

Appendix E: Hazards and Hazardous Materials

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**Phase I and Limited Phase II
Environmental Assessment
111, 145, 153, 157, & 165 Chiquita Road
Healdsburg, California (Rev. 1)**

Prepared for:
DRG Builders, Inc.
3480 Buskirk Avenue, Suite 260
Pleasant Hill, California 94523

**Project No. REE-62-08A-15
September 1, 2015**

ROSEWOOD ENVIRONMENTAL ENGINEERING

1079-B Sunrise Boulevard, Suite 168
Roseville, California 95661

ROSEWOOD ENVIRONMENTAL ENGINEERING

Project No.: REE-62-08A-15
September 1, 2015

Doyle Heaton
DRG Builders, Inc.
3480 Buskirk Avenue, Suite 260
Pleasant Hill, California 94523

Subject: Phase I and Limited Phase II Environmental Site Assessment
111, 145, 153, 157, & 165 Chiquita Road
Healdsburg, California

Dear Mr. Heaton:

We are submitting this revision (1) to the Phase I and Limited Phase II Environmental Site Assessment of the above referenced site. The only substantial changes is the addition of the following language on pages v and 50:

"In conclusion, it is Rosewood Environmental Engineering's opinion that, with the listed recognized environmental conditions addressed according to the recommendations, the Site will be suitable for residential development."

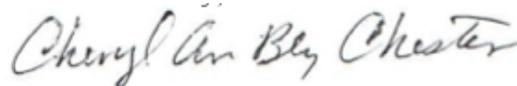
Should you have any questions relating to the contents of this report or require any additional information, please contact our office at your convenience.

Very truly yours,
Rosewood Environmental Engineering

Assisted by:



Erika Chester
Environmental Specialist



Cheryl Bly-Chester, PE, REPA
EPA Qualified Environmental Professional (EP)

Copies:

EXECUTIVE SUMMARY

PHASE I AND LIMITED PHASE II ENVIRONMENTAL ASSESSMENT

111, 145, 153, 157 & 165 Chiquita Road

Healdsburg, California

Rosewood Environmental Engineering completed a Phase I Environmental Assessment with a Limited Phase II additional scope of services for the property located on Chiquita Road in Healdsburg, Sonoma County, California (“the Site”). A Rosewood Environmental Engineering Engineer/Qualified Environmental Professional, along with a Rosewood Environmental Engineering Environmental Specialist, performed site reconnaissance visits on July 30 and August 5, 2015. Five houses are located on the property at 111, 145, 153, 157, and 165 Chiquita Road.

The purpose of conducting this Phase I and Limited Phase II Environmental Site Assessment is to provide an independent, professional opinion regarding recognized environmental conditions (RECs), including Historic RECs and Controlled RECs, if any, associated with the Site as due diligence documentation in a property transaction. It is Rosewood Environmental Engineering’s understanding that a residential housing development with open space along the creek is planned for the Site.

The Site is situated between Highway 101 to the west and railroad tracks to the east. It is comprised of three parcels, together approximately 9.95 acres in area and polygonal with roughly a trapezoid + rectangle shape.

Foss Creek flows north to south on the eastern side of the property and a tributary crosses west to east at approximately the property line dividing the southern and central parcels. In December of 2014, a 100-year storm event caused flooding over the banks of Foss Creek in areas, but the Site was not one of those areas, with the creek staying within the banks during that event.

A bridge crosses the Foss Creek tributary at the Site. Its concrete abutments are leaning inward. It should have a thorough structural review before using it for vehicle or heavy equipment.

Early history of the Site includes occupation by Pomo and Wappo indigenous people who were hunter-gatherers, then cattle ranching as part of a large Mexican Rancho. The first development of the Site was as a vineyard in approximately 1881. The vineyard property was once owned by the adjacent Simi Winery. A small grove of olive trees is in the northeast corner of the site near Foss Creek.

From the 1930s when Prohibition forced the sale of the vineyards, through to the 1960’s, five residential structures and numerous outbuildings have been built at the Site. The residences are aging with one condemned and boarded up. All of these building were

likely on septic systems at one time with the two on the northern parcel currently using septic.

Two domestic water supply wells are located on the Site, with one still servicing the northern parcel. The operating well behind 157 Chiquita Road was sampled. All parameters analyzed were within regulatory guidelines, except that Coliform was detected, but not E.coli. This is an indication that the well water is not properly treated and should be checked and adjusted while the well is still in use.

The house at 165 Chiquita Road is located at the northernmost end of the Site. It once housed an engineering-construction company with some heavy equipment storage. It also had a temporary greenhouse and growing operation for potted plants. An RV and vehicle storage facility is located on the northern parcel, which is zoned Light Industrial. The facility grounds have been cleared and mowed.

Soil deposits at the Site are Quaternary stream terrace deposits from the Pleistocene and Holocene Eras, primarily Zamora silty, clayey loam. Gravels have been brought onto the site in areas of heavy traffic and storage containers.

Surface soil at four locations at the Site was sampled and analyzed for suspected release of lead and heavy metal-based paint, solvents, TPH, and arsenic-based rodenticides. None of the constituents targeted for analysis were above the regulatory screening levels except for Arsenic in one soil sample. That sample had a concentration of Arsenic at 3.2 parts per million (ppm). Background levels of Arsenic in Sonoma County range from 0 to 6.1 ppm. The concentration is within the background-level range for Arsenic in Sonoma County.

The Site is not listed on any of the databases searched. No offsite sources appear to pose a threat to the Site. The property to the south of the Site, across Chiquita Road has begun demolition for the construction of a single-family residential development called Chiquita Grove.

There are no Environmental Liens or use restrictions reported on the property. The buyer, seller, and others familiar with the property transaction reported that sale price of the property reflects fair market value without any devaluation for recognized environmental conditions.

Recommendations for the Site include the following:

- Before Demolition of the houses at the Site, demolition-level sampling for lead-based paint and asbestos containing material should be conducted to determine the proper disposition or disposal of the waste material.
- The wells at the Site should be properly closed under permit. The operating well should have its treatment adjusted to eliminate the Coliform while it is still in use.

- The septic systems at the Site should be properly closed under permit.
- The bridge should be checked for structural integrity prior to using it for vehicle or heavy equipment traffic.
- During any grading or excavation activities of the property, soil technicians and operators must be made aware to look for unusual conditions suggesting buried debris or other potential adverse environmental conditions that may be discovered on the property. Should any questionable material be encountered during site grading, the Responsible Environmental Engineer should be contacted immediately.
- Special attention should be made to dust control during grading operations, including fugitive dust leaving the Site and worker protection from ingestion or inhalation of excessive dust.

In conclusion, it is Rosewood Environmental Engineering's opinion that, with the listed recognized environmental conditions addressed according to the recommendations, the Site will be suitable for residential development.

LETTER OF TRANSMITTAL

EXECUTIVE SUMMARY

PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

1.0 INTRODUCTION.....1

1.1 Purpose..... 2

1.2 Scope..... 2

1.3 Environmental Professional Statement 3

1.4 Limitations 3

2.0 SITE LOCATION AND DESCRIPTION5

2.1 Location and Legal Description 5

2.2 Topography and Drainage..... 5

2.3 Geology/Hydrogeology..... 6

2.4 Flood Potential 6

2.5 Seismicity..... 7

2.6 Radon Gas Potential 7

2.7 Soil Deposits 8

3.0 SITE RECONNAISSANCE9

3.1 Site Walk Preparation 9

3.2 Site Observations 9

3.3 Adjacent Properties12

4.0 REGIONAL AND SITE HISTORY REVIEW15

4.1 Regional History16

4.2 Chain of Ownership26

4.3 Site Specific History27

5.0 INTERVIEWS.....30

5.1 Principals in the Transaction.....30

5.2 Persons Knowledgeable About The Site.....30

5.3 Regulatory and Government Officials32

6.0 REGULATORY AGENCY DATABASES AND PUBLIC RECORDS34

6.1 EDR Database Review34

6.2 State Online Database Review36

6.3 On-Site Environmental Issues.....38

6.4 Vadose Zone Contamination Review.....41

7.0 LIMITED PHASE II ENVIRONMENTAL ASSESSMENT42

7.1 Surface Soil Sampling.....42

7.2 Water Well Sampling.....44

7.3 Discussion of Results45

8.0 DATA GAPS.....48

8.1 Closed Data Gaps.....48

8.2 Data Failures48

9.0 FINDINGS AND CONCLUSIONS49

10.0 RECOMMENDATIONS.....51

10.1 Pre-Construction Recommendations.....51

10.2 Construction Practices Recommendations51

11.0 REFERENCES.....52

12.0 ENVIRONMENTAL PROFESSIONAL QUALIFICATIONS.....54

TABLE OF FIGURES

Figure 1 –	Site Location Map	1
Figure 2 –	Site Map	5
Figure 3 –	APN Map	5
Figure 4 –	CISN Seismic Map of South Napa Earthquake	7
Figure 5 –	Radon Levels in Yolo County	7
Figure 6 –	USDA Soil Survey	8
Figure 7 –	Chiquita Grove Tentative Map	13
Figure 8 –	Rancho Sotoyome Deseño	16
Figure 9 –	1867 Map of Sonoma County (Excerpt)	17
Figure 10 –	Healdsburg in 1876	18
Figure 11 –	1877 Map Showing Rail Tracks Through Litton Property	18
Figure 12 –	Chiquita Rail Station Before and After Remodel	19
Figure 13 –	Northwestern Pacific 1915 Train Derailment	19
Figure 14 –	Multipulciano Winery, founded by the Simi Brothers in 1881	21
Figure 15 –	Simi Winery with Tasting Room	22
Figure 16 –	The Automobile Not Always the Mode of the Choice	24
Figure 17 –	Excerpt of Traffic Density Map Showing the Subject Site	24
Figure 18 –	EDR Database Radius Map	33
Figure 19 –	Geotracker Radius Search	36
Figure 20 –	Envirostor Radius Search	36
Figure 21 –	Beach & Landini 1 Well Map	39
Figure 22 –	Beach & Landini 1 Well Data	39
Figure 23 –	National Pipeline Mapping System	40
Figure 24 –	Targeted Sampling Map	42

TABLE OF TABLES

Table 1 –	Historical Aerial Photographs Examined	14
Table 2 –	Historical Topographic Maps Examined	14
Table 3 –	Early Ownership History	25
Table 4 –	Ownership History of APN 89-13-12	25
Table 5 –	Ownership History of APN 89-13-13	26
Table 6 –	Ownership History of APN 89-13-14	26
Table 7 –	Reported Sites of Concern	33
Table 8 –	Incorrectly Reported Sites	33
Table 9 –	Past Automotive Use with No Reported Releases	33
Table 10 –	Sites at Higher Relative Elevation	34
Table 11 –	Targeted Sampling Rationale	43
Table 12 –	Soil Sampling Results (in mg/kg)	43
Table 13 –	Sampling Results for WW-157	43
Table 14 –	NCRWQCB Basin Plan and Drinking Water Standards	46

APPENDICES

- Appendix A** – Historical Maps and Documents
- Appendix B** – Regulatory Documents
- Appendix C** – Interview Notes
- Appendix D** – Site Photographs
- Appendix E** – Aerial Photographs
- Appendix F** – Sampling Analyses Report

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

111, 145, 153, 157 & 165 Chiquita Road
Healdsburg, California

1.0 INTRODUCTION

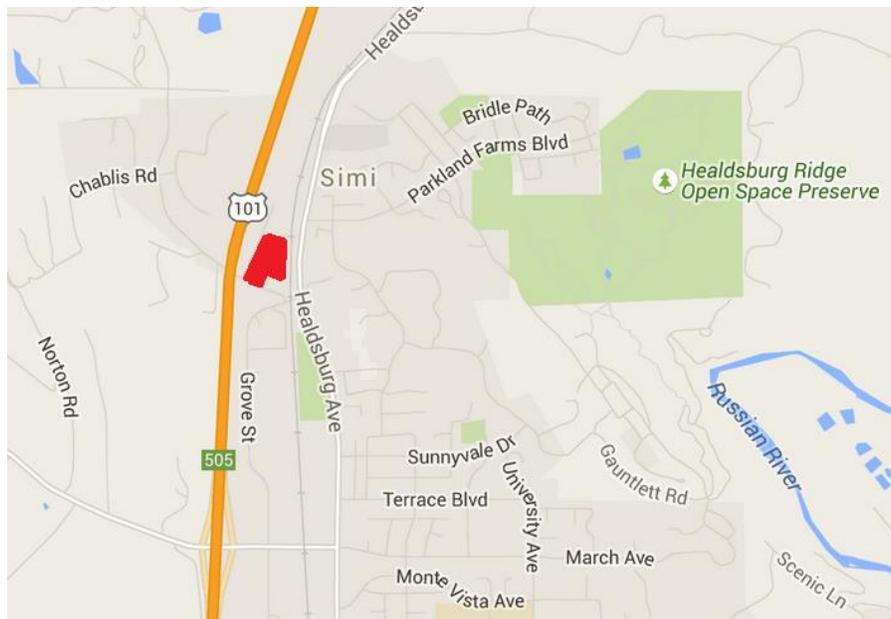
Rosewood Environmental Engineering completed a Phase I Environmental Assessment with a Limited Phase II additional scope of services for the property located at 111, 145, 153, 157, and 165 Chiquita Road in Healdsburg, Sonoma County, California (“the Site”). The Site is comprised of three parcels, together approximately 9.95 acres in area and polygonal with roughly a trapezoid + rectangle shape. Figure 1 is a site location map.

Foss Creek flows north to south on the eastern side of the property and a tributary crosses west to east at approximately the property line dividing the southern and central parcels. A bridge crosses the tributary on the property.

The Site was formerly vineyard property, once owned by the adjacent Simi Winery. From the 1930s when Prohibition forced the sale of the vineyards, through to the 1960’s, five residential structures and numerous outbuildings have been built at the Site. The residences are aging with one condemned and boarded up. Two wells are located on the site, with one still servicing the northern parcel.

An RV and vehicle storage facility is located on the northern parcel, which is zoned Light Industrial. The facility grounds have been cleared and mowed.

Figure 1 – Site Location Map



(Base Map Source: Google Earth)

1.1 Purpose

The purpose of conducting this Phase I and Limited Phase II Environmental Site Assessment is to provide an independent, professional opinion regarding recognized environmental conditions (RECs), including Historic RECs and Controlled RECs, if any, associated with the Site as due diligence documentation in a property transaction.

The Phase I Environmental Site Assessment complies with the US EPA 40 CFR 312 “Standards and Practices for All Appropriate Inquiries” referred to as the “AAI Rule” and conforms to the ASTM E1527-13 standard for conducting Phase I Environmental Site Assessments. The subject property was evaluated for the presence of potentially adverse environmental conditions and the adjacent properties were evaluated for secondary potential contaminated sites with an additional review of potential contamination sources within the standard search parameters in accordance with ASTM 1527-13. It is Rosewood Environmental Engineering’s understanding that a residential housing development with open space along the creek is planned for the Site.

1.2 Scope

Rosewood Environmental Engineering performed the following services in accordance with the terms of agreement as set forth in the proposal and Master Services agreement:

- Environmental Setting Review
- Field Reconnaissance
- A Historical Records Review
- Regulatory Database and Records Review
- Chain-of-Ownership Search
- Environmental Lien Search
- Conduct interviews and collect completed questionnaires from the Site manager, property owners, buyer, and others knowledgeable about the Site.
- Conduct a Data Gap Analysis
- Prepare a Health and Safety Plan and Preparations for a Field Sampling Program.
- Conduct Targeted Surface Soil Sampling And Laboratory Analysis To Address Concerns Raised During The Site Reconnaissance.
- Conduct well sampling and laboratory analysis from the operative well at the site.
- Report Preparation and electronic delivery

1.3 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 part of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. All services for the Phase I and Limited Phase II Environmental Assessment were performed under my direct supervision and I performed the site visit and formulated the opinions and recommendations. I have developed and performed the “All Appropriate Inquiries” in conformance with the standards and practices set forth in 40 CFR Part 312.

Cheryl Ann Bly Chester

Dr. Cheryl Bly-Chester, P.E.
 National Registry of Environmental Professionals
 Registered Environmental Property Assessor (564541)
 State of California Professional Engineer, (C34358)



1.4 Limitations

The opinions and recommendations presented in this report are based on the scope and services, information obtained through the performance of the services, and the schedule as agreed upon by Rosewood Environmental Engineering and the party for whom this report was originally prepared. To the extent that Rosewood Environmental Engineering relied on information prepared by others, Rosewood Environmental Engineering makes no representation as to the accuracy or completeness of such information.

This report is an instrument of professional service and was prepared in accordance with generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared, DRG Builders, Inc., for the particular purpose of property transaction and lending due diligence. Only the parties for whom this report was originally prepared and or other

specifically named parties has the right to make use of or rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose or if modified or if used by, third parties shall be at the users sole risk and subject to possible breach of copyright penalties and use fees to Rosewood Environmental Engineering.

Rosewood Environmental Engineering does not provide any guarantees, certifications, or warranties regarding any conclusions about environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

The regional surface drainage appears to enter Foss Creek flowing southward through the Site. Foss Creek joins Dry Creek south of the Site, running from west to east, which then joins the Russian River approximately 3.8 miles south-southeast of the Site.

2.3 Geology/Hydrogeology

The subject property is located in the foothills at the southern toe of California's Northern Coastal Ranges, a fold and fault mountain range constituting a variety of sedimentary and igneous rocks from the Tertiary, Cretaceous, and Jurassic periods (EDR, Inc. GeoCheck, 2015). The Northern Coastal Ranges are divided into the Outer and Inner Ranges, to the west and east respectively, split by the relative low point of the San Andreas Fault. The Coastal Ranges are rich in gold and mercury and were historically mined for the former during the 1948-1952 Gold Rush, then for the latter in following decades (California Coastal Commission, 1987).

Groundwater depth in the region of the Site has been measured from 7 to 22 feet below ground surface (bgs). The regional surface topography drains into Foss Creek located on the Site, southward to join Dry Creek, and then eastward to join the Russian River, the riparian habitat of which covers approximately 15% of Sonoma County (California Coastal Commission, 1987). However, according to monitoring wells less than one mile north of the Site, groundwater flow does not mimic the surface topography. Monitoring wells one mile north of the Site have recorded groundwater to flow to the east-northeast, toward the Russian River watershed instead of south and southwest following the slope of the surface topography. Regulatory documents on this monitoring well data are included in Appendix B.

2.4 Flood Potential

The 2008 FEMA map for Healdsburg, California (#06097C0344E) indicates that the Site is within the Foss Creek 500-year flood zone. A Wetlands Delineation report on the Site was conducted in 2006 by SCS Engineers, stating that in a 100-year flood Foss Creek may flood with backflow from Dry Creek and the Russian River, but will not overtop its banks.

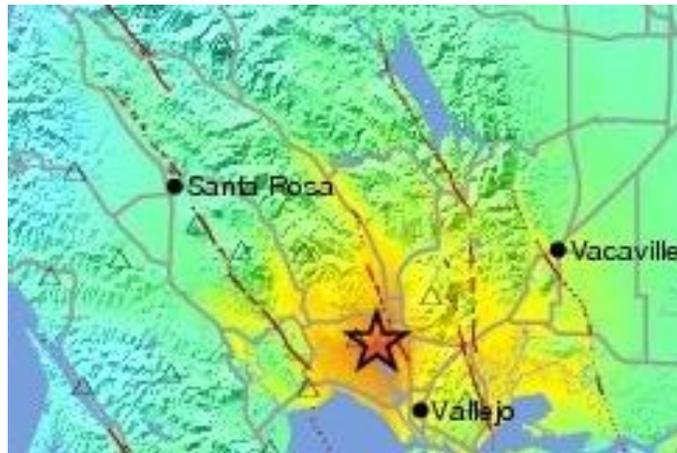
In a discussion with Scott Carter, Senior Civil Engineer with the City of Healdsburg Public Works Department reported that during the floods of 2014 Foss Creek did not overtop its west bank onto the property at the Site. He cited the brush clearing from Foss Creek in the area that contributed to the prevention of flooding at the site (Scott Carter, Telephone Interview, July 24, 2015).

Mr. Carter stated that he had inspected the Site the day after the 100-year storm event and regional flooding that occurred on December 11, 2014 for evidence that Foss Creek had overtopped its banks. He commented that sheet flow across the site into Foss Creek had been heavy, but that the Creek had not topped its bank at that location. Mr. Carter forwarded an email he had prepared that memorialized his findings on the Site inspection. That email is contained in Appendix C.

2.5 Seismicity

Sonoma County rests on top of the San Andreas Fault, which runs from north to south along California’s coast. Though effects of earthquakes have been noted, there has been no significant property damage in Healdsburg since the collapse of a three-story building during the 1906 San Francisco Earthquake. A 6.2 magnitude earthquake along the Hayward Fault in 1838 was not recorded as causing significant damage in Healdsburg, but the area was very sparsely populated at the time.

Figure 4 – CISN Seismic Map of South Napa Earthquake



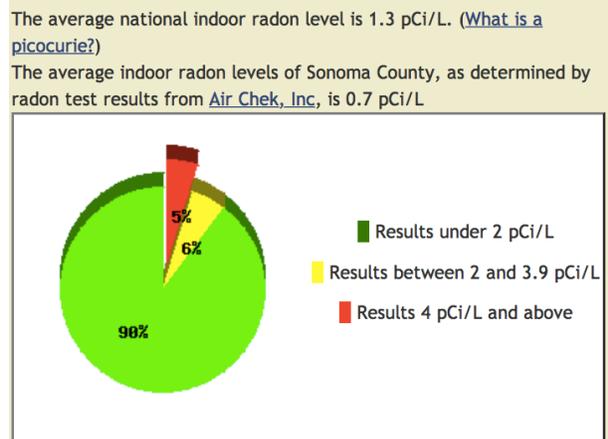
(Source: California Integrated Seismic Network)

The most recent notable seismic event was the South Napa Earthquake on August 24, 2014, at a magnitude of 6.0 on the Richter scale (Figure 3). The earthquake damaged infrastructure in South Napa and Vallejo and interrupted power for 69,000 residents. The City of Healdsburg, approximately 38 miles from the epicenter, experienced the event but sustained no significant damage (Lazo and Campoy, 2014).

2.6 Radon Gas Potential

According to the EPA’s Map of Radon Zones for California, dated September 1993, Sonoma County is in radon zone (3). Areas within radon zone (3) have an average predicted indoor radon screening potential less than 2 picocuries per liters (pCi/L). Levels greater than 4 pCi/L may be considered hazardous. The average predicted first floor living space radon levels in Sonoma County is 0.075 pCi/L. Figure 5 is a Pie Chart of Radon Levels in Sonoma County

Figure 5 – Radon in Sonoma County



Source: <http://county-radon.info/CA/Sonoma.html>

2.7 Soil Deposits

Regional subsurface soils are generally Quaternary stream terrace deposits from the Pleistocene and Holocene Eras (USGS, 2006). A map of quaternary soil deposits in the area is included in Appendix A.

Figure 6 and accompanying information was developed from the United States Department of Agriculture (USDA) Soil Survey. The site soils are primarily designated
 ZaA- Zamora silty clay loam, 0-2% slopes

Figure 6 – USDA Soil Survey



Map Unit Setting

- National map unit symbol: hfl3
- Elevation: 30 to 1,300 feet
- Mean annual precipitation: 22 in
- Mean annual air temperature: 61°F
- Frost-free period: 250 to 330 days
- Farmland classification: Prime farmland if irrigated

Zamora Typical profile

- H1: 0 - 5 in.: silty clay loam
- H2: 5 to 29 in.: clay loam
- H3: 29 to 41 in.: clay loam
- H4: 41 to 55 in.: sandy clay loam
- H5: 55 to 60 inches: gravelly clay

Zamora Properties and qualities

- Slope: 0 to 2%
- Depth to restrictive feature: > 80” in.
- Runoff class: Medium
- Natural drainage class: Well drained
- Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr.)
- Depth to water table: More than 80”
- Frequency of flooding: None
- Frequency of ponding: None
- Available water storage in profile: High (about 10.0 inches)

ZaA— Zamora Interpretive groups –
 Land capability classification (irrigated):
 Land capability classification (nonirrigated): 3c

Sonoma County, California (CA097)		
Map Unit Symbol	Map Unit Name	Acres in AOI
CgE	Clough gravelly loam, 15 to 30 percent slopes	4.6
PsD	Positas gravelly loam, 9 to 15 percent slopes	2.3
ZaA	Zamora silty clay loam, 0 to 2 percent slopes	10.7
Totals for Area of Interest		17.6

3.0 SITE RECONNAISSANCE

A Rosewood Environmental Engineering Engineer/Qualified Environmental Professional, along with a Rosewood Environmental Engineering Environmental Specialist, performed site reconnaissance visits on July 30 and August 5, 2015.

3.1 Site Walk Preparation

In preparation for the site visits, the Site and vicinity were observed by using the online views provided in GoogleEarth Pro and in reports prepared by EDR, Inc.

The southern and middle parcels, 89-13-14 and 89-13-13, included the residences at 111, 145, and 153 Chiquita Road, were observed on July 30, 2015. The weather was clear, 85°F, with a slight breeze from the northwest, after several weeks without rain.

The northern parcel, 89-13-12, including 157 and 165 Chiquita Road, was observed on August 5, 2015. The weather was clear, 90°F, with no detectable breeze and, again, after several weeks without rain. Mr. Rick Cooper met the Rosewood Environmental Engineering representatives at the Site to provide access to the northern parcel. A well water sample and surface soil samples were collected during the August 5th visit.

Prior to the initial Site walk, a review of historical aerial photographs showed what appeared to be an orchard on the Site in 1942 and in decline through later years. Due to the reported common use of organochloride persistent pesticides in apple orchards around Healdsburg during that time, a soil sampling plan was proposed. However, based on interviews conducted at the time of the first site walk with Mr. Dany Tamburrino, Manager of the adjacent Simi Winery, and Ms. Gail Carter of the Sonoma County Agricultural Commission, what appeared to be orchard trees were actually head-cut grape vines. Sonoma County historical vineyard practices reportedly did not include use of organochloride pesticides.

The plan to conduct systematic sampling of the Site was, therefore, scrapped in favor of a targeted sampling approach to address observed issues during the site walk. Rosewood Environmental Engineering prepared for surface soil sampling on an observation-based targeted sampling approach, and not based on the predesigned systematic sampling plan.

During the first site visit, Poison Oak was noted at the Site, so Health & Safety preparations for sampling included bringing hand tools with telescoping handles and appropriate apparel to clear access to areas of the site along the creek and tributary and to sampling locations.

3.2 Site Observations

Photographs of the Site are annotated and contained in Appendix D. The majority of the site is vegetated with thistle, spiny burr grass, and tall grass, which was mowed short in areas not dense with tree and brush cover. Where it was left one to two feet tall. Several species of trees were noted during the site walk, including fig, oak, walnut, olive, and

prune. An extremely aged head-cut grapevine, which may have been part of the original vineyard on the Site in historical aerial photographs, was observed at the time. A small grove of olive trees was noted along Foss Creek in the northeastern corner of the site.

The southern parcel of the Site contains three buildings, addressed 111, 145, and 153 Chiquita Road. The exterior of the houses along Chiquita Road were observed for evidence of improper storage of hazardous materials, distressed vegetation, surface staining, underground tank vents, unexplained piping, and ground subsidence. No such evidence of recognized environmental concerns were noted.

The interior of the occupied houses were not assessed as part of the scope of services. Asbestos Containing Materials (ACMs) and Lead-Based Paint (LBP) were presumed to be present in the houses based on their construction dates, which were prior to the ban on the use of the substances in construction materials. Demolition-level sampling will be conducted to determine proper disposition of the material before removal of the structures commences.

The house at 111 Chiquita Road was apparently built between the 1955 aerial photo and the 1965 topographic map. This house has a tended front garden and fenced backyard.

The house at 145 Chiquita Road is derelict, condemned, and boarded up. The wellhead of the disused well is located behind this house. The associated garage or storage area was observed to be completely empty. Like 153, this house was apparently built between the 1942 and 1952 drafts of topographic maps.

The condemned house at 145 Chiquita Road was unoccupied and the interior was observed to be empty. The flooring material appeared to be potential Asbestos Containing Material (ACM) and will require demolition-level sampling to determine proper treatment and disposal. A disconnected water well was located behind the house.

The house at 153 Chiquita Road is a residence with a clean driveway decorated by large rocks and landscaping, with a fenced rear garden. According to historic topographical maps, the house was built between 1942 and 1952.

The house at 157 Chiquita Road is located along Montepulciano Road. It was constructed prior to the first recorded topographic map of 1933. Access to the house was obtained to sample the second well observed in the backyard at this location. No potential ACM was observed within the house. The house had been remodeled and the flooring was a laminated wood imitation product. A water well with an associated wooden pump housing, was located in the backyard of the house. The well was sampled from the kitchen tap as WW-157.

The building and land on 157 Chiquita Road is permitted to operate as an RV and trailer storage business named CT Sales Company. Several RVs and trailers were parked to the north and east of the building. No indication of leaking fluids or improper storage was

observed. The ground and brush was cleared from the majority of the Site and all areas of the yard were accessed.

A trailer to the southeast of **157 Chiquita Road was raised on cement blocks and apparently used as storage.** The raised base of the trailer created a space that may attract vermin. A common historical practice to control rodents in such spaces was to deploy arsenic-based rodenticides under the edges of such raised storage facilities. In addition, both sides of the storage shed were stacked with miscellaneous material, including labeled and unmarked containers of paint and other coatings and cleaning products. Therefore, two near surface samples were collected from either side of the trailer at this location. The first near surface sample was collected from the northeast corner of the trailer as SS-01 and the second from the southwest corner was the location of SS-02. These samples were analyzed for compounds addressing potential petroleum products, paint and coatings, and cleaning solvents. The sampling plan and analysis is discussed further in **Section 7.0 – Limited Phase II Environmental Assessment.** Gravel base that had been lain in the yard area made the sampling quite difficult.

The house at **165 Chiquita Road** is set back off of Montepulciano Road. It appears to be a pre-fabricated modular house set on a pier and beam foundation. This house was placed at the Site sometime between when the **1965 and 1974 aerial photographs** were taken. There is a **shed** located adjacent to the north side of the house. The yard to the south of the house was strewn with scattered domestic trash, bins, and garbage bags, including such things as recyclable aluminum cans. No indication of hazardous materials were noted in the area.

The building at **165 Chiquita Road** was listed as once housing Sonoma Engineering and in aerial photographs appeared to have been used as a yard for construction equipment at one time, though no surface staining or other evidence of releases from heavy equipment use or storage was observed during the site reconnaissance. Aerial photographs also indicated that an area in front of the house in the gravel base driveway was used for a growing operation of potted plants with a temporary greenhouse erected in years past. The greenhouse and plants were not in evidence during the site walk. There was no evidence of staining in the area.

A dry creek bed of a Foss Creek tributary follows the approximate boundary between the southern and middle parcels. A bridge has been constructed with a concrete substructure and steel girder/composite deck superstructure to span the creek. The **bridge was apparently built in the 1980s by the Sciarra family,** which owned the Site at that time. The names of many Sciarra family members are scrawled on one of the underside span beams of the bridge. The abutments of the bridge appear to be leaning inwards. Whereas this is not an environmental concern, the structural integrity of the bridge should be reviewed before crossing with vehicles or heavy equipment.

Near the bridge and south of the creek, a **large shipping container** has been set on cinderblock piers approximately one foot above the ground. Furniture was observed inside, indicating possible past use by squatters. As with the trailer at 157, the raised base

of the container created a space that may attract vermin, and therefore can potentially be contaminated by arsenic-based rat poison countermeasures used in the past. The southwest corner of the container is the location of sample SS-03, analyzed for arsenic. Gravel base that also had been lain in this area made the sample collection difficult. The sampling plan and analysis is discussed further in Section 7.0– Limited Phase II Environmental Assessment.

In the northwest quadrant of the southern parcel, along the creek, a collection of largely inert refuse was observed, such as scrap wood. Items such as the rusted lid to a five-gallon container were observed as indication of a potential for contamination by total petroleum hydrocarbons and industrial metals such as lead or arsenic. This is the location of sample SS-04, analyzed for potential petroleum products, paint and coatings, and cleaning solvents that may have been in the unknown containers. The soil in this area was a dark silty loam that, absent gravels, facilitated the sampling significantly in this location. The sampling plan and analysis is discussed further in Section 7.0 – Limited Phase II Environmental Assessment.

Section 7.0 of this report contains the sampling map, rationale, results of analysis, and discussion of the sampling of SS-01 through SS-04 and WW-157.

3.3 Adjacent Properties

Adjacent properties were observed as per the requirements of ASTM E-1527-2013.

The east of the Site is bordered by a walking path along the creek and a railroad track further east. The track was historically used as a passenger line from 1871 to 1958, and as cargo transportation by the Simi Winery, which is located adjacent to the northern boundary of the Site. A derailment occurred at that location east of the site in 1915. The track is not currently in operation. No excessive staining or other signs of a release were noted along the railroad tracks. Rail ties were historically pressure-treated with heavy metals and semi-volatile organic compounds (SVOCs) preservatives and insecticides, such as Copper-Arsenate, Polychlorinated Biphenyls (PCBs), and Creosote, which can leach into the ballast rock and subsurface. These ties are located on the far side of Foss Creek and would pose little threat of migrating to the subject site, if they are present at all and have been released to the subsurface.

To the north and northeast of the Site is a commercial winery named Simi Winery that historically cultivated a vineyard on and around the Site. The Rosewood Environmental Engineering representatives toured the winery operations and did not note any recognized environmental conditions that would pose a threat of release and migration to the subject Site. The Simi Winery Manager, Mr. Damy Tamburrino, took a great deal of time to meet with the environmental site assessors, sharing the history of the winery. He offered copies of historical photographs and other records of the historic winery for use in the report. A record of the interview with Mr. Tamburrino is included in Section 6.0 – Interviews.

To the northwest of the Site across Montepulciano Road is undeveloped land with Highway 101 further to the northwest. The parts of this area not mowed or cleared were

covered with Poison Oak and therefore not completely accessed, though remote observations from the highway right-of-way provided sufficient observation of the property. No recognized environmental conditions were observed on the property adjacent to the west of the Site.

To the southwest of the Site is a vineyard. To the east of the vineyard there was a derelict house, constructed sometime before 1933. This house was being demolished during the second site walk; a white soft material was scattered across the property from the interior of the house. This material appeared to be insulation, but may have been fixicant to control potentially hazardous dust and debris.

No special handling procedures of the material or advanced personal protective equipment (PPE) were observed during the operation indicating that it was not ACM or any other recognized environmental concern. A review of Healdsburg City Planning and Building Department records indicated that this is the site of the Chiquita Grove residential housing development. The demolition indicates that the project has entered the site prep stage of construction. The planned development includes 28 single-family homes. Figure 7 indicates the Tentative Map for the planned Chiquita Road development adjacent to the Site.

Figure 7 – Chiquita Grove Tentative Map



4.0 REGIONAL AND SITE HISTORY REVIEW

The history of the region and Site summarized in this section is based on examination of documents pertaining to the historical significance of the land-use and historical recognized environmental conditions (HRECs). Resources used to establish the history include EDR, Inc. report of historical aerial photographs (Table 1, Appendix E) and maps (Table 2, Appendix A), GoogleEarth Pro under license to Rosewood Environmental Engineering, online sources such as City and County websites, preliminary title report, chain-of-ownership documents, a City Directory search, a Sanborn Fire Insurance Map search, documents and books researched at the Healdsburg Library or purchased for this project, and the Healdsburg Museum and Historical Society, and interviews and questionnaires from persons knowledgeable about the Site and region. Site historical maps, photographs, and other historical documents used to develop the history are contained in Appendix A.

Table 1 - Historical Aerial Photographs Examined

<u>Flight Year</u>	<u>Approximate Scale</u>	<u>Source</u>
1942	1:500	USGS
1952	1:500	USGS
1965	1:500	Cartwright
1974	1:500	USGS
1983	1:500	USGS
1993	1:500	USGS/DOQQ
1998	1:500	USGS
2005	1:500	USDA/NAIP
2006	1:500	USDA/NAIP
2009	1:500	USDA/NAIP
2010	1:500	USDA/NAIP
2012	1:500	USDA/NAIP
2015	three-dimensional	Google Earth Pro
2015	1:500	Google Earth Pro

Table 2 - Historical Topographic Maps Examined

<u>Year</u>	<u>Scale</u>	<u>USGS Topographic Map</u>
1933	1:48000	7.5-Minute Healdsburg Quadrangle
1940	1:62500	15-Minute Healdsburg Quadrangle
1955	1:24000	7.5-Minute Jimtown Quadrangle
1955	1:24000	7.5-Minute Geyserville Quadrangle
1955	1:62500	15-Minute Healdsburg Quadrangle
1965	1:24000	7.5-Minute Jimtown Quadrangle
1975	1:24000	7.5-Minute Geyserville Quadrangle
1976	1:24000	7.5-Minute Jimtown Quadrangle
1978	1:24000	7.5-Minute Geyserville Quadrangle
1993	1:24000	7.5-Minute Jimtown Quadrangle
1993	1:24000	7.5-Minute Geyservilla Quadrangle
2015	1:24000	7.5-Minute Jimtown Quadrangle

4.1 Regional History

Sonoma County was settled by the Pomo, Coast Miwok and Wappo indigenous peoples between 15,000 and 8,000 years ago. These were stationary tribes hunting, gathering, and fishing within the sustainable load of the land. The Spanish called them "Satiyomis" or "Sotoyomes". They were also known as "Guapas" or "Wapoes", meaning *Brave* (OurHealdsburg, 2003). Based on a cultural resources map prepared by Terry A. Jackson in 1984, the nearest village to the Site during this period was called Shachali meaning *At the Live Oak Tree* (Healdsburg Museum and Historical Society, 2005, p. 10).

The west coast from Baja California to Cape Mendocino was first explored in 1602 by Spanish soldier Sebastian Viscaino, who named what is now the Russian River as *Rio de Sebastian*. According to Sonoma/Petaluma State Historic Parks Association (S/PSHPA), despite the nearby development of San Francisco as a Spanish mission and trading port, there were no permanent settlements in Sonoma County until the early 19th century (S/PSHPA, 2015),

In the late 18th century, the Russian-American Company (RAC) monopolized maritime trade between Russian's colonies in Siberia and Alaska, and in 1803 joined American ships in joint venture hunting forays down the California coast. When it was discovered that San Francisco was the northern limit of Spanish colonial influence, the RAC proposed to build Russian settlements in northern California before Spain expanded its power northward into the region (Kalani & Sweedler, 2004).

Fort Ross, named for the same root word as Russia, was established on the Sonoma coast in 1812 by Ivan Kuskov of the RAC. The Russians called the inland river *Slavyanka* (Slav River), which would, in time, be supplanted by the translated *Russian River*. The fort was intended to be a safe harbor and agricultural support for RAC sea otter and sea lion hunting in the Pacific between California and Alaska, but the cluster of communities it also supported became a net drain on RAC's resources. The Fort would be abandoned in 1842, when the sea otter population was depleted due to over-hunting and a more profitable agricultural base was established in what is now British Columbia, Canada (Kalani & Sweedler, 2004).

The Spanish project of establishing missions on the California coast in order to establish control and convert the Native population to Catholicism was primarily active from 1769 to 1804. After four decades of operation without expansion, it was determined that Mission Dolores, overseeing the rapidly growing port of San Francisco, needed to divide its area of governance to be more manageable. Mission San Rafael was founded to the north in 1817, in what is now the City of San Rafael, to provide support. In 1823, an additional division was required, and Mission San Francisco Solano was established again to the north, in the present-day City of Sonoma (Smilie, 1975).

Rancho Sotoyome

Spain lost control of its American colony in 1821, and the new country of Mexico began issuing large land grants in California, in part to break the Missions' monopoly on land.

Rancho Sotoyome was granted in 1844 to Henry D. Fitch, son-in-law of the influential Maria Ygnacia Lopez de Carrillo (Ogden, 1983). Figure 8 is the 1844 *deseño* (plot map) of the Rancho.

Figure 8 – Rancho Sotoyome Deseño



(Source: U.S. District Court: California, Northern District, Land case 52 ND)

Rancho Sotoyome, named after a Wappo tribe, was 48,800 acres and extended along the Russian River through present-day Alexander Valley and Healdsburg, including the Site. Fitch planned to settle his family on the rancho after the discovery of gold in 1848, but died in 1849 before the move was completed (Ogden, 1983).

Fitch hired Cyrus Alexander, a fur trapper, as ranch manager under a four-year agreement, after which Alexander was to receive two square leagues of land and part of the ranch stock.^[5] Fitch petitioned for his grant in 1840, and was officially granted the eight square leagues (approximately 35,000 acres (142 km²)) by Governor Juan Alvarado in 1841. In 1844, Fitch received a three square-league addition from Governor Manuel Micheltoarena (Healdsburg Museum and Historical Society, 2005).

The Gold Rush brought miners to the California area, and squatters to Rancho Sotoyome. One squatter, Harmon Heald, arrived in 1850, when the population of the Healdsburg area was around 100 squatters and Native Americans (OurHealdsburg.com, 2003).

Records of grapes planted in the Healdsburg and Alexander Valley area date back to the Rancho days with the 1850s Era settlers expanding the grapevines plantings with European varieties and beginning the commercial wine industry in the region. By 1890, there were specialty wineries like the Italian Swiss Colony, which produced multiple types of wine during one year. There were also those like Montepulciano Winery (Simi), which produced wine in bulk casks made from Sonoma lumber. The casks could be up to fifteen feet in diameter (Maxwell-Long, 2001).

Fitch's widow, Josepha Fitch, auctioned part of Rancho Sotoyome in 1856, and Harmon Heald purchased 100 acres in that auction. He hired a surveyor to lay out and establish a central town square and post office before he died the next year (OurHealdsburg.com, 2003). Despite this, Heald's small agriculture-heavy settlement in the township of Mendocino grew in population until it incorporated as the City of Healdsburg in 1867 (Healdsburg Historical Society, 2005).

W.H. Litton (Lytton)

Josepha Fitch sold more of the original Rancho as time went on. An 1867 plot map of the area, excerpted in Figure 9, shows dozens of individual owners to the north of Healdsburg, along the main thoroughfare, Healdsburg Avenue. In the 1867 map in Figure 9, the Site is own by W. H. Litton and appears to be located in an area named Manzanita, which means "Little Apple" in Spanish. Apples were a historical crop in Sonoma County, according to Gayle Carter of the Sonoma County Agricultural Commissioner's Office (Gayle Carter, telephone interview, January 24, 2015).

Figure 9 – 1867 Map of Sonoma County (Excerpt)

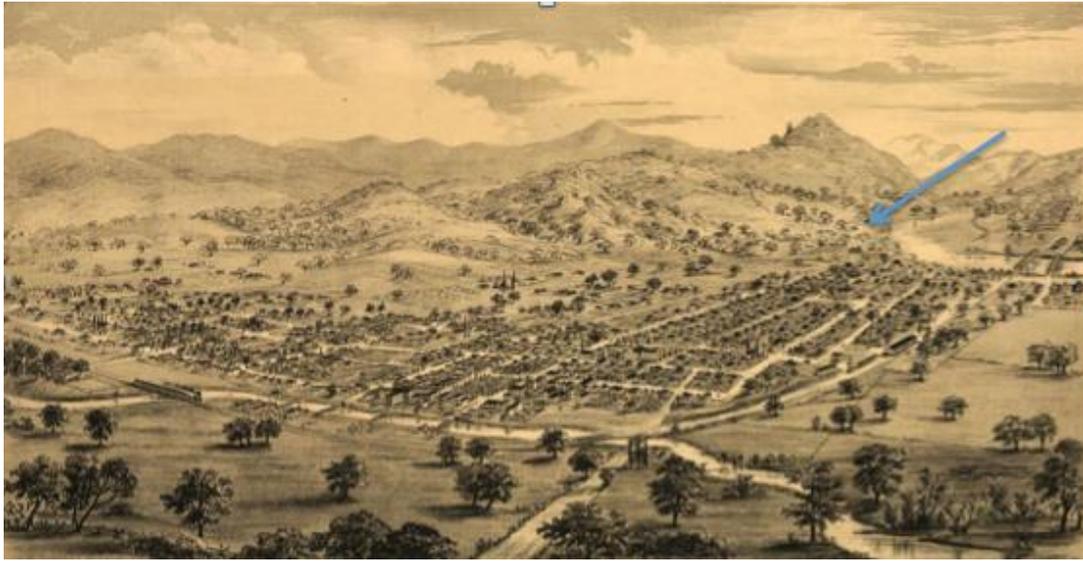


Source: Allen, Bowen, & Co., 1867 Note: The red circle is a rough approximation of the present-day Site.

W. H. Litton owned land from what is now Lytton Springs to the north down to Chiquita Road to the South, and Foss Creek out to the west, on what is now Chiquita Road, including the Site.

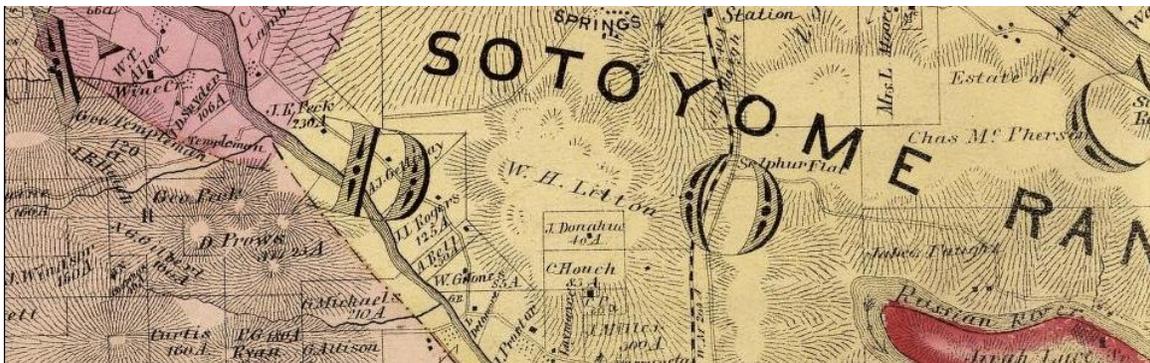
In a biography on William H. Litton, he is described as a real estate speculator (Litton ARC, 2015):

Captain W. H. Litton was a colorful figure in early Sonoma County history. He dabbled in land speculation, making and losing several fortunes, Lytton Springs being his last major enterprise (by 1898 his name was misspelled on official maps to "Lytton"—as it remains today).

Figure 10 – Healdsburg in 1876

Source: Allen, Bowen, & Company (1877)

Figure 10 is a drawn overlooking view of Healdsburg I 1876 from a high point on Mt. Fitch. Figure 11 is excerpted from an 1877 plot map. The present-day Site is located approximately on the northwest quadrant of the large O where it intersects the dotted line of Healdsburg Avenue.

Figure X – 1877 Map Showing Rail Tracks Through Litton Property

Source: Allen, Bowen, & Co., 1877

Railroads

San Francisco and North Pacific Railroad (SF&NP) provided the first extensive standard gauge rail service to Sonoma County (Stindt, 1978). Later brought into an enterprise with the Santa Fe and Southern Pacific lines as the Northwestern Pacific Railroad, it began service through Healdsburg in 1871, bringing tourists interested in the Russian River as a vacation destination and an infusion of wealth into the area (Stindt, 1978).

The North Pacific Railroad began service through Healdsburg in 1871, bringing tourists interested in the Russian River and Lytton Resort and an infusion of wealth into the area (Stindt, 1978). There was a station on the tracks bordering the Site to the east, at the corner of Chiquita and Healdsburg Avenue (Figure 12).

A small station was located near the intersection of Healdsburg Avenue and Chiquita Road. That building is now commercial office space. The photo in Figure 12 shows the Chiquita Station today.

Figure 12 – Chiquita Rail Station Before and After Remodel



In an interview with Dany Tamburrino, Manager of Simi Winery, he said a train derailment occurred in front of the winery in 1915 that made national and even international news (Tamburrino, personal interview, July 29, 2015 at Simi Winery). Thomas Maxwell-Long writes in *Sonoma County Wineries* (2001) that the derailment took significant effort with the help of the Simi Winery employees to clean up (p. 30). Figure 13 was provided courtesy of Simi Wineries.

Figure 13 – Northwestern Pacific 1915 Train Derailment



By 1876, Healdsburg was growing rapidly with the rail service and lovely climate and draw of tourist interests, such as the wineries and resorts. Figure 10 is an oblique view lithograph of Healdsburg with the Site located in the background.

The railroad through Healdsburg carried its last passenger in 1958 in favor of automobile tourist traffic, although cargo shipping continued.

Mercury Mining

Nearby Pine Flat developed into a quicksilver (mercury) mining camp during the less-known mercury mining rush of the 1870s. During the 1850s, mercury was discovered in the mountains about six miles north of Healdsburg, but there was no method for mining it profitably. Existing mines had already flooded the United States market, and with supply far outweighing demand, mercury prices fell through the 1860s (Pelanconi, 2014).

From 1868 to 1873, however, prices rocketed upward once again; the catalyst is disputed, but at the time, both published journals and the mining industry blamed a monopoly hold on the mercury mines artificially driving prices. Abruptly, mining mercury was very profitable, and the area of Pine Flat six miles north of Healdsburg became a hive of mining activity for the 1870s (Pelanconi, 2014)..

The Wine Industry and Simi Winery

The Ranchos all made their own local wines, but the influx of miners from all over the world during the Gold Rush Era is what brought the demand for and knowledge of the European varietal grapes upon which Sonoma County basis its renown. Buena Vista Winery was the first commercial winery to release a vintage in 1857. Hundreds of wineries have come and gone due to earthquakes, fires, Prohibition, bad management, and economic travails; but a few have survived from more than 100 years (Maxwell-Long, 2001).

Figure 14 – Multepulciano Winery, founded by the Simi Brothers in 1881



(Courtesy of the Simi Winery Collection)

Simi Winery founders, Giuseppe and Pietro Simi, who had come to California from Tuscony as Gold Rush miner 49-ers, began making wine from grapes in the Healdsburg area in 1876. In 1881, Giuseppe Simi reportedly purchased the land along Foss Creek where the current Simi Winery and tasting room is located, and which also included the property of the Site (Isabel Haige in final Heintz interview, 1972). The grapevines matured and the winery building was completed in 1890 for the first vintage sold from that location (Sullivan, 1998).

They named the winery *Montepulciano Winery* after their wine region within Tuscany in Italy. They were well-established by the time the winery was passed along to Giuseppe's daughter, Isabel Simi, a local pageant queen, who had been taken into the winery as a bookkeeper at age 16 years old (Sullivan, 1998). Figure 14 is an early photo of the Simi Winery Building (Courtesy of the Simi Winery Collection).

Both Giuseppe and Pietro Simi died in 1904 and Isabel Simi took over the winery at the age of 18 years old. Isabel Simi ran and marketed the winery throughout her adult lifetime. She ran the winery herself for four years before marrying Fred Haige, a local bank clerk who styled himself as a *Banker* by profession, but he did not appear to have much of a head for the wine business.

In an interview with Jay Hassett, who later bought acreage from the winery out of foreclosure, Heintz (1981) records that Mr. Hassett described Fred Haige as stubborn and unreasonable businessman. Hassett said that before prohibition in 1919 Haige was offered \$0.90 a gallon for 400,000 gallons of wine, but refused while holding out for a dollar a gallon. He was \$40,000 in debt over his father's cattle ranch at the time, which he had mismanaged. Had he taken the wine deal he would have had \$360,000 going into Prohibition and likely into the Great Depression, which would be over \$5 million in today's money value (Current value calculator, 2015).

Instead, Isabel carefully stored and hid the wine in their cellars. Despite the waste of spoilage, the Simi Winery was one of the few to survive Prohibition, having wine to sell afterwards. During Prohibition, Simi Winery was able to produce and sell Communion and Ecclesiastic wines for a small income (Isabel Haige as interviewed by William Heintz, 1972).

According to Isabel Haige, as interviewed by William Heintz (1972), The Haiges and Simi Winery did not weather Prohibition and the Depression unscathed and were forced to sell off most of their vineyards to settle debts. In 1932, Bank of America foreclosed on 179 acres of Simi vineyard property, including the land where the Site is located.

When Prohibition ended, the United States and the world was in the grip of the Great Depression. The huge restored demand on wine made Sonoma County and the wine country one of the few places with a demand for labor. The population swelled with the labor force as workers came from all over the country (Healdsburg Museum and Historical Society, 2005).

In 1934, Simi Winery opened their first tasting room. It was Isabel's idea to convert a huge wine barrel into the colorful tasting room that caught potential visitor's attention as they travelled on the Railroad and on the thoroughfare of Healdsburg Avenue. Figure 15 shows the tasting room. Fred Haige died in 1954, and Isabel continued to run the winery until 1970. She still held court in the tasting room after the sale of the winery until her death at the age of 95.

Figure 15 - Simi Winery with Tasting Room



(Courtesy of the Simi Winery Collection).

According to Jay Hassett as interviewed by Heintz (1981), Hassett purchased 179 acres of former Simi vineyard out of foreclosure from Bank of America in 1938. The chain-of-ownership review conducted by EDR, Inc., begins with Jay Hassett's ownership of the property (EDR, Chair-of-Ownership Report, 2015). Jay Hassett was a butcher who ran slaughterhouse located approximately 500 feet west of the Site at 280 Chiquita Road, which had been built in 1919 (Doug Hassett as published in Fraire, 1993, p. 28).

In the first half of the 20th century, Healdsburg became "the buckle of the prune belt", in large part due to the Prohibition from 1920 to 1933 that decimated the wineries and breweries in the area. Poorly selling crops like grapes and hops were replaced with prune orchards, accelerating Healdsburg's switch to a fruit drying and canning-centered industry. The prunes would be replaced around 1967, with vineyards and wineries flourishing once again (Russel, 2008).

The Automobile and Healdsburg's Growth

In July, 1900, Healdsburg entered the Automobile Era when lumber mill owner, W. T. Albertson, drove his new Stanley horseless carriage into town (Healdsburg Museum and Historical Society, 2005; Figure 16).

Figure 16 - First Horseless Carriage in Healdsburg.



(Source: Healdsburg Museum and Historical Society, 2005).

Highway 101 in southern California was the El Camino Real road between the missions, but the most northern mission was in the City of Sonoma. North of Sonoma, the road to become highway 101 was the stage coach route later known as the Redwood Highway.

The first "auto bus" lines, replacing stagecoaches, delivered train passengers back and forth from the depot to local hotels. This service soon expanded to outlying resorts like Skaggs Springs and Litton Springs and eventually out to Geysers in 1913 (Clayborn, 2003).

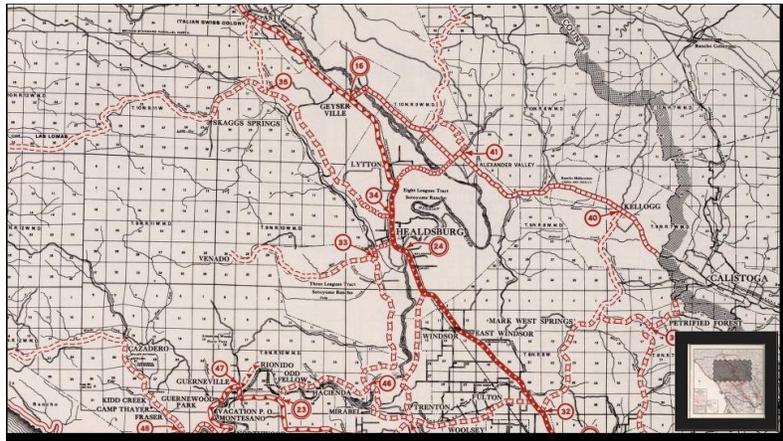
Traffic increased quite rapidly with the machines competing with horse-drawn carriages for a piece of the road. Paving the streets took place largely in the late teens and early 1920's, indicating when automobiles surpassed the horse for common mode of transport. Healdsburg remained largely an agricultural community, though, so horses were still a common sight and indicated in Figure 16, from the Simi Winery Collection.

Figure 16 – The Automobile Not Always the Mode of the Choice



In 1935 Division of Highways conducted traffic density studies. Figure 17 is a Traffic Density map showing Station 34 at Chiquita Road and Healdsburg Avenue.

Figure 17 – Excerpt of Traffic Density Map Showing the Subject Site



(Source: Rumsey, 2014)

Highway 101 was dedicated in 1960 and opened in Healdsburg in 1963 to relieve the traffic burden on the city’s main thoroughfare (OurHealdsburg.com, 2003). After that, the Simi Winery no longer benefited from through-traffic passed their tasting room. The 101 Bypass, stunted Healdsburg’s growth leaving it as an agricultural community centered on wine and added the tourist industry it brings.

In 1990, Route 101, from south of Healdsburg to the Sonoma/Mendocino County line, was named the "*Colonel William R. 'Bill' Lucius Highway*" after Col. William B. "Bill" Lucius, USMC, Ret., who served as the Mayor of Healdsburg, a member of the Metropolitan Transportation Board (1971-1991) and Chairman of the California Transportation Commission. (Faigin, 2012).

Currently, Healdsburg controls its development with an urban growth boundary and a regulatory limit on housing built each year. The world-class wineries and breweries, as well as the Russian River, encourage tourism and give Healdsburg the high ratio of wealth per capita it enjoys (Healdsburg Chamber of Commerce, 2015).

4.2 Chain of Ownership

The early ownership of the site is reconstructed based on interviews, historical accounts, maps, and other records because recorded legal documents were not readily obtainable. The 50-year chain-of-ownership report was conducted by EDR, Inc. It is attached as Appendix B. Table 3 lists the general ownership of the Site, Table 4 lists the ownership history of APN 89-13-12, Table 5 lists the ownership history of APN 89-13-13, and Table 6 lists the ownership history of APN 89-13-14.

Table X – Early Ownership History

Dates of Record	Owner	Area Name
Prehistory	Pomo and Wappo peoples	Shachali tribal village
1881 & 1844	Henry D. and Josepha Fitch	Rancho Sotoyome
1867 & 1877	W. H. Litton (misspelled Lytton)	Lytton Springs/Litton Station
1881 - 1904	Pietro & Giuseppi Simi	Montepulciano Winery
1904 - 1932	Isabel Simi	Montepulciano Winery, Simi Winery
1932-1938	Bank of America	Simi Vineyard
1938-1945/1948	Jay V. Hassett	Chiquita

Table X – Ownership History of APN 89-13-12

Date	Vested in	Received from
03/04/1948	Domenico Sciarra	Jay V. Hassett
03/17/1954	Enrico A. Sciarra	Domenico Sciarra
04/05/1979	Enrico A. and Emily Sciarra	Enrico A. Sciarra
12/02/1987	Enrico A. Sciarra	Emily Sciarra, deceased
10/06/1994	Enrico A. Sciarra Trust	Enrico A. Sciarra
01/03/2004	Jane Bjork and Carol Mead	Enrico A. Sciarra, deceased
11/04/2008	Russell Linnett and Joe Villareal	Jane Bjork and Carol Mead
12/31/2008	Nettreall, LLC	Russell Linnett and Joe Villareal

Table 5 – Ownership History of APN 89-13-13

Date	Vested in	Received from
12/16/1949	James W. L. and Jacqueline House	Domenico Sciarra
10/21/1967	Joseph and Mabel Sciarra	James W. L. and Jacqueline House
04/20/1970	John D. and Ida Sciarra	Joseph and Mabel Sciarra
06/25/1985	John and Ida Sciarra Trust	John D. and Ida Sciarra
12/19/1995	Ida Sciarra, surviving trustee	John D. Sciarra, deceased
12/19/1995	John and Ida Sciarra Trust Two	John and Ida Sciarra Trust
05/13/2010	John and Ida Sciarra Trust One	John and Ida Sciarra Trust Two

Table 6 – Ownership History of APN 89-13-14

Date	Vested in	Received from
03/27/1945	John and Ida Sciarra	Domenico and Pasqua Sciarra
06/25/1985	John and Ida Sciarra Trust	John and Ida Sciarra
12/19/1995	Ida Sciarra, surviving trustee	John D. Sciarra, deceased
12/19/1995	John and Ida Sciarra Trust Two	John and Ida Sciarra Trust
05/13/2010	John and Ida Sciarra Trust One	John and Ida Sciarra Trust Two

4.3 Site Specific History

The Site is within the original Rancho Sotoyome Mexican land grant, owned by Henry D. Fitch of 1844, but not part of Harmon Heald's 1856 purchase of 100 acres that became the center of Healdsburg. The Rancho operated as a cattle ranch, beginning in 1844 and ending sometime before 1867 (OurHealdsburg.com, 2003).

Figures 9 and 11 in previous pages show that W.H. Litton owned the area of the Site and surrounding areas by 1867. Historical records show that Litton actually resided on the northern part of his property, what is now Lytton Springs, operating a health spa based on the eponymous springs. Litton still owned the Site in the 1977 plot map, but by the 1897 plot map it had changed hands to Pietro Simi.

Brothers Pietro and Giuseppe Simi began operating a winery in San Francisco in 1876, sourcing most of their grapes from the vineyards around Healdsburg. Some dates have been confused, but it appears that the brothers purchased land in Healdsburg to start their own vineyard in 1881 (Sullivan, 1998). The year 1890 was when the winery building was completed and when the first wine was produced from grapes grown on Simi land since 1881 from planted vineyards specifically for the Monepulciano (later Simi) Winery (Isabel Haige as interviewed by Heintz, October 16, 1981).

In 1932, the land containing the site was foreclosed by Bank of America. Jay Hassett purchased 179 acres out of bankruptcy in 1938, including the Site. During his ownership, the land was subdivided, with the Site being broken into three parcels.

Hassett sold all three parcels to Domenico Sciarra by 1948. Sciarra sold the middle parcel to James and Jacqueline House in 1949 with the other two parcels frequently changing hands within the Sciarra family. Members of the Sciarra family regained the middle parcel in 1967.

In 2004, Enrico Sciarra, the owner of the northern parcel, died. His heirs were his daughter and daughter-in-law, Jane Bjork and Carol Mead, who in turn sold it to Russell Linnett and Joe Villareal in 2008. Linnett and Villareal were partners, running Sonoma Engineering out of the mobile home on post and beam foundation at 165 Chiquita Road on the northern end of the northern parcel.

The land uses associated with the ownership history are listed below:

Fitch – Cattle grazing on wild oats

Litton – Vacant

Simi/Haige – Vineyard

Bank of America – Vineyard.

Hassett – declining vineyard and one house was built.

Sciarra family (generational) – Residential and light, personal-use ag, declining vineyard

House – residential

Linette and Villareal – Construction Engineering firm and yard; RV, vehicle, and trailer storage and growing operation including a temporary greenhouse.

Based on aerial photograph and topographic map review, Rosewood Environmental Engineering can narrow down the time intervals during which the 5 residences at the Site were built.

Based on historical topographic maps, the building at 157 Chiquita Road, on the northern parcel with APN 89-13-12, was built before 1933. Permitting records indicate that the water well located to the east supplied the building's water and that the house used a septic tank. There were no other improvements recorded on the Site at that time. The Northern Pacific Railroad borders the Site to the east, and again adjacent to the east is the historic Highway 101, what is now called Healdsburg Avenue.

In the 1942 aerial photograph, the area of the Site and adjacent properties to the east, west, and southwest contain an aging vineyard of head-cut grapevines, which grow vertically as individual plants rather than as horizontal rows. Simi Winery, the property adjacent to the north, owned and maintained the vineyard until the land was reportedly sold during the Prohibition (Interview, Damy Tamburino, 7/29/2015).

The residences at 153 and 145 Chiquita Road, on the southern parcel with APN 89-13-14, are constructed after 1942 but before the time of the 1952 aerial photograph. These buildings were supplied water by a well located to the north of 145 Chiquita Road, which has since been abandoned as the houses were hooked to the City water system. Both buildings also were on septic systems before being hooked to the City sanitary sewer system, although whether they had separate tanks or one shared tank is not recorded. The

vineyard on the Site and adjacent properties is unmaintained and disappearing in patches in the 1952 aerial photograph.

In the 1965 aerial photographs and topographic maps, the residence at 111 Chiquita Road, on the southern parcel has been built. This building also used a well water supply and septic system at the time. The Highway 101 bypass is fully constructed to the west of the Site's adjacent property, having been opened in 1963. By this time, the railroad adjacent to the east had stopped carrying passengers. The orchard has aged to the point of being indistinguishable from other trees that line Foss Creek and its tributary.

The 1983 aerial photograph shows multiple RVs, trailers, or other large vehicles stored at 157 Chiquita Road. At the time the Site was not zoned for commercial vehicle storage, but a business license would be issued for this activity in 2003 and the Site rezoned for this Limited Industrial use.

There is no substantial change on the Site from 1983 to the 1993 aerial photographs. Building permits indicate that 111 and 153 Chiquita Road were connected to the City water supply in 1986 and City sewer in 1992. The house at 145 Chiquita Road, however, was no longer occupied and would be declared substandard and unfit for habitation sometime before 2008, then fail the 2008 inspection and remain substandard.

There were exploratory permits filed in 2010 to determine the feasibility of subdividing the northern lot, leaving 157 and 165 Chiquita Road on separate parcels. This proposed subdivision did not go forward.

No environmental liens, covenants, or deed restrictions were noted in the Chain of Title report or the Environmental Lien and Activity and Use Limitations (AUL) search conducted by EDR, Inc. (Appendix B).

5.0 INTERVIEWS

The following persons knowledgeable about the Site were interviewed regarding environmental liens on the property, consideration of environmental conditions in establishing sale price, historical ownership, and land use of the property and local area. Questionnaires from those noted as having filled one out are contained in Appendix C, as is contact information and further interview notes for all interviews.

5.1 Principals in the Transaction

Representing Sellers

Mr. John Sciarra

A questionnaire complying with ASTM 1527-13 Standards was completed by Mr. John Sciarra, who is the seller of the site of the southern and middle parcels. Mr. Sciarra stated that there are no environment concerns at the Site and the Site is offered at fair market value.

Mr. Rick Cooper

Mr. Rick Cooper is the Broker who represents both sellers of the property. He stated that Mr. Villareal and Mr. Linnett, the sellers of the northern parcel with 157 and 165 Chiquita Road, made an effort to clear access to all areas of the Site. Mr. Cooper stated that Rosewood Environmental Engineering had permission to ask the tenants of 157 Chiquita Road for access to their household tap to sample their water supply well, and he confirmed that 157 and 165 Chiquita Road are both supplied by well water and likely currently connect to septic. Mr. Cooper stated that all three parcels of the Site are offered at fair market value and not reduced in price for environmental concerns. Mr. Cooper had investigated the Site for land use restrictions or environmental liens and found none.

Representing Buyer

Mr. Doyle Heaton

Mr. Doyle Heaton represents the buyer of the Site. Mr. Heaton affirmed that the Site is being offered at fair market value and not adjusted with any knowledge of environmental impairment. He was also familiar with the planned development for the Site.

5.2 **Persons Knowledgeable About The Site**

Ms. Jackie Cooper-Johnston

Ms. Jackie Cooper-Johnston stated that she had been on the Site several years ago, but more recently had only visited the 'front' of the Site (the southern parcel bordered by Chiquita Road). She stated that all five houses were on septic at one time. The two houses on the north end of the Site, 157 and 165 Chiquita Road, are probably still on septic, but she was not sure if the disconnected septic systems for 111, 145, and 153 Chiquita Road remained at the Site.

Ms. Cooper-Johnston was aware that the house at 145 Chiquita Road had been boarded up. She stated that there is a grove of olive trees in the northeast corner of the site, east of Foss Creek. Ms. Carter stated that she understood that there were at least two wells there. One is still servicing the north (or 'back') properties of 157 and 165 Chiquita Road. She was aware that the modular home at 165 Chiquita Road had been used as an engineering office at one time.

The Sonoma Engineering Company was owned and operated by Mr. Joseph Villareal and Mr. Russell Linnet, current owners of the northern parcel of the Site. Ms. Cooper-Johnston believed that Mr. Linnet had rented out the A-frame building and a modular building at 165 Chiquita Road as a residence after the engineering office moved out. Ms. Cooper-Johnston had heard that there was some sort of growing operation on the property in the past.

Mr. Damy Tamburrino

Mr. Damy Tamburrino is the manager of Simi Winery, the adjacent property to the north. Mr. Tamburrino provided history for Simi Winery and the vineyard operated at the Site between 1880 and 1930. He was not aware of any environmental concerns at the Site.

Mr. Cort Munselle

Mr. Cort Munselle is a civil engineer knowledgeable about the Site and history of the region. Mr. Munselle provided the history of mining, the general composition of soils, and the general behavior of groundwater in the area.

Mr. Tim Boatman

Mr. Tim Boatman is an operating engineer who worked on and was knowledgeable about the remediation at the SCPWD Yard that was a potential property of concern in the Radius Search. He recalled that diesel contamination at that property was considerable at the time of its discovery in 1989, but remediation was complete and the case closed rapidly. Mr. Villareal, selling the northern parcel, is a relation of Mr. Boatman's. Mr. Boatman stated that he had not observed any environmental concerns and did not believe that there had ever been fuel tanks present at the Site during his career as a heavy equipment operator on remediation sites in the area.

None of those interviewed who were knowledgeable about the site were aware of any liens on the any of the three parcels related to environmental regulatory action or decrease in value due to environmental impairment. All of those interviewed were able to provide some history on the ownership of the property and the development and land use of Site and the area.

5.3 Regulatory and Government Officials

Rosewood Environmental Engineering contacted the following local agencies while preparing this assessment:

North Coast Regional Water Quality Control Board (RWQCB)

Ms. Donna Poe with the RWQCB provided access to the file on the SCPWD Yard identified in the Radius Search. Ms. Poe stated that the RWQCB has no record of environmental issues at the Site.

Sonoma County Agricultural Commissioner's Office

Ms. Gayle Carter, an Agricultural Biologist with the Agricultural Commissioner's Office, stated that the use of persistent pesticides in Sonoma County was limited to apple orchards. There is no historical record of persistent pesticides on vineyards or in the vicinity of the Site.

University of California Division of Agricultural and Natural Resources (UCDANR)

MS. Rhonda Smith, a Viticulture Farm Advisor with the UCDANR, also stated that use of persistent pesticides in Sonoma County was most commonly applied to apple orchards, and that persistent pesticide use on vineyards, if it happened, was very rare.

Sonoma County Environmental Health Department (EHD)

Ms. Lisa Lamb with the EHD provided public records on potential Sites identified by the Radius Search. Ms. Lamb stated that the EHD has no record of environmental issues at the Site.

Sonoma County Public Works Department

Mr. Scott Carter is a Senior Civil Engineer with the SCPWD. Mr. Carter provided information that he personally confirmed on the flooding behavior of Foss Creek at the Site in December 2014. The creek backed up from its drainage into the Dry Creek and the Russian River, rising four to five feet on the Site but not overtopping its banks. There was some evidence that Foss Creek flooded to the east toward Healdsburg Avenue and Simi Winery instead.

City of Healdsburg Planning Department

Ms. Martha Jones provided building permits, zoning records, and business licenses connected to the Site. There were no environmental concerns recorded at the Site.

City of Healdsburg Fire Department

The Healdsburg Fire Department non-emergency operator (707) 431-3360 did not self-identify but stated that No incidents have been reported at the site and their primary tracking records did not have the site listed.

The Healdsburg Fire Station was founded in 1858. They did not have a record of the train derailment in 1915 and likely were not tracking hazardous materials spills at the time. The Fire Department does not store aging records.

Rosewood Environmental Engineering was directed to the Fire Department's website at <http://www.ci.healdsburg.ca.us/248/Fire-Department>. The relevant programs managed or tracked by the Healdsburg Fire Department include:

- Above Ground Petroleum Storage Act (APSA) Program
- The California Environmental Reporting System (CERS)
- Certified Unified Program Agencies (CUPA)
- Community Right To Know
- CUPA Site Closures
- Global Harmonization System (GHS)
- Identification Number
- Underground Storage Tank Program

6.0 REGULATORY AGENCY DATABASES AND PUBLIC RECORDS

Rosewood Environmental Engineering contracted with EDR, Inc., to conduct a database search for nearby sites with potential environmental concerns relative to the subject Site. The EDR, Inc., report is attached in Appendix B. In addition, the California Department of Toxic Substances Control database tracker website, Envirostor and the California State Water Resources Control Board database tracker website, Geotracker, were reviewed for additional information and to close out data gaps and orphaned sites. Regulatory Agencies were contacted as noted, for additional information available in public records.

6.1 EDR Database Review

EDR, Inc., conducted a radius search and GeoCheck review. The subject site was not listed on any of the databases reviewed.

Figure 18 maps the sites listed on the EDR database search report. Table 7 lists the reported nearby sites of potential concern.

Figure 18 – EDR Database Radius Map

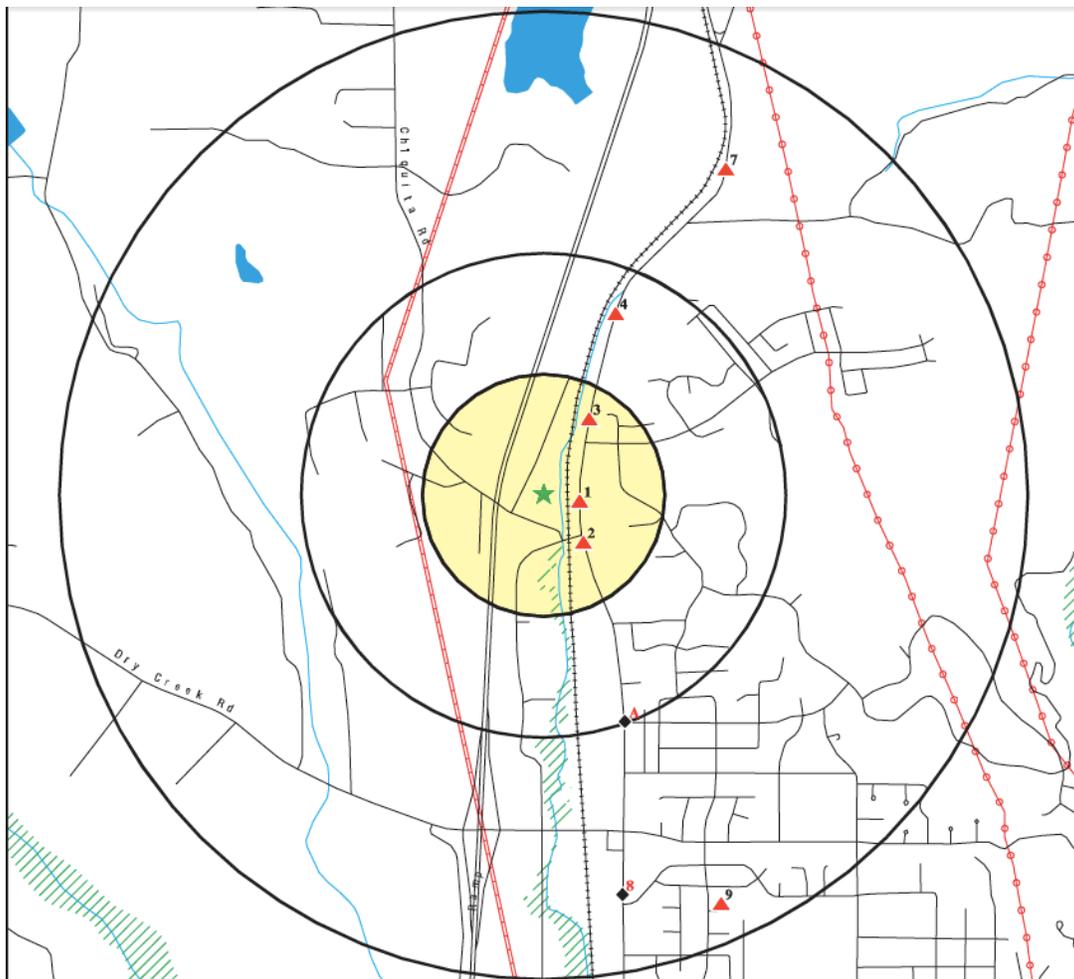


Table 7 – Reported Sites of Concern

<u>Business</u>	<u>Address</u>	<u>Distance (mi)</u>	<u>Relative Elevation</u>
N/A	16039 Healdsburg Ave	0.075 E	Higher
Empire Linen Service	20 Healdsburg Ave	0.127 SE	Higher
N/A	16135 Healdsburg Ave	0.184 NNE	Higher
Passalacqua Ranch	Alexander Valley Road	0.404 NNE	Higher
Vintage Valley Health	1500 Healdsburg Ave	0.496 SSE	Lower
SOCO Road Yard	17027 Healdsburg Ave	0.772 NNE	Higher
Redwood Oil Co.	1175 Healdsburg Ave	0.841 S	Lower
N/A	255 Monte Vista	0.920 SSE	Lower

Results Omitted from Discussion

An automated database can return results with mistyped addressed or mis-mapped locations. Two results were identified as erroneously included in the Site radius. Table 8 shows the additional two sites erroneously listed in the original results with the correct location and distance from the subject site. These sites are outside of the search radius and downgradient from the target property, therefore unlikely to affect the target property.

Table 8 – Incorrectly Reported Sites

<u>Business</u>	<u>Reported Address</u>	<u>Correct Address</u>	<u>Correct Distance (mi)</u>
Empire Linen Service	20 Healdsburg Ave	206 Healdsburg Ave	1.984 SSE
Passalacqua Ranch	Alexander Valley Rd	3240 Passalacqua Rd	1.554 E

Also, because of the automated nature of the database search, sites were reported if they had potentially been used in any commercial capacity related to the automotive industry. As these sites are not on any regulatory or permitting list for the presence of hazardous materials, and there is no record of release at these sites, they are not likely sources of potential contamination. Table 9 Lists sites mapped in the EDR report that have no reported releases.

Table 9 – Past Automotive Use with No Reported Releases

<u>Business</u>	<u>Address</u>	<u>Distance (mi)</u>	<u>Reason Reported</u>
Healdsburg Auto Glass	16039 Healdsburg Ave	0.075 E	Historical Auto Use
Harris Radiator	16135 Healdsburg Ave	0.184 NNE	Historical Auto Use
N/A	255 Monte Vista	0.920 SSE	Notify 65

Sites at a Lower Relative Elevation

Vintage Valley Health Club and Redwood Oil, Co., are two sites of hazardous material releases, both remediated and closed. Both are at a lower elevation and downgradient or cross-gradient relative to the Site. Therefore, both of these sites have very low potential to affect the target property.

This database search was conducted to identify hazardous material release sites with the potential to contaminate the Site. The most common media of contamination (groundwater and soil vapor intrusion) migrate with the flow of groundwater. Because these two sites are at a lower elevation than the Site, there is little potential for contamination.

Sites at a Higher Relative Elevation

Sampling indicated a high concentration of TPH as Diesel at the Sonoma County Public Works Department Yard in 1989, as indicated in Table 10. Remediation and monitoring were conducted and the case was closed in 1991. The case file for the SCPWD Yard is overseen by the North Coast Regional Water Quality Control Board; Ms. Donna Poe helped Rosewood Environmental Engineering obtained records of the release and remediation. These records are attached in Appendix B.

Table 10 – Sites at Higher Relative Elevation

<u>Business</u>	<u>Address</u>	<u>Distance (mi)</u>	<u>Reason Reported</u>
SOCO Road Yard	17027 Healdsburg Ave	0.772 NNE	Higher

This property is located near the northern source of Foss Creek, and at a higher elevation relative to the subject Site, indicating a potential for contamination. However, based on reviewing the records obtained from Sonoma County, monitoring wells placed during remediation recorded groundwater flow is to the east and northeast, toward the Russian River, rather than south and southwest toward the subject Site. Therefore, there is little potential for contamination to have migrated from the SCPWD Yard to the subject Site.

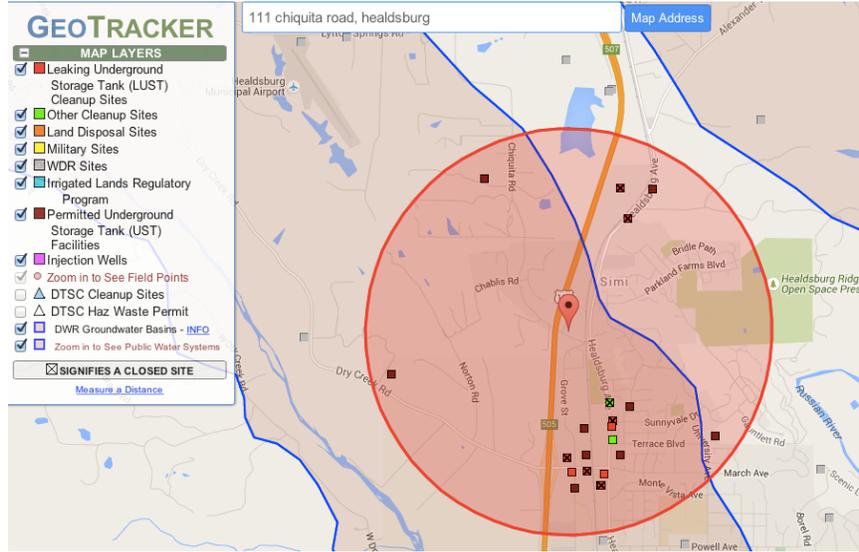
6.2 State Online Database Review

Rosewood Environmental Engineering conducted a database review of Federal, State, and local databases maintained by the State of California Water Resources Control Board (Geotracker) and by the California EPA Department of Toxic Substances Control (Envirostor).

Figure 19 indicates the location of reported cases on the Geotracker website that are within 1 mile of the subject Site and Figure 20 indicates the location of reported cases on the Envirostor website that are within 1 mile of the subject Site. The subject Site was not listed on either of these websites.

There were no additional sites listed as release sites on either of these state-run database tracker websites. The two sites mentioned on the EDR, Inc., report as being mismapped were also mismapped on the Geotracker website.

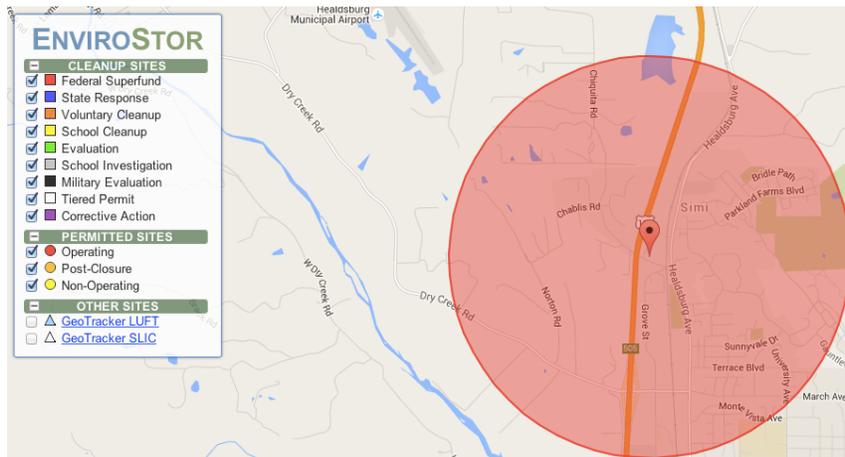
Figure 19 – Geotracker Radius Search



Based on the review of the Geotracker website:

- The subject Site is not listed on the Geotracker website,
- There are no Land Disposal Sites within 1 mile of the Site.
- There are no Military sites within 1 mile of the Site.
- There are no Waste Discharge Requirements sites within 1 mile of the Site.
- There are no Irrigated Lands Regulatory Program sites within 1 mile of the Site.
- There are no Injection Wells within 1 mile of the Site.

Figure 20 – Envirostor Radius Search



Based on the review of the Envirostor website:

- The subject Site is not listed on the Envirostor website,
- There are no Federal Superfund Sites within 1 mile of the Site.
- There are no State Response sites within 1 mile of the Site.
- There are no Voluntary Clean-up sites within 1 mile of the Site.
- There are no School Clean-up sites within 1 mile of the Site.
- There are no Military cleanup sites or evaluation sites within 1 mile of the Site.
- There are no Tiered Permit sites within 1 mile of the Site.
- There are no sites under State EPA Corrective Action within 1 mile of the Site.
- There are no Leaking Underground Storage Tank sites within 1 mile of the Site.
- There are no hazardous or toxic cleanup sites within 1 mile of the Site.
- There are no land disposal sites within 1 mile of the Site.
- There are no military sites within 1 mile of the Site.
- There are no sites required to follow Waste Discharge Requirements within 1 mile of the Site.
- There are no sites in the Irrigated Lands Regulatory Program within 1 mile of the Site.
- There are no Underground Storage Tank facilities within 1 mile of the Site.
- There are no monitoring wells within ¼ mile of the Site.

6.3 On-Site Environmental Issues

The Site is not noted in any of the databases searched for environmental issues.

Agricultural Pesticides

The Sonoma County Agricultural Commissioner's Office was contacted for information about potential historical pesticide use at the site and regional agricultural practices. Ms. Gayle Carter, Agricultural Biologist, reported that there were no records of pesticide use at the property. She reported that vineyards did not historically use persistent pesticides in Sonoma County. She further reported that prune orchards were prevalent in the Healdsburg area and that DDT and other organochloride pesticides were not used on prune orchards or olive orchards much in Sonoma County in the past, but were used on apple orchards and row crops.

Based on historical use as a vineyard with head-cut grapevines and not for row crops or an apple orchard, it is unlikely that persistent pesticides were used at the Site.

Fuel Storage Tanks (above or below ground)

No evidence of underground storage tanks (USTs) or above-ground storage tanks (ASTs) were observed on or near the Site.

PCB Potential at the Site

No pole-mounted transformers were noted at the Site, but two were noted on the property adjacent to the west and to the northwest.

There was no obvious sign of leaking or malfunction, so the presence of PCBs, if any, and the likelihood of leakage onto the Site from these transformers is low.

Asbestos Containing Materials (ACM) at the Site

Each of the five houses on the Site were constructed before the 1977 ban on asbestos-containing material, during a time when ACMs were in wide use in building materials. ACM sampling will be required before demolition of the buildings and any necessary treatment for ACM disposal as hazardous waste assessed at that time.

Lead-Based Paint (LBP) at the Site

Each of the five houses on the Site were constructed before the 1978 ban on Lead in paint and other coatings, during a time when LBP was in wide use. Due to the age of the five residences, there is a potential for lead-based paint at the Site. LBP sampling will be required before demolition of the buildings and any necessary treatment for LBP disposal as hazardous waste assessed at that time.

Septic Systems

When first constructed, each of the residences on the Site were connected to septic systems. According to permits on record with the Healdsburg City Planning Office, 111, 145, and 153 Chiquita Road were later connected to the City sewer system. The septic system(s) may have been abandoned without removal. 157 and 165 Chiquita Road appear to continue to use a septic system.

Water Wells

There is one water well on the northern parcel, which provides the domestic water supply for the residences at 157 and 165 Chiquita Road. Another well, on the southern parcel, previously provided the domestic water supply for 111, 145, and 153 Chiquita Road; these were later connected to the City water supply. The southern well is not currently supplying water.

The well water for the operating well was sampled during the Site reconnaissance using an expanded home water well sampling suite. Coliform was detected in the water system, but

not E.coli, indicating that additional chlorine treatment may be needed or the pipes flushed. Otherwise all the parameters tested were within screening levels. The well sampling is reported in Section 7.0 – Limited Phase II Environmental Assessment and the laboratory report is attached in Appendix F.

Oil and Gas Wells

No Oil and Gas Wells are located within a 1-mile radius of the subject Site according to the EDR GeoCheck database. The State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR, 2015) website indicated that the only oil or gas well within the Township 9N, Range 9W of the Site vicinity is the Beach & Landini 1 well (Figure 21). The well was drilled in 1922 and marked as plugged in 1923 (Figure 22).

Figure 21 – Beach & Landini 1 Well Map

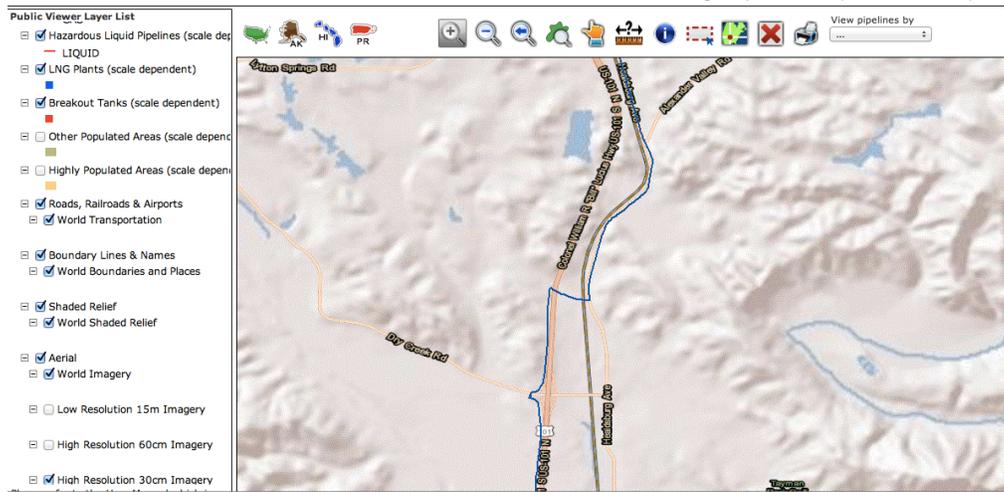


Figure X – Beach & Landini 1 Well Data

Well Details				
API: 09700050	Well Status: Plugged	District: 6		
Operator: Beach & Landini	Operator Code: 00673	Operator Status: InActive		
Lease: [BLANK]	Well Number: 1	County: Sonoma		
Field: Any Field	Field Code: 000	Area: Any Area	Area Code: 00	
Section: 4	Township: 9N	Range: 9W	BaseMeridian: MD	Latitude: 38.652409
				NAD83
Spud Date: 12/21/1922	Abandonment Date: 1/1/1923	Longitude: -122.871034	NAD83	

National Pipeline Mapping System (NPMS)

According to the NPMS website, PG&E has gas transmission lines in the Site vicinity with the main line located on the southern boundary of the site along Chiquita Road and then to the east of the Site along Healdsburg Avenue. No hazardous liquid pipelines were noted in the vicinity; no LNG Plants were noted in the site vicinity, and no breakout tanks were noted in the vicinity (NPMS, 2015).

Figure 23 – National Pipeline Mapping System

According to the EDR, Inc. Radius Map (Figure 24) search, an oil or gas transmission pipeline is located more than ¼-mile west of the Site (EDR Radius Map, 2015). However, no other information is provided in the report and the pipeline is not mapped within the NPMS website. This pipeline is more than a quarter mile to the west of the site and not reported as having a release detected that poses a threat to the Site in any of the databases searched.

6.4 Vadose Zone Contamination Review

The vadose zone, or unsaturated zone, is the area between the surface soil and the groundwater saturation point. If there are volatile or semi-volatile contaminants in the vadose zone, their primary medium of migration is through vapor diffusion. As analysis of potential soil vapor contaminants was added to ASTM E-1527 standards in 2013, historical records and databases often do not include information on this medium of contamination.

Soil vapor contaminants may travel upwards to the surface soil in a vertical plume that affects the ground directly above the area of contamination. Alternatively, vapor contaminants may travel down into the groundwater and migrate in a horizontal plume that travels downgradient with groundwater flow (Freshley, et.al., 2013). There is no indication in historic records or past land use at the site to indicate hazardous waste contamination of the vadose zone directly beneath the Site. There is no indication in regulatory databases of groundwater contamination beneath the Site or migrating to the Site at. Therefore, soil vapor contamination does not appear to be a concern at the site.

7.0 LIMITED PHASE II ENVIRONMENTAL ASSESSMENT

Rosewood Environmental Engineering conducted a Limited Phase II Environmental Assessment targeting areas of concern observed during the site reconnaissance.

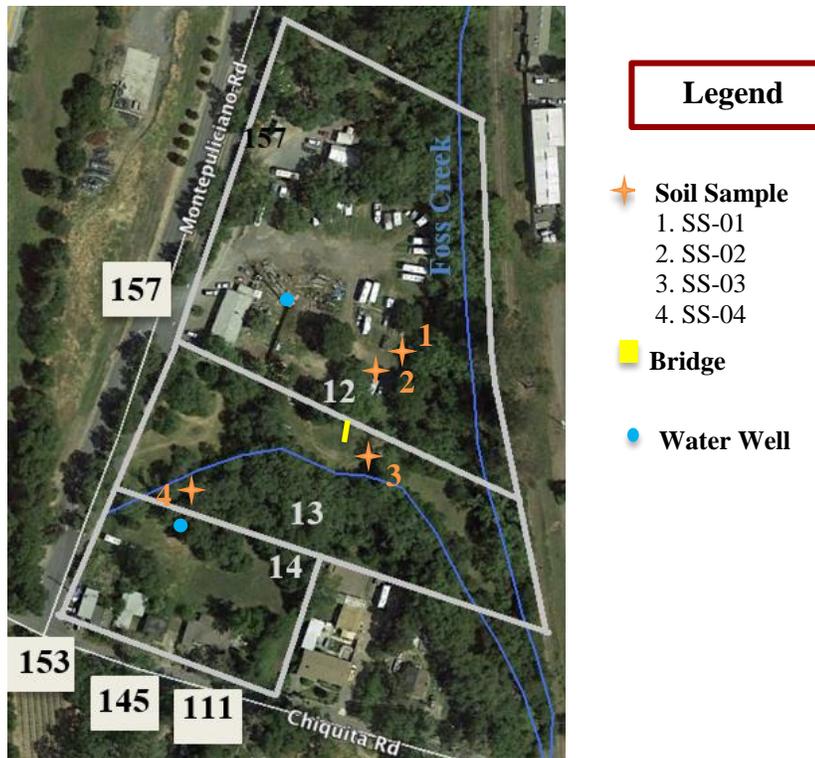
Prior to conducting field operations, Rosewood Environmental Engineering prepared a Health & Safety Plan identifying potential field hazards; appropriate personal protective equipment and procedures; and providing emergency contacts and a map to the nearest emergency hospital.

In addition, water-sampling containers were prepared in advance and transported to the Site in a chilled ice chest. Sampling procedures, personal protective equipment, and decontamination protocols were reviewed and implemented during the fieldwork.

7.1 Surface Soil Sampling

A surface soil-sampling plan was originally prepared for the Site based on what appeared to be evidence of commercial agriculture on the Site in historical aerial photographs. Further investigation determined that the use of persistent pesticides at the Site was unlikely and plan was discarded in favor of targeted sampling to address areas of concern noted during the site reconnaissance.

Figure 24 – Targeted Sampling Map



During an initial reconnaissance of the Site on July 30, Rosewood Environmental Engineering identified four sites for targeted soil sampling. Figure 24 maps the sampling locations of SS-01 through SS-04. Table 11 provides the rationale for targeted sampling and analysis performed on each sample.

Table 11 – Targeted Sampling Rationale

<u>Sample</u>	<u>Location</u>	<u>Rationale</u>	<u>Analysis</u>
SS-01	Northeast corner of storage trailer with unknown contents in cans	Potential for arsenic-based rodenticides, and heavy-metal based paint	Cam-17, TPH, VOCs
SS-02	Southwest corner of storage trailer and containers with unknown content	Potential for arsenic-based rodenticides and heavy-metal-based paints	Arsenic, TPH, VOCs
SS-03	South corner of shipping container	Potential for arsenic-based rodenticides	Arsenic
SS-04	Debris pile south of creek with unknown content	Potential for diesel or motor oil; heavy metal-based paints and coatings; solvents.	Cam-17, TPH, VOCs

Table 12 – Soil Sampling Results (in mg/kg)

<u>Substance</u>	<u>SS-01</u>	<u>SS-02</u>	<u>SS-03</u>	<u>SS-04</u>
TPH as Diesel	5.7	ND	--	19
TPH as Motor Oil	ND	ND	--	24
Benzene	ND	ND	--	ND
Toulene	ND	ND	--	ND
Ethylbenzene	ND	ND	--	ND
Xylene	ND	ND	--	ND
Antimony	ND	--	--	ND
Arsenic	ND	ND	ND	3.2
Barium	66	--	--	66
Beryllium	ND	--	--	ND
Cadmium	ND	--	--	ND
Chromium	29	--	--	33
Cobalt	ND	--	--	14
Copper	11	--	--	10
Lead	29	--	--	20
Mercury	ND	--	--	ND
Molybdenum	ND	--	--	ND
Nickel	33	--	--	33
Selenium	ND	--	--	ND
Silver	ND	--	--	ND
Thallium	ND	--	--	ND
Vanadium	26	--	--	31
Zinc	240	--	--	46

ND indicates an analysis was performed and did not detect a measurable quantity;

-- indicates an analysis was not performed

Each soil sample was collected by first using a shovel to remove the first few inches of organic debris from the soil surface. Then, a 2 in-diameter x 6 in-long stainless steel cylinder was hammered into the soil using a slide hammer, removed, sealed with Teflon paper and capped with plastic end caps. The sealed cylinder was then labeled, placed in a zipper storage bag and placed in a pre-cooled ice chest. Sampling equipment was washed in Alconox solution and rinsed in distilled water. Gloves were changed between each sampling event, following decontamination protocols.

The chain-of-custody and full sampling results are attached in Appendix F. Table 12 contains results that did not return a Non-Detectable result for one or more of the samples.

7.2 Water Well Sampling

While there are two water wells on the Site, only one of them continues to provide a domestic water supply, which is located in the backyard of 157 Chiquita Road. That water well was sampled as WW-157. Results of analyses are shown in Table 13. Photos of both wellheads are contained in Appendix D.

Table 13 – Sampling Results for WW-157

<u>Constituent</u>		<u>mg/L</u>	<u>Conventional Chemistry Parameters</u>	
Arsenic		ND	pH	6.48 pH Units
Barium		0.066	Specific Conductance	330 umhos/cm
Calcium		17	Total Dissolved Solids	160 mg/L
Magnesium		11	Total Suspended Solids	ND
Sodium		12	Turbidity	0.26 NTU
Sulfate as SO ₄		27 mg/L	Nitrate + Nitrite as N	8.1 mg/L
TPH as Motor Oil		ND	Hardness, Total	88 mg/L
TPH as Diesel		ND		
TPH as Gasoline		ND	Total Coliforms	Present
VOCs		ND	E. Coli	Absent

The well was sampled from the kitchen tap inside the house at 157 Chiquita Road where both hot and cold running water were accessible. The Alpha Analytical Laboratory Home Well Expanded Analysis was ordered. Alpha Analytical Laboratory prepared all the necessary containers in advance of the sampling.

The other well was located behind 145 Chiquita Road and not in use, not hooked to any tap, and sealed. That well was not sampled.

7.3 Discussion of Results

Surface Soil Sampling

The surface soil sampling was targeted to address concerns in areas of debris piles and outdoor improper storage of unmarked containers. In addition, one raised storage container was sampled for arsenic based on the concern that rodenticides may have been used in space beneath the container.

Storage Trailer

Based on the sampling around the storage trailer of concern (SS-01 and SS-02), a minor amount of Total Petroleum Hydrocarbons in the Diesel range was detected in Sample SS-01. There were small quantity fuel containers resting on the ground in this location. No staining was noted on the ground and the concentrations in the surface soil was so low as to be insufficient to pose a threat to groundwater. The quantity observed does not rise to Porter-Cologne Act reporting levels of release of more than 5-gallons. No carcinogenic aromatic fraction (BTEX - Benzene, Toluene, Ethel-Benzene, Xylene) were detected in the Volatile Organic Compounds (VOCs) analyses. Therefore, petroleum hydrocarbons do not appear to be a recognized environmental condition (REC) at this location.

The area was also sampled for CAM-17 heavy metals and VOCs. None of the heavy metals analyzed exceeded regulatory guidelines and the all VOCs were ND (not detected). **It appears that if the containers observed at the location contain metal-based paints and coatings or solvents, they have not been released to the soil surface and therefore not to the subsurface, either and do not pose a threat to the Site.**

It should be noted that during sampling an large amount of gravels were noted in the soil, increasing the difficulty of using a slide hammer. It appeared that a layer of gravel had been placed across the yard at some time in the past and that the condition did not represent native soil conditions.

Raised Cargo Carrier

The raised Cargo Carrier was only sampled for arsenic-based rodenticides. The interior of the trailer was largely empty with some very small containers of paints in the upper shelves, with no sign of staining or release. The soil beneath the trailer was had more gravel content than the adjacent soil and so was likely non-native. **No arsenic was detected in the sample collected from this location (SS-03).**

Debris Pile

The debris pile adjacent to the tributary creek appears comprised of inert materials for the most part with some rusting metal debris. Among the rusting metal debris was found the tops to what appeared to be a paint can and possibly an old oil or lube canister. The containers themselves were not visible on the surface of the pile.

The soil beneath this pile was sampled for heavy metals, total petroleum hydrocarbons (TPH), and volatile organic compounds (VOCs). No TPH or VOCs were detected in the sample analyzed. The sampling in this remote area away from vehical storage and traffic did not contain significant amount of gravel and was likely the natural condition of the native soil.

Of the metals analyzed, only Arsenic exceeded regulatory guidelines. The regulatory guidelines for Arsenic is 0.39 ppm, which regulators realized is not realistic in areas of naturally occurring Arsenic in soils.

Arsenic is naturally occurring in soils throughout California and regulatory authorities have allowed concentrations of arsenic up to 22 parts per million in residential developments to remain in place when it was consistent with background levels, indicating that it is naturally occurring.

Analysis for the surface soil sample SS-04 collected from the debris pile yielded a concentration of 3.2 ppm Arsenic, which exceeds the Environmental Screening Level (ESL) for Arsenic in residential soil, which is listed as 0.39 ppm.

The North Coast RWQCB is particularly concerned with the potential for industrialized Arsenic releases, as they have had significant experience with the remediation of wood preservative and treatment plants and other environmental impacts due to industrialized Arsenic at concentrations significantly higher than 3.2 ppm. Industrialized Arsenic generally presents with other elevated elements, such as Lead or Copper, as well, which is not indicated in Sample SS-04. Lead-arsenates and Copper-arsenates were formerly common compounds used for rodenticides.

In an extensive study of background levels of Arsenic in Bay Area Counties (Duvergé, 2011), concentrations of naturally occurring Arsenic in Sonoma County ranged from non-detect to 6.1 ppm with a mean concentration of 2.78 ppm. Although slightly above average, the concentration of Arsenic in the surface soil sample collected from beneath the debris pile is well within the background levels for Sonoma County.

The State Water Resources Control Board provides the following guidance for metals and particularly Arsenic screening levels:

Ambient background concentrations of arsenic in Bay Area soils typically exceed risk based screening levels for direct exposure concerns. For example, the risk based screening level for arsenic in residential soils is 0.39 mg/kg (Table K-1), while naturally occurring concentrations of arsenic in soil typically exceed this concentration throughout the Bay Area. Alternative screening levels based on site specific or regionally specific established background levels may represent a more appropriate screening level in such instances. Based on the desired land use(s), select appropriate soil ESLs (SWAMP, 2007).

The other three surface soil samples encountered significant gravels, likely imported to support vehicle traffic and storage and was visibly different than the soil adjacent to the creek. Therefore they are not likely not representative of the native soils from which SS-04 was collected and cannot be used for direct comparison to estimate background levels in the soils beneath the debris pile.

In conclusion, the 3.2ppm concentration of Arsenic in surface soil beneath the Debris pile likely is indicative of background levels. **No indication of industrialized Arsenic use at the Site was uncovered in the Phase I Environmental Assessment.**

Water Wells Analysis

The North Coast Regional Water Quality Control Board Surface Water Ambient Monitoring Program provided the Table 14 as a guideline for assessing concentrations of constituents in groundwater. The table provides the regional basin plan, state, and federal guidelines. A dashed line indicates that there is no guideline.

The results of the water well test indicate that none of the parameters or constituents analyzed exceed the regulatory guidelines listed in the table. Coliforms were present in the water sample, but E. coli was not present, indicating that the system needs treatment.

Table 14 – NCRWQCB Basin Plan and Drinking Water Standards

	Basin Plan	Drinking Water Standards - Maximum Contaminant Levels (MCLs)			
	NCRWQCB	Ca DHS		U.S. EPA	
	WQO	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL
Field Parameters					
Specific Conductivity	<i>Varies by Waterbody</i>	-	-	-	-
Dissolved Oxygen (DO)	<i>Varies by Waterbody</i>	-	-	-	-
pH	<i>Varies by Waterbody</i>	-	-	-	-
Conventional Water Quality Constituents (mg/L)					
Chloride	-	-	250	-	250
Sulfate	-	-	250	500	250
Total Dissolved Solids (TDS)	<i>Varies by Waterbody</i>	-	500	-	500
Hardness	<i>Varies by Waterbody</i>	-	-	-	-
Nitrite-N	-	1	-	1	1
Nitrate-N	45	45	-	10	10
Trace Metals (Total) (ug/L)					
Aluminum	1000	1000	200	-	50
Arsenic	50	50	-	10	-
Cadmium	10	5	-	5	-
Chromium	50	50	-	100	-
Copper	-	1300	1000	1300	1000
Lead	50	15	-	15	-
Mercury	2	-	-	-	-
Nickel	-	100	-	50	-
Selenium	10	50	-	50	-
Silver	50	-	100	-	100
Zinc	-	-	5000	-	5000

(Source: SWAMP, Summary Report for RWQCB-1 for 2000-2006)

8.0 DATA GAPS

ASTM Standard Designation E1527-13 requires the environmental professional to comment on significant data gaps that affect ability to identify Recognized Environmental Conditions (RECs). A data gap is a lack of or inability to obtain information required by ASTM Standard Designation E1527-13 despite good faith efforts by the environmental professional to gather such information. A data gap by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. The following section discusses data gaps.

8.1 Closed Data Gaps

Two Data Gaps were encountered during the Phase I and Limited Phase II Environmental Assessment. Both of these data gaps were addressed and closed.

Database Mapping Error

As discussed in Section 6.1, an automated database can return results with mistyped addressed or mismatched locations. Two results were identified as erroneously included in the Site radius. Table 8 shows the additional two sites erroneously listed in the original results with the correct location and distance from the subject site. These sites are outside of the search radius and downgradient from the target property, therefore unlikely to affect the target property.

This data gap was closed by locating the actual location of the two erroneously mapped cases. Rosewood Environmental Engineering also confirmed during drive-by reviews of the neighborhood that the cases erroneously mapped were not within the search radius.

Did Not Observe Interior of All Residences

Not all of the residences were entered during the site reconnaissance. As discussed in Section 3.2, the houses at 111, 153, and 165 Chiquita Road were occupied and the residents not disturbed. The primary reason for accessing the interior of a house during an environmental assessment would be to assess the likelihood of Asbestos Containing Materials and Lead-Based Paint used in the house. This data gap was addressed by requiring that a demolition-level survey of both ACM and LBP be conducted as part of the contracting for the demolition of the house.

8.2 Data Failures

No significant data failures were identified that would likely impact the findings, conclusions, and opinions of this report.

9.0 FINDINGS AND CONCLUSIONS

Rosewood Environmental Engineering completed a Phase I Environmental Assessment with a Limited Phase II additional scope of services for the property located on Chiquita Road in Healdsburg, Sonoma County, California (“the Site”). **Five houses are located on the property at 111, 145, 153, 157, and 165 Chiquita Road.** Based on the scope of services and terms of the Agreement, Rosewood Has made the following findings:

The Site is situated between Highway 101 to the west and railroad tracks to the east. It is comprised of three parcels, together approximately 9.95 acres in area and polygonal with roughly a trapezoid + rectangle shape.

Foss Creek flows north to south on the eastern side of the property and a tributary crosses west to east at approximately the property line dividing the southern and central parcels. In December of 2014, a 100-year storm event caused flooding over the banks of Foss Creek in areas, but the Site was not one of those areas, with the creek staying within the banks during that event.

A bridge crosses the Foss Creek tributary at the Site. Its concrete abutments are leaning inward. It should have a thorough structural review before using it for vehicle or heavy equipment.

Early history of the Site includes occupation by **Pomo and Wappo indigenous people who were hunter-gatherers, then cattle ranching as part of a large Mexican Rancho. The first development of the Site was as a vineyard in 1881. The vineyard property was once owned by the adjacent Simi Winery. A small grove of olive trees is in the northeast corner of the site near Foss Creek.**

From the **1930s when Prohibition forced the sale of the vineyards, through to the 1960's, five residential structures and numerous outbuildings have been built at the Site.** The residences are aging with one condemned and boarded up. All of these buildings were likely on **septic systems at one time with the two on the northern parcel currently using septic. Two domestic water supply wells are located on the Site, with one still servicing the northern parcel. The operating well was sampled. All parameters analyzed were within regulatory guidelines, except that Coliform was detected, but not E.coli. This is an indication that the well water is not properly treated and should be checked while it is still in use.**

The house at 165 Chiquita Road is located at the northernmost end of the Site. It once housed an engineering-construction company with some heavy equipment stored there. It also had a temporary greenhouse and **growing operation for potted plants. An RV and vehicle storage facility is located on the northern parcel, which is zoned Light Industrial. The facility grounds have been cleared and mowed.**

Surface soil at four locations at the Site was sampled and analyzed for suspected release of lead and heavy metal-based paint, solvents, TPH, and arsenic-based rodenticides.

None of the constituents targeted for analysis were above the regulatory screening levels except for Arsenic in one soil sample. That sample had a concentration of Arsenic at 3.2 parts per million. Background levels of Arsenic in Sonoma County range from 0 to 6.1 ppm. The concentration is within the background-level range for Arsenic in Sonoma County.

The Site is not listed on any of the databases searched. No offsite sources appear to pose a threat to the Site. The property to the south of the Site, across Chiquita Road has begun demolition for the construction of a single-family residential development called Chiquita Grove.

There are no reported environmental liens or deed/land-use restrictions for the Site. The property has not been devalued due to any environmental concerns.

In conclusion, it is Rosewood Environmental Engineering's opinion that, with the listed recognized environmental conditions addressed according to the recommendations, the Site will be suitable for residential development.

10.0 RECOMMENDATIONS

Both Site-Specific and General actions are recommended before and during site construction activities.

10.1 Pre-Construction Recommendations

The following specific recommendations should be considered prior to beginning any grading or construction activities for development of the property:

Before Demolition of the houses at the Site, demolition-level sampling for lead-based paint and asbestos containing material should be conducted to determine the proper disposition or disposal of the waste material.

The wells at the Site should be properly closed under permit. The operating well should have its treatment adjusted to eliminate the Coliform while it is still in use.

The septic systems at the Site should be properly closed under permit.

The bridge should be checked for structural integrity prior to using it for vehicle or heavy equipment traffic.

10.2 Construction Practices Recommendations

The following general recommendations should be considered during grading operations for development of the property:

During any grading or excavation activities of the property, soil technicians and operators must be made aware to look for unusual conditions suggesting buried debris or other potential adverse environmental conditions that may be discovered on the property. Should any questionable material be encountered during site grading, the Responsible Environmental Engineer should be contacted immediately.

Special attention should be made to dust control during grading operations, including fugitive dust leaving the Site and worker protection from ingestion or inhalation of excessive dust.

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12.0 ENVIRONMENTAL PROFESSIONAL QUALIFICATIONS

This Phase I and Limited Phase II Environmental Site Assessment was performed by Dr. Cheryl Bly-Chester, a qualified Environmental Professional as defined in 40 CFR Part 312.10.

Dr. Bly-Chester holds a Bachelor of Science degree in Civil Engineering from the University of California at Davis, and a Master's Degree in International Business. Her Doctorate of Business Management is in Organizational Leadership. Dr. Bly-Chester holds a valid Environmental Property Assessor registration from the National Registry of Environmental Professionals (523572).

In addition, Dr. Bly-Chester is qualified to lead and conduct Phase II Environmental Assessments and Site Characterizations. She holds a State of California Professional Engineers License in Civil Engineering, and has extensive experience and course work in environmental sampling and site subsurface investigation techniques.

Dr. Bly-Chester has over 35 years of civil engineering and environmental experience, more specifically in environmental assessments including Phase I and Phase II ESAs, which exceeds the regulatory requirement of three years of relevant experience.

Dr. Bly-Chester remains current in her field and has received 1.6 Continuing Education Units (CEUs) and 8 Professional Development Hours (PDHs) in the previous 12 month period. She is also compliant with OSHA HAZWOPER 8-hour refresher requirements, including medical surveillance.

As required in 40 CFR 312.27, Dr. Bly-Chester directly conducted the Field Visit including the visual inspection of the Site, adjacent properties and surrounding areas. "All Appropriate Inquiry" was also conducted by or supervised by Dr. Bly-Chester.

The findings, opinions and recommendations of this Phase I Environmental Site Assessment are those of Rosewood Environmental Engineering, as formulated by Dr. Bly-Chester.

ROSEWOOD ENVIRONMENTAL ENGINEERING

Project No.: REE-62-08C-16

September 28, 2016

Mr. Doyle Heaton
DRG Builders, Inc.
3480 Buskirk Avenue, Suite 260
Pleasant Hill, California 94523

Subject: Supplemental Phase I Environmental Site Assessment
Oaks at Foss Creek
51 and 99 Chiquita Road
Healdsburg, California

Dear Mr. Heaton:

At your request, Rosewood Environmental Engineering has conducted a Supplemental Phase I Environmental Site Assessment (ESA) to accompany the August 2015 Phase I and Limited Phase II ESA for the above referenced site. Based on scope of the services provided and on the findings delineated in the following report, it is Rosewood Environmental Engineering's opinion that the Site is compatible with the planned development of multi-family residential housing.

The following is a letter report, which presents the results of our supplemental assessment.

Summary

Rosewood Environmental Engineering completed a Supplemental Phase I Environmental Assessment for the property located at 51 and 99 Chiquita Road in Healdsburg, Sonoma County, California ("the Site").

It is Rosewood Environmental Engineering's understanding that the Client is purchasing the property with plans to build a residential development at the Site. The purpose of conducting this Supplemental Phase I ESA is to provide an independent, professional opinion regarding recognized environmental conditions (RECs), including Historic RECs and Controlled RECs, if any, associated with the Site as due diligence documentation.

The Site is comprised of two parcels, which are together approximately 1 acre in area and polygonal with roughly a trapezoid shape. Foss Creek flows north to south on the eastern side of the property and a tributary crosses west to east at approximately the northeastern boundary of the Site.

Supplemental Phase I Environmental Assessment

Oaks at Foss Creek

September 28, 2016

Page Two

The Site was formerly a vineyard. Since the early 1950s, two residential structures and four outbuildings have been built at the Site. At least one well is located on the site, with both residential buildings serviced by well water. Both parcels are reportedly serviced by septic systems.

Site Description

Rosewood Environmental Engineering conducted a Supplemental Phase I ESA scope of services for the property located at 51 and 99 Chiquita Road in Healdsburg, Sonoma County, California (“the Site”). The Site is comprised of two parcels; 51 Chiquita Road to the east, APN 089-13-16, and 99 Chiquita Road to the west, APN 089-13-15. The two parcels together are approximately 1 acre in area and roughly trapezoidal. Foss Creek flows north to south on the eastern side of the property and a tributary crosses west to east at approximately the northeastern property line of the Site.

The Site was formerly vineyard property owned by the adjacent Simi Winery. Since the early 1950s, two residential structures and numerous outbuildings have been built at the Site. At least one well and one septic tank is located on the Site, as according to record both residences are serviced by well water and septic tank.

Figure 1 is a map of area covered in the 2015 report and in this supplemental report. Figure 2 is a site map.

Figure 1 – Area of Site

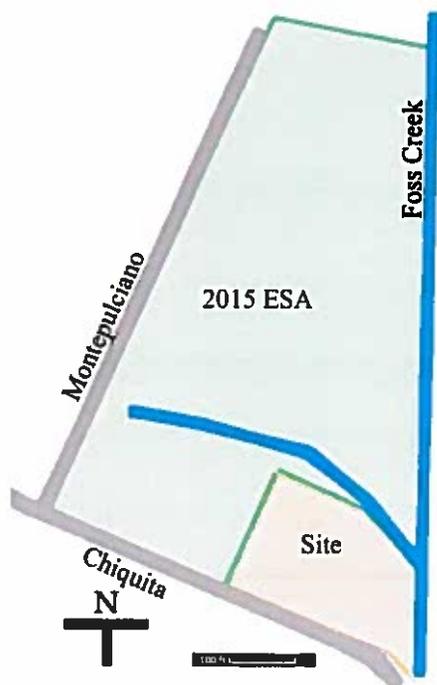


Figure 2 – Site Map



(Base Map Source: Google Earth)

Site Reconnaissance

A Rosewood Environmental Engineering Engineer/Qualified Environmental Professional, along with a Rosewood Engineering Environmental Specialist, performed a site reconnaissance visit on September 24, 2016. In preparation for the site visit, the Site and vicinity were observed by using the online views provided in GoogleEarth Pro and in reports prepared by EDR, Inc.

The weather was clear, 90°F, with a slight breeze from the northwest, following several weeks without rain. The exteriors of the structures on the Site were observed, but interiors were not accessed.

Site Observations

Photographs of the Site are annotated and contained in Attachment X. The Site is divided into two single-family residences, each with outbuildings.

The east residence is 51 Chiquita Road. This house is recorded as a one-story house in building records, but appeared to have rear stair access to a second story during the Site walk. This may be a built-out attic area.

The house was reportedly built in the 1950s out of wood, on a concrete foundation. Two driveways connect to Chiquita Road on either side of the house; the driveway to the east is packed dirt and gravel, while the driveway to the west of the house is loose gravel. North of the house and connected to the west driveway is a detached garage, which appears to have electricity and water utilities and may be occupied as a residence. The detached garage is wood with a concrete foundation. Large trees border this parcel on all sides, more densely on the northeast and east borders of the Site, along Foss Creek and its tributary.

North of the detached building, near Foss Creek at the northern boundary of the property, is a stone or concrete feature approximately 3ft by 3ft, resting on the ground. This may be the location of the onsite well reflected in building records.

The west residence is 99 Chiquita Road, a one-story stucco building on a concrete foundation. This house also has two driveways, one of asphalt to the west and one of packed gravel to the east. Located on the north portion of the parcel is a large vegetable garden, which is irrigated with above ground conduits. Gardening tools and products were observed to be stored on shelves off the ground.

This residence has three outbuildings; a shed to the northwest, a detached garage to the north, and a large shaded platform to the northeast. The shed, nearest to the house, appears to be storage for gardening and similar tools. The detached garage connects to the east driveway for parking vehicles. The concrete platform shaded by plastic is approximately the size of an RV shed.

Supplemental Phase I Environmental Assessment

Oaks at Foss Creek

September 28, 2016

Page Four

No features were observed on this parcel that appeared to be a well, but standpipes and spigots adjacent to the gardening shed were observed.

The exterior of the houses and outbuildings at 51 and 99 Chiquita Road were observed for evidence of improper storage of hazardous materials, distressed vegetation, surface staining, underground tank vents, unexplained piping, and ground subsidence. No such evidence of recognized environmental concerns were noted. Gardening supplies were noted, but were properly labeled and stored.

The interior of the occupied houses were not assessed as part of the scope of services. Asbestos Containing Materials (ACMs) and Lead-Based Paint (LBP) were presumed to be present in the houses based on their construction dates, which were prior to the ban on the use of the substances in construction materials. Demolition-level sampling will be necessary to determine proper disposition of the material before removal of the structures commences.

A buried gas main cable was noted at the site and delineated with a red paddle.

Adjacent Properties

The supplemental Site is bounded on the north and west by the larger Oaks at Foss Creek development property that was the subject of the main report. The supplemental Site is bounded on the east by Foss Creek and on the south by residential property. Adjacent properties were observed as part of the August 2015 Phase I ESA.

A Pole-mounted transformer was noted in the road easement in front of 99 Chiquita Road. PG&E reportedly removed all PCB-containing dielectric fluids from its transformers in the area during the 1980s and 1990s.

The only change in the conditions of the adjacent properties since the 2015 report is in the property to the south, across Chiquita Road from the Site. Previously, this property was a house in the process of demolition; at the time of this site reconnaissance, the house had been cleared of the previous house and the framework of multiple buildings had been erected.

Regional and Site History Review

The history of the region surrounding Site was documented in the August 2015 Phase I ESA. That history is based on examination of documents pertaining to the historical significance of the land-use and historical recognized environmental conditions (HRECs). Resources used to establish the history include the EDR, Inc. report of historical maps and aerial photographs, GoogleEarth Pro, online sources such as City and County websites, and a Sanborn Fire Insurance Map search.

Supplemental Phase I Environmental Assessment

Oaks at Foss Creek

September 28, 2016

Page Five

The August 2015 Phase I ESA includes dates and sources for the historical maps, documents, and aerial photographs referenced below.

Site History

The early ownership of the site was reconstructed based on interviews, historical accounts, maps, and other records because recorded legal documents were not readily obtainable.

Table 1 – Known Ownership History

<u>Dates of Record</u>	<u>Owner</u>	<u>Area Name</u>
prehistory	Pomo and Wappo peoples	Shachali tribal village
1881 & 1844	Henry D. and Josepha Fitch	Rancho Sotoyome
1867 & 1877	W. H. Litton (<i>sic</i> Lytton)	Lytton Springs/Litton Station
1881 or 1890 - 1904	Pietro & Giuseppi Simi	Montepulciano Winery
1904 - 1932	Isabel Simi	Montepulciano Winery, Simi Winery
1932-1938	Bank of America	Simi Vineyard
1975-Current	George & Julia Diaz	51 Chiquita Road

Historically, the Site was used for commercial agriculture growing head-cut grape vines from the 1880s to 1932. There is no indication that organochloride pesticides were used on grape vines in Sonoma County, or at the Site.

Based on Sonoma County Assessor Office records, the building at 51 Chiquita Road was built in 1951 along with its detached garage. The 1952 aerial photograph corroborates this record, with this being the first residence on the Site to replace the Simi Vineyard grape vines that previously occupied the area. Records show that 99 Chiquita Road was built in 1953 and also was the first residence on its lot after the vineyards were replaced.

Permitting records indicate a water well located on the 51 Chiquita Road side of the Site. That residence is serviced by well water and a septic tank. Records show that 99 Chiquita Road is also serviced by well water and a septic tank, but are not clear whether a separate well supplies the west residence or it relies on the east well. Records also do not indicate the specific location of a well or of septic tanks.

Regulatory Agency Databases and Public Records

A database search was conducted of nearby properties for the August 2015 Phase I ESA. This included an EDR, Inc., Radius search, a search of the California Department of Toxic Substances Control database tracker website, Envirostor, and the California State Water Resources Control Board database tracker website, Geotracker. For this Supplemental Phase I ESA, no information was discovered that affects Rosewood Environmental Engineering's opinion as stated in the August 2015 Phase I ESA.

Supplemental Phase I Environmental Assessment
Oaks at Foss Creek
September 28, 2016
Page Seven

The California State Geotracker and Envirostor Databases were reviewed again for this supplemental environmental assessment.

Figure 3 – Geotracker Radius Search

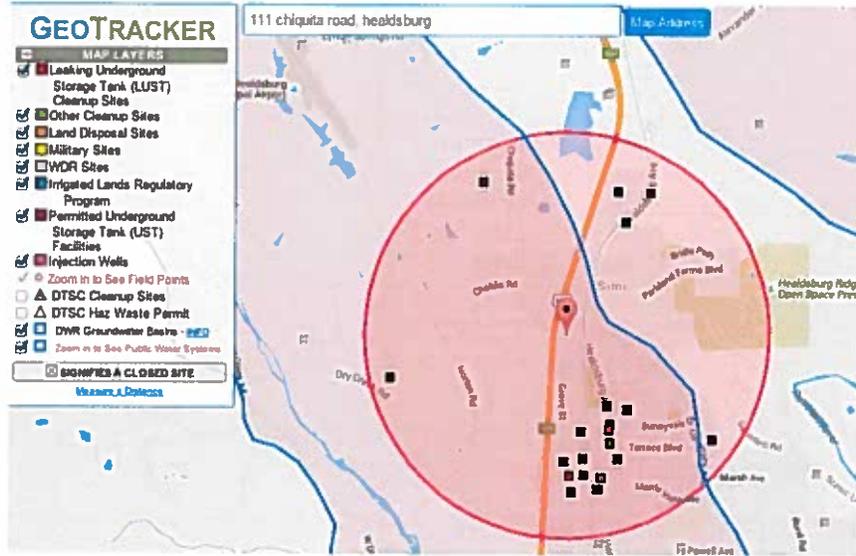
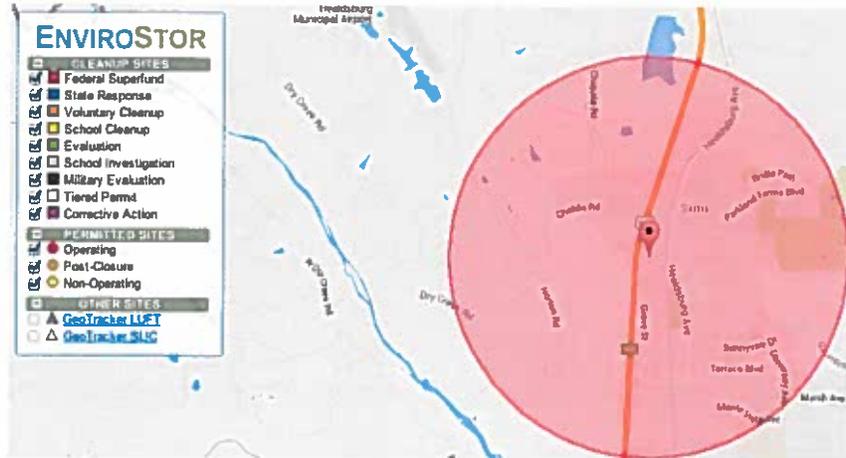


Figure 4 – Envirostor Radius Search



Supplemental Phase I Environmental Assessment

Oaks at Foss Creek

September 28, 2016

Page Seven

Data Gaps

Rosewood Environmental Engineering did not observe interior of residences. This data gap is considered closed for the purposes of this supplemental environmental assessment because building materials and other background information was obtained through Healdsburg City Planning Department and other sources and any relevant sources from the building materials will be addressed prior to demolition.

Orphaned Sites on the database search were located or otherwise determined to not be located within the regulatory search limits of the Site.

It is not known if the houses are on one or two wells. This is not significant, since the user of the report will be alerted to properly close all wells found at the site.

It is not known if the houses are on separate septic systems or share a system. This is not significant, since the user of the report will be alerted to properly close all septic systems found at the site.

No significant data failures were identified that impacts the findings, conclusions, and opinions of this report.

FINDINGS AND CONCLUSIONS

Rosewood Environmental Engineering completed a Supplemental Phase I Environmental Assessment for the Oaks at Foss Creek property located at 51 and 99 Chiquita Road in Healdsburg, Sonoma County, California ("the Site"). The site is approximately 1 acre in area and roughly trapezoidal in shape. The Site is comprised of two parcels, together approximately 1 acre in area and polygonal with roughly a trapezoid shape. Foss Creek flows north to south on the eastern side of the property and a tributary crosses west to east at approximately the northeastern boundary of the Site.

The Site was formerly a vineyard. Since the early 1950s, two residential structures and four outbuildings have been built at the Site. Both properties are on well water and septic systems indicating that at least one well and one septic tank are located on the site and that there may be two of each.

A Pole-mounted transformer was noted in the road easement in front of 99 Chiquita Road. PG&E reportedly removed all PCB-containing dielectric fluids from its transformers in the area during the 1980s and 1990s.

A gas main was noted during the Site walk.

Supplemental Phase I Environmental Assessment

Oaks at Foss Creek

September 28, 2016

Page Eight

No off-site sources of concern were identified during the Supplemental Phase I ESA that would likely pose a threat to the Site through migration of contaminated groundwater or soil vapor.

No current or historical Recognized Environmental Conditions were uncovered during the Supplemental Phase I ESA.

Based on these findings, it is Rosewood Environmental Engineering's opinion that the Site is compatible with the planned development of multi-family residential housing.

Recommendations

The following recommendations should be considered during grading operations for development of the Site:

All water wells at the Site must be properly permitted as closed prior to site development.

All septic tanks and septic systems must be properly permitted as closed prior to site development.

All building should receive a demolition-level asbestos and lead-based paint sampling inspection prior to removal to determine proper disposition of the building materials.

An underground gas main should be relocated or fenced and cordoned-off prior to grading at the Site for worker safety.

During any grading or excavation activities of the property, soil technicians and operators must be made aware to look for any remaining piping or appurtenances related to the water wells and septic system piping known to be at the Site.

The workers at the site should receive information and instruction to be vigilant for unusual conditions suggesting buried debris or other potential adverse environmental conditions that may be discovered on the property. Should any questionable material be encountered during site grading, the Responsible Environmental Engineer should be contacted immediately.

LIMITATIONS

Refer to section 1.3 "Limitations" of the August 2015 Phase I ESA for limitations.

Supplemental Phase I Environmental Assessment

Oaks at Foss Creek

September 28, 2016

Page Nine

Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 part of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. All services for the Phase I Environmental Assessment were performed under my direct supervision and I performed the Site Visit and formulated the opinions and recommendations. I have developed and performed the "All Appropriate Inquiries" in conformance with the standards and practices set forth in 40 CFR Part 312.

Thank you very much for this opportunity to provide this Supplemental Phase I Environmental Assessment for the Oaks at Foss Creek project. If you have any questions or need further information or services, please contact us.

Sincerely,



Dr. Cheryl Bly-Chester, REPA
National Registry of Environmental Professionals
Registered Environmental Property Assessor (564541)



ATTACHMENTS:

Site Photographs
Healdsburg City Building and Assessor Sheets

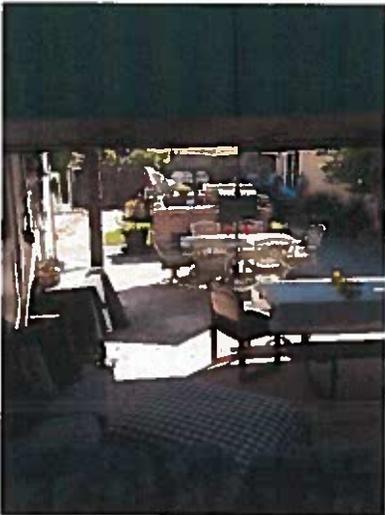
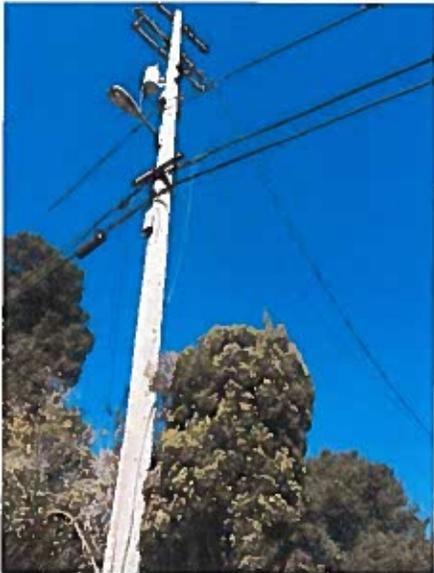
51 Chiquita Road



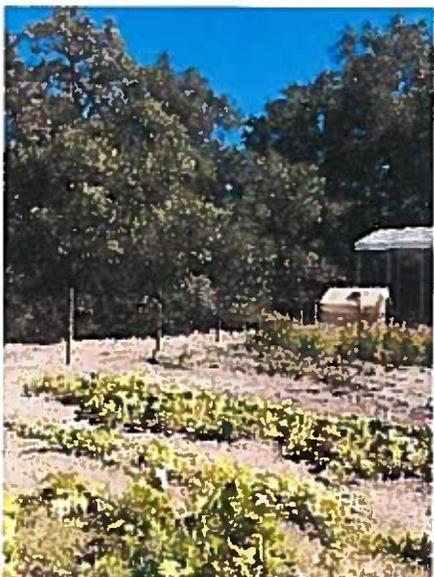
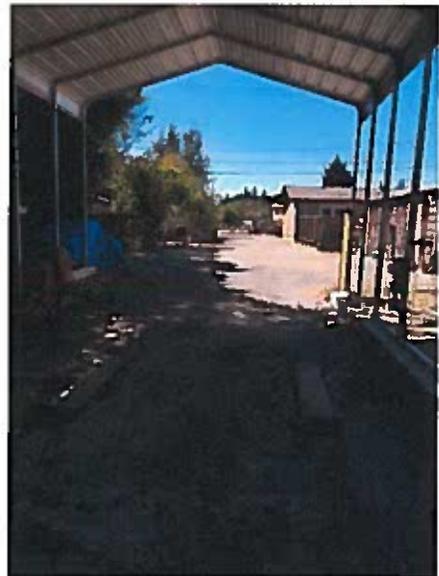
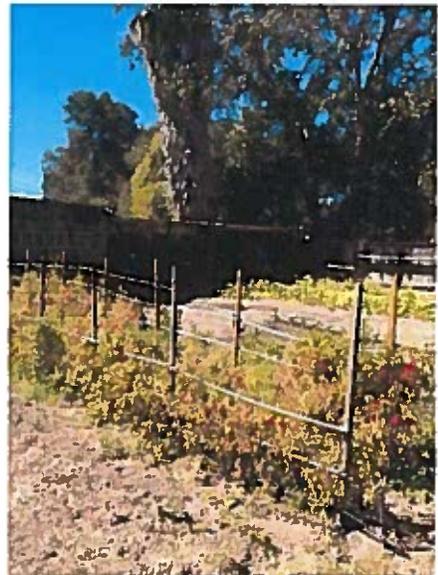
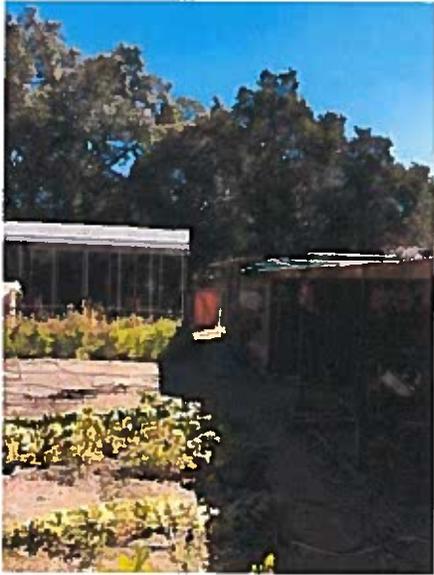
99 Chiquita Road



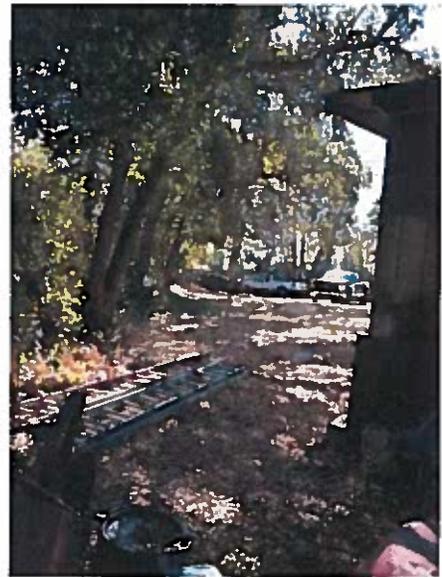
Utilities on Chiquita, southwest of Site



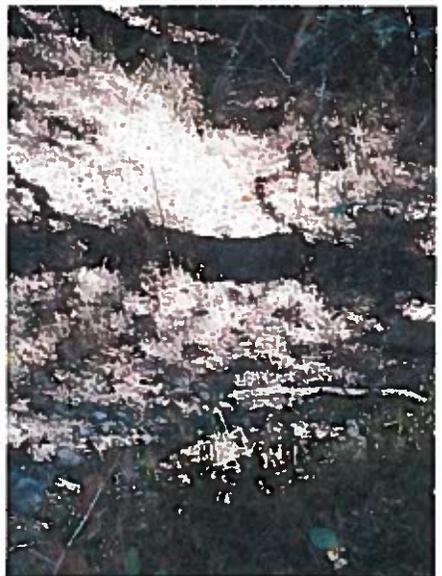
Backyard (north) of 99 Chiquita Road



Backyard (north) of 51 Chiquita Road



Stone feature north of 51 Chiquita, possibly a well





First American

myFirstAm® Property Profile

51 Chiquita Rd, Healdsburg, CA 95448

Property Information			
Owner(s):	Diaz George / Diaz Julia	Mailing Address:	51 Chiquita Rd, Healdsburg, CA 95448
Owner Phone:	Unknown	Property Address:	51 Chiquita Rd, Healdsburg, CA 95448
Vesting Type:		Alt. APN:	
County:	Sonoma	APN:	089-013-016
Map Coord:	74-E2	Census Tract:	153901
Lot#:		Block:	
Subdivision:		Tract:	
Legal:			

Property Characteristics			
Use:	Sfr	Year Built / Eff. :	1951 /
		Sq. Ft. :	1359
Zoning:		Lot Size Ac / Sq Ft:	0.6061 / 26400
		# of Units:	1
Bedrooms:	4	Bathrooms:	2
		Fireplace:	
# Rooms:	5	Quality:	Fair
		Heating:	
Pool:		Air:	
		Style:	L-Shape
Stories:	1	Improvements:	
		Parking / #:	Detached Garage /
Gross Area:	1359	Garage Area :	460
		Basement Area:	

Sale and Loan Information			
Sale / Rec Date:	/ 01/01/1975	*\$/Sq. Ft.:	
		2nd Mtg.:	
Sale Price:		1st Loan:	
		Prior Sale Amt:	
Doc No.:	0002505470	Loan Type:	
		Prior Sale Date:	
Doc Type:	Deed	Transfer Date:	01/01/1975
		Prior Doc No.:	
Seller:	Owner Name Unavailable	Lender:	
		Prior Doc Type:	

*\$/Sq.Ft. is a calculation of Sale Price divided by Sq.Feet.

Tax Information			
Imp Value:	\$39,485	Exemption Type:	Homestead
Land Value:	\$11,797	Tax Year / Area:	2015 / 002017
Total Value:	\$51,282	Tax Value:	\$44,282
Total Tax Amt:	\$657.92	Improved:	77%

General Information

APN: 089-013-016-000
Situs Address: 51 CHIQUITA RD HEALDSBURG CA 95448-9678
Mailing Address: 51 CHIQUITA RD HEALDSBURG CA 95448-9678
Legal Description: 91 FM 89-010-25 = CHG PER MD

Use Type: RESID. SINGLE FAMILY
Tax Rate Area: 002-017

[APN Map](#) [Open](#)

Assessment

Year Assd: 2016
Land: \$11,797
Structure(s): \$39,485
Other:
Total Land and Improv: \$51,282
HO Exempt?: Y
Exemption Amt: \$7,000

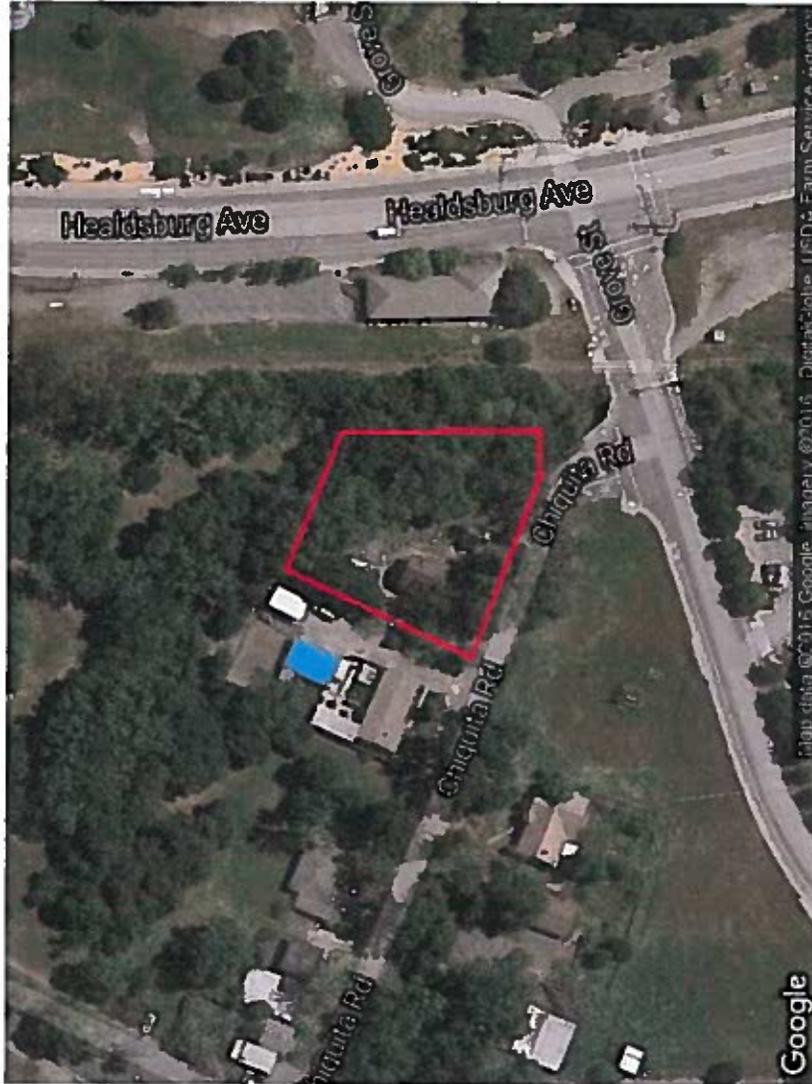
Property Characteristics

Bedrooms: 4
Baths: 2
Bldg/Liv Area: 1,359
Year Built: 1951
Lot Acres: 0.600
Lot Sqft: 26,136

Recent Sale History

Recording Date:
Document #:
Transfer Amount: N/A

[View More History](#)



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[Add to Cart](#) [Full Property Detail Report](#)

**The information provided here is deemed reliable, but is not guaranteed.

General Information

APN: 089-013-015-000
Situs Address: 99 CHIQUITA RD HEALDSBURG CA 95448-9678
Mailing Address: 99 CHIQUITA RD HEALDSBURG CA 95448-9678
Legal Description: 91 FM 89-010-12 = CHG PER MD

Use Type: RESID. SINGLE FAMILY
Tax Rate Area: 002-017

APN Map [Open](#)

Assessment

Year Assd: 2016
Land: \$14,324
Structure(s): \$94,672
Other:
Total Land and Improv: \$108,996
HO Exempt?: Y
Exemption Amt: \$7,000

Property Characteristics

Bedrooms: 3
Baths: 2
Bldg/Liv Area: 1,723
Year Built: 1953
Lot Acres: 0.390
Lot SqFt: 16,988

Recent Sale History

Recording Date:
Document #: N/A
Transfer Amount:

[View More History](#)



Map data ©2016 Google Imagery ©2016 DigitalGlobe, USDA Farm Service Agency

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**The information provided here is deemed reliable, but is not guaranteed.