

# BRETTON WOODS DAVIS, CALIFORNIA

# PHASE I ENVIRONMENTAL SITE ASSESSMENT

# **SUBMITTED TO**

Ms. Darla Rosenthal Bretton Woods LLC 260 Russell Blvd., Suite C Davis, CA 95616

# PREPARED BY

**ENGEO** Incorporated

October 16, 2019

PROJECT NO.

11626.001.000





Project No. **11626.001.000** 

October 16, 2019

Ms. Darla Rosenthal Bretton Woods LLC 260 Russell Blvd., Suite C Davis, CA 95616

Subject: Bretton Woods

West Covell Boulevard Yolo County, California

#### PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Ms. Rosenthal:

ENGEO is pleased to present our modified phase I environmental site assessment of the subject property (Property), located in Yolo County, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312 and the American Standard Testing Method (ASTM) Practice E1527-13. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM E1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Shawn Munger, CHG

Sincerely,

**ENGEO** Incorporated

Travis Chatters, PE

tc/sm/dt

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# **EXECUTIVE SUMMARY**

ENGEO conducted a phase I environmental site assessment for the property located at West Covell Boulevard in Yolo County, California (Property). The Property is approximately 126 acres in area and is identified by Assessor's Parcel Numbers (APNs) 036-060-005, 036-020-018, 036-020-012, and portions of APNs 036-060-033, 036-060-031, 036-020-015, 036-020-016, 036-020-017. The parcel under APN 036-060-005 was also identified under the address 39660 West Covell Boulevard.

The Property consists of agricultural land, with a gravel lot in the southeast corner of the Property. Review of historical records indicates that the Property has been predominantly agricultural land since at least 1937, with the exception of the southeastern corner of parcel 036-060-005, which has been occupied by residential structures since at least 1937 to approximately 2006.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found no documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

As part of this assessment, additional soil sampling was performed to address past agricultural impacts. Following the Department of Toxic Substances Control (DTSC) Interim Guidance for Sampling Agricultural Properties (2008), a total of 136 soil samples were recovered across the Property, which were analyzed for organochlorine pesticides, lead, and arsenic. Pesticide concentrations were either non-detect with respect to laboratory reporting limits, or below their respective USEPA and DTSC screening levels for a residential scenario. The reported arsenic concentrations for the Property are indicative of background concentrations for the area and are not indicative of anthropogenic impacts. Lead concentrations were reported below their current screening levels of 80 milligrams per kilogram (mg/kg).

Based on the review of the laboratory test results, historical agricultural practices have not had an adverse impact on the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). Any exceptions to, or deletions from, this practice are described in Section 5.2 of this report.

Per Mitigation Measure 3.8-1 of the Final Mitigation Monitoring and Reporting Program for the Bretton Woods/West Davis Active Adult Community, specific soil sampling is required.



**Mitigation Measure 3.8-1**: A soil sampling program shall be implemented to assess potential agrichemical (including pesticides, herbicides, diesel, petrochemicals, etc.) impacts to surface soil within the project site, as follows:

The sampling and analysis plan shall meet the requirements of the Department of Toxic Substances Control Interim Guidance for Sampling Agricultural Properties (2008). If the sampling results indicate the presence of agrichemicals that exceed screening levels, a removal action workplan shall be prepared in coordination with Yolo County Environmental Health Division. The removal action workplan shall include a detailed engineering plan for conducting the removal action, a description of the onsite contamination, the goals to be achieved by the removal action, and any alternative removal options that were considered and rejected and the basis for that rejection. The removal action shall be deemed complete when the confirmation samples exhibit concentrations below the commercial screening levels, which will be established by the agencies.

In response to this measure, to meet its requirements, additional testing was performed as part of the phase 1 environmental site assessment. Soil samples were collected in accordance with the DTSC Interim Guidance for Sampling Agricultural Properties (2008). The sampling results do not indicate the presence of agrichemicals that exceed residential screening levels, therefore, we do not anticipate a removal action work plan will be required for the project.

ENGEO recommends no further environmental studies at this time.



## 1.0 INTRODUCTION

#### 1.1 SITE LOCATION AND DESCRIPTION

ENGEO conducted a phase I environmental site assessment for the Property located at West Covell Boulevard in Yolo County, California (Figures 1 and 2). The approximately 126-acre Property is identified as APNs 036-060-005, 036-020-018, 036-020-012, and portions of APNs 036-060-033, 036-060-031, 036-020-015, 036-020-016, 036-020-017 (Figure 3). The Property is currently occupied by agricultural land, with a gravel lot in the southeast corner of the Property.

## 1.2 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES

The relatively level site predominantly consists of former farming land, which had been tilled. The southwestern corner of the site appeared to be a former residence or staging area of some sort, with the easternmost portion covered by aggregate. This portion of the Property was covered by short to tall grasses, several shrubs, numerous tree stumps, and one pole. Additionally, several piles of dirt were observed that appeared to be dug out of the adjacent drainage channel. One well was observed within the southwestern portion of the Property, along with associated nonworking electrical equipment, and random concrete debris. A small basin and a berm were observed within the central portion of the Property. The berm spanned almost the entire width of the Property.

The Sutter Davis Hospital and Vic Fazio Highway are located east of the Property. Residential development is located to the northeast, and residential and mixed use developments are located to the south. Agricultural land is located to the north and west.

#### 1.3 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property ranges in elevation from approximately 55 feet above mean sea level (msl) in the northwest to approximately 48 feet above msl to the southeast. Review of the Preliminary Geologic Map of Cenozoic Deposits of the Guinda, Dunningan, Woodland, and Lake Berryessa Quadrangles found that the Property is predominantly underlain by alluvial basin deposits, with Riverbank Formation at the northern end of the Property, and Modesto Formation at the southern end of the Property.

Geocheck – Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) indicated five Federal United States Geological Survey (USGS) wells and four state wells were located within 1 mile of the Property. However, no depth to groundwater information was provided for the wells.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website identified two wells within 1 mile of the Property, with groundwater measurements ranging from 5 to 70 feet below ground surface.

We reviewed EnviroStor, a website maintained by the State of California Department of Toxic Substances Control, and GeoTracker, a website maintained by the State of California Water Resources Control Board, for nearby facilities with records that include depth to groundwater measurements. No local groundwater information was identified.



The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website and map database to determine if any historic oil and/or gas wells were located within the Property. Fourteen wells were mapped within 1 mile of the Property. The wells consist of four plugged dry wells, five plugged gas wells, four idle gas wells, and a cancelled gas well.

#### 1.4 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of Bretton Woods, LLC for the purpose of environmental due diligence during property acquisition. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

#### 1.5 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of previous environmental reports prepared for the Property.
- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial
  photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Limited soil sampling and laboratory analyses.
- Interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

# 1.6 SIGNIFICANT ASSUMPTIONS OR DEVIATIONS FROM ASTM STANDARD PRACTICE

There were no significant deviations from ASTM E1527-13.



#### 1.7 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports, and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil, soil gas, or groundwater characterization, nor define the depth or extent of soil, soil gas, or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil, soil gas, and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

#### 1.8 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, Bretton Woods, LLC. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil gas or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.



# 2.0 RECORDS REVIEW

#### 2.1 PROPERTY RECORDS

# 2.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for APN 036-060-005, prepared by First American Title Company and dated June 27, 2019, was provided for our review. The Property title is vested in Binning Ranch Holding Company, LLC. No references to environmental liens, deed restrictions or other potential environmental issues were noted. A Preliminary Title Report for APNs 036-020-012, 036-020-015, 036-020-016, 036-020-017, and 036-020-018, prepared by First American Title Company and dated October 10, 2019, was also provided for our review. The Property title is vested in Binning Ranch Holding Company, LLC. No references to environmental liens, deed restrictions or other potential environmental issues were noted. The reports are included in Appendix D.

#### 2.2 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

#### 2.2.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided to us through an EDR Historical Topographic Map Report, presented in Appendix C.

**TABLE 2.2.1-1: Historical Topographic Maps** 

QUAD	YEAR	DESCRIPTION
Woodland,	1907, 1915	<u>Property</u> : A structure and driveway are mapped on the southeast corner of the Property.
Davisville		Adjoining: Multiple structures are mapped northeast of the Property.  Two streams are mapped north of the Property.
Woodland	1941	<u>Property</u> : Two additional structures are mapped on the southeast corner of the Property.
		Adjoining: No change from previous maps.
Merritt, Davis,	1952, 1953, 1954, 1959	Property: A water channel is present near the center of the Property.  A well is mapped in the southwest corner of the Property.
Woodland	·	Adjoining: A well is mapped in the southwest corner of the Property.



QUAD	YEAR	DESCRIPTION
		Property: The Property appears unchanged from previous maps.
Merritt, Davis	1968, 1975, 1977, 1981	Adjoining: There is significant development in Davis to the southeast, two structures are mapped west, and multiple structures have been mapped to the northeast. Highway 113 appears to have been improved by 1975. Development to the south is spreading from east to west.
Merritt, Davis	1992, 2012	Property: A structure has been removed from the southeast corner of the Property.  Adjoining: There is significant development to the southwest.

# 2.2.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix E.

**TABLE 2.2.2-1: Aerial Photographs** 

YEAR	DESCRIPTION		
1937, 1952	Property:	There appear to be two residential structures in the southeastern corner of the Property. The southern portion of the Property is being used for agriculture, while the northern portion appears to be undeveloped. There appears to be a curved swale on the southern portion of the Property.	
	Adjoining:	Surrounding properties are being used for agriculture.	
4000 4074	Property:	There appears to have been a small patch of earthwork near the center of the Property, just north of the east-west trending country road located within the Property.	
1968, 1974, 1984, 1993	<u>Adjoining</u> :	There is development to Highway 113 to the east in 1974. In 1984, there is further development to Highway 113, and residential development east of the highway. There is residential development to the southwest and earthwork directly east of the Property in 1993.	
	Property:	The structures previously located in the southeast corner of the Property have been demolished.	
2006, 2009, 2012, 2016	Adjoining:	The Davis Hospital has been constructed to the east. There is significant mixed-use development to the south. The Binning Ranch driveway has been constructed along County Road 99D, with the court at the western end of the Driveway slightly entering the Property.	

# 2.2.3 Fire Insurance Maps

EDR reported that no maps were available for the Property and surrounding properties.

# 2.2.4 City Directory

City Directories, published since the 18th century for major towns and cities, lists the name of the resident or business associated with each address. No businesses or residences were listed in



the City Directory for the address 39660 W. Covell Boulevard. A city directory search conducted by EDR is located in Appendix F.

#### 2.3 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

#### 2.3.1 Standard Environmental Records

# 2.3.1.1 Subject Property

The Property is not listed on the Standard Environmental Record source databases.

#### 2.3.1.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on Standard Environmental Records sources.

**TABLE 2.3.1.2-1** 

FACILITY	STREET	DATABASE(S)
Sutter Davis Hospital	2000 Sutter Place	RCRA-SQG, UST
Davis Texaco	2002 Lyndell Terrace	LUST, UST
Circle K #01914	1930 Lake Boulevard	LUST
Davisville Express	2014 Lyndell Terrace	AST

## 2.3.2 Additional Environmental Records

#### 2.3.2.1 Subject Property

The Property is not listed on the Additional Environmental Record source databases.

#### 2.3.2.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on the Additional Environmental Record sources.

**TABLE 2.3.2.2-1** 

FACILITY	STREET	DATABASE(S)
Sutter Davis Hospital	2000 Sutter Place	CERS HAZ WASTE, CERS TANK, CERS, FINDS, ECHO
Davis 1 Stop	2002 Lyndell Terrace	CERS HAZ WASTE, CERS TANK
Davisville Express	2014 Lyndell Terrace	CERS HAZ WASTE, CERS TANK, RCRA NonGen/NLR
R and R Enterprise	1940 Barry Road	HIST UST
RVM Davis Housing	1501 Shasta Drive	RCRA NonGen/NLR



FACILITY	STREET	DATABASE(S)
DHMF DBA Woodland	2330 W Covell Boulevard	RCRA NonGen/NLR
Sutter Valley Medical	2068 John Jones Road	RCRA NonGen/NLR
Woodland Clinic DBA	2440 W Covell Boulevard	RCRA NonGen/NLR
Circle K #01914	1930 Lake Boulevard	HIST CORTESE, CHMIRS, CERS
Safety-Kleen of California	44561 Road 30-B	ICE, HWP, CERS, HAZNET

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property. No properties were identified in the "Orphan Summary" list.

# 2.4 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

**TABLE 2.4-1: Regulatory Agency Records** 

NAME OF AGENCY	RECORDS REVIEWED
City of Davis Building and Planning Departments	We submitted a records request with the City of Davis for documents pertaining to the Property. The City of Davis informed us they did not have any documents pertaining to the Property.
City of Davis Fire Department	The City of Davis Fire Department did not identify any records pertaining to the Property.
Yolo County Department of Environmental Health	<ul> <li>The Yolo County Department of Environmental Health identified the following records pertaining to the Property:</li> <li>A Well and/or Sewage Disposal Permit dated July 1986 for parcel 360-060-005. The permit identified a 1500-gallon concrete septic tank, five, 90-foot leach lines, and a well approximately 100 feet south of the leach lines. The illustrated figure also indicates a cesspool was present on the Property.</li> <li>A Well and/or Sewage Disposal Permit dated May 1991 for parcel 360-060-005. The permit is for the installation of a new private domestic well, north of Road 31, between the onsite house and horse arena. The well was installed to a depth of 20+ feet. The permit also identified a septic tank within 50 feet, leach lines within 100 feet, and sewer within 50 feet of the well. The permit also indicates well abandonment was performed.</li> <li>An environmental site questionnaire from 2009 for APN 036-060-05 indicating existing agricultural land use. Sites to the north and west are identified as agricultural site use (alfalfa/oats), to the east is the Sutter-Davis hospital, and to the south is the University Retirement Community.</li> <li>An document with File Number ZF2016-0057 for APN 036-060-005, on the 39660 West Covell site, indicating that the septic system identified on a 1986 septic permit and the new well identified on the 1991 well permit be properly abandoned/destroyed under an approved permit.</li> </ul>



NAME OF AGENCY	RECORDS REVIEWED
	<ul> <li>A letter dated January 5, 2017 from RCP Construction indicating that a site survey was performed at 39660 West Covell Blvd. in an attempt to identify an existing water well and septic system. A survey was performed in a grid pattern over the site, however RCP was unable to locate any signs of the well or septic system, and concluded the items had been previously abandoned.</li> </ul>
	<ul> <li>A Boring Permit application dated February 2019, for two borings(B1 and B2) in parcel 036-060-005.</li> </ul>
	<ul> <li>A Monitoring Well and Exploratory Boring Abandonment Inspection Form dated February 2019 for boring B3 in APN 036-060-005.</li> </ul>
Yolo County Assessor's Office	The Assessor's Office online database was used to confirm the Parcel Number and physical address, if any, for the Property.
California State Water Resources Control Board	The California Regional Water Quality Control Board's online database, GeoTracker, was reviewed for files pertaining to the Property. No listings are documented for the Property.
Department of Toxic Substances Control	The Department of Toxic Substances Control's online database, EnviroStor, was reviewed for files pertaining to the Property. No files are documented for the Property.

# 3.0 SITE RECONNAISSANCE

#### 3.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on October 7, 2019. The reconnaissance was performed by Travis Chatters, an ENGEO Project Engineer. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

#### 3.2 GENERAL SITE SETTING

The relatively level site predominantly consisted of former farming land, which had been tilled. The southwestern corner of the site appeared to be a former residence or staging area of some sort, with the easternmost portion covered by aggregate. This portion of the Property was covered by short to tall grasses, several shrubs, numerous tree stumps, and one pole. Additionally, several piles of dirt were observed that appeared to be dug out of the adjacent drainage channel. One well was observed within the southwestern portion of the Property, along with associated nonworking electrical equipment, and random concrete debris. A small basin and a berm were observed within the central portion of the Property. The berm spanned almost the entire width of the Property.

#### 3.3 SITE OBSERVATIONS

The following table summarizes our observations during the reconnaissance:



**TABLE 3.3-1: Site Observations** 

FEATURE TYPE	OBSERVATIONS
Structures	No structures were identified during the site reconnaissance.
Hazardous Substances and Petroleum Products/Containers	No hazardous substances or petroleum products/containers were identified during the site reconnaissance.
Storage Tanks (underground and	No storage tanks were observed during the site
above-ground)	reconnaissance.
Odors	No odors were observed during the reconnaissance.
Pools of Potentially Hazardous Liquid	No pools of liquid were observed during the reconnaissance.
Drums	Two rusted drums were observed just south of the berm, within the central portion of the Property. The drums were unlabeled and were empty.
Polychlorinated Biphenyls (PCBs)	One pole-mounted transformer was observed in the southern portion of the Property. No staining was observed below the transformer.
Pits, Ponds, and Lagoons	No pits, ponds, or lagoons were observed during the reconnaissance. One basin was observed within the central portion of the Property; no water was observed within the basin.
Stained Soil/Pavement	No stained soil or pavement was observed during the reconnaissance.
Stressed Vegetation	No stressed vegetation was observed during the reconnaissance.
Solid Waste/Debris	Some random litter and debris was observed in the southern portion of the Property and within the roundabout, located in the northern portion of the Property. Random pieces of concrete pipe debris were observed within the southern portion of the Property.
Stockpiles/Fill Material	A berm was observed bisecting the center portion of the Property in an east-west direction. We understand the berm is stockpiled site soils added to over the years as part of the former farming operations. Additionally, several piles of soils were observed along the southern portion of the Property. These piles appeared to be soil removed from the adjacent drainage channel that runs parallel to the Property's southern border and W. Covell Boulevard.
Wastewater	No wastewater was observed during the reconnaissance.
Wells	One water supply well was observed in the southeastern corner of the Property.
Septic Systems	No septic systems were observed during the reconnaissance.

# 3.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

An asbestos and lead-based paint survey was not conducted as part of this assessment. No structures are currently located on the Property.

#### 3.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 56 tests were



conducted within the Property zip code, with two tests exceeding the current EPA action level of 4 picocuries per liter {pCi/L}¹).

In accordance with ASTM E2600-15 (Tier 1) (Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions); There are no potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within 1/3 mile of the Property.

# 4.0 INTERVIEWS

Ms. Darla Rosenthal completed a Client environmental site assessment questionnaire pertaining to applicable past and present uses and physical characteristics of the Property and surrounding properties. Additionally, we met with Ms. Rosenthal on site and discussed the Property and its history. Ms. Rosenthal did not identify and was not aware of any potential environmentally related issues with the Property.

Mr. Scott Stiewig completed the Key Site Manager environmental site assessment questionnaire pertaining to applicable past and present uses and physical characteristics of the Property and surrounding properties. In the questionnaire, Mr. Scott Stiewig noted the Property had been farmed for decades, and has been used to grow hay for feed exclusively for over 10 years. Mr. Scott Stiewig also noted two irrigations wells located on the southernmost Property, which have been inactive for over 10 years. One well is located on the eastern edge of the Property and will be abandoned, and the other well is located on the southwest corner and will be refurbished to use for landscape irrigation purposes.

The questionnaires are presented in their entirety in Appendix G.

# 5.0 AGRICHEMICAL IMPACT ASSESSMENT

A review of historical records indicates that the Property has been used as agricultural land since at least 1937. Since the Property was historically used for agricultural activities, an agrichemical assessment of the surface soil was conducted to evaluate the potential presence of residual concentrations of organochlorine pesticides (OCPs), arsenic, and lead from past agrichemical use.

#### 5.1 SOIL SAMPLING

Soil samples were collected on October 7, 2019, from 136 locations across the Property (Figure 2). Soil samples were collected from 0 to 6 inches below ground surface. The Property agricultural assessment was performed in accordance with the Department of Toxic Substances Control (DTSC) *Interim Guidance for Sampling Agricultural Properties* (Third Revision, August 7, 2008).

The 136 soil samples were collected using 8-ounce and 4-ounce, pre-cleaned glass gars. Upon collection of samples, a sample label was placed on the sample, including a unique sample

<sup>&</sup>lt;sup>1</sup> California Department of Public Health – Radon Program–
(<a href="https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf">https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf</a>).



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number, sample location, and time/date collected. The soil samples were submitted under documented chain-of-custody to California Laboratory Services, a State-certified laboratory.

Laboratory analysis of the soil samples included the following target analytes:

- OCPs (EPA Method 8081) Thirty-four 4-point (4:1) composite samples
- Arsenic (EPA Method 6020) Thirty-four discrete samples
- Lead (EPA Method 6020) Thirty-four discrete samples

#### 5.2 ANALYTICAL RESULTS

The reported concentrations for OCPs were either non-detect or below the applicable USEPA and DTSC screening levels for residential soil. The reported lead concentrations ranged between 7.9 and 16 milligram per kilogram (mg/kg), below the current DTSC residential screening level of 80 mg/kg. The reported arsenic concentrations ranged from 5.6 to 10 mg/kg, and were within the expected background concentrations for the area.

Based on the findings of the soil assessment, there is no evidence of soil impacts associated with past agricultural use. The laboratory report is presented in its entirety in Appendix H.

#### 6.0 EVALUATION

#### 6.1 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. We note the following data gap:

We did not received a preliminary title report for APNs 036-060-033 and 036-060-031.

The data gap identified during this process does not affect the conclusions as to the presence or lack of presence of RECs at the Property.

## 6.2 FINDINGS AND CONCLUSIONS

The study included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources; a reconnaissance of the Property to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials; and interview with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to impact the Property.



As part of this assessment, additional soil sampling was performed to address past agricultural impacts. Following the Department of Toxic Substances Control (DTSC) Interim Guidance for Sampling Agricultural Properties (2008), a total of 136 soil samples were recovered across the Property, which were analyzed for organochlorine pesticides, lead, and arsenic. Pesticide concentrations were either non-detect with respect to laboratory reporting limits, or below their respective USEPA and DTSC screening levels for a residential scenario. The reported arsenic concentrations for the Property are indicative of background concentrations for the area and are not indicative of anthropogenic impacts. Lead concentrations were reported below their current screening levels of 80 milligrams per kilogram (mg/kg).

Based on the review of the laboratory test results, historical agricultural practices have not had an adverse impact on the Property.

Based on the findings of this assessment, no RECs, no historical RECs, and no controlled RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). This assessment has revealed no evidence of Recognized Environmental Conditions in connection with the Property.

Per Mitigation Measure 3.8-1 of the Final Mitigation Monitoring and Reporting Program for the Bretton Woods/West Davis Active Adult Community, specific soil sampling is required.

**Mitigation Measure 3.8-1**: A soil sampling program shall be implemented to assess potential agrichemical (including pesticides, herbicides, diesel, petrochemicals, etc.) impacts to surface soil within the project site, as follows:

The sampling and analysis plan shall meet the requirements of the Department of Toxic Substances Control Interim Guidance for Sampling Agricultural Properties (2008). If the sampling results indicate the presence of agrichemicals that exceed screening levels, a removal action workplan shall be prepared in coordination with Yolo County Environmental Health Division. The removal action workplan shall include a detailed engineering plan for conducting the removal action, a description of the onsite contamination, the goals to be achieved by the removal action, and any alternative removal options that were considered and rejected and the basis for that rejection. The removal action shall be deemed complete when the confirmation samples exhibit concentrations below the commercial screening levels, which will be established by the agencies.

In response to this measure, to meet its requirements, additional testing was performed as part of the phase 1 environmental site assessment. Soil samples were collected in accordance with the *DTSC Interim Guidance for Sampling Agricultural Properties (2008)*. The sampling results do not indicate the presence of agrichemicals that exceed residential screening levels, therefore, we do not anticipate a removal action work plan will be required for the project.

ENGEO recommends no further environmental studies at this time.



# SELECTED REFERENCES

Helley, E.J., and Barker, J.A., 1979, Preliminary geologic map of Cenozoic deposits of the Guinda, Dunningan, Woodland, and Lake Berryessa quadrangles, California: U.S. Geological Survey, Open-File Report OF-79-1606, scale 1:62,500, Sheet 4 of 4.

California Department of Water Resources

(http://www.water.ca.gov/waterdatalibrary/)

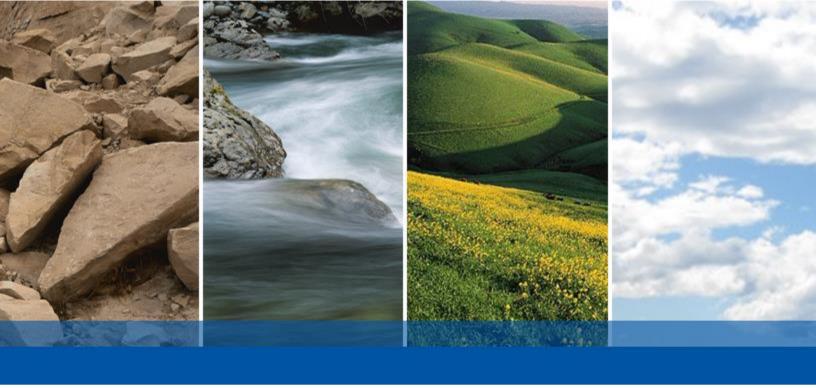
California Department of Conservation (DOGGR)

(http://maps.conservation.ca.gov/doms/doms-app.html)

California Department of Public Health - Radon Program-

(https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf).





# **FIGURES**

FIGURE 1: Vicinity Map FIGURE 2: Site Plan

FIGURE 3: Assessor's Parcel Map FIGURE 4: Site Photographs





0 1,000 2,000 FEET

SASEMAP SOURCE: ESRI MAPPING SERVICE

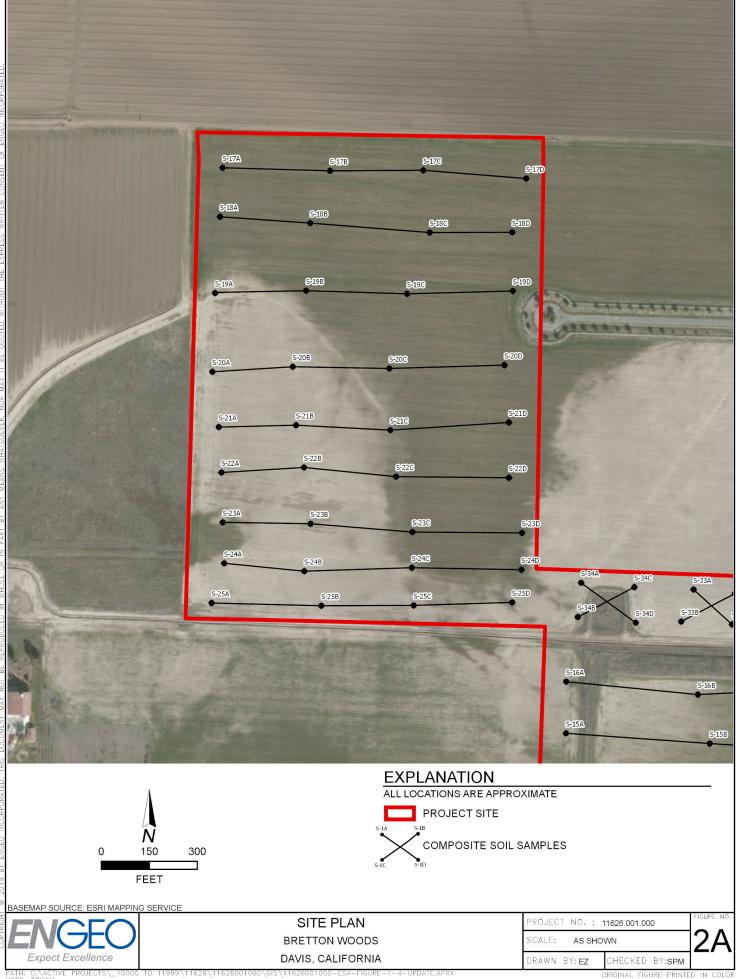


VICINITY MAP BRETTON WOODS DAVIS, CALIFORNIA PROJECT NO.: 11626.001.000

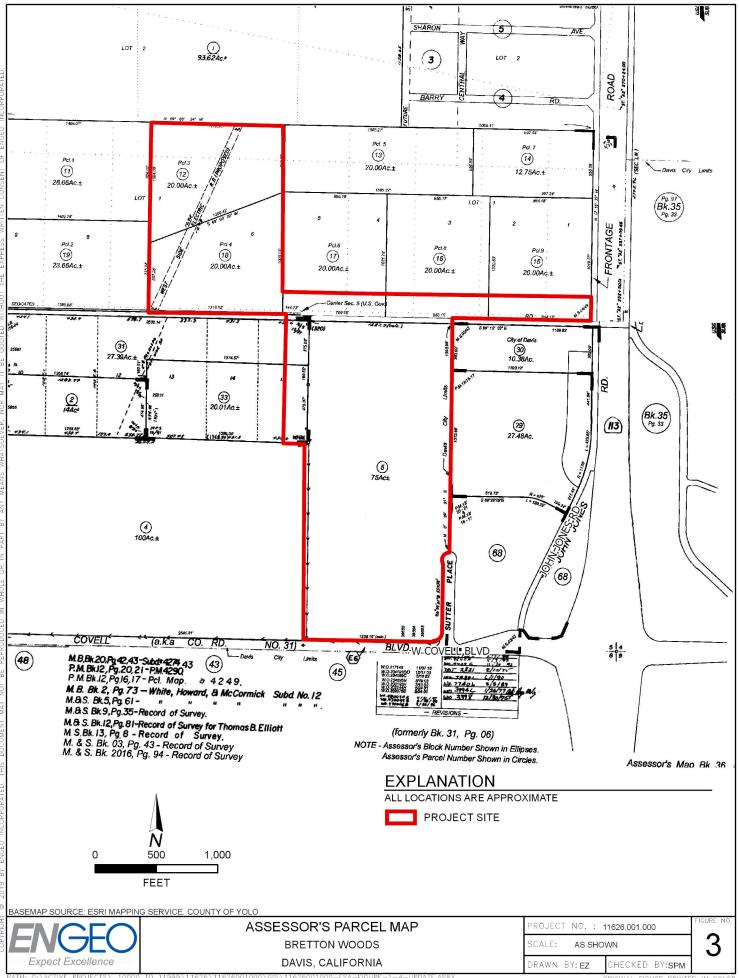
SCALE: AS SHOWN

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CHECKED BY:SPM











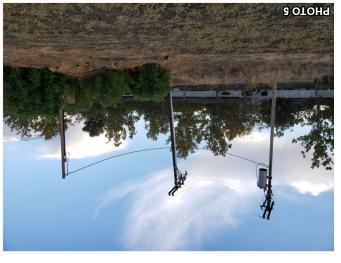


POLE AND RANDOM DEBRIS - SOUTHERN POLE AND RANDOM OF PROPERTY





**КАИDOM DEBRIS - SOUTHWESTERN CORNER** 



БОГЕ МОПИТЕД ТКАИЗГОРИНИ СОКИЕЯ ОГОРИНИЕ В ТЕРИИ СОКИЕЯ ОГОРИНИЕ В ТЕРИИ СОКИЕЯ ОГОРИНИЕ В ТЕРИИ СОКИЕЯ ОГОРИНИЕ В ТЕРИИ СОКИЕЙ СОКИЕЙ СОКИЕЙ СОКИЕЙ СОБИТЬ В ТЕРИИ СОБИТЬ



SITE PHOTOGRAPHS
ВВЕТТОИ WOODS

ВАУІЗ, САLІFОВИІА



ORIGINAL FIGURE PRINTED IN COLOR

. R. EZHOU H: 6: ACTIVE PROJECTS/\_10000 TO T1999/11626/11626001000/615/11626001000-ESA-F100RE-1-4-UPDATE.APR



WELL HEAD SOUTHWESTERN CORNER OF PROPERTY **LOOKING EAST** 



**BERM - CENTER PORTION OF PROPERTY** 



**EMPTY DRUMS - CENTER PORTION OF THE PROPERTY** 



**BASIN - CENTER PORTION OF PROPERTY** 



TYPICAL SITE CONDITIONS - NORTHWESTERN CORNER OF PROPERTY LOOKING EAST



**TYPICAL SITE CONDITIONS - EASTERN BORDER LOOKING WEST** 



SITE PHOTOGRAPHS **BRETTON WOODS** DAVIS, CALIFORNIA

PROJECT NO. : 11626.001.000

SCALE: NO SCALE

DRAWN BY: EZ

CHECKED BY:SPM