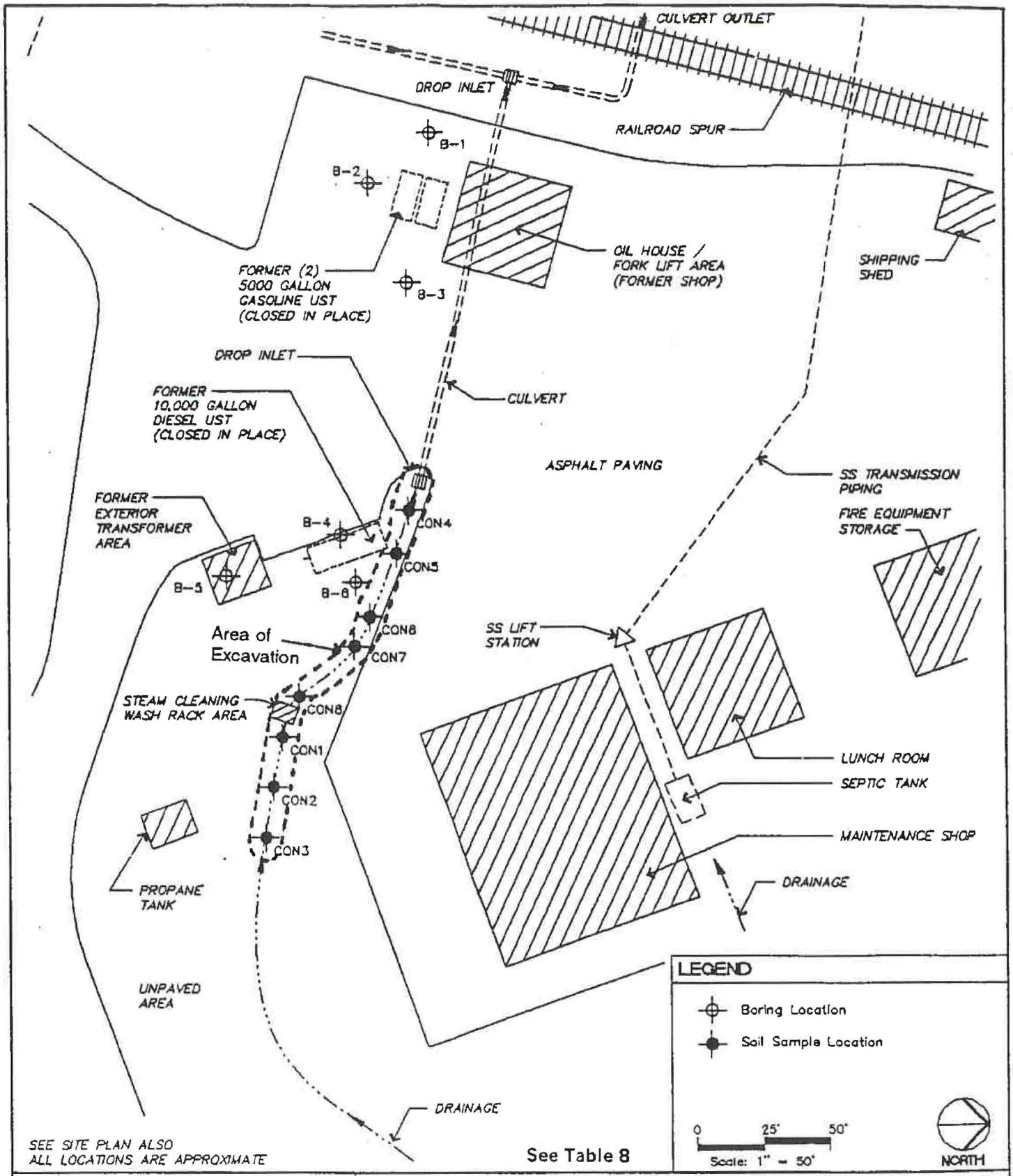
SITE PLAN

SIMPSON REDWOOD COMPANY

Arcata, California

PLATE 2 of

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-2	GSJ	7102.1		7/1/97

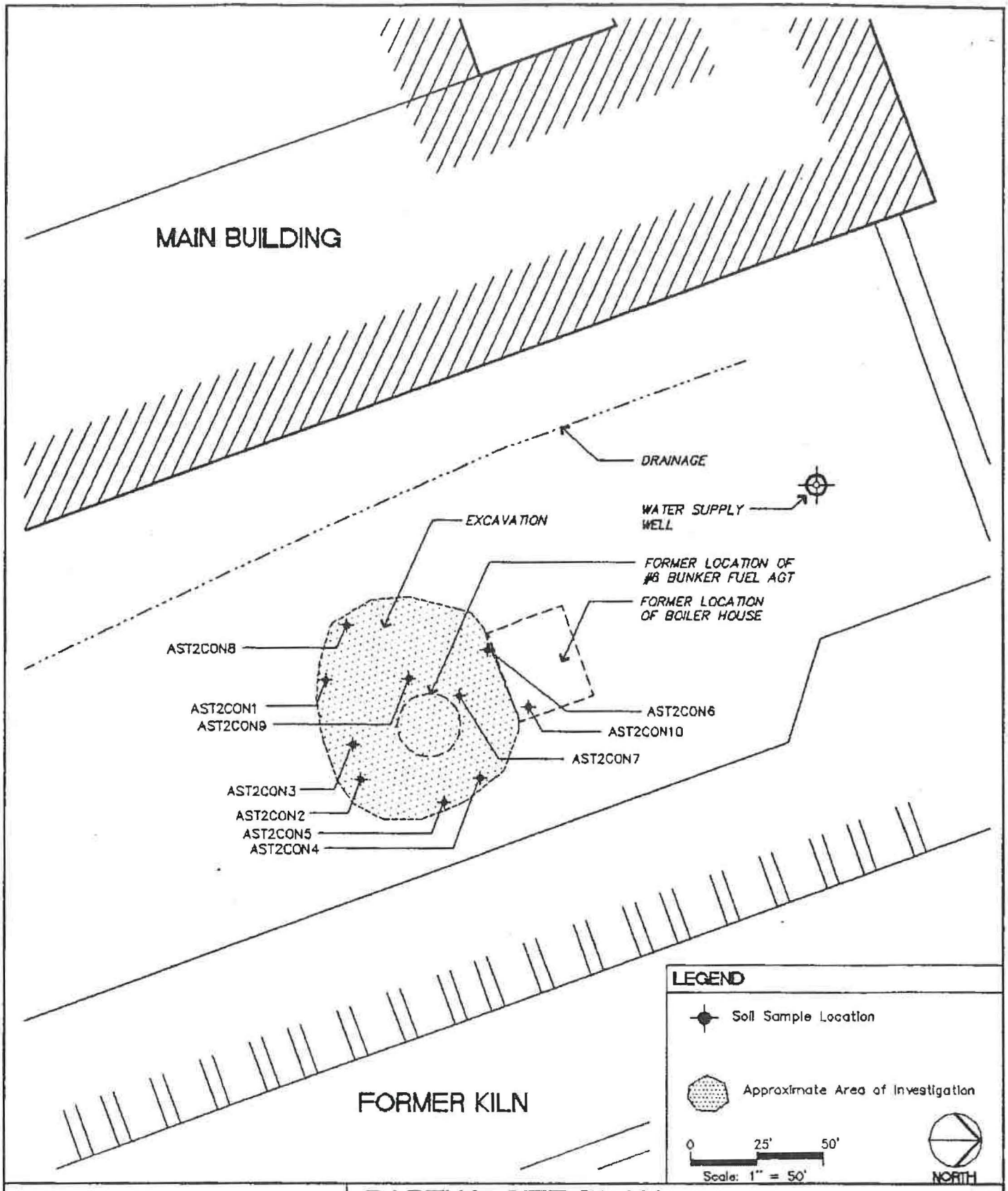


EnviroNet CONSULTING

Wash Rack/Steam Cleaning Areas
Boring and Soil Sample Locations
Simpson Redwood Company
Arcata, California

PLATE 3

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-3B	GSJ	7102.1		8/7/97

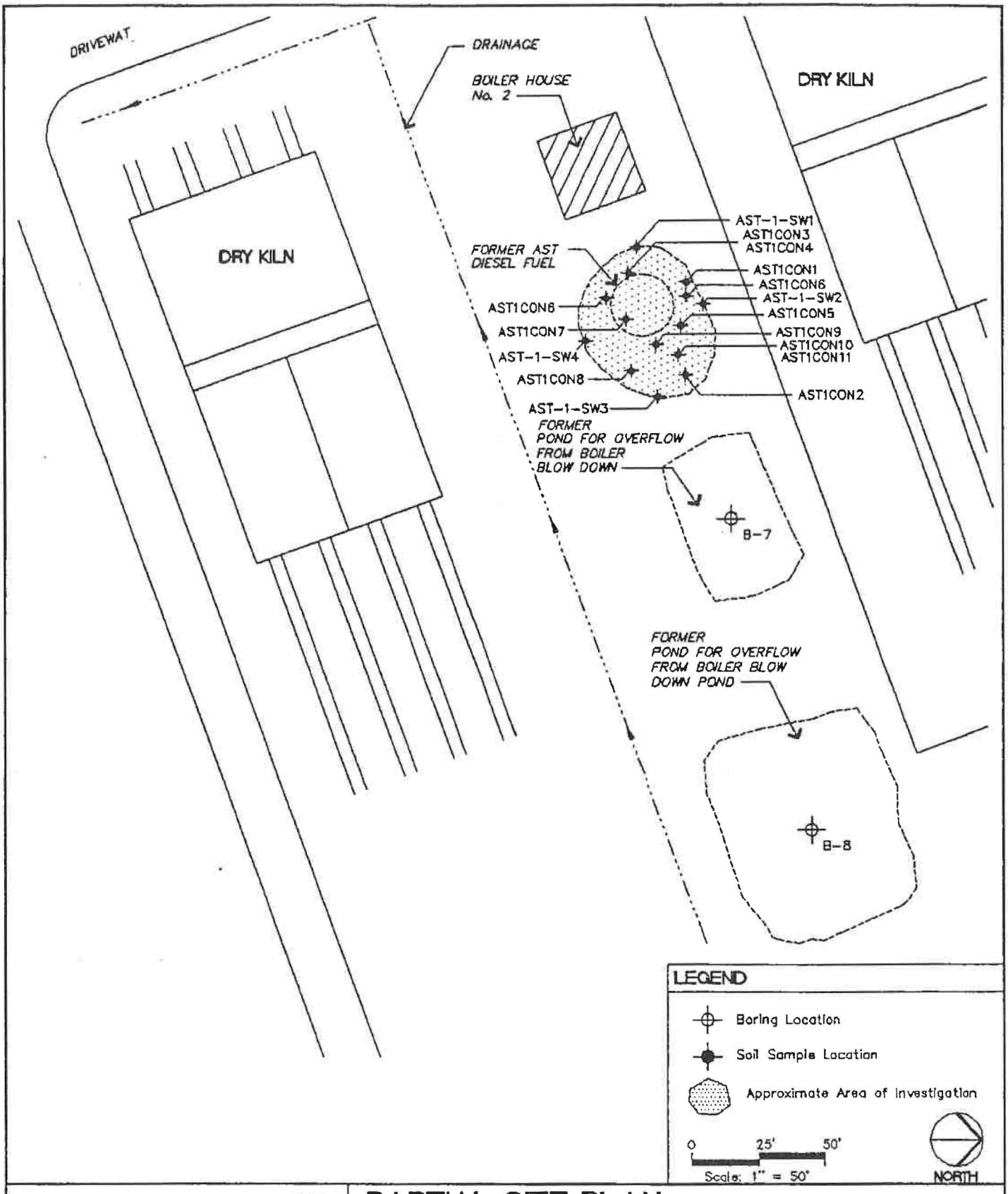


EnviroNet CONSULTING

PARTIAL SITE PLAN
Bunker "C" AGT Area
Simpson Redwood Company
Arcata, California

PLATE 4A

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-4B	GSJ	7102.1		8/7/97

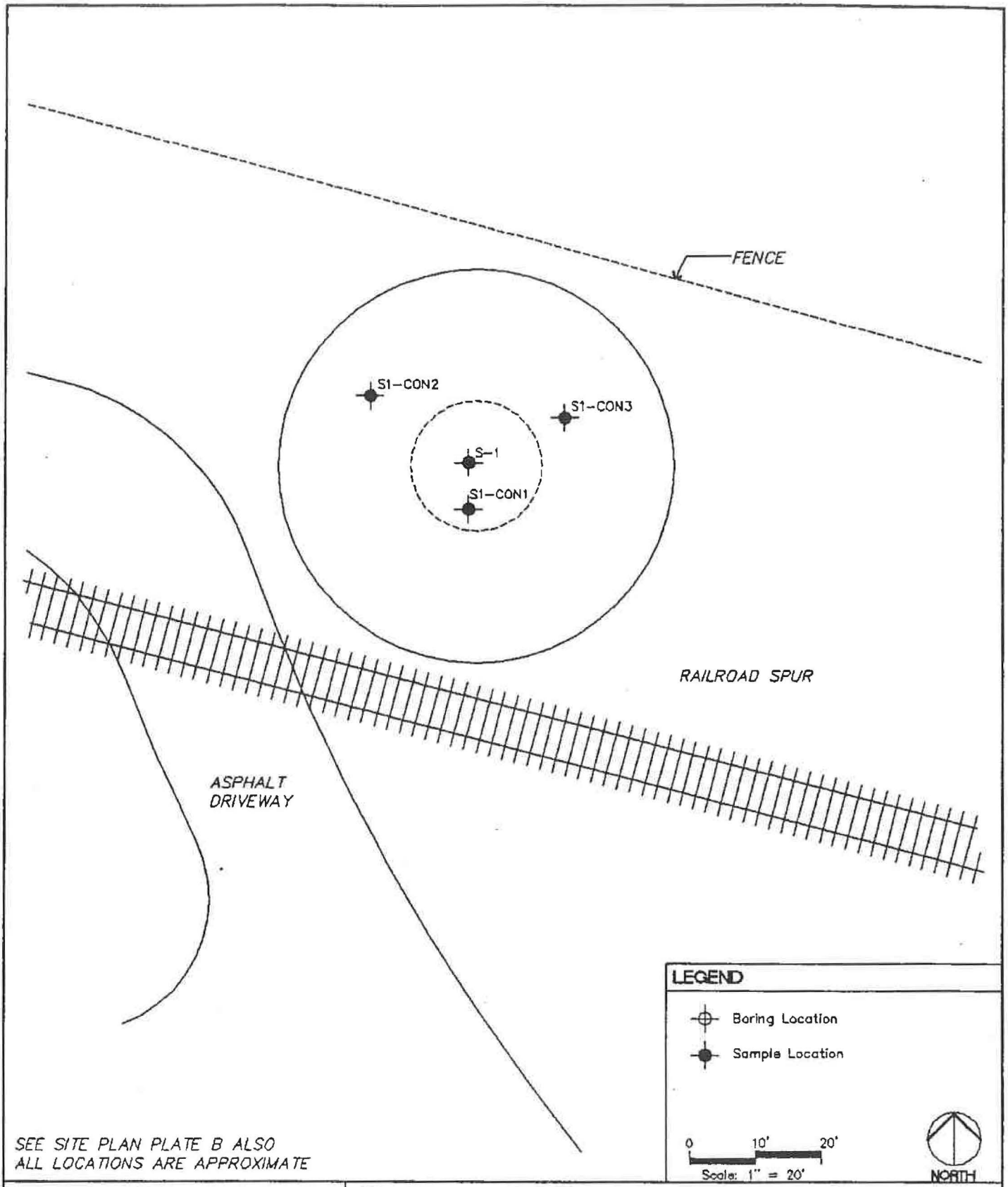


EnviroNet CONSULTING

PARTIAL SITE PLAN
Diesel AGT Area
Simpson Redwood Company
Arcata, California

PLATE 4B

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-5C	GSJ	7102.1		8/7/97



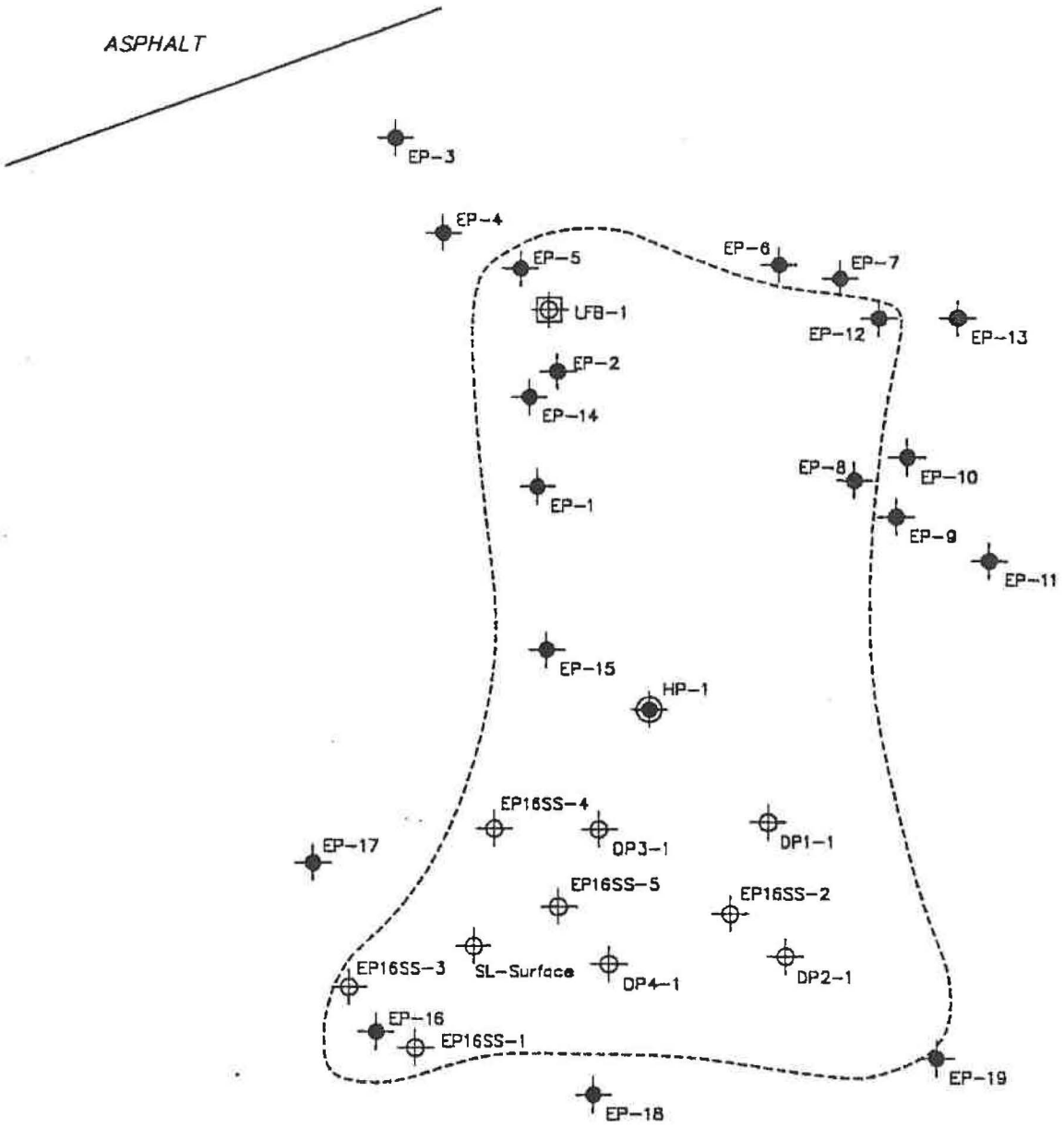
SEE SITE PLAN PLATE B ALSO
ALL LOCATIONS ARE APPROXIMATE

EnviroNet
CONSULTING

PARTIAL SITE PLAN
Teepee Burner Area
Simpson Redwood Company
Arcata, California

PLATE 5

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-3C	GSJ	7102.1		8/7/97



LEGEND

- Surface Sample Locations
- Boring Location
- Trench Locations
- Debris Disposal Area

0 20' 40'
Scale: 1" = 40'

NORTH

See Tables 6A, 6B, and 7

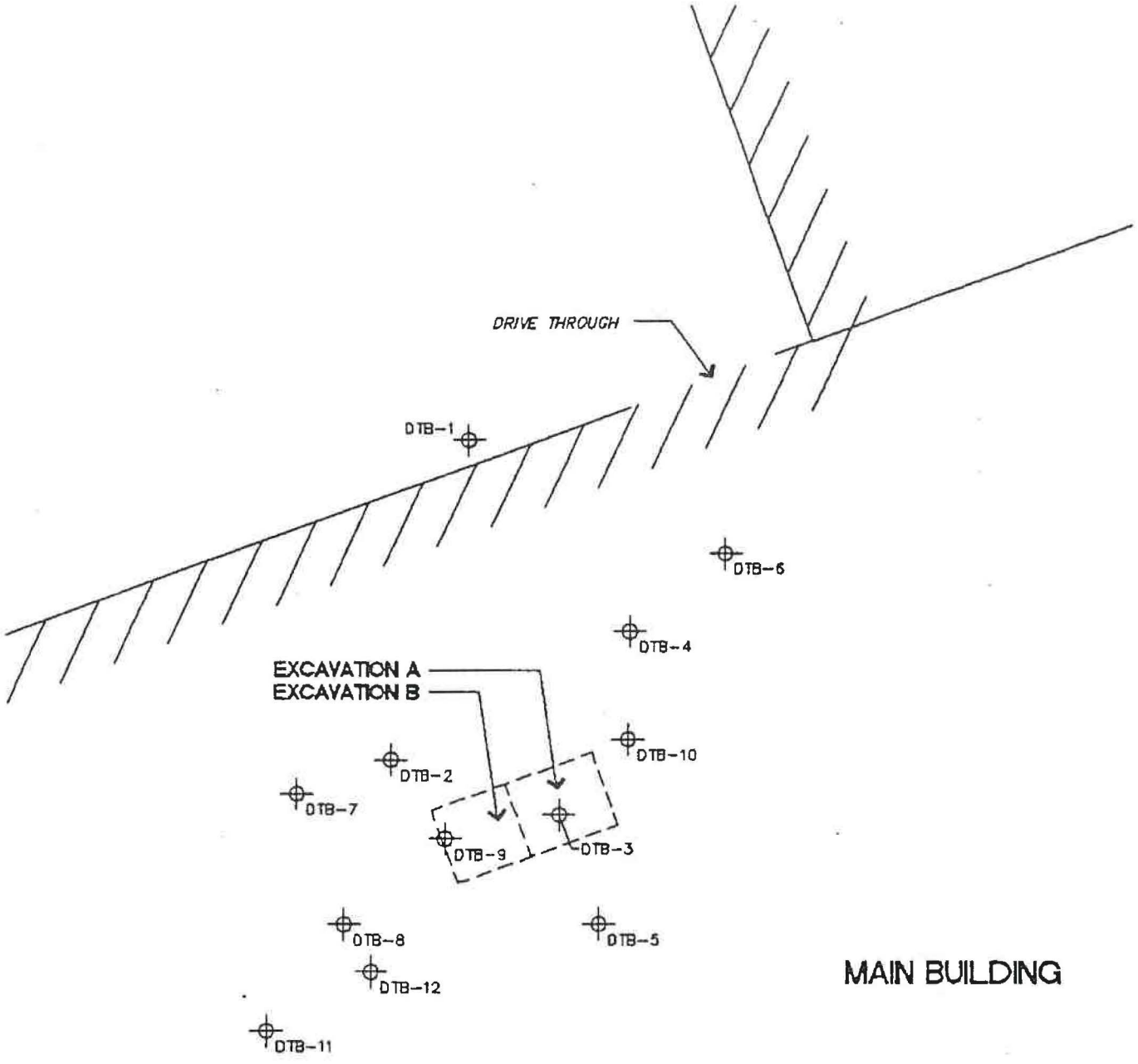
EnviroNet CONSULTING

PARTIAL SITE PLAN
Debris Disposal Area

Simpson Redwood Company
Arcata, California

PLATE 6

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	71021-4e	RLN	7102.1		1/15/97



LEGEND

Boring Location

10' 20'

Scale: 1" = 20'

NORTH

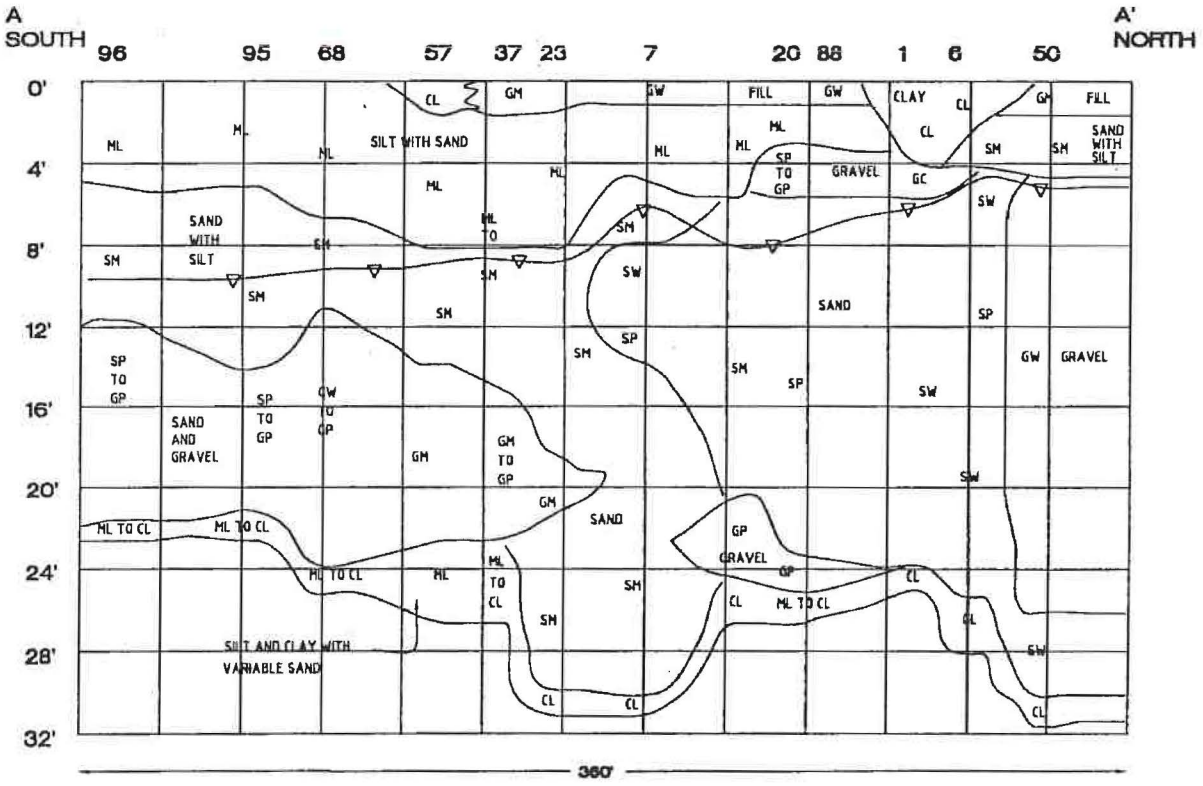
EnviroNet CONSULTING

PARTIAL SITE PLAN

Boring and Excavation Locations
Simpson Redwood Company
Arcata, California

PLATE 7

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	71021-6A	GSJ	7102.1		8/7/97



EnviroNet CONSULTING

CROSS SECTION A-A'
Soil and Groundwater Investigation
Simpson Redwood Company
Arcata, California

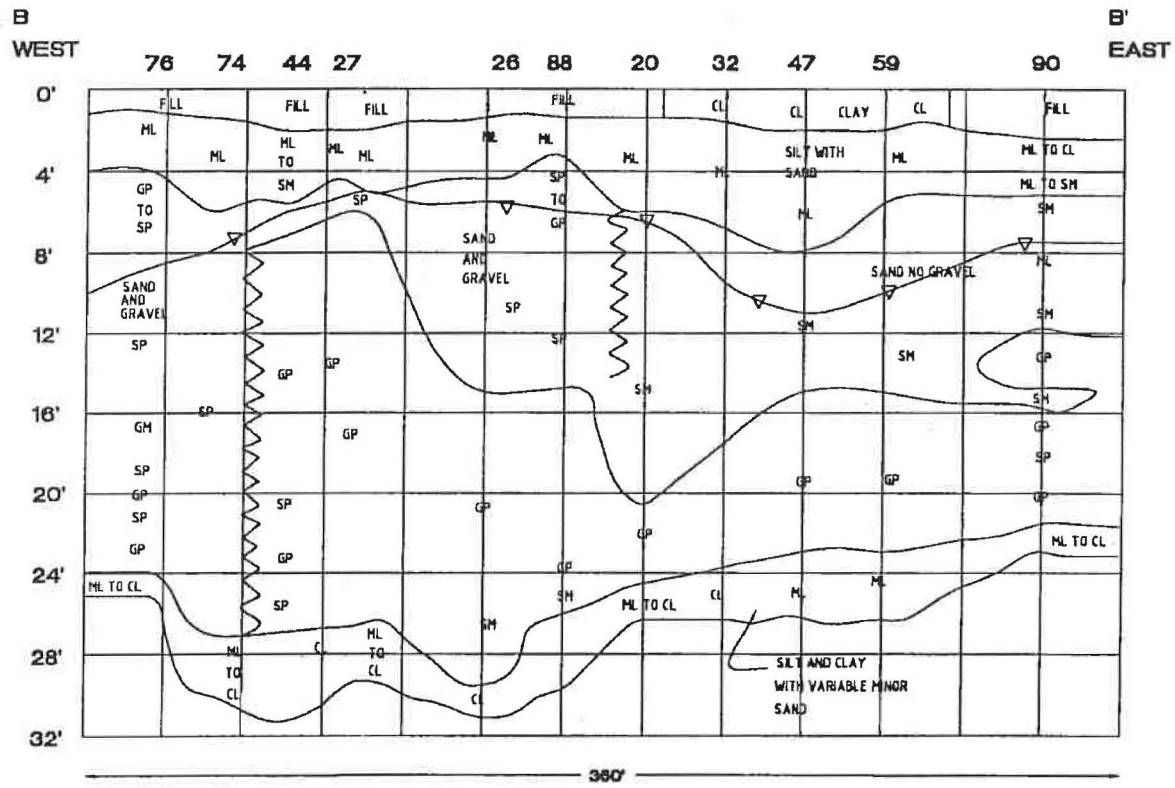
PLATE 9 of

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
RWC/AJH	sl9a-b_b	GSJ	7102.1	Was sl-secto; 8/16/97	10/15/97

Horizontal Scale 1" = 50' Vertical Scale 1" = Approximately 7'

Numbers Across Top = Boring Numbers. Example 96 = LRB-96.

SM, SP, GP, etc = USCS see Plate 10A



EnviroNet CONSULTING

CROSS SECTION B-B'
Soil and Groundwater Investigation
Simpson Redwood Company
Arcata, California

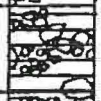
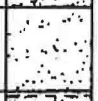
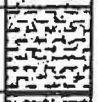
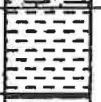
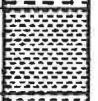
PLATE 10

DRAWN BY	DWG NAME	APPROVED BY	JOB NUMBER	REVISIONS	DATE
FWC/AJH	SI9A-B_B	GSJ	7102.1		8/16/97

Horizontal Scale 1" = 50' Vertical Scale 1" = Approximately 7'

Numbers Across Top = Boring Numbers. Example 96 = LRB-96.

SM, SP, GP, etc = USCS see Plate 10A

GENERAL SOIL CATEGORIES			SYMBOLS		TYPICAL SOIL TYPES
Coarse Grained Soils More than half is larger than No. 200 Sieve	**Gravel** More than half coarse fraction is larger than No. 4 sieve size.	Clean Gravel with little or no fines.	GW		Well Graded Gravels, Gravel – Sand Mixtures.
			GP		Poorly Graded Gravels, Gravel – Sand Mixtures.
		Gravel with more than 12% fines.	GM		Silty Gravels, Poorly Graded Gravel–Sand–Silt Mixtures.
			GC		Clayey Gravels, Poorly Graded Gravel–Sand–Clay Mixtures.
	Sand More than half coarse fraction is larger than No. 4 sieve size.	Clean Sand with little or no fines.	SW		Well Graded Sands, Gravelly Sands.
			SP		Poorly Graded Sands, Gravelly Sands.
		Sand with more than 12% fines.	SM		Silty Sands, Poorly Graded Sand–Silt Mixtures.
			SC		Clayey Sands, Poorly Graded Sand–Clay Mixtures
Fine Grained Soils More than half is smaller than No. 200 Sieve	**Silt and Clay** Liquid Limit Less than 50%		ML		Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity.
			CL		Inorganic Clays of Low to Medium Plasticity, Gravely Clays, Sandy Clays, Silty Clays, Lean Clays.
			OL		Organic Clays and Organic Silty Clays of Low Plasticity.
	Silt and Clay Liquid Limit Greater than 50%		MH		Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts.
			CH		Inorganic Clays of High Plasticity, Fat Clays.
			OH		Organic Clays of Medium to High Plasticity.
	Highly Organic Soils		PT		Peat and Other Highly Organic Soils.

BORING LOG LEGEND

- ■ Soil sample submitted for chemical analysis
- ⊠ Soil sample examined for soil classification.
- [N] Sample attempt with no recovery.
- ▽ First Identified free water.
- ▼ Initial Static Water Level

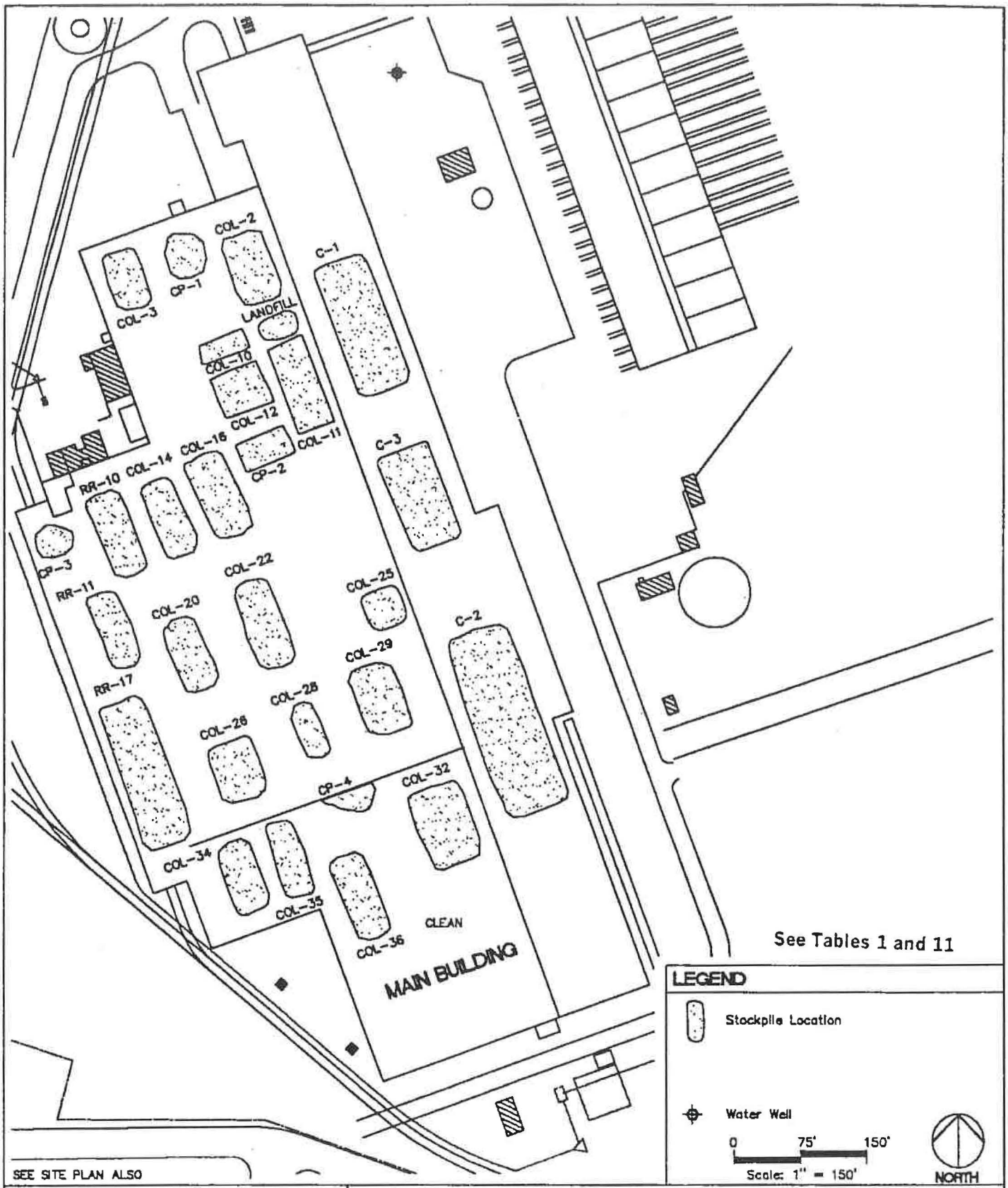
Sample Condition
G=Good, F=Fair, P=Poor, N=No Recovery

EnviroNet CONSULTING

UNIFIED SOIL CLASSIFICATION SYSTEM and BORING LOG LEGEND

PLATE 10A

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	Soilclas	GSJ			



EnviroNet CONSULTING

PARTIAL SITE PLAN

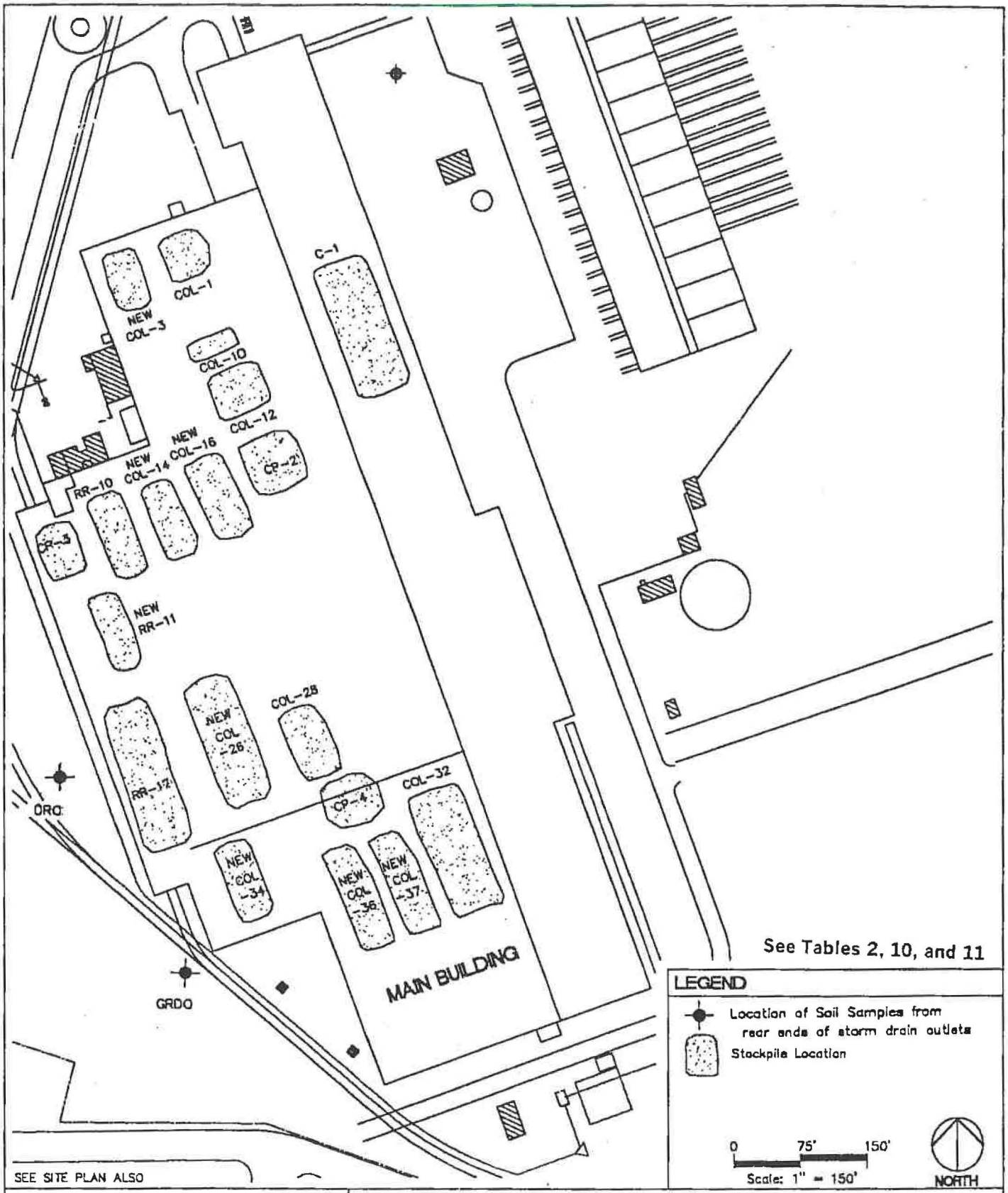
Stockpile Locations Pre-12/97 Landfill Disposal

Simpson Redwood Company

Arcata, California

PLATE 11A

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA/AJH	7102111B	GSJ	7102.1	Added 7 stockpile locations	10/20/97



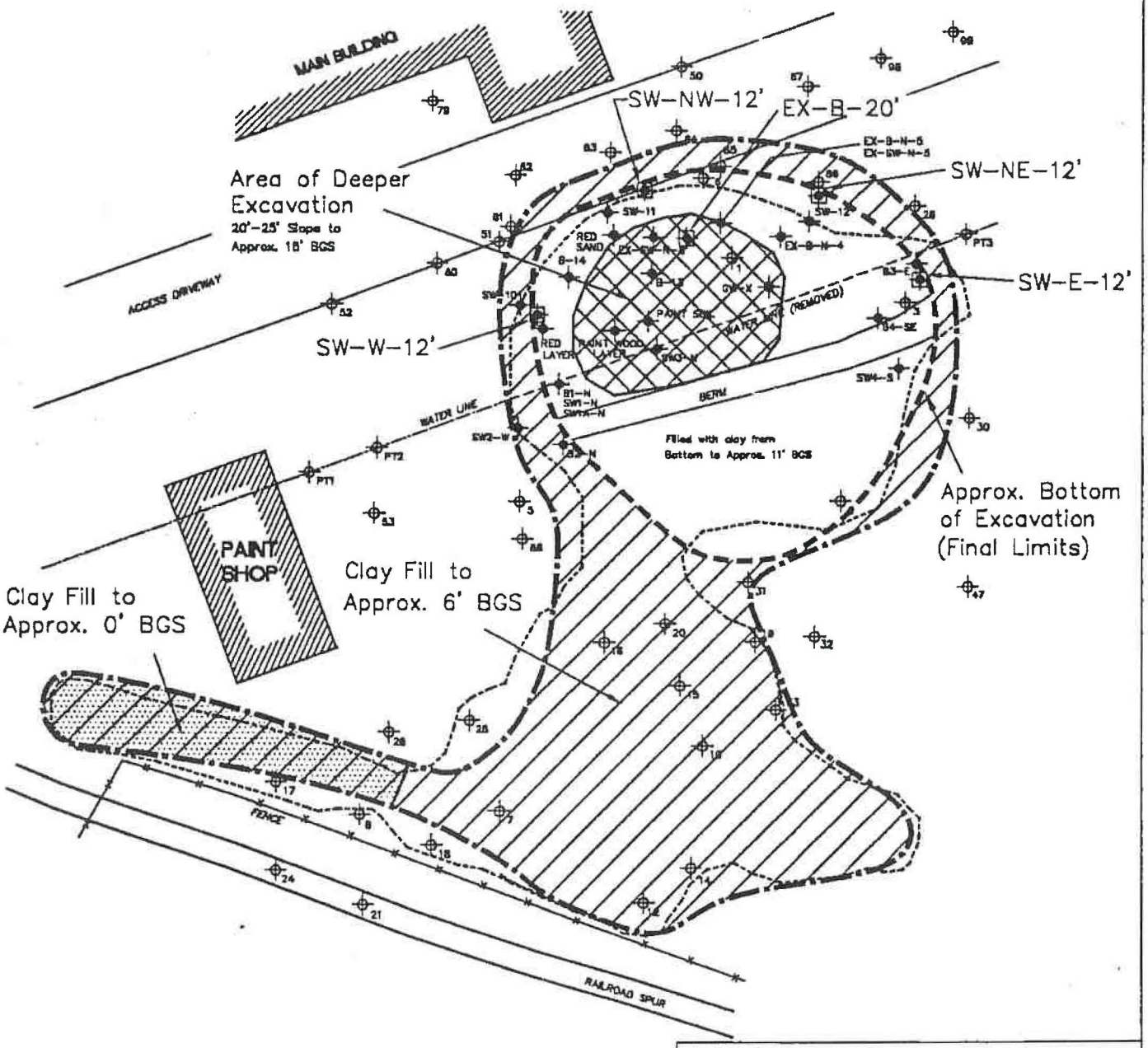
EnviroNet CONSULTING

PARTIAL SITE PLAN
Stockpile Locations Post-12/97 Landfill Disposal

Simpson Redwood Company
Arcata, California

PLATE 11B

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	7102111c	GSJ	7102.1		1/23/98



Note: Excavation was conducted until sand was below odor threshold and no visible sheen drained from saturated sand, or was visible in wet sand. Excavation packed stirred sand as final step.

See Table 3

LEGEND

- Fill Depth
- Boring Location
- Soil Sample Location
- Approximate Area of Original Excavation
- Approximate Area of Deepest Excavation
- Approximate Area of Bottom of Excavation
- Approximate Area of Excavation Fill

0 15' 30'

Scale: 1" = 30'

NORTH

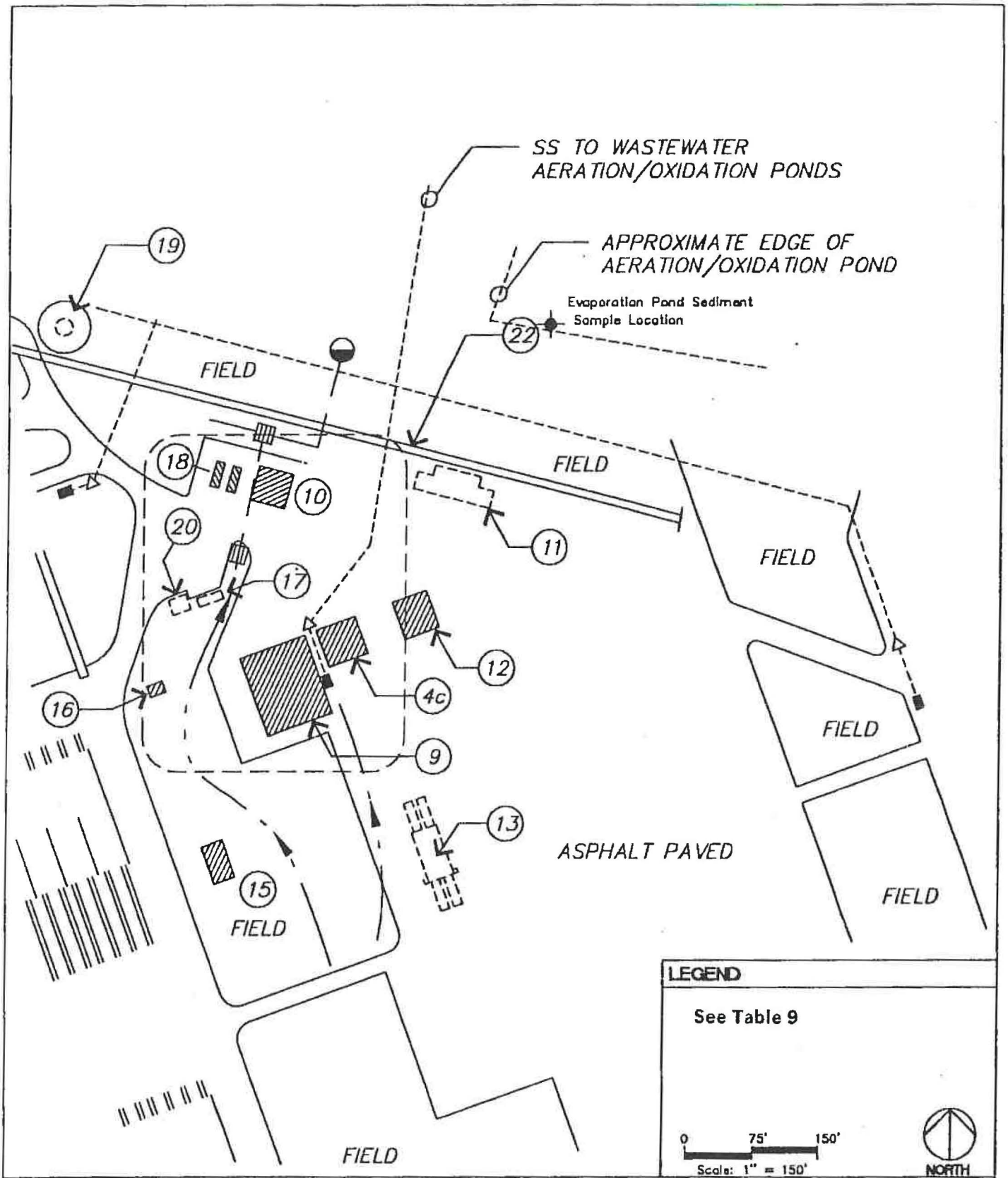
EnviroNet CONSULTING

Partial Site Plan
Paint Hole Area-Excavation and Fill Limits

Simpson Redwood Company
Arcata, California

PLATE 12

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	710218C2	GSJ	7102.1		1/28/98



EnviroNet CONSULTING

SITE PLAN
Evaporation Pond Sediment Sample Location

SIMPSON REDWOOD COMPANY
Arcata, California

PLATE 13

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	71021-2X	RLN	7102.1	Taken from 71021-2	1/2/98

APPENDIX B

-BORING LOGS AND WELL COMPLETION DIAGRAMS-

REMOVAL ACTION WORK PLAN

IMPLEMENTATION REPORT

AND

RESULTS OF INITIAL GROUNDWATER MONITORING

DATED MARCH 20, 1998

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

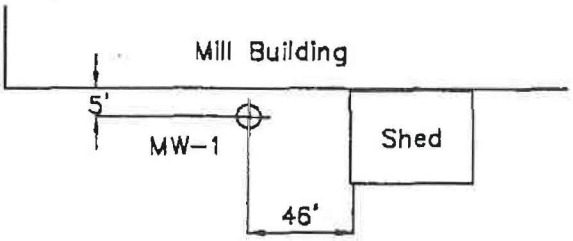
3315 FOSTER AVENUE

ARCATA, CALIFORNIA

Date: 12/2/97 Start Time:1255 BORING No. **MW-1**
Logged By: R.L. Nelson

Drilling Contractor: Weeks Drilling
Driller's Name: Gary Meyers/Tim Blankenship
Drilling Method: 9" Hollow Stem Auger
Sampling Method: Not sampled
Monitoring Well Installed: Yes [X] No [ ]
Total Depth (ft): 25 ft.
Auger Depth (ft): 25 ft.
Hydropunch Interval (ft): N/A
Notes:

LOCATION of BORING



Lunch Room Area
See site plan also No scale NORTH

See Unified Soil Classification System for Legend and Information not noted.

Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	
										ML	1		Dark brown Clayey Sandy Silt, soft, moist to wet, very fine sand
											2		
											3		
							0	No	No		4		
NO SAMPLES COLLECTED											5		
										GM	6		Dark brown Sandy Silty Gravel, dense, moist, 20% fine to medium sand, 60% fine gravel to cobbles, subrounded gravel
											7		
											8		
					▽		0	No	No		9		Sand layer at 9-10'
											10		
										GW	11		Dark brown Sandy Gravel, loose to medium dense, wet, approx. 40% fine to medium sand, 60% fine gravel to cobble to 3" diameter, gravels are subrounded, occasional sand layers less than 6" thick
											12		
							0	No	No		13		
											14		
											15		
											16		

EnviroNet CONSULTING

MONITORING WELL MW-1
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE A-1
1 OF 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	si-mw-1	RLN	7102.1		12/28/97

BORING No.
MW-1

Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth In Feet	Graphic Log	Notes:
											17		
							0	No	No	GW	18		
											19		
											20		
											21		Dark gray brown well graded Sand, loose, wet, fine to coarse sand, approx. 35% fine subrounded gravel
											22		
							0	No	No	SW	23		
											24		Brown lean Clay, medium stiff, wet
										CL	25		
											26		
											27		
											28		
											29		
											30		
											31		
											32		
											33		
											34		
											35		
											36		

EnviroNet CONSULTING

MONITORING WELL MW-1
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

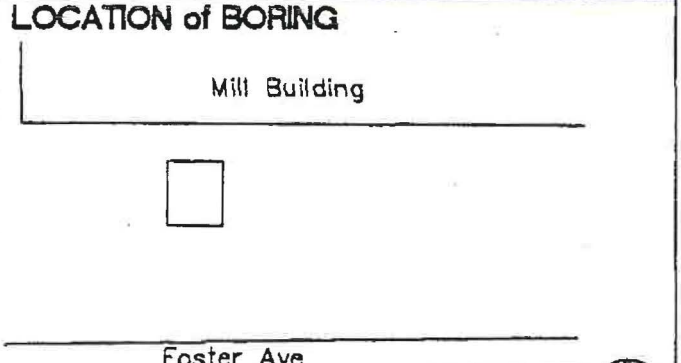
PLATE A-2
2 of 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-MW-1	RLN	7102.1		12/28/97

Date: 12/3/97 Start Time: 715 BORING No.
Logged By: R.L. Nelson **MW-2**

Drilling Contractor: Weeks Drilling
Driller's Name: Gary Meyers/Tim Blankenship
Drilling Method: 9" Hollow Stem Auger
Sampling Method: Not sampled
Monitoring Well Installed: Yes [X] No [ ]
Total Depth (ft): 25 ft.
Auger Depth (ft): 25 ft.
Hydropunch Interval (ft): N/A
Notes:

LOCATION of BORING



Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	See Unified Soil Classification System for Legend and Information not noted.
										ML	1		Dark gray brown Clayey Silt with trace of gravel, soft, moist
											2		
											3		
							0	No	No		4		
NO SAMPLES COLLECTED											5		
											6		
											7		Brown Sandy lean Clay, soft, moist, very fine sand
											8		
					▽					CL	9		
							.0	No	No		10		
											11		Occasional Gravel layers
											12		
											13		
											14		
							0	No	No		15		
											16		

EnviroNet CONSULTING

MONITORING WELL MW-2
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

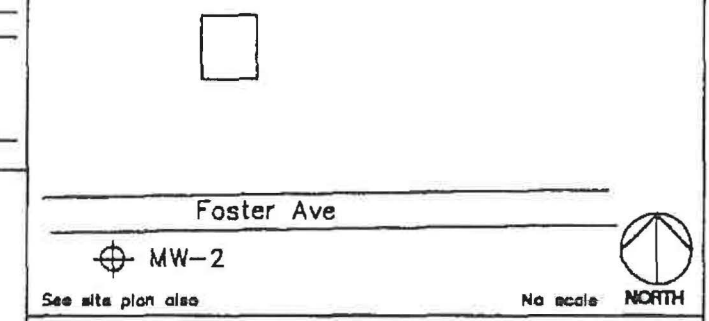
PLATE B-1
1 OF 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	si-mw-2	RLN	7102.1		12/29/97

Date: 12/3/97 Start Time: 715 BORING No. **MW-2**
Logged By: R.L. Nelson

Drilling Contractor: Weeks Drilling
Driller's Name: Gary Meyers/Tim Blankenship
Drilling Method: 9" Hollow Stem Auger
Sampling Method: Not sampled
Monitoring Well Installed: Yes [X] No [ ]
Total Depth (ft): 25 ft.
Auger Depth (ft): 25 ft.
Hydropunch Interval (ft): N/A
Notes:

LOCATION of BORING



Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	
NO SAMPLES COLLECTED										ML	1		Dark gray brown Clayey Silt with trace of gravel, soft, moist
											2		
											3		
							0	No	No		4		
											5		
											6		
										CL	7		Brown Sandy lean Clay, soft, moist, very fine sand
					▽						8		
											9		
							.0	No	No		10		
											11		Occasional Gravel layers
											12		
											13		
											14		
							0	No	No		15		
											16		

See Unified Soil Classification System for Legend and information not noted.

EnviroNet CONSULTING

MONITORING WELL MW-2
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE B-1
1 OF 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	si-mw-2	RLN	7102.1		12/29/97

BORING No.
MW-2

Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	Notes:
											17		
										CL	18		
											19		
							0	No	No		20		
											21		
											22		
											23		
											24		Dark gray Silty Clay, soft, wet, trace of very fine sand
							0	No	No	CL	25		
											26		
											27		
											28		
											29		
											30		
											31		
											32		
											33		
											34		
											35		
											36		

EnviroNet CONSULTING

MONITORING WELL MW-2
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

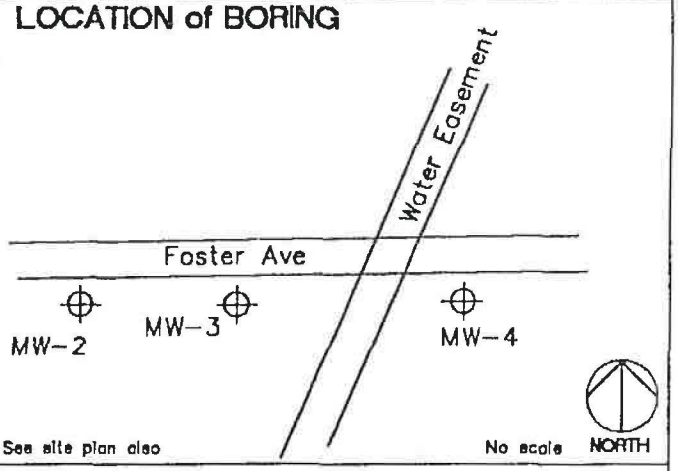
PLATE B-2
2 of 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-MW-2	RLN	7102.1		12/29/97

Date: 12/3/97 Start Time:920 BORING No.
Logged By: R.L. Nelson **MW-3**

Drilling Contractor: Weeks Drilling
Driller's Name: Gary Meyers/Tim Blankenship
Drilling Method: 9" Hollow Stem Auger
Sampling Method: Not sampled
Monitoring Well Installed: Yes [X] No [ ]
Total Depth (ft): 25 ft.
Auger Depth (ft): 25 ft.
Hydropunch Interval (ft): N/A
Notes:

LOCATION of BORING



See Unified Soil Classification System for Legend and information not noted.

Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	
NO SAMPLES COLLECTED											1		Dark brown Clayey Silt, soft, moist (wet at surface)
							0	No	No	ML	2		
											3		
											4		Dark brown Silty Clay, soft, moist
							0	No	No	CL	5		
											6		
											7		
											8		Brown Sandy lean Clay, soft, moist, (wet below 9'), very fine sand
					▽		0	No	No	CL	9		
											10		
											11		
											12		
							0	No	No	SW	13		Dark gray well-graded Sand, loose, wet, fine to coarse, subangular sand, abundant chert
											14		
										CL	15		Dark brown Gravelly Clay, medium stiff, wet
											16		

EnviroNet CONSULTING

MONITORING WELL MW-3
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE C-1
1 OF 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	si-mw-3	RLN	7102.1		1/15/97

BORING No. **MW-3**

Notes:

Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	
											17		
										CL	18		
											19		
							0	No	No		20		
											21		
											22		
											23		
							0	No	No		24		
										CL	25		Dark brown lean Clay, medium stiff to stiff, wet
											26		
											27		
											28		
											29		
											30		
											31		
											32		
											33		
											34		
											35		
											36		

EnviroNet CONSULTING

MONITORING WELL MW-3
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

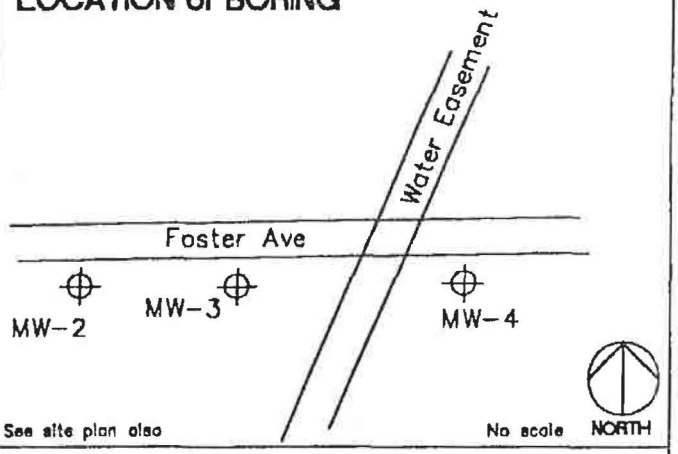
PLATE C-2
2 of 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-MW-3	RLN	7102.1		12/29/97

Date: 12/3/97 Start Time:1220 BORING No.
Logged By: R.L. Nelson **MW-4**

Drilling Contractor: Weeks Drilling
Driller's Name: Gary Meyers/Tim Blankenship
Drilling Method: 9" Hollow Stem Auger
Sampling Method: Not sampled
Monitoring Well Installed: Yes [X] No [ ]
Total Depth (ft): 25 ft.
Auger Depth (ft): 25 ft.
Hydropunch Interval (ft): N/A
Notes:

LOCATION of BORING



Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log
NO SAMPLES COLLECTED							0	No	No	ML	1	
											2	
							0	No	No	CL	3	
											4	
											5	
							0	No	No		6	
											7	
											8	
											9	
							0	No	No		10	
											11	
					▽						12	
											13	
											14	
							0	No	No		15	
											16	

See Unified Soil Classification System for Legend and information not noted.

Dark gray brown Clayey Silt, soft, moist, trace of fine sand

Brown Sandy lean Clay, soft, moist, approx. 35% fine sand

Sand content increases with depth

Occasional Gravel layers from 12'

EnviroNet CONSULTING

MONITORING WELL MW-4
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE D-1
1 OF 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	sl-mw-4	RLN	7102.1		1/15/97

BORING No.
MW-4

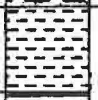
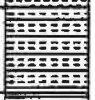
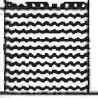
Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	Notes:
											17		
										CL	18		
											19		Brown Gravelly Sand, medium dense, wet, predominently coarse sand, approx. 20% fine subangular gravel, abundant chert
											20		
							0	No	No	SW	21		
											22		
											23		
											24		
							0	No	No	CL	25		Brown lean Clay, very stiff, wet
											26		
											27		
											28		
											29		
											30		
											31		
											32		
											33		
											34		
											35		
											36		

EnviroNet
CONSULTING

MONITORING WELL MW-4
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE
D-2
2 of 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-MW-4	RLN	7102.1		12/29/97

GENERAL SOIL CATEGORIES			SYMBOLS		TYPICAL SOIL TYPES
Coarse Grained Soils More than half is larger than No. 200 Sieve	**Gravel** More than half coarse fraction is larger than No. 4 sieve size.	Clean Gravel with little or no fines.	GW		Well Graded Gravels, Gravel – Sand Mixtures.
			GP		Poorly Graded Gravels, Gravel – Sand Mixtures.
		Gravel with more than 12% fines.	GM		Silty Gravels, Poorly Graded Gravel–Sand–Silt Mixtures.
			GC		Clayey Gravels, Poorly Graded Gravel–Sand–Clay Mixtures.
	Sand More than half coarse fraction is larger than No. 4 sieve size.	Clean Sand with little or no fines.	SW		Well Graded Sands, Gravelly Sands.
			SP		Poorly Graded Sands, Gravelly Sands.
		Sand with more than 12% fines.	SM		Silty Sands, Poorly Graded Sand–Silt Mixtures.
			SC		Clayey Sands, Poorly Graded Sand–Clay Mixtures
Fine Grained Soils More than half is smaller than No. 200 Sieve	**Silt and Clay** Liquid Limit Less than 50%		ML		Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity.
			CL		Inorganic Clays of Low to Medium Plasticity, Gravely Clays, Sandy Clays, Silty Clays, Lean Clays.
			OL		Organic Clays and Organic Silty Clays of Low Plasticity.
	Silt and Clay Liquid Limit Greater than 50%		MH		Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts.
			CH		Inorganic Clays of High Plasticity, Fat Clays.
			OH		Organic Clays of Medium to High Plasticity.
Highly Organic Soils			PT		Peat and Other Highly Organic Soils.

BORING LOG LEGEND

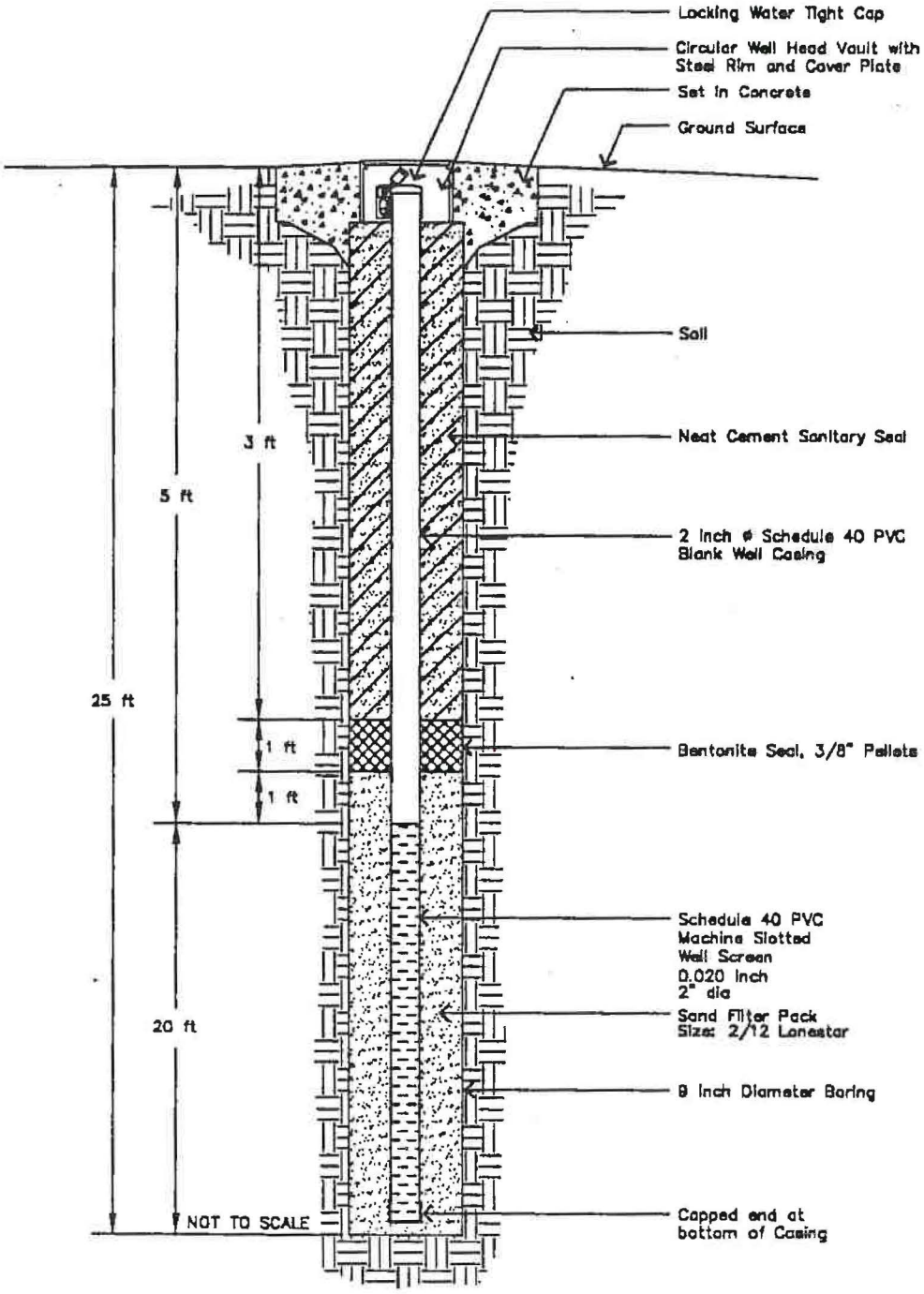
- ■ Soil sample submitted for chemical analysis
- ☒ Soil sample examined for soil classification.
- [N] Sample attempt with no recovery.
- ▽ First Identified free water.
- ▼ Initial Static Water Level

Sample Condition
G=Good, F=Fair, P=Poor, N=No Recovery

EnviroNet CONSULTING

UNIFIED SOIL CLASSIFICATION SYSTEM and BORING LOG LEGEND

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
W A	Soilclas	GSJ			



See text for information not noted

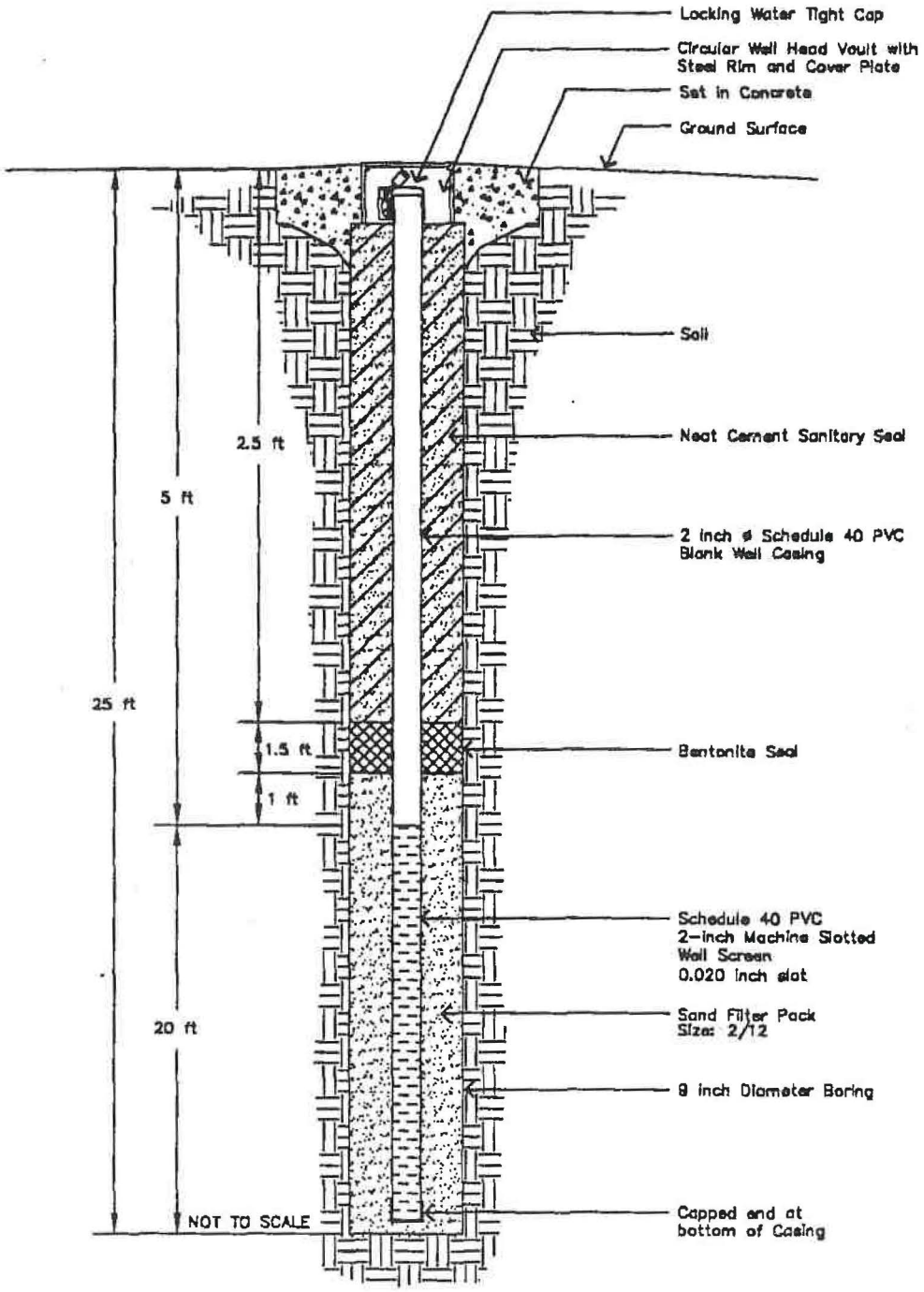
EnviroNet CONSULTING

WELL COMPLETION DIAGRAM MW-1

Soil and Groundwater Investigation
Monitoring Well
Simpson Redwood Company
Arcata, California

PLATE E

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-WCMW1	RLN	7102.1		12/28/97



See text for information not noted

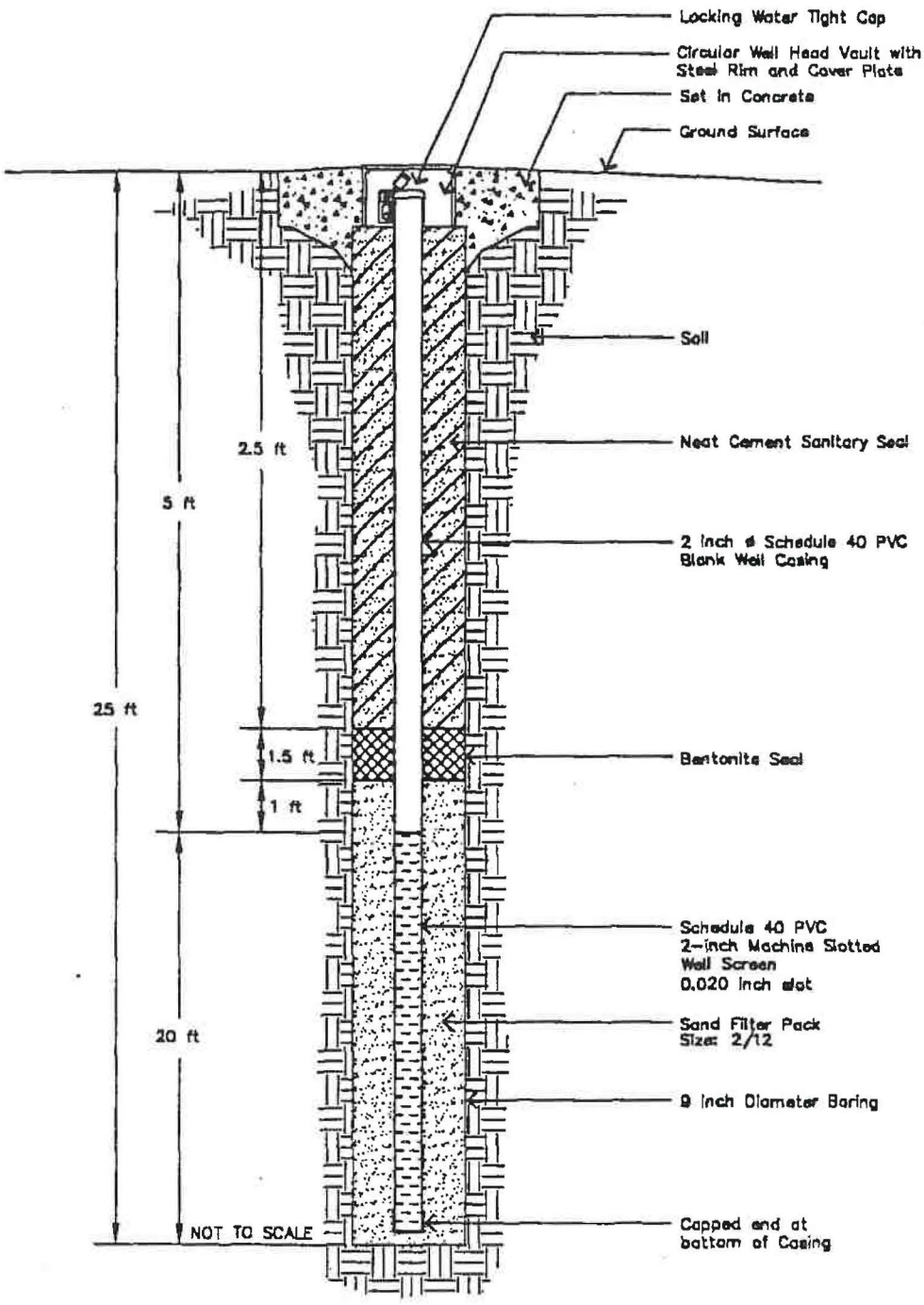
EnviroNet CONSULTING

WELL COMPLETION DIAGRAM MW-2

Soil and Groundwater Investigation
Monitoring Well
Simpson Redwood Company
Arcata, California

PLATE F

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-WCMW2	RLN	7102.1		12/28/97



See text for information not noted

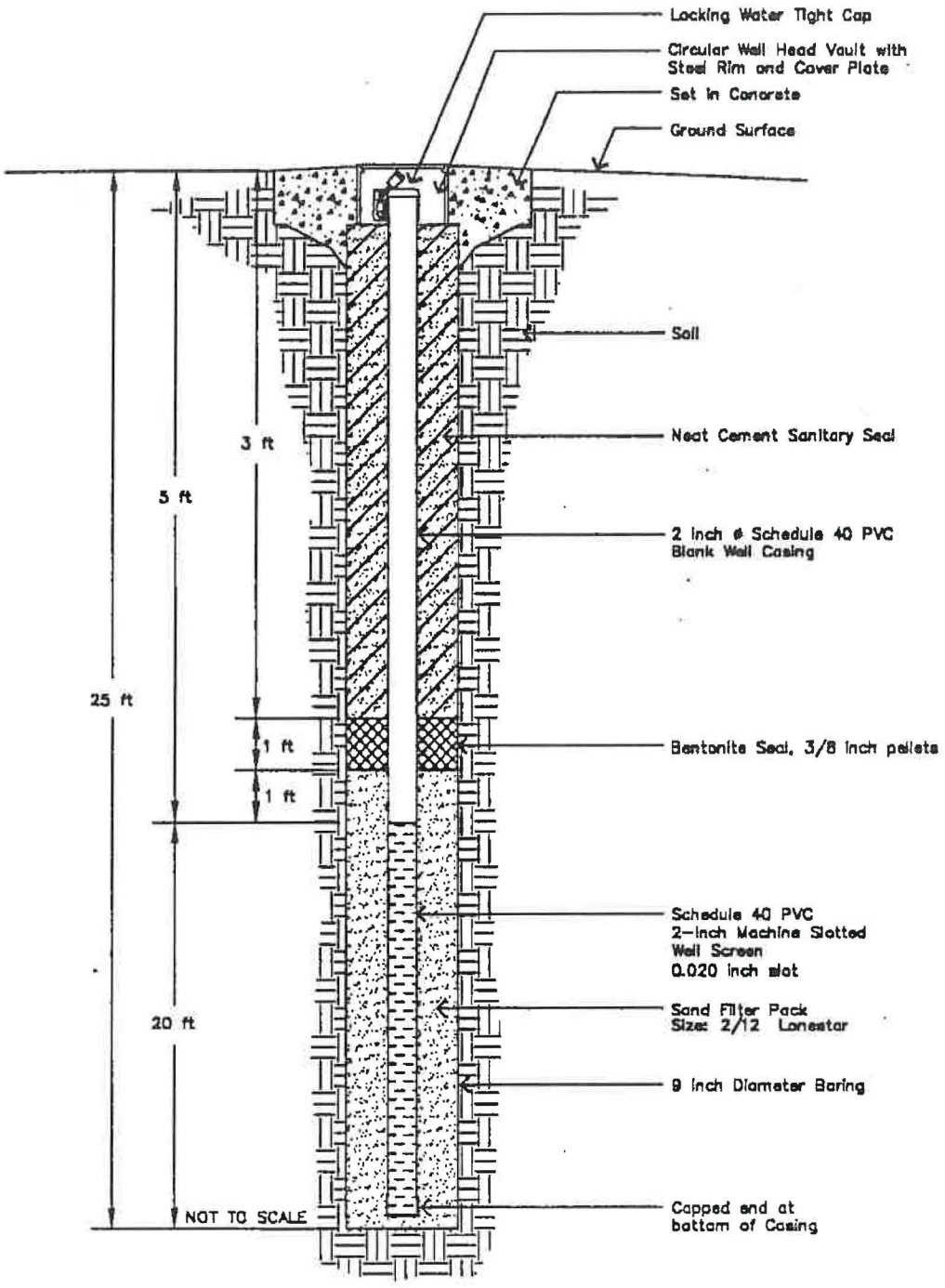
EnviroNet CONSULTING

WELL COMPLETION DIAGRAM MW-3

Soil and Groundwater Investigation
Monitoring Well
Simpson Redwood Company
Arcata, California

PLATE G

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-WCMW3	RLN	7102.1		12/28/97



See text for information not noted

EnviroNet CONSULTING

WELL COMPLETION DIAGRAM MW-4

Soil and Groundwater Investigation
Monitoring Well
Simpson Redwood Company
Arcata, California

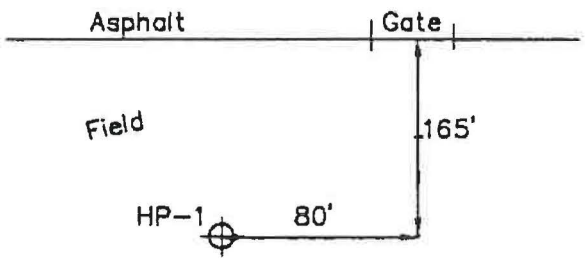
PLATE H

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	SI-WCMW4	RLN	7102.1		12/28/97

Date: 12/2/97 Start Time: BORING No. **HP-1**
Logged By: R.L. Nelson

Drilling Contractor: Weeks Drilling
Driller's Name: Gary Meyers
Drilling Method: 9" Hollow Stem Auger
Sampling Method: CMSSS
Monitoring Well Installed: Yes ☐ No ☒
Total Depth (ft): 15 ft.
Auger Depth (ft): 13.5 ft.
Hydropunch Interval (ft): 11' to 16' (2nd boring)
Notes:

LOCATION of BORING



See site plan also — No scale — NORTH

See Unified Soil Classification System for Legend and information not noted.

Sample	Sample Condition*	Inches Recovered	Drilling Rate	Blows / 6 in.	Initial Free Water	Static Water	PID (ppm)	Odor	Discolored	USCS Soil Class.	Depth in Feet	Graphic Log	
										GM	1		Dark gray Sandy Silty Gravel, medium dense,
											2		moist, very fine sand, fine subrounded gravel
											3		
☒	G	5		9			0	No	No	SP	4		Gray brown Gravelly Sand, medium dense, moist,
☒		6		14									40% fine to coarse gravel, 60% fine to coarse
■	G	6		13							5		sand, little fines, abundant chert gravel
											6		
											7		
											8		
											9		
											10		
☒		6		11									
☒		6		16			0	No	No		11		
■	G	6		16	▽						12		Dark gray well graded Sand, medium dense, wet,
											13		fine to coarse sand, little fines
				3						SW	14		
				23									
				30							15		
											16		

EnviroNet CONSULTING

BORING LOG HP-1
Soil and Groundwater Investigation
Simpson Lumber Company
Arcata, California

PLATE 1

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
AJH	si-hp-1	RLN	7102.1		12/28/97

APPENDIX C

-TABLES-

REMOVAL ACTION WORK PLAN

IMPLEMENTATION REPORT

AND

RESULTS OF INITIAL GROUNDWATER MONITORING

DATED MARCH 20, 1998

FOR THE

FORMER SIMPSON TIMBER COMPANY REMANUFACTURING

PLANT SITE LOCATED AT:

3315 FOSTER AVENUE

ARCATA, CALIFORNIA

Table 1: Disposed Stockpile Soil Sample Results EPA Methods 8260 and 8270

Sample ID	Date	8260	8270
		——————mg/kg——————	
C-2-6/13/97	06/13/97	ND	3.2 (PCP)
C-2-10/97(5:34)	10/01/97	0.026 acetone 0.009 bromobenzene	6.9 (PCP)
C-2-10/97(5:35)	10/01/97	0.15 acetone	2.1 (PCP)
C-2-10/97(5:36)	10/01/97	0.16 acetone	4.7 (PCP)
C-2-10/97(5:37)	10/01/97	ND	4.8 (PCP)
C-3-10/97(5:20)	10/01/97	ND	1.2 (PCP)
C-3-10/97(5:21)	10/01/97	0.0054 tichlorofluoromethane	5.5 (PCP)
C-3-10/97(5:22)	10/01/97	ND	0.19 (PCP)
COL-2-6/13/97	06/13/97	ND	2.6 (PCP)
COL-22-6/13/97	06/13/97	0.9 tichloroethene 59 toluene 41 ethylbenzene 106 total xylenes 38 1,3,5-trimethylbenzene 1 1,1,2,2-tetrachloroethane 5 isopropylbenzene 8.7 n-propylbenzene 4.8 tert-butylbenzene 1.7 sec-butylbenzene 5.4 p-isopropyltoluene 23 n-butylbenzene 30 naphthalene	5.1 (PCP)
COL-22-10/97	10/01/97	0.0078 toluene 0.0073 total xylenes	1.1 (PCP)

ND = Not Detected; Stockpile Locations Shown on Plate 11A.

Table 1 continued: Disposed Stockpile Soil Sample Results EPA Methods 8260 and 8270

Sample ID	Date	8260	8270
		mg/kg	
COL-34-6/13/97	06/13/97	23 toluene 9.9 ethylbenzene 114 total xylenes 0.96 1,1,2,2-tetrachloroethane 2.2 isopropylbenzene 3.2 n-propylbenzene 35 1,3,5-trimethylbenzene 4.4 tert-butylbenzene 1.1 sec-butylbenzene 4.5 p-isopropyltoluene 16 n-butylbenzene 24 naphthalene	6.9 (PCP)
COL-35-6/13/97	06/13/97	2.1 toluene 0.9 ethylbenzene 19.5 total xylenes 4.2 1,3,5-trimethylbenzene 1.3 1,2,4-trimethylbenzene 1.3 n-butylbenzene 3.8 naphthalene	1.8 (PCP)
COL-35-10/97	10/01/97	0.028 acetone	5.6 (PCP)

ND = Not Detected; Stockpile Locations shown on Plate 11A.

Table 2: Stockpile Soil Sample Results EPA Methods 8260 and 8270

Sample ID	Date	8260	8270
		mg/kg	
C-1	06/13/97	ND	ND
C-1-10/97(4:59)	10/01/97	ND	ND
C-1-10/97(5:00)	10/01/97	ND	ND
C-1-10/97(5:01)	10/01/97	ND	0.72 (PCP)
CP-4-10/97 (3:10)*	10/01/97	---	---
CP-4b**	12/06/97	---	ND
CP-4c***	12/06/97	---	ND
COL-1	12/06/97	ND	ND
(New) COL-3	06/13/97	ND	ND
New COL-3a	12/06/97	0.016 acetone	ND
New COL-3b	12/06/97	0.014 acetone 0.005 1,3,5-trimethylbenzene	ND
COL-10-10/97	10/01/97	ND	ND
COL-12	06/13/97	ND	0.558 (PCP)
(New) COL-14	06/13/97	ND	ND
(New) COL-14-S	06/13/97	ND	0.35 (PCP)
New COL-14	12/06/97	ND	ND
(New) COL-16	06/13/97	ND	ND
COL-20 added to COL-16	06/13/97	ND	ND

ND = Not Detected; --- = Not Analyzed
*** Sample ND for PCBs. ** and *** Cd ND, Cr ≤ 80, Pb ≤ 34, Ni ≤ 100, Zn ≤ 180.**
Stockpile Locations shown on Plate 11B.

Table 2 Continued: Stockpile Soil Sample Results EPA Methods 8260 and 8270

Sample ID	Date	8260	8270
		mg/kg	
COL-26-N	06/13/97	0.0059 1,3-dichlorobenzene 0.023 1,2-dichlorobenzene 0.0096 1,2,3-trichlorobenzene	ND
COL-26-S	06/13/97	0.006 1,2-dichlorobenzene 0.0058 1,2,3-trichlorobenzene	ND
COL-26-C	06/13/97	0.019 1,3-dichlorobenzene 0.013 1,4-dichlorobenzene 0.032 1,2-dichlorobenzene 0.011 1,2,4-trichlorobenzene 0.02 1,2,3-trichlorobenzene	ND
COL26a	12/06/97	0.15 acetone 0.025 naphthalene 0.036 1,3,5-trimethylbenzene 0. 094 total xylenes	1.1 (PCP)
COL26b	12/06/97	0.0089 total xylenes	ND
COL26c	12/06/97	0.01 1,2,4-trimethylbenzene 0.042 1,3,5-trimethylbenzene 0.059 total xylenes	ND
COL26d	12/06/97	0.0056 total xylenes	ND
COL26e	12/06/97	0.12 p-isopropyltoluene 0.13 naphthalene 0.043 1,2,4-trimethylbenzene 0.1 1,3,5-trimethylbenzene 0.96 total xylenes	0.84 (PCP)
COL26f	12/06/97	0.017 acetone 0.0053 toluene 0.0291 total xylenes	ND
COL26g	12/06/97	0.011 total xylenes	ND

ND = Not Detected; Stockpile locations shown on Plate 11B.

Table 2 continued: Stockpile Soil Sample Results EPA Methods 8260 and 8270

Sample ID	Date	8260	8270
		mg/kg	
New COL 34a	12/06/97	0.1 acetone 0.048 naphthalene 0.027 1,2,4-trimethylbenzene 0.085 1,3,5-trimethylbenzene 0.58 total xylenes	ND
New COL-34b	12/06/97	ND	ND
New COL-34c	12/06/97	15 n-butylbenzene 2.5 ethylbenzene 1 isopropylbenzene 4.1 p-isopropyltoluene 18 naphthalene 3.3 n-propylbenzene 0.8 sec-butylbenzene 31 1,2,4-trimethylbenzene 13 1,3,5-trimethylbenzene 0.94 toluene 82 total xylenes	ND
(New) COL-36-N	06/13/97	ND	ND
(New) COL-36-S	06/13/97	ND	ND
New COL-36-a	12/06/97	0.011 acetone 0.016 ethylbenzene 0.012 p-isopropyltoluene 0.041 1,3,5-trimethylbenzene 0.015 toluene 0.26 total xylenes	ND
New COL-36b	12/06/97	0.0099 toluene	ND
New COL-37a	12/06/97	0.19 acetone 0.13 p-isopropyltoluene 0.43 naphthalene 0.15 1,2,4-trimethylbenzene 0.46 1,3,5-trimethylbenzene 0.67 total xylenes	1.8 (PCP)

ND = Not Detected; Stockpile locations shown on Plate 11B.

Table 2 continued: Stockpile Soil Sample Results EPA Methods 8260 and 8270

Sample ID	Date	8260	8270
		mg/kg	
New COL-37b	12/06/97	0.005 total xylenes	ND
New COL-37c	12/06/97	ND	ND
RR-11	06/13/97	2.7 toluene 1.8 ethylbenzene 23.3 total xylenes 11 1,3,5-trimethylbenzene 3.3 1,2,4-trimethylbenzene 1 p-isopropyltoluene 5.6 n-butylbenzene 11 naphthalene	ND
Mid RR-11	12/06/97	0.013 acetone	ND
New RR-11a	12/06/97	1.4 n-butylbenzene 4.4 naphthalene 2.2 1,2,4-trimethylbenzene 0.9 1,3,5-trimethylbenzene 5.14 total xylenes	ND
New RR-11b	12/06/97	8.1 n-butylbenzene 2.3 p-isopropyltoluene 9.1 naphthalene 8.4 1,2,4-trimethylbenzene 4.0 1,3,5-trimethylbenzene 7.7 total xylenes	0.97 (PCP)
New RR-11c	12/06/97	0.076 acetone 0.22 p-isopropyltoluene 0.081 1,2,4-trimethylbenzene 0.21 1,3,5-trimethylbenzene 0.34 total xylenes	ND
RR-17	06/13/97	ND	ND
RR-17-10/97	10/01/97	ND	ND
RR-17- 10/97	10/01/97	ND	ND
RR-17- 10/97	10/01/97	ND	ND

ND = Not Detected; Stockpile locations shown on Plate 11B.

Table 3: Soil and Water Sample Analytical Results from South Lunch Room Excavation

Sample Number	Date	Units	Semivolatile Organics (EPA Method 8270 acid fraction components)	Volatile Organic Compounds (EPA Method 8260)
SW-W-12'	11/09/97	mg/kg	ND	0.013 acetone
SW-E-12'	11/09/97	mg/kg	ND	0.023 acetone 0.0071 ethylbenzene 0.011 total xylenes
SW-NW-12'	11/09/97	mg/kg	ND	ND
SW-NE-12'	11/09/97	mg/kg	ND	0.0091 n-butylbenzene
EX-B-20'	11/09/97	mg/kg	ND	0.049 n-butylbenzene 0.045 ethylbenzene 0.0083 p-isopropyltoluene 0.0092 naphthalene 0.0092 n-propylbenzene 0.023 1,2,4-trimethylbenzene 0.0095 1,3,5-trimethylbenzene 0.0097 toluene 0.151 total xylenes
Pit Water	11/08/97	mg/L	0.0022 (PCP)	0.0018 benzene 0.140 n-butylbenzene 0.023 cis-1,2-dichloroethene 0.860 ethylbenzene 0.018 isopropylbenzene 0.038 p-isopropyltoluene 0.170 naphthalene 0.062 n-propylbenzene 0.006 trichloroethene 0.310 1,2,4-trimethylbenzene 0.470 toluene 3.40 total xylenes 0.0064 sec-butylbenzene 0.120 1,3,5-trimethylbenzene

ND = Not Detected; Sample points on Plate 12.

Table 4: Groundwater Flow Direction and Gradient

Well Number	Date	Elevation Top of Well Casing	Depth to Groundwater in Feet	Groundwater Elevation	Groundwater Flow Direction and Gradient
MW-1	12/05/97	14.37	7.04	7.73	Due East i = 0.017
MW-2		16.88	8.17	8.17	
MW-3		15.93	11.03	4.90	
MW-4		16.15	11.06	5.09	

See Plate 8 for Monitoring Well Locations.

Table 5: Groundwater Sample Analytical Results

Well Number	Date	Volatile Organic Compounds EPA Method 8260	Semi-Volatile Organic Compounds EPA Method 8270
		mg/L	
MW-1	12/05/97	ND	ND
MW-2		ND	ND
MW-3		0.0015 benzene 0.0079 cis-1,2-dichloroethene	ND
MW-4		0.004 cis-1,2-dichloroethene	ND

ND = No test method compounds detected. Sample Points on Plate 8.

Table 6A: Surface Soil Sample Analytical Results from Beneath Debris Disposal Pile

Sample Number	Date	Units	Semivolatile Organics (EPA Method 8270 acid fraction components)	Volatile Organic Compounds (EPA Method 8260)
DP1-1'	09/25/97	mg/kg	ND	0.033 methylene chloride
DP2-1'	09/25/97	mg/kg	ND	0.320 methylene chloride
DP3-1'	09/25/97	mg/kg		0.250 methylene chloride
DP4-1'	09/25/97	mg/kg	ND	0.200 methylene chloride
SL-Surface	09/25/97	mg/kg	ND	1.1 acetone 3.3 methylene chloride

ND = Not Detected; Sample points on Plate 6.

Table 6B: EP Series Soil Sample Analytical Results

Sample Number	Date	lead	STLC-lead	zinc
		mg/kg	mg/L	mg/kg
EP16SS-1	12/02/97	50	ND	130
EP16SS-2	12/02/97	52	ND	250
EP16SS-3	12/02/97	31	----	180
EP16SS-4	12/02/97	83	ND	170
EP16SS-5	12/02/97	73	ND	170

ND = Not Detected; Sample Points on Plate 6.
---- = Not Analyzed

Table 7: Boring HP-1 Soil and Water Sample Analytical Results

Sample Number	Date	Units	Semivolatile Organics (EPA Method 8270 acid fraction components)	Volatile Organic Compounds (EPA Method 8260)
HP-1-4.5	12/02/97	mg/kg	ND	0.015 acetone
HP-1-9.5	12/02/97	mg/kg	ND	0.014 acetone
HP-1-14.5	12/02/97	mg/kg	ND	ND
HP-1-W	12/02/97	mg/L	ND	ND

ND = Not Detected; Sample point on Plate 6.

Table 8: CON-4 Series Soil and Water Sample Analytical Results

Sample Number	Date	Units	Sample Location	PCBs	Total Organic Carbon
CON-4-Water-D	12/05/97	mg/L	30' downstream of CON-4	ND	----
CON-4-Water-U	12/05/97	mg/L	30' upstream of CON-4	ND	----
CON-4-R-Soil	12/05/97	mg/kg	Retest of soil at CON-4	0.043 (PCBs)* Aroclor 1260	7,300

ND = Not Detected; * Sample Run for STLC PCBs which were ND.
---- = Not Analyzed; Sample points on Plate 3.

Table 9: Evaporation Pond Sediment Sample Analytical Results - Collected 12/03/97

Sample Number	TPH-d	TPH-mo	Volatile Organic Compounds	Semi-Volatile Organic Compounds (Acid Fraction Components)	CAM 5 Metals	PCB	Formalde-hyde
	mg/kg						
Evaporation Pond Sediment	ND	ND	ND	ND	Cd ND Cr 76 Pb 7.6 Zn 97 Ni 100	ND	ND

ND = Not Detected; Sample point on Plate 13.

Table 10: Drainage Outlet Soil Sample Analytical Results - Collected 12/05/97

Sample Number	TPH-d	TPH-mo	Semivolatile Organics (EPA Method 8270 acid fraction components)	Volatile Organic Compounds (EPA Method 8260)
	mg/kg			
GRO-1-1.5-R	ND	180	ND	0.022 acetone
DRO2-2-1.5-R	ND	78	ND	0.11 acetone 0.023 2-butanone

ND = Not Detected; Sample points on Plate 11B.

Table 11: Stockpile Soil Volume and Source - December, 1997

Stockpile ID	Volume cubic yards	Source	Status
C-1	400	south lunch room area	Same Location
C-2	1400	south lunch room area	Forward Landfill
C-3	300	debris disposal area - paint cans	Forward Landfill
CP-1	~~180~~	clean overburden - inc former COL -14 from bunker C AGT	Moved to COL-16 and then Combined with CP-2
CP-2	190+180	diesel AGT-1 -inc former COL-16 & COL-20	CP-1 was Added - Bunker C AGT
CP-3	280+60	diesel AGT-1 - inc former COL-22 & RR-11	COL-3 was Added
CP-4	100	ditch near wash rack, was Old Trench Soil	Same Location
COL-1	50	overburden - south lunch room	Clean Overburden
COL-2	90	south lunch room area	Forward Landfill
COL-3	~~60~~	diesel AGT-1	~~Combined with CP-3~~
NEW COL-3	300	south lunch room area	Clean Overburden
COL-10	60	debris disposal area - paint cans	Same Location
COL-11	400	debris disposal area - paint cans	Forward Landfill
COL-12	80	south lunch room area	Same Location
COL-14	~~60~~	diesel AGT-1 (mis-identified as south lunch room in previous report)	Moved to CP-1, Then to CP-2
NEW COL-14	60	south lunch room area	New Stockpile

Stockpile locations shown on Plates 11A and 11B.

Table 11 continued: Stockpile Soil Volume and Source - December, 1997

Stockpile ID	Volume cubic yards	Source	Status
COL-16	~~50+80~~	diesel AGT-1 (mis-identified in prior report)	COL-20 was Added Then Moved to CP-2
NEW COL-16	130	south lunch room area	New Stockpile
COL-20	~~80~~	diesel AGT-1 (mis identified in prior report)	Combined with COL-16
COL-22	~~140~~	south lunch room area	~~Forward Landfill~~
COL-25	60	debris disposal area - paint cans	Forward Landfill
COL- 26	~~100~~	diesel AGT-1	~~Combined with COL-28~~
NEW COL-26	650	south lunch room area	New Stockpile
COL-28	120+100	diesel AGT-1	COL-26 was Added
COL-29	140	south lunch room - paint	Forward Landfill
COL-32	80+120	diesel AGT-1	Col-36 was Added
COL-34	90	south lunch room area	Forward Landfill
NEW COL-34	260	south lunch room area	New Stockpile
COL-35	90	south lunch room area	Forward Landfill
COL-36	~~120~~	bunker "C" AGT-2	~~Combined with Col-32~~
NEW COL-36	300	south lunch room area	New Stockpile
NEW COL-37	300	south lunch room area	New Stockpile
RR-10	80	bunker "C" AGT-2	Same Location
RR-11	~~80~~	south lunch room area	~~Combined with RR-17~~
NEW RR-11	240	south lunch room area	New Stockpile
RR-17	380+80	south lunch room area	RR-11 was Added
LANDFILL	40	debris disposal area (O&G and metals)	Forward Landfill

Stockpile locations shown on Plates 11A and 11B.

Table 12: Stockpile Soil Sample Results, TPH-d, TPH-mo, and CAM 5 Metals - Collected 01/15/98

Sample Number	TPH-d	TPH-mo	Cd	Cr	Pb	Ni	Zn
	mg/kg						
SP1(A-D)2 Composite	---	---	0.89	60	115	76	167
SP1-(A-D) Composite	ND	ND	---	---	---	---	---
SP2(A-D)2 Composite	---	---	0.70	55	58	66	123
SP2-(A-D) Composite	ND	290	---	---	---	---	---
SP3(A-D)2 Composite	---	---	1.2	60	54	74	146
SP3-(A-D) Composite	ND	110	---	---	---	---	---
SP4(A-D)2 Composite	---	---	0.58	63	13	82	58
SP4-(A-D) Composite	ND	ND	---	---	---	---	---

ND = Not Detected; --- = Not Analyzed. Note that same sample was given two different numbers, with one sample set being analyzed for CAM 5 Metals and the other sample set being analyzed for diesel and motor oil.

Table 13-1: Baker Tank Treated Water Results

Sample	Date	benzene	toluene	ethylbenzene	xylenes (total)	naphthalene	n-butylbenzene
		mg\L					
768	11/24/97	ND	ND	ND	ND	ND	ND
882-11-10	11/10/97	ND	ND	ND	ND	ND	ND
882-12-3	12/03/97	ND	ND	ND	0.002	ND	ND
1159-11-10	11/10/97	ND	ND	ND	ND	ND	ND
1159-12-3	12/03/97	ND	ND	ND	ND	ND	ND
1187	11/24/97	ND	ND	ND	ND	ND	ND
1217-11-6	11/06/97	ND	0.130	0.130	0.586	0.0015	0.015
1217	11/24/97	ND	ND	ND	ND	ND	ND
1363-11-10	11/10/97	ND	ND	ND	ND	ND	ND
1363	11/24/97	ND	ND	ND	ND	ND	ND
1363	12/15/97	ND	ND	ND	ND	ND	ND
1744-11-10	11/10/97	ND	ND	ND	ND	ND	ND
1744	11/24/97	ND	ND	ND	ND	ND	ND

ND = Not Detected

Table 13-1 continued : Baker Tank Treated Water Results

Sample	Date	benzene	toluene	ethylbenzene	xylenes (total)	naphthalene	n-butylbenzene
		mg/L					
1744	12/15/97	ND	ND	ND	ND	ND	ND
1835-11-6	11/06/97	ND	0.0014	ND	0.0029	ND	ND
1835-11-10	11/10/97	ND	ND	ND	ND	ND	ND
1835-12-3	12/03/97	ND	ND	ND	ND	ND	ND
1835	12/15/97	ND	ND	ND	ND	ND	ND
1933-11-10	11/10/97	ND	ND	ND	ND	ND	ND
1933	11/24/97	ND	ND	ND	ND	ND	ND
1933	12/15/97	ND	ND	ND	ND	ND	ND
1933-12-18	12/18/97	ND	ND	ND	ND	ND	ND
1961-11-6	11/06/97	ND	0.0013	ND	0.0024	ND	ND
1961	11/24/97	ND	ND	ND	ND	ND	ND
1961	12/08/97	ND	ND	ND	ND	ND	ND
Baker 1961-12-23	12/23/97	ND	0.048	0.0042	0.55	0.015	ND

ND = Not Detected

Table 13-1 continued: Baker Tank Treated Water Results

Sample	Date	benzene	toluene	ethylbenzene	xylenes (total)	naphthalene	n-butylbenzene
		mg\L					
1962	11/24/97	ND	ND	ND	ND	ND	ND
1986-11-6	11/06/97	ND	0.0024	0.0012	0.0044	ND	ND
1986	11/24/97	ND	ND	ND	ND	ND	ND
1986	12/08/97	ND	ND	ND	ND	ND	ND
2125 11/10/97	11/10/97	ND	ND	ND	ND	ND	ND
2506-12-3	12/03/97	ND	ND	ND	ND	ND	ND
2521	11/24/97	ND	ND	ND	ND	ND	ND
2521	12/08/97	ND	ND	ND	ND	ND	ND
2521-12-19	12/19/97	ND	0.640	1.3	6.5	0.0078	ND
2565-12-3	12/03/97	ND	ND	ND	ND	ND	ND

ND = Not Detected

Table 13-2: Baker Tank Treated Water Results

Sample	Date	1,2,4 - trimethylbenzene	n - propylbenzene	1,3,5 - trimethylbenzene	trichloroethene	Isopropyl benzene	sec - butylbenzene	p- Isopropyltoluene
		mg/L						
768	11/24/97	ND	ND	ND	ND	ND	ND	ND
882-11-10	11/10/97	ND	ND	ND	ND	ND	ND	ND
882-12-3	12/03/97	0.0035	ND	ND	ND	ND	ND	0.0028
1159-11-10	11/10/97	ND	ND	ND	ND	ND	ND	ND
1159-12-3	12/03/97	ND	ND	ND	ND	ND	ND	ND
1187	11/24/97	ND	ND	ND	ND	ND	ND	ND
1217-11-6	11/06/97	0.059	0.0097	0.025	ND	0.0042	ND	0.0052
1217	11/24/97	ND	ND	ND	ND	ND	ND	ND
1363-11-10	11/10/97	ND	ND	ND	ND	ND	ND	ND
1363	11/24/97	ND	ND	ND	ND	ND	ND	ND
1363	12/15/97	ND	ND	ND	ND	ND	ND	ND
1744-11-10	11/10/97	ND	ND	ND	ND	ND	ND	ND
1744	11/24/97	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected

Table 13-2 continued: Baker Tank Treated Water Results

Sample	Date	1,2,4 trimethylbenzene	n - propylbenzene	1,3,5 - trimethylbenzene	trichloroethene	isopropyl benzene	sec - butylbenzene	p- isopropyltoluene
		mg/L						
1744	12/15/97	ND	ND	ND	ND	ND	ND	ND
1835-11-6	11/06/97	ND	ND	ND	ND	ND	ND	ND
1835-11-10	11/10/97	ND	ND	ND	ND	ND	ND	ND
1835-12-3	12/03/97	ND	ND	ND	ND	ND	ND	ND
1835	12/15/97	ND	ND	ND	ND	ND	ND	ND
1933-11-10	11/10/97	ND	ND	0.0016	ND	ND	ND	0.0014
1933	11/24/97	ND	ND	ND	ND	ND	ND	ND
1933	12/15/97	ND	ND	ND	ND	ND	ND	ND
1933-12-18	12/18/97	ND	ND	ND	ND	ND	ND	ND
1961-11-6	11/06/97	ND	ND	ND	ND	ND	ND	ND
1961	11/24/97	ND	ND	ND	ND	ND	ND	ND
1961	12/08/97	ND	ND	ND	ND	ND	ND	ND
Baker 1961-12-23	12/23/97	0.063	ND	0.024	ND	0.0014	ND	0.007

ND = Not Detected

Table 13-2 continued: Baker Tank Treated Water Results

Sample	Date	1,2,4 - trimethylbenzene	n - propylbenzene	1,3,5 - trimethylbenzene	trichloroethene	isopropyl benzene	sec - butylbenzene	p- isopropyltoluene
		mg/L						
1962	11/24/97	ND	ND	ND	ND	ND	ND	ND
1986-11-6	11/06/97	ND	ND	ND	ND	ND	ND	ND
1986	11/24/97	ND	ND	ND	ND	ND	ND	ND
1986	12/08/97	ND	ND	ND	ND	ND	ND	ND
2125-11/10/97	11/10/97	ND	ND	ND	ND	ND	ND	ND
2506-12-3	12/03/97	ND	ND	ND	ND	ND	ND	ND
2521	11/24/97	ND	ND	ND	ND	ND	ND	ND
2521	12/08/97	ND	ND	ND	ND	ND	ND	ND
2521-12-19	12/19/97	0.67	0.12	0.26	0.0023	0.04	0.014	0.077
2565-12-3	12/03/97	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected

Table 14: MCLs and PRGs for Selected Chemicals of Detection

Contaminant	PRG res soil mg/kg	PRG tap water ug/L	MCL, drinking water standards ug/L
pentachlorophenol	2.5	0.56	1.0
Ethylbenzene	230	1,300	700
toluene	790	720	150
xylenes (total)	320	1,400	1,750
cis-1,2-dichloroethene	31	61	6.0
naphthalene	240	240	NE
Total Petroleum Hydrocarbons Gasoline, Diesel, Motor Oil	NE	NE	NE
acetone	2,100	610	NE
phenanthrene	NE	NE	NE
methylene chloride	7.8	4.3	NE
polychlorinated biphenyls	0.066	0.0087	0.5
benzo(a)pyrene	0.061	0.0092	0.2
bis (2-ethylhexyl)phthalate	32	4.8	NE
p-isopropyltoluene	NE	NE	NE
benzene	0.63	0.39	1.0
2-butanone (MEK)	7,100	1,900	NE
trans-1,2-dichloroethene	78	120	10
isopropylbenzene	NE	NE	NE

NE = None Established